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ABOUT CURRENT CONNECT

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

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

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Team KSG

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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-governmental issues, self-help groups and role of civil society	Vulnerable sections of our society and social sector issues and initiatives	International Relations -India and other countries, various Indian and international agreements, effects of other countries on India		
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GS – IV	Ethical issues related to family society, education, Corruption etc.	Ethics in public and private administration	Issues	Related laws and rules	Governance/ Governance	Ethics in international issues	Personalities and their teachings	Other important topics			
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POLITY

Floor Test

News Excerpt

Recently, the Congress party led Government in Madhya Pradesh resigned after being told by the Supreme Court to face a floor test to end the political uncertainty in the state.

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Pre-Connect

- According to Article 75 (3) of Indian Constitution, The Council of Ministers shall be collectively responsible to the House of the People.
- Similarly, according to Article 164 (2), The Council of Ministers shall be collectively responsible to the Legislative Assembly of the State.
- The Council of Minister should enjoy support of a simple majority (one more than fifty percent of members present and voting) of the lower house to prove that it enjoys confidence of the house. In case of tie, the speaker can also cast his vote.

Analytica

Floor test and its origin in India

→ Floor test is the conclusive proof of numbers in the House. It is primarily taken to know whether the executive enjoys the confidence of the legislature (lower house).

→ It is a constitutional mechanism under which a Chief Minister appointed by the Governor can be asked to prove majority on the floor of the Legislative Assembly of the state.

→ **The Supreme Court's Constitution Bench judgment of 1994 in the S.R. Bomma case introduced the concept of floor tests. The Constitution Bench referred to Article 164 (2) which mandates that the "Council of Ministers shall be collectively responsible to the Legislative Assembly of the State".**

No-Confidence Motion

- ❖ The ministry (in both center and state) stays in office as long as it enjoys confidence of the majority of the members of the Lok Sabha or Legislative assembly as the case may be.
- ❖ The opposition parties (or any member) can move a motion expressing want of confidence (no confidence) in the Council of Ministers.
- ❖ It need not state the reasons for its adoption in the Lok Sabha.
- ❖ In Lok Sabha, it needs the support of 50 members to be admitted.
- ❖ If it is passed in the lower house, the council of ministers must resign from office.

→ The Bench interpreted that the ultimate test of majority is not held in the Raj Bhavan but on the floor of the House.

→ The Chief Minister has to resign if they fail to prove their majority in the house. This happens both in the parliament and the state legislative assemblies.

→ Recently, floor tests have been ordered in Karnataka (2019), Maharashtra (2019) and now in Madhya Pradesh.

Composite floor test

→ It necessitated when more than one person stakes the claim to form the government and the majority is not clear.

→ Governor may call a special session to assess who has the majority.

→ On February 24, 1998, the Supreme Court ordered a composite floor test to be held within 48 hours in the state Assembly to determine who had the majority.

Advantages of a quick floor test

- ✓ Recent judgements of the Supreme Court in Karnataka, Maharashtra and Madhya Pradesh case shows that SC favours quick floor tests in times of uncertainty over majority.
- ✓ Delay in floor tests increases the risk of horse-trading and corruption.
- ✓ It helps to overcome political and legislative deadlock which can hold up important

administrative and legislative business.

S R Bommai case

- It put an end to the arbitrary dismissal of State governments under Article 356 by spelling out restrictions.
- The power of the President to dismiss a State government is not absolute.
- The President should exercise the power only after his proclamation (imposing his/her rule) is approved by both Houses of Parliament.
- Till then the President can only suspend the Legislative Assembly by suspending the provisions of the Constitution relating to the Legislative Assembly.
- The test of majority of the government should be done on the floor of the Assembly and is **not subject to the Governor's opinion**.
- A Presidential Proclamation under Article 356 is subject to judicial review.
- Application of Article 356 is justified only when there is a breakdown of constitutional machinery and not administrative machinery.

Conclusion

Floor test is a transparent and constitutional mechanism to ensure that the ministry of the day enjoys confidence of the House. In times of uncertainty it restores trust of people in their elected Government. As the Supreme Court has ruled time and again, quick floor tests will reduce change of horse trading and corruption in government formation.

PEPPER IT WITH

Article 75, Article 164, Absolute, special, simple and effective majority

Right of an accused to be Defended

News Excerpt

The Hubli Bar Association, Karnataka had objected to four students arrested for sedition being defended in court. The Karnataka High Court observed that it is unethical and illegal for lawyers to pass resolutions against representing accused in Court.

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Pre-Connect

- Article 22(1) gives the fundamental right to every person not to be denied the right to be defended by a legal practitioner of his or her choice.
- Article 14 provides for equality before the law and equal protection of the laws within the territory of India.
- Article 39A, part of the Directive Principles of state policy, states that equal opportunity to secure justice must not be denied to any citizen by reason of economic or other disabilities, and provides for free legal aid.

Analytica

The Supreme Court judgement

- In *A.S. Mohammed Rafi v. State of Tamil Nadu* (2010), the Supreme Court ruled that "such resolutions are wholly illegal, against all traditions of the bar and against professional ethics".

The Bar Council of India

It is a statutory body established by Parliament under the Advocates Act, 1961 to regulate and represent the Indian bar.

Some of its functions

- ❖ Performs the regulatory function by prescribing standards of professional conduct and etiquette and by exercising disciplinary jurisdiction over the bar.
- ❖ Sets standards for legal education and grants recognition to Universities whose degree in law will serve as qualification for enrolment as an advocate.
- ❖ It protects the rights, privileges and interests of advocates and through the creation of funds for providing financial assistance to organize welfare schemes for them.
- ❖ To organize legal aid to the poor

- “Every person, however wicked, depraved, vile, degenerate, perverted, loathsome, execrable, vicious or repulsive he may be regarded by society has a right to be defended in a court of law and correspondingly, it is the duty of the lawyer to defend him.”
- Court also said that such resolutions were “against all norms of the Constitution, the statute and professional ethics”.
- The Supreme Court referred to immortal words of Thomas Erskine, Attorney General for the Prince of Wales saying: “... If the advocate refuses to defend from what he may think of the charge or of the defence, he assumes the character of the Judge...”.
- Court observed that even Nazi war criminals at the Nuremberg trials and terrorist Ajmal Kasab got a lawyer.

PEPPER IT WITH
Section 243 (1) of CrPc,
Advocates Act, Professional
ethics

Bar Council of India rule on Standards of Professional Conduct and Etiquette

- An advocate is bound to accept any brief in the Courts or Tribunals or before any other authorities in or before which he proposes to practice at a fee consistent with his standing at the Bar and the nature of the case. Special circumstances may justify his refusal to accept a particular brief.

Conclusion

Rule of law can only be upheld if the right to be defended by a legal practitioner of his or her choice of an accused is well protected. **Our legal system is based on “Presumption of Innocence”** which means an accused is believed to be innocent till the guilt is proved against him. It is for the judge, not the lawyer, to pass conclusive judgement on guilt or otherwise of the accused.

Essential Commodities Act

News Excerpt

Recently, the government has put masks and hand sanitizers under the Essential Commodities Act (ECA) up to June 30, 2020 to ensure proper availability of these items in the market at the correct price in view of the outbreak of CoronaVirus.

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Pre-Connect

- The ECA was first passed by the Parliament in 1955.
- The Act empowers the central government to add new commodities to the list of Essential Commodities as and when the need arises, and to remove them from the list once the crisis is over or the situation improves.
- The **Central Government has sweeping power to define “essential commodities”**. The Act defines an “essential commodity” as simply “a commodity specified in the Schedule”.
- Once the Union government issues notification, the State government implements it.

Analytica

Why is an object placed under this act?

- To essentially protect consumers from unreasonable and exploitative increases in prices of commodities in times of shortage. Like Mask and sanitizer has been placed in the list because of hoarding and sudden price rise.
- Over the years, a long list of items has been designated as essential commodities, including various drugs, fertilizers, cereals, pulses, sugar, edible oils, petroleum and petroleum products, and certain crops.

Implication of an object being placed under this act

- Anybody trading or dealing in the essential commodity, including wholesalers, retailers, manufacturers, and importers, is barred from stocking it beyond the specified quantity.

- Agencies of state governments and Union Territory administrations are empowered to conduct raids to catch violators.
- The government can also fix the maximum retail price (MRP) of any packaged product that it declares an “essential commodity”.
- Violators termed as illegal hoarders or black-marketeers can be prosecuted. Besides penalties, the violation may lead to imprisonment for a maximum period of seven years.

Economic Survey's criticism of Essential Commodities Act

- ✓ The **Centre's imposition of stock limits**, in the aftermath of heavy rain which wiped out a quarter of the kharif crop, in a bid to control the soaring prices of onions over the last few months actually increased price volatility.
- ✓ The Survey argued that if the government had not reduced the stock limits, traders would have stored part of their produce to ensure smooth availability of the commodity at stable prices throughout the year.
- ✓ ECA act fails to differentiate between hoarding and Storage.
- ✓ In the long term, the Act disincentivises development of storage infrastructure, thereby leading to increased volatility in prices following production/ consumption shocks — the opposite of what it is intended for.

How washing hand with soap and sanitizer helps fight coronavirus

- ❖ The grime on our hands contains innumerable viruses and bacteria. Washing with water without using soap helps reduce the amount of microbes but does not remove most of the virus and bacteria completely. Using soap, therefore, becomes far more effective in removing microbes.
- ❖ Viruses such as coronavirus, influenza-causing viruses, Ebola, Zika have their genetic material encased in a layer of fat called the lipid envelope. Oleophilic (oil loving) tail portion of the molecule tends to have an affinity for and ‘competes’ with the lipids in the virus envelope.
- ❖ Due to weak chemical bonds holding the virus together, the long oleophilic tail gets inserted into the envelope and breaks the lipid envelope of the virus. The tail also competes with the bond that binds the RNA and the lipid envelope thus dissolving the virus into its components which are then removed by water.
- ❖ Like soap, the alcohol present in hand sanitizers dissolve the lipid envelope, thus inactivating the virus. To be effective, the sanitizers should contain at least 60% alcohol.

PEPPER IT WITH

Centre State Relation, Black Marketing

Privilege Motion

News Excerpt

Congress has recently moved a Privilege motion against Social Justice Minister Thawar Chand Gehlot over his statement on the issue of reservation.

Pre-Connect

- Parliamentary privileges are enjoyed by the two Houses of Parliament, their committees and their members.
- The Constitution has also extended the parliamentary privileges to those persons who are entitled to speak and take part in the proceedings of a House of Parliament or any of its committees. These include the attorney general of India and Union ministers.
- A notable exclusion is the president who though is an integral part of the Parliament do not have Parliamentary privileges. The President has more privileges under other provisions of the Constitution.
- Parliamentary privileges are not yet codified. They are based on five sources 1. The Constitution (Article 105; Article 194) 2. Laws passed by Parliament 3. Rules of both the

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Houses, 4. Parliamentary conventions, and 5. Judicial interpretations.

Analytica

What are Parliamentary Privileges?

Parliamentary privileges are special rights, immunities and exemptions enjoyed by the Parliament as an institution and MPs in their individual capacity.

Need of Parliamentary Privileges

They are necessary in order to secure the independence and effectiveness of their actions.

Without these privileges, the Houses can neither maintain their authority, dignity and honor nor can protect their members from any obstruction in the discharge of their parliamentary responsibilities.

Privilege Motion

- Parliament can punish members as well as outsiders for breach of its privileges or its contempt by reprimand, admonition or imprisonment (also suspension or expulsion, in case of members).
- A notice is moved in the form of a motion by any member of either House against those being held guilty of breach of privilege.
- The Speaker/Chair can decide on the privilege motion himself or herself or refer it to the privileges committee of Parliament.
- The most significant case of action taken on a privilege was in 1978 when Indira Gandhi was expelled from the House. Then home minister Charan Singh moved a resolution of breach of privilege against her following observations made by the Justice Shah Commission which probed excesses during the Emergency.

Privilege Committee

In Lok Sabha: consists of 15 members nominated by the Speaker

In Rajya Sabha: Consists of 10 members nominated by the Chairperson. The deputy chairperson heads the committee of privileges.

Need for codification of Parliamentary privileges

- ❖ All persons have a right to trial by a competent, independent and impartial tribunal.
- ❖ Breach of privilege laws allow politicians to become judges in their own cause, raising concerns of conflict of interest and violating basic fair trial guarantees.
- ❖ The main argument for a legislation is that there would be clarity on the exact boundaries that may not be crossed, and on which penal action may be taken.
- ❖ On the other hand, a law could lead to intervention by courts.
- ❖ Our legislators basically resist codification, because it would make the privileges subject to judicial scrutiny.

PEPPER IT WITH
Article 105, Article 194

Conclusion

Privilege motion is an important tool in the hand of Parliamentarians to ensure effective working of the Parliament. However, it must be used only in genuine cases to avoid misuse particularly when involving it against an outsider i.e. those who are not members of the Parliament.

Article 142

News Excerpt

The Supreme Court used its extraordinary power under Article 142 of the Constitution for relaxing the limitations of the time period for filing appeals in all cases, in view of the situation arising out of coronavirus.

The Supreme Court has also invoked this power recently to remove a cabinet minister from the Manipur Government because of inordinate delay by the Speaker of Manipur Assembly in deciding an anti defection case against him.

Pre-Connect

- Article 142 provides sweeping discretionary power to the Supreme Court to pass such

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decree or make such order as is necessary for doing complete justice in any cause or matter pending before it.

- The High Courts or the tribunals do not have similar powers.

Analytica

Importance of Article 142

Article 142 is conceived to meet the situations which cannot be effectively and appropriately tackled by existing provisions of law.

Examples of uses of Article 142

- The cleansing of the Taj Mahal, whose marble was yellowing on account of Sulphur fumes from the surrounding industries. Today, on account of the **court's efforts** over a period of years, we have had our heritage restored to its original beauty.
- Release of undertrials rotting in jails for periods greater than the maximum punishment which could have been inflicted on them.
- Union Carbide case — relating to the victims of the Bhopal gas tragedy — where the Court felt a need to deviate from existing law to bring relief to the thousands of persons affected by the gas leak.

PEPPER IT WITH
Separation of power, Basic structure, Anti-Defection

Need of Judicial Restraint

- Article 142 also lays down no limitations regarding causes or the circumstances in which the power is to be exercised. The exercise of such power is left completely to the discretion of the highest court.
- Some of the recent judgements where SC has invoked this article appears to be violating **doctrine of "Separation of Power"** which is part of the basic structure of the Constitution.
- Examples of such judgements include ban on the sale of alcohol along national and State highways leading to loss of employment for lakhs of employees. Cancellation of all telecom licenses was another such judgement with a disruptive impact on the economy.
- While using Article 142 judges should be careful of not venturing into the domain of policy formulation which will amount to encroaching into the domain of Executive.
- Article 142 of the Constitution should be used judiciously only when no other recourse is available to do justice.

Conclusion

It is true that Article 142 has been invoked for the purpose of doing tremendous good to large sections of the population and indeed to the nation as a whole. The Supreme Court has perceived **its role as one which would require it to 'wipe away every tear from every eye', but perhaps it is time that the use of this vast, unlimited power include checks and balances.**

State Funding of Election

News Excerpt

The Election Commission has recently informed the Government that it is not in favour of State Funding of elections as it will not be able to prohibit or check candidates' own expenditure or expenditure by others over and above that which is provided for by the state.

ECI is of the view that for addressing the real issues, there have to be radical changes in the provisions regarding receipts of funds by political parties and the manner in which such funds are spent by them so as to provide for complete transparency in the matter.

Pre-Connect

- Indrajit Gupta Committee on State Funding of Elections (1998) recommended State funding.
- Countries like Germany and Canada have provision for state funding of elections.

Analytica

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Meaning of State Funding of elections

- In this way of funding the Government gives funds to political parties or candidates for contesting elections.
- At present political parties receive funds from individuals, groups and corporates.

Arguments in favour

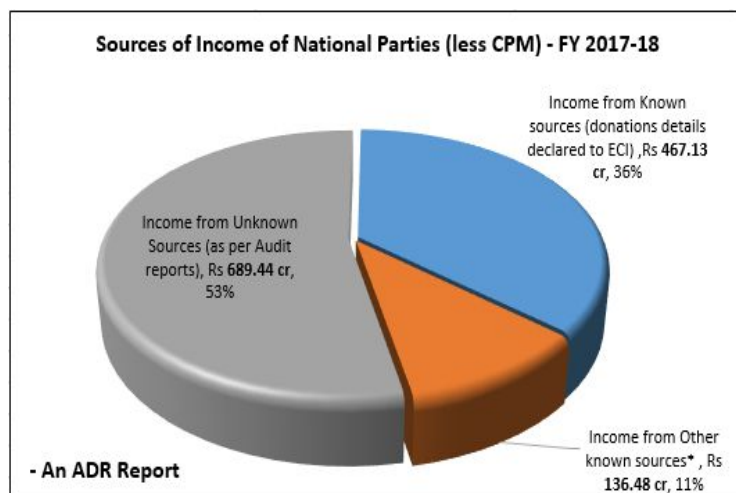
- It will lead to transparency in political funding. At present, as per ADR report, majority of funding are from anonymous sources. Increased transparency will lead to lesser corruption and lesser black money finding a way to political funding.
- It can reduce dependence of political parties on corporate donations which has potential to influence their policy.
- Since income distribution is very skewed in India (Oxfam report reported that 1% of our population had 58% of total wealth), private funding of political parties will translate economic inequality into political inequality.
- State funding will lead to a level playing field for political parties with less money.
- State funding will make it possible for new and cleaner candidates from outside the mainstream parties to join politics.
- It will reduce criminalization in politics by reducing dependence of political parties on corrupt and criminals.

Arguments against

- Governments with already stressed finances will not be able to bear the burden.
- Opportunistic groups will register as political parties just to feed on state funding.

Recommendations

- ❑ The Indrajit Gupta Committee (1998): State funding is important in order to establish a fair playing field for parties with less money. In the short-term state funding should only be given in kind, in the form of certain facilities to the recognized political parties and their candidates.
- ❑ The 1999 Law Commission of India report: **Total state funding of elections is “desirable”** so long as political parties are prohibited from taking funds from other sources.



Provisions related to funding of political parties in India

- ❖ Section 29B of the Representation of the People Act (RPA) entitles parties to accept voluntary contributions by any person or company, except a Government Company.
- ❖ Section 13A of Income Tax Act says that political parties will have to declare all donations above Rs 2,000 to obtain tax exemption. However, Section 29C of the RPA mandates political parties to declare donations that exceed 20,000 rupees. So, this anomaly needs to be resolved.
- ❖ Foreign Contribution Regulation Act, 2010 has been amended allowing foreign companies to fund political parties in India.
- ❖ Electoral Bond: It can be purchased by any citizen of India or a body incorporated in India to donate to the **political party of their choice. Donor's name is not there** on the bond. To receive Electoral fund parties should be (1) Registered with ECI (2) Should have secured not less than one percent of the votes polled in the last general election to the House of the People or a Legislative Assembly.

- ❑ Second Administrative Reforms Commission (2008): Recommended partial state funding of elections for the purpose of reducing “illegitimate and unnecessary funding” of elections expenses.
- ❑ The National Commission to Review the Working of the Constitution, 2001: Did not endorse state funding of elections.

Conclusion

Though state funding of elections appears to be a good idea on the surface but the appropriate framework for regulation of political parties would need to be implemented before state funding is considered.

Epidemic Diseases Act

News Excerpt

The Centre has decided to invoke Epidemic Act 1897, an act to provide for prevention of the spread of **“dangerous epidemic diseases,”** to combat novel coronavirus in India. All the states and union territories of India are advised to invoke the provisions of Section 2 of the Epidemic Disease Act 1897.

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- The colonial government introduced the Act to tackle the epidemic of bubonic plague that had spread in the erstwhile Bombay Presidency in the 1890s.
- In recent years act was invoked to control spread of Cholera (Vadodara, 2018), Malaria and Dengue (Chandigarh, 2015) and Swine flu (Pune, 2009).

Analytica

Provisions of the Act

- The Act empowers state governments/UTs to take special measures and formulate regulations to contain any outbreak.
- The state government may prescribe regulations for the inspection of persons travelling by railway or otherwise, segregation in hospitals, temporary accommodation or otherwise, of persons suspected by the inspecting officer, of being infected with any such disease.
- The act empowers the central government to take steps to prevent the spread of an epidemic, especially allowing the government to inspect any ship arriving or leaving any port and the power to detain any person intending to sail or arriving in the country.
- The state government can fine people or imprison them for violating rules and regulations that will be set to contain the outbreak.
- The law also safeguards officials and gives them overarching superintendence of power who act under the provisions of this law to contain the outbreak. No suit or other legal proceedings shall lie against any person for anything done in good faith under the act.

National Disaster Management Authority

Created under Disaster Management Act, 2005. It is headed by the Prime Minister

Important functions:

- ❖ Lay down policies on disaster management.
- ❖ Approve National Plan
- ❖ Lay down guidelines to be followed by the different Ministries
- ❖ Coordinate implementation of disaster management plans.
- ❖ Take other such measures as it may consider necessary for Prevention or mitigation of disaster

Criticism of the Act

- While it empowers officials to enter into any house and forcibly examine a suspected sick person, it does not authorize the government to enforce a lockdown or even screening of passengers at the airports. There was no air travel when the law known as the Epidemic Diseases Act, 1897 was enacted to deal with bubonic plague outbreak in India's commercial capital of Mumbai.
- The phrase “dangerous epidemic disease” has not been defined in the law and the lack of

such a definition warrants a serious review of this law by Parliament.

- The Act has also been criticized for its potential for abuse.
- There is a criticism that the Act is purely regulatory in nature, lacking a specific public health focus. This has been termed as just "policing" acts aimed at controlling epidemics and do not deal with coordinated and scientific responses to prevent and tackle outbreaks

Invoking of Disaster Management Act, 2005

- Since the Epidemic disease act does not authorize the government to enforce a lockdown, India declared the coronavirus outbreak a national disaster. The move helped the government to invoke the Disaster Management Act, 2005 (DMA) to order lockdown measures and give directions to state governments. It also paved the way to seek assistance available under the State Disaster Response Fund.
- The Disaster Management Act also casts a duty on the states to follow the directions of the NDMA as mandated under Section 38 of the Disaster Management Act.

PEPPER IT WITH

National Disaster management Act, State disaster management authority, National and state disaster management fund

Conclusion

There is a need for an integrated, comprehensive, actionable and relevant legal provision for the control of outbreaks in India that should be articulated in a rights-based, people-focused and public health-oriented manner. Useful provisions of Epidemic disease act should be subsumed within such a law.

Question Hour in Parliament

News Excerpt

The Budget Session, 2020 of Parliament which commenced on Friday, 31st January, 2020 has been adjourned sine die on 23rd of March 2020. Many questions were asked by members during the session regarding issues of national and regional importance.

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Pre-Connect

- The first hour of every parliamentary sitting is slotted for question hour.
- During this time, the members ask questions and the ministers usually give answers.
- Unlike Zero hour, it is mentioned in the Rules of Procedure.

Analytica

Importance of question hour

- Asking questions is an inherent and unfettered parliamentary right of Members. It is an instrument of parliamentary control over the executive.
- At the same time, through the questions hour, the Government is able to quickly feel the pulse of the nation and adopt its policies and actions accordingly.
- Questions enables Ministries to gauge popular reactions to their policies and also brings to notice abuses of authorities and instances of maladministration.

PEPPER IT WITH

Zero hour, Adjournment motion

Types of Questions asked

- ❑ Starred Questions- A Starred Question is one to which a member desires an oral answer from the Minister in the House and is required to be distinguished by him/her with an asterisk. Answers to such questions may be followed by supplementary questions by members.
- ❑ Unstarred Questions- An Unstarred Question is one to which a written answer is desired by the member and is deemed to be laid on the Table of the House by the Minister. Thus, it is not called for oral answer in the House and no supplementary question can be asked thereon.

- ② Short Notice Questions- A member may give a notice of question on a matter of public importance and of urgent character for oral answer at a notice less than 10 days prescribed as the minimum period of notice for asking a question in ordinary course. Such a question is **known as 'Short Notice Question'**.
- ② Questions to Private Members- A Question may also be addressed to a Private Member (Under Rule 40 of the Rules of Procedure and Conduct of Business in Lok Sabha), provided that the subject matter of the question relates to some Bill, Resolution or other matter connected with the business of the House for which that Member is responsible. The procedure in regard to such questions is the same as that followed in the case of questions addressed to a Minister with such variations as the Speaker may consider necessary.

Overseas Citizenship of India

News Excerpt

In order to check the spread of coronavirus, Visa free travel facility granted to Overseas Citizenship of India (OCI) card holders has been kept in abeyance till April 15th, 2020.

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- The OCI Scheme was introduced by amending the Citizenship Act, 1955 in August 2005.
- Issuing an OCI card **does not amount to conferment of "dual citizenship"**. India does not have provision for dual citizenship.
- OCI does not confer political rights.
- The Person of Indian Origin (PIO) category has been merged with the OCI scheme.

Analytica

Eligibility

- The following categories of persons (except Pakistan and Bangladesh) are eligible to apply under OCI scheme:
- Who is a citizen of another country, but was a citizen of India at the time of, or at any time after, the commencement of the constitution; or
 - Who is a citizen of another country, but was eligible to become a citizen of India at the time of the commencement of the constitution; or
 - Who is a citizen of another country, but belonged to a territory that became part of India after the 15th day of August, 1947; or
 - Who is a child or a grand-child or a great grandchild of such a citizen; or

Non-Resident Indian

- ❖ An Indian citizen who is ordinarily residing outside India and holds an Indian Passport.
- ❖ If he/she is not in India for 182 days or more during the financial year or
- ❖ If he/she is in India for less than 365 days during the 4 years preceding that year and less than 60 days in that year.

- A person, who is minor child of a person mentioned in clause (a); or
- A person, who is a minor child, and whose both parents are citizens of India or one of the parents is a citizen of India; or
- Spouse of foreign origin of a citizen of India or spouse of foreign origin of an Overseas Citizen of India Cardholder

Rights granted to Overseas Citizen of India

- He is granted multiple entry, multi-purpose, life-long visa for visiting India
- He/she is exempted from registration with Foreign Regional Registration Officer or Foreign Registration Officer for any length of stay in India

- He/She is entitled to general parity with Non-Resident Indians in respect of all facilities available to them in economic, financial and educational fields except in matters relating to the acquisition of agricultural or plantation properties.

An overseas citizen of India shall not be entitled to the rights conferred on a citizen of India.

- Under Article 16 of the Constitution with regard to equality of opportunity in matters of public employment.
- Under Article 58 of the Constitution for election as President.
- Under Article 66 of the Constitution for election of Vice-President.
- Under Article 124 of the Constitution for appointment as a Judge of the Supreme Court.
- Under Article 217 of the Constitution for appointment as a Judge of the High Court.
- Under Section 16 of the Representation of the People Act, 1950(43 of 1950) in regard to registration as a voter.
- Under Sections 3 and 4 of the Representation of the People Act, 1951 (43 of 1951) with regard to the eligibility for being a member of the House of the People or of the Council of States, as the case may be.
- Under Section 5, 5A and 6 of the Representation of the People Act, 1951 (43 of 1951) with regard to the eligibility for being a member of the Legislative Assembly or a Legislative Council, as the case may be, of a State.
- For appointment to public services and posts in connection with the affairs of the Union or of any State except for appointment in such services and posts as the Central Government may by special order in that behalf specify.

PEPPER IT WITH

Pravasi Bhartiya Diwas, Pravasi Kaushal Vikas Yojana, Know India Program, Madad Portal, Vajra Scheme

Call Data Records and the Issue of Surveillance State

News Excerpt

Amid questions over possible surveillance and violation of privacy following bulk call data records being sought by the Department of Telecommunications (DoT), the government asserted that the data was only being collected to analyze and improve the quality of telecom services and ruled out any form of surveillance.

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Highlights

- Earlier the Cellular Operators Association of India (COAI) wrote to the government that some **local units of the DoT “continue to seek voluminous CDR details from the licensees on a regular basis in contravention” of the standard operating procedure for providing CDRs to law enforcement agencies.**
- In a statement, the DoT said that given the numerous complaints about quality of service on **the country’s telecommunications networks including call drops, echo, cross connections,** incomplete or poor caller experience, the DoT had developed a software tool to analyze big data and accurately ascertain call drops in any area.
- The government stressed that this data was anonymous and did not contain the names of either the maker or receiver of calls.
- The government is empowered under the Indian Telegraph Rules, 1951, to access such anonymous data for improving network quality.

Analytica

According to the COAI, “CDRs sought for specific routes/areas may lead to allegations of surveillance, especially in a state like Delhi having numerous VVIP zones having offices and residences of ministers, MPs, Judges, etc.”

What's a Surveillance State?

A surveillance state is defined as a state which legally surveils all actions, locations, and friends of its citizens, in order to prevent crimes or in order to solve them faster. Nevertheless, the term has **negative connotations and dangerous implications for citizen's privacy.**

Need for Surveillance by the State:

- ☐ To fight crimes such as Terrorism, extremism, money laundering, violence and crime.
- ☐ To curb fake news
- ☐ **'Due Diligence'** on unregulated areas such as social medias

What are the Concerns about Surveillance State?

- ☐ **It's against the** freedom of speech as enshrined in Article 19(2).

- ☐ Tapping private messages, calls and mails on the basis of vague and arbitrary provisions is against an individual's right to privacy under Article 21.

- ☐ Misuse of vague and Ambiguous Provisions that allow Surveillance

What the Rules Say?

Setting aside this unresolved ambiguity in procedure, Rule 419A stipulates another exception to the general rule. In *emergent cases*, where procuring a lawful order is itself infeasible - either due to remoteness of location, or for operational reasons, interception may be carried out with the prior approval (as distinct from lawful order) of the Head or the second senior most officer of the authorized Law Enforcement Agency at the Centre, or officers authorized in this behalf - not below the rank of Inspector General of Police - at the States.

Rule 419A of the Indian Telegraph Rules, 1951

- ❖ Rule 419A was not part of the Telegraph Rules when they were originally notified in 1951.
- ❖ It was introduced by way of an amendment in 2007, which was necessitated by the Supreme Court's condemnation in PUCI of the lack of procedure governing telephone tapping.
- ❖ According to Rule 419A, a direction for interception may normally be issued only by the Union Home Secretary at the Centre, or a State Home Secretary at the States.
- ❖ However, in *unavoidable circumstances*, a lawful order may be issued by an officer not below the rank of a Joint Secretary to the Government of India, who has been authorized by the Union/State Home Secretary to this effect

Now the term "unavoidable circumstances" has not been defined under the Telegraph Rules, Telegraph Act, any other legislation, or judgments by courts of law. As a result, there exists no objective standard to determine whether a given situation qualifies as an unavoidable circumstance.

- ✓ After clearance from the Home Secretary, officers of the rank of Superintendent of Police (SP) and above alone were authorized to seek such details from telecom operators.
- ✓ In addition to this, the SPs are required to give a mandatory declaration to District Magistrates (DMs) about the CDRs obtained every month.

Privacy Judgment

In the Puttaswamy judgment in 2017, the Supreme Court had held that any action that violates the privacy of a citizen has to undergo four tests: the existence of a law, proportionality, legitimate state aim/purpose and the procedure.

Conclusion

According to the UK based firm Comparitech, India, the world's largest democracy, ranks behind only Russia and China when it comes to surveilling citizens. On the company's privacy index, India scored 2.4 out of 5, indicating a "systemic failure to maintain (privacy) safeguards." There is an urgent need to ensure the application of surveillance objectively with strict norms. Surveillance can be subjected to the Parliamentary and Judicial oversight along with an Independent Review Committee.

National Interlinking of Rivers Authority

News Excerpt

The Central government is deliberating to establish an exclusive body, called the National Interlinking of Rivers Authority (NIRA), to implement projects for inter-linking of rivers.

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- National Interlinking of Rivers Authority (NIRA) is expected to take up both inter-State and intra-State projects.
- It will also make arrangements for generating up funds, internally and externally.
- Once approved, the projects will be pursued as national projects. The Centre will absorb 90% of the cost and the States concerned will bear the rest.

Analytica

National River Linking Project

- It envisages the transfer of water from water 'surplus' basins where there is flooding to water 'deficit' basins where there is drought/scarcity, through inter-basin water transfer projects.
- It will comprise 30 links to connect 37 rivers across the nation through a network of nearly 3000 storage dams to form a gigantic South Asian Water Grid. It has two components.
- Himalayan Rivers Development Component aims to construct storage reservoirs on the Ganga and Brahmaputra rivers, as well as their tributaries in India and Nepal. The aim is to conserve monsoon flows for irrigation and hydropower generation, along with flood control. The linkage will transfer surplus flows of the Kosi, Gandak and Ghagra to the west. A link between the Ganga and Yamuna is also proposed to transfer the surplus water to drought-prone areas of Haryana, Rajasthan and Gujarat.
- Peninsular Rivers Development Component proposes to connect the rivers of South India. It envisages linking the Mahanadi and Godavari to feed the Krishna, Pennar, Cauvery, and Vaigai rivers. This linkage will require several large dams and major canals to be constructed. Besides this, the Ken river will also be linked to the Betwa, Parbati, Kalisindh, and Chambal rivers.

Ken Betwa Interlinking Project

- ❖ It was the country's first planned river interlinking project.
- ❖ Both the rivers originate in MP and are the tributaries of Yamuna.
- ❖ Ken River passes through Panna tiger reserve.
- ❖ Project aims to transfer surplus water from the Ken river in MP to Betwa in UP to irrigate the drought-prone Bundelkhand region
- ❖ The project has been delayed due to political and environmental issues

Proposed Benefits

- ☐ Irrigation benefits in water deficit western and peninsular areas
- ☐ Will address drinking problem
- ☐ Mitigation of floods by transferring excess water to drought prone areas.
- ☐ Hydropower generation
- ☐ Groundwater recharge

Potential harmful impacts

- ☐ Large number of people will be displaced.
- ☐ Ecological issues: There would be a decrease in downstream flows resulting in reduction of freshwater inflows into the seas seriously jeopardizing aquatic life.
- ☐ River flow carries silt which is deposited along the way, enhancing the productivity of the surrounding lands, and finally of the coastal waters. Disruption of ecological flow will also lead to trapping of silt in reservoirs and a dip in the sediment deposited by rivers.

- ❑ Future change of course of rivers will create practical problems for the project.
- ❑ Deforestation: Large areas need to be deforested to make canals. A large area of Panna National Park is to be cleared for the Ken-Betwa interlinking project.

Conclusion

A mega project of this scale must be undertaken after proper cost benefit analysis. Government should also consider alternatives such as decentralized watershed development, rainwater harvesting, groundwater recharge, reviving the existing local systems of water harvesting and irrigation to address the problem of drought.

PEPPER IT WITH

Pattiseema lift irrigation project,
Himalayan and Peninsular rivers

UN High Commission for Human Rights

News Excerpt

The Office of the United Nations High Commissioner for Human Rights intends to file an application to be allowed to intervene as an amicus curiae in the Supreme Court of India over the Citizenship (Amendment) Act (CAA). The move was objected by India as The Citizenship Amendment Act is an internal matter and no foreign party has any locus standi on issues pertaining to our sovereignty.

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- The Office of the High Commissioner for Human Rights (UN Human Rights) is the leading UN entity on human rights. The General Assembly entrusted both the High Commissioner and her Office with a unique mandate to promote and protect all human rights for all people.
- It assists governments, which bear the primary responsibility for the protection of human rights, to fulfil their obligations and supports individuals to claim their rights.
- UN Human Rights is part of the United Nations Secretariat.

UN Human Rights Council

- ❖ It is an inter-governmental body within the United Nations system.
- ❖ It is responsible for strengthening the promotion and protection of human rights around the globe and for addressing situations of human rights violations and making recommendations on them.
- ❖ The Council is made up of 47 United Nations Member States which are elected by the UN General Assembly.
- ❖ The Council was created by the United Nations General Assembly on 15 March 2006 replaced the former United Nations Commission on Human Rights.

Analytica

UN Human Rights defence of its decision to file intervention application

- While hailing the stated intention of CAA to offer protection to victims of religious persecution, the application questions the reasonableness and objectivity of the criterion of extending the benefits of the CAA to Buddhists, Sikhs, Hindus, Jains, Parsis and Christians from Afghanistan, Bangladesh and Pakistan alone.
- It argues that this will have an adverse impact on human rights of excluded groups for example Ahmadi, Hazara and Shia Muslims in Pakistan who are also prosecuted.
- It cites international human rights instruments to urge the inclusion of non-discrimination, equality before the law, and equal

Amicus Curiae

It is a legal Latin phrase, literally translated as friend of the court, that refers to someone, not a party to a case, who volunteers to offer information on a point of law or some other aspect of the case to assist the court in deciding a matter before it.

The information may be a legal opinion in the form of a brief, testimony that has not been solicited by any of the parties, or a learned treatise on a matter that bears on the case. The decision whether to admit the information lies with the discretion of the court

protection before the law into the foundation of a rule of law.

India's objection

- The Citizenship Amendment Act is an internal matter of India and concerns the sovereign right of the Indian Parliament to make laws.
- No foreign party has any locus standi on issues **pertaining to India's sovereignty**.
- CAA is constitutionally valid and complies with all **requirements of India's constitutional values, and is** reflective of our long-standing national commitment in respect of human rights issues arising from the tragedy of the Partition of India.

PEPPER IT WITH
UNHRC, Convention relating to
status of refugees, Charter of the
United Nations

Possible implications of intervention

- Negative international attention
- Intervention may amount to questioning sovereignty of India.
- If the application will be allowed, it may provide an overview of relevant and applicable international human rights standards and norms to support the Court's deliberations in the context of its review of the CAA.

Anti-National Activities

News Excerpt

Recently many foreigners were asked to depart from the country for indulging in **"anti-government" activities**. They have been served leave India notices.

Pre-Connect

India's visa guidelines on 'anti-government' activities

- According to visa guidelines laid out by the MHA, foreign nationals shall be required to strictly adhere to the purpose of visit declared while submitting the visa application.
- However, a foreign national (other than a Pakistani national) coming to India on any type of visa will be allowed to avail activities permitted under tourist visa.
- However, there are no provisions **specified under "anti-government" activities**.
- According to lawyers, a court can rule that whatever are defined as **"anti-government" activities** for Indian nationals is **"anti-government" for foreign nationals too.**"

Kedar Nath Singh v State of Bihar, 1962

Constitutionality of Section 124A was questioned on the basis that it produces a chilling effect on free speech. It was argued that this provision was used to suppress any criticism of the government.

SC upheld the constitutionality of sedition (Section 124A), but limited its application to **"acts involving intention or tendency to create disorder, or disturbance of law and order, or incitement to violence"**

Analytica

Anti-Government activities according to law for Indian nationals

- According to the lawyers, **"anti-government" activities are those which are listed as punishable under Section 124A (sedition) of the Indian Penal Code.**
- **Section 124A IPC states: "Whoever, by words, either spoken or written, or by signs, or by visible representation, or otherwise, brings or attempts to bring into hatred or contempt, or excites or attempts to excite disaffection towards, the Government established by law in India, shall be punished with imprisonment for life, to which a fine may be added; or, with imprisonment which may extend to three years, to which a fine may be added; or, with fine."**

Does a foreigner on Indian visa have a right to protest?

- Right to protest peacefully is enshrined under Article 19(1)(a) of Indian Constitution which

guarantees the freedom of speech and expression.

- Article (19)(b) guarantees the citizens of the country the right to assemble peacefully and without arms.
- Some advocates argue that since Article 14 of the Constitution ensures equality to any person before the law or the equal protection of the laws within the territory of India, foreigners also have the right to protest peacefully.
- Article 21 of Indian Constitution that states: "No person shall be deprived of his life or personal liberty except according to a procedure established by law." Some are of opinion that "protesting falls under his personal liberty."

Fundamental Rights which are available to foreigners also (Except enemy aliens): Article 14, 20, 21, 21A, 22, 23, 24, 25, 26, 27, 28.

Fundamental Rights available to citizens only: Article 15, 16, 19, 29 and 30.

PEPPER IT WITH

Enemy Aliens, Visa on Arrival, Tourist Visa, Dissent vs Sedition

Conclusion

Delhi High Court in a 2019 case ruled saying the government does not have unfettered powers to make a foreigner leave India without furnishing reasons. The government needs to list out the acts which it considers as anti-government before asking any foreigner to leave.

World Consumer's day & Consumer Rights in India

News Excerpt

Every year March 15 is celebrated as World Consumer Rights Day to spread awareness about a consumer's rights and needs. It is an annual occasion, observed on a global level to protect the rights of consumers and to ensure that the consumer are not subjected to market abuse or social injustice that may undermine their rights.

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- The consumer movement marks 15th March with World Consumer Rights Day every year, as a means of raising global awareness about consumer rights and needs.
- In India, we celebrate National Consumer Day on December 24. We have a Consumer Forum to address the issues and safeguard the rights of the consumers.
- The campaign will discuss the need for sustainable consumption globally, as well as highlighting the important role that consumer rights and protection can play.
- The aim of sustainable consumption is to increase resource efficiency and fair trade while helping to alleviate poverty and enable everyone to enjoy a good quality of life with access to food, water, energy, medicine and more.
- The United Nations Guidelines for Consumer Protection (UNGCP), adopted in 1985, are "a valuable set of principles for setting out the main characteristics of effective consumer protection legislation, enforcement institutions and redress systems".

Highlights

- According to the Consumers International organization, the theme for World Consumer Rights Day 2020, will be **"The Sustainable Consumer"**.
- In India, The Consumer Protection Act, 1986 lays down the rights of the consumers and provides for promotion and protection of the rights of the consumers. It has been replaced by **"The Consumer Protection Act, 2019"**.

The Consumer Protection Act, 2019

- Definition of consumer: A consumer is defined as a person who buys any good or avails a service for a consideration. It does not include a person who obtains a good for resale or a good or service for commercial purpose. It covers transactions through all modes.

- Rights of consumers: Six consumer rights have been defined in the Act, including the right to:
- be protected against marketing of goods and services which are hazardous to life and property;
 - be informed of the quality, quantity, potency, purity, standard and price of goods or services;
 - be assured of access to a variety of goods or services at competitive prices; and
 - seek redressal against unfair or restrictive trade practices.

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	BCCL Court can refer settlement through mediation

- Central Consumer Protection Authority (CCPA): The body will promote, protect and enforce the rights of consumers. It will regulate matters related to violation of consumer rights, unfair trade practices, and misleading advertisements. The CCPA will have an investigation wing, headed by a Director-General, which may conduct inquiry or investigation into such violations.
- Penalties for misleading advertisement: The CCPA may impose a penalty on a manufacturer or an endorser of up to Rs 10 lakh and imprisonment for up to two years for a false or misleading advertisement. In case of a subsequent offence, the fine may extend to Rs 50 lakh and imprisonment of up to five years.
- Consumer Disputes Redressal Commission (CDRCs): It will be set up at the district, state, and national levels. A consumer can file a complaint with CDRCs in relation to unfair or restrictive trade practices; defective goods or services; overcharging or deceptive charging etc.

Complaints against an unfair contract can be filed with only the State and National. Appeals from a District CDRC will be heard by the State CDRC. Appeals from the State CDRC will be heard by the National CDRC. Final appeal will lie before the Supreme Court.

- Jurisdiction of CDRCs: The District CDRC will entertain complaints where value of goods and services does not exceed Rs one crore. The State CDRC will entertain complaints when the value is more than Rs one crore but does not exceed Rs 10 crore. Complaints with value of goods and services over Rs 10 crore will be entertained by the National CDRC.
- Product liability: Product liability means the liability of a product manufacturer, service provider or seller to compensate a consumer for any harm or injury caused by a defective good or deficient service.

PEPPER IT WITH
CPGRAMS, INGRAM

FCRA and Political Organizations

News Excerpt

The Supreme Court recently held that the central government cannot brand an organisation political and deprive it of its right to receive foreign funds for using legitimate forms of dissent to aid a public cause.

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- A petition was filed by the Indian Social Action Forum (INSAF) challenging certain provisions of the Foreign Contribution Regulation Act (FCRA), 2010 and the Foreign Contribution (Regulation) Rules of 2011.
- The Central Government is conferred with power under these Laws to brand organisations 'political' and shut down their access to foreign funds.

Foreign Contribution Regulation Act FCRA, 2010

The Foreign Contribution (Regulation) Act 2010 replaces the Foreign Contribution (Regulation) Act, 1976 (FCRA). The act seeks to regulate the acceptance and utilization of all foreign funds through donations, gifts or grants. It falls under the purview of Home Ministry and not the Reserve Bank of India (RBI).

Salient features of FCRA 2010

- The 1976 Act lists a number of organizations and individuals that are prohibited from accepting foreign contribution. The Bill adds **organizations of a "political nature" and** electronic media organizations to the list. The Bill also allows the central government to add any person or organization to this list.
- **The Bill requires all persons with a "definite cultural, economic, educational, religious or social programme" to register under FCRA to accept foreign contribution.** The central government may deny, suspend or cancel certification under certain conditions.
- Organizations must renew FCRA certification every five years.
- The act introduces a cap of 50% of foreign funds for administrative expenses. The government will define what constitutes administrative expenses.
- Banks must report to the government the amount of foreign remittance, the source and manner in which the foreign remittance was received and any other particulars.
- The act allows the central government to conduct separate audits for FCRA certified organizations and grants it the power of search and seizure.

Who are debarred from receiving Foreign Contribution?

- ❖ Candidate contesting an election
- ❖ Cartoonist, editor, publishers of registered newspaper
- ❖ Judge, Government servants or employee of any corporation
- ❖ Member of any legislature, Political parties
- ❖ Organization of political nature

Analytica

Various provisions under question in Supreme Court

- Section 5(1) of the FCRA: This provision allowed the Centre a free hand to decide whether a seemingly non-political organisation was actually political in nature.
- Section 5(4) of the FCRA: The provision did not exactly identify the authority before which an organisation could represent its grievance. But the apex court dismissed this contention.
- Various clauses of Rule 3 of the 2011 Rules: This provision identified the various types of **'political' activities for which/organisations** whose foreign funding could be

Political parties exempted from scrutiny on foreign fund under FCRA

Finance Bill 2018 passed by the Parliament exempted political parties from scrutiny of foreign funding received after 1976.

stopped by the government.

Observations made by the Supreme Court

- An organisation supporting public causes by resorting to legitimate means of dissent like "bandh" and "hartal" cannot be deprived of its legitimate right of receiving foreign funds.
- An organisation, which supports the cause of a group of citizens agitating for their rights without a political goal or objective, cannot be penalised by being declared as an organisation of a political nature.
- But foreign funding could be stopped if an organisation took recourse to these forms of protest to score a political goal.
- The apex court said that an organisation having avowed political objectives in its memorandum of association or bye laws is an organisation of a political nature.
- It struck a similar balance in the cases of organisations of farmers, workers, students, youth based on caste, community, religion, language, etc.
- It said their foreign funding could continue as long as these organisations worked for the **"social and political welfare of society" and not to further "political interests"**.

Conclusion

The apex court judgement is a welcomed check on the misuse of the FCRA, 2010. However, there should be further clarity for terms used in the statute like 'political objectives', 'political activities', 'political interests' and 'political action'.

District Mineral Foundation Funds

News Excerpt

The Union finance minister said state governments should use district mineral foundation (DMF) funds for response and preparedness to fight the novel coronavirus disease (COVID-19) pandemic.

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- District Mineral Foundation (DMF) is a trust set up as a non-profit body under Mines and Minerals (Development & Regulation) Amendment Act, 2015, in those districts affected by the mining works, to work for the interest and benefit of persons and areas affected by mining related operations.
- It is funded through the contributions from miners.
- The finance minister on March 26, 2020, unveiled measures in the wake of a nation-wide lockdown called for by the Union government to combat the pandemic.

South Korean Model

- ❖ South Korea has done exceptionally well to control the spread of the new coronavirus disease.
- ❖ It has implemented T3 i.e. Trace, Test and Treat, and has conducted more diagnostic tests than any other country (around 10,000 per day). This has helped them detect patients early and tackle the spread of Covid-19.
- ❖ South Korea deployed a central tracking app that publicly informs citizens of known cases within 100 metres of where they are.
- ❖ South Korean began developing and stockpiling test kits well before the country had its first outbreak as soon as Chinese scientists published the COVID-19 virus' genetic sequence.
- ❖ The government used their experience of fighting MERS (Middle Eastern Respiratory Syndrome) five years ago.
- ❖ Unlike other countries, there was no lockdown in South Korea.

Analytica

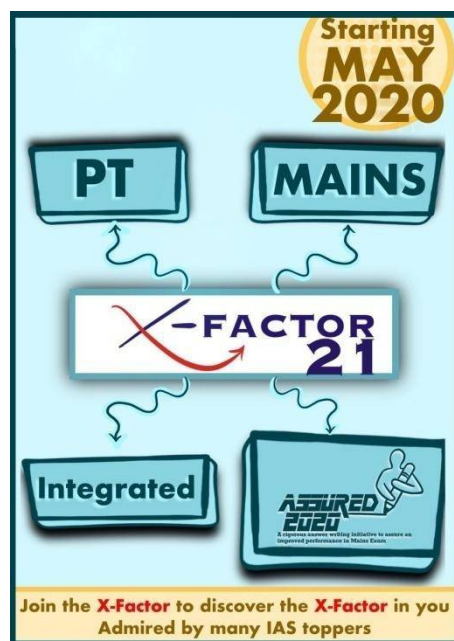
- The finance minister said DMF funds should be used to supplement and augment healthcare facilities, screening and testing requirements and any other resources that might be required.
- Augmenting healthcare services and delivery is already a high priority area with respect to DMF investments, according to DMF rules of all states. Already some states are using DMF funds to upgrade healthcare facilities over the last one year.
- If the funds were used properly after a need analysis to target delivery of services, districts would have been better prepared.
- Most districts received disaster relief funds, contribution from Members of Parliament and Members of Legislative Assemblies and health department funds. These funds are sufficient for procuring screening kits, ventilators and other equipment.
- There is a risk that it becomes an easy go-to fund, even when other resources are available. It also helps the state abdicate responsibility in handling the situation and providing safety nets.
- DMF funds should be used sparingly and only for facilities and resources that can be counted as long-term assets to the district. DMF funds should be used only after other existing fund sources and state support is accounted for.

PEPPER IT WITH

Pradhan Mantri KhanijKhestra Kalyan Yojana, Mines and Minerals (Development and Regulation) Amendment Act 2015

Way Forward

A separate emergency fund should be set up for calamities. The Centre for Science and Environment had earlier proposed setting aside 10 per cent of the fund for “future use”, in times of calamities or disasters.



SOCIAL ISSUES, REPORTS AND INDICES

Higher education System of India

News Excerpt

In the Union Budget 2020, Finance Minister has suggested a new education policy, besides several measures that will bring in a paradigm shift in the educational systems and creation of the employment in Indian and abroad.

Pre-Connect

India has the third largest higher education system in the world, after the US and China, according to the World Bank. In the last decade, access to higher education has improved as more IITs, IIMs and central and state level university have been established. However, this proliferation has also raised concern about an imbalance between excellence and inclusion.

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University Grants Commission

The University Grants Commission is a statutory organization established by an Act of Parliament in 1956 for the coordination, determination and maintenance of standards of university education. Apart from providing grants to eligible universities and colleges, the Commission also advises the Central and State Governments on the measures which are necessary for the development of Higher Education. It functions from New Delhi as well as its six Regional offices located in Bangalore, Bhopal, Guwahati, Hyderabad, Kolkata and Pune.

In 2019, India has expanded its list of Institutes of Eminence to include another 14 institutions – seven public and seven private universities – that will be expected to rise up global university rankings to make it into the top 200 within five years. The private universities named are: Jamia Hamdard; Amrita Vishwa Vidyapeetham; Kalingsa Institute of Industrial Technology in Bhubaneswar; Vellore Institute of Technology in Tamil Nadu; OP Jindal Global University in Sonipat; and Shiv Nadar University in Greater Noida. The list included Bharti University in the 'greenfield category'. Greenfield institutes are those that have not yet started operations. They have three years to establish and operationalise their institutions. Two more Indian Institutes of Technology or IITs – IIT Madras and IIT Kharagpur – are among the public sector institutions named, along with the University of Hyderabad, Banaras Hindu University in Varanasi, Anna University in Chennai, Jadavpur University in Kolkata, and Delhi University.


INSTITUTIONS OF EMINENCE

THE GOVERNMENT IS COMMITTED TO IMPROVEMENT OF QUALITY OF HIGHER EDUCATIONAL INSTITUTIONS. IN THIS REGARD, THE GOVERNMENT INTENDS TO ESTABLISH TWENTY 'INSTITUTIONS OF EMINENCE' TO ACHIEVE WORLD CLASS STATUS, FROM AMONGST THE EXISTING GOVERNMENT/PRIVATE INSTITUTIONS AND NEW INSTITUTIONS FROM THE PRIVATE SECTOR.

MAJOR INDIAN INSTITUTES IN QS WORLD UNIVERSITY RANKINGS, 2020

	2018	2019	2020
IIT Bombay	179	162	152
IIT Delhi	172	172	182
IISc Bangalore	190	170	184
IIT Madras	264	264	271
IIT Kharagpur	308	295	281
IIT Kanpur	293	283	291
IIT Roorkee	431-440	381	383
University of Delhi	481-490	487	474
IIT Guwahati	501-550	472	491
OP Jindal Global University, Sonipat	–	–	751-800

Condition of Higher education system of India

- The regional-state-level universities suffer from a shortage of good-quality of teaching staff and laboratories. More than 70% of Indian students study at local and regional universities, but these institutes have smaller budgets and have become known for inflated grades, deflated quality and absenteeism among students, even teachers.
- Outdated, rigid curricula and the absence of employer engagement in the course content and skills development. Very few opportunities for interdisciplinary learning.
- Pedagogy and assessment are focused on input and rote learning; students have little

opportunities to develop a wider range of transversal skills, including critical thinking, analytical reasoning, problem-solving and collaborative working.

- High student-teacher ratio, due to the lack of teaching staff and pressure to enroll more students.
- Our narrowly specialised institution of excellence such as IITs IIMs and AIIMs, and IISc serve less than 0.5 percent of the total students enrolled in colleges and universities. Out of 35 candidates appearing for CAT, only close to one candidate is admitted in IIMs. Out of 65 candidates, one is selected for IIT course.
- None of the universities and institutions from India is in the list of top hundred universities in the world. This has resulted in graduates with low employability, a common feature of higher education in India.
- Growth disparity and access to opportunity: Socially, India remains highly divided. Access to higher education is uneven with multidimensional inequalities in enrolment across population groups- geographies.

Report of parliamentary standing committee on HRD

- ❖ The report said that the allocation for central universities is inadequate as compared to their infrastructure, faculty and number of student enrolled.
- ❖ Central universities have a larger number of students enrolled in them as compared to technical and management institutes.
- ❖ **50 per cent of the government's funds for higher education, between 2016 and 2018, went to just 3 per cent of the country's students** — those who study at premier institutes like IITs, IIMs and NITs.
- ❖ The remaining 49 per cent of the higher education funds were given to 865 institutions that account for over 97 per cent of the country's students.

To address the situation, the committee recommended that the department of higher education, which falls under the HRD ministry, reconsider/review its overall mechanism, right from the stage of presenting proposals until the final expenditure is incurred. **"It should also** assess the impact thereof insofar as the implementation of various schemes is concerned.

Recent Initiative taken by the government

Education Quality Upgradation and Inclusion Programme (EQUIP):

- Double the Gross Enrolment Ratio (GER) in higher education and resolve the geographically and socially skewed access to higher education institutions in India
- Upgrade the quality of education to global standards.
- Position at least 50 Indian institutions among the top 1000 global universities.
- Introduce governance reforms in higher education and promote Research and Innovation ecosystem.

Revitalising Infrastructure and Systems in Education (RISE):

- Global standard of academic infrastructure and upgrade the research by 2022.
- Make India into an education hub by making available high quality research infrastructure in Indian higher educational institutions.

Other Initiatives: Rashtriya Uchchatar Shiksha Abhiyan (RUSA), Global Initiative of Academic Network (GIAN), Scheme for Promotion of Academic Research Collaboration (SPARC), Impactful Policy Research in Social Science (IMPRESS), Institutions of Eminence (IOE) and All India Survey on Higher Education (AISHE).

PEPPER IT WITH

RUSA, GIAN, SPARC,
IMPRESS, AISHE, HEFA

The Road Ahead

In order for Indian universities to improve their ranking and become world class, the deficiencies

mentioned have to be tackled. There is a need to implement an innovative and transformational approach from primary to higher education level to make the Indian educational system more relevant and competitive globally. There is also a need to free universities and colleges in both public and private sectors from political interference.

What we need is a roadmap that delivers a complete overhaul of India's education system over the next five years. A fundamental change is needed for the way education is perceived, imparted and utilised in India. An inclusive, quality assured and globally acceptable higher education system in the country will decide if India's large population is a liability or an asset.

International Women Day

News Excerpt

International Women's Day is celebrated across the globe on March 8 every year to recognize the achievements of women across divides- national, ethnic, linguistic, cultural, economic or political. This year's theme is "I am Generation Equality: Realizing Women's Rights".

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Pre-Connect

- **The first International Women's Day** occurred on March 19 in 1911. The inaugural event, which included rallies and organized meetings, was a big success in countries such as Austria, Denmark, Germany and Switzerland.
- The March 19 date was chosen because it commemorated the day that the Prussian king promised to introduce votes for women in 1848.
- The promise gave hope for equality but it was a promise that he failed to keep. The **International Women's Day** date was moved to March 8 in 1913.
- The majority of the world's 1.3 billion absolute poor are women. On average, women receive between 30 and 40 percent less pay than men earn for the same work.
- Women also continue to be victims of violence, with rape and domestic violence listed as significant causes of disability and death among women worldwide.

Nari Shakti Puraskar is an initiative of the Ministry of Women and Child Development to acknowledge the exceptional contribution made by individuals and institutions, to celebrate women as game changers and catalyst of positive change in the society. These outstanding women have contributed towards **safeguarding women's rights along with pushing the 2030 Agenda for Sustainable Development Goals**. These awards are an effort to recognize women as equal partners in the advancement of society.

A study highlighted that only 3% of women surveyed, regarded family responsibilities as their most serious career obstacle, while 50% cited gender bias. Only 7% of female employees surveyed reported leaving the organization for family reasons, whereas 73% reported leaving because they saw limited opportunities. The quit rates for women were significantly lower in organizations that provided better training and promotion opportunities.

Role of women in developing a knowledge economy in India

A rapidly growing India requires a highly skilled technical workforce that is crucial for developing a knowledge economy. Unfortunately, half the scientific potential of India—women in science—is squandered. Women make up only 14% of the 280,000 scientists, engineers, and technologists in research and development institutions across the country.

What are the problems faced by women in this sector?

- The women scientists earn less, have less prestige within department, have less lab space, are offered inadequate jobs on graduating with science degrees and have more teaching responsibilities.

- Women tend to lack access to informal networks that provide opportunities to work in high-profile projects, which include attending conferences abroad or on-the-job opportunities which leads in lack of experience.
- When women feel selected or assessed on the basis of group membership rather than their

ACHIEVEMENTS OF WOMEN IN THE FIELD OF DEFENSE



Many people may wonder what role the “weaker” section can play in the armed forces. A resounding response was given by thousands of women officers by their unique contribution in various services and arms of our forces. Empowerment of women in the armed forces has been a major focus area of our government over the past five years and many interventions are first-time initiatives. In 2019, 3.89 per cent of the Army personnel comprised women, while 6.7 per cent of the Navy and 13.28 per cent of the Air Force personnel respectively were women. Before 2016, women made up just 2.5 per cent of India's armed forces.

There has been a substantial increase in enrolment and representation of girl cadets in NCC to 33.72 per cent in 2019 from 25.4 per cent in 2014. The total enrolment of girl cadets in the NCC is around 4.54 lakh (2019). An additional 33,000 girl cadets are to be enrolled in the senior wing under self-financing schemes from 2020. Nearly 650 additional posts for Girl Cadet Instructors (GCI) have been sanctioned for recruitment over the next five years against the present strength of 255 GCIs. For the first time ever, around 10,000 girl cadets will be sent for attachment with the three services from 2020 onwards.

A large number of women officers were commissioned in the AFMS over the last four years. The percentage of women medical and dental officers is around 23 per cent. And there is 100 per cent representation of women in the military nursing services (MNS). Never before in the history of independent India have women officers been given the opportunity to serve as defence attaches. The DRDO has been according equal opportunities for enhancement of women's skills and fulfilment of their potential. Some of the leading missile scientists today are women. The year 2018 saw the first-ever Indian circumnavigation of the globe, Navika Sagar Parikrama, by an all-women crew. The INSV Tarini success was the completion of the first Indian all-women circumnavigation of the globe, depicting “nari shakti” on the world platform.

work record and abilities, they experience gender discrimination.

- An organization's culture has a significant impact on those who work within it. Unfortunately, not many organizations have revised their work policies or employee expectations to enable women to strike a balance between their work and family responsibilities.

- Women often take on part-time roles that pay less, or are seen as less important, in order to accommodate work and family. Family commitments can influence the way co-workers, including managers, perceive them.

What need to be done?

Science needs the best scientists, and a knowledge. Economy needs a gender-balanced workforce. This can only be attained by

On international women day, the Indo-U.S. Fellowship for Women in Science, Technology, Engineering, Mathematics and Medicine (WISTEMM) program of Department of Science and Technology(DST) in association with Indo-U.S. Science & Technology Forum (IUSSTF) have provided international exposure to several women scientists. Around 20 women scientists have visited 20 leading institutions across the United States of America for furthering their research work and to get trained in the state of the art technologies related to their research.

WISTEMM aims to provide opportunities to Indian Women Scientists, Engineers & Technologists to undertake international collaborative research in premier institutions in U.S.A, to enhance their research capacities and capabilities.

- We must realize the full potential of women. Apart from being wasteful and unjust, the under-representation of women in science threatens the goal of achieving excellence in the field.
- We must set an ambitious target of reaching out to 1 million young girls each year, and encourage them to take up science and make a difference.
- A national convention of women in science must be held annually, with a specific focus on discussing and building general awareness around the major challenges that women face.

We must mobilize all our resources, if India aims to be a \$5 trillion economy. The gender imbalance in science and technology is a **looming challenge and threatens to weaken our country's** competitive economic position. By addressing these concerns, we can empower and motivate more women to join scientific fields, **unlock India's full potential, and develop the country to become a** knowledge economy.

PEPPER IT WITH

ShE-Box, Accusations of witchcraft, Acid Throwing

Gender Social Norms Index (UNDP)

News Excerpt

Recently, Gender Social Norms Index (UNDP) reported that no country in the world has gender equality; 90% people biased against women.

Pre-Connect

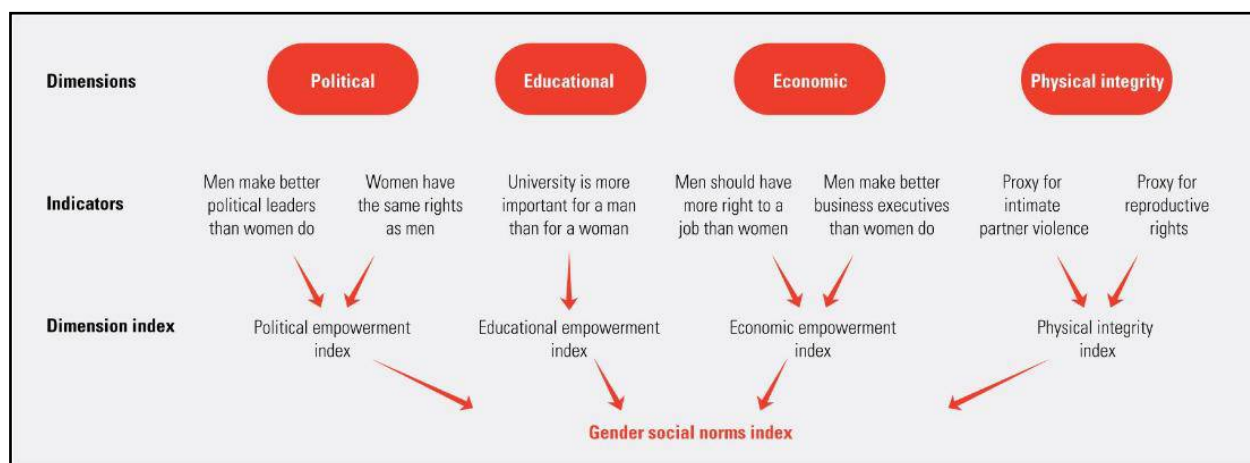
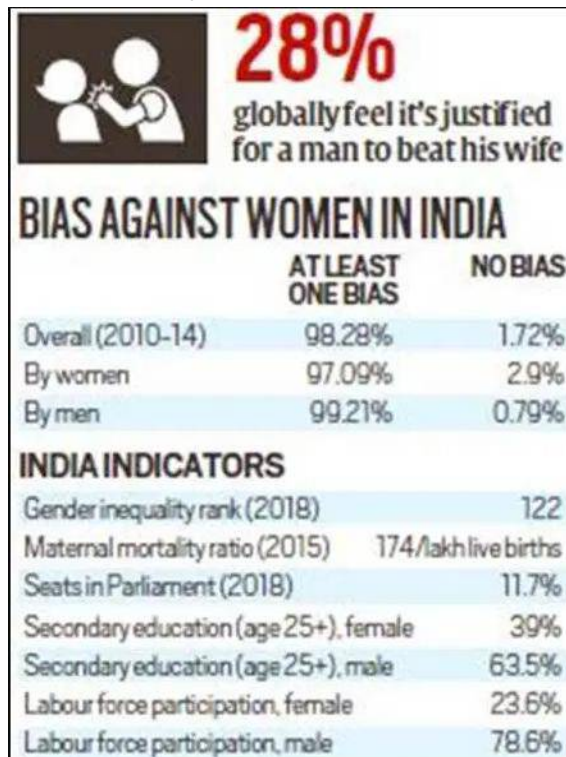
The Gender Social Norms Index (GSNI) measures how social beliefs obstruct gender equality in areas like politics, work, and education, and contains data from 75 countries, covering over 80 percent of the world's population.

Key Finding of the Report

- No country in the world – rich or poor - has achieved gender equality. In sub-Saharan Africa one woman in every 180 giving birth dies (more than 20 times the rate in developed countries). In most regions adult women are less educated, have less access to labour markets than men and lack access to political power.
- The world is not on track to achieve gender equality by 2030. Based on current trends, it would take 257 years to close the gender gap in economic opportunity. The number of female heads of government is lower today than five years ago, with only 10 women in such positions among 193 countries (down from 15 in 2014).

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- According to the index, about half of the world's men and women feel that men make better political leaders, and over 40% feel that men make better business executives and that men have more right to a job when jobs are scarce. 28% think it is justified for a man to beat his wife.
- Women make greater and faster progress where their individual empowerment or social power is lower (basic capabilities). But they face a glass ceiling where they have greater responsibility, political leadership and social payoffs in markets, social life and politics (enhanced capabilities). The higher the power and responsibility, the wider the gender gap — for instance, in case of heads of state and government it is almost 90%.
- As economic power increases from employee to employer, and from employer to top entertainer and billionaire, the gender gap widens, with women representing **only 21% of the world's employers** and 12% of the top billionaires. Only 5.8% of CEOs of S&P 500 companies are female. The overall employment of women by these companies might be close to parity, women are underrepresented in more senior positions.
- Women today are the most qualified in history, and newer generations of women have reached parity in enrolment in primary education. But large differences persist in occupational choices. The share of female graduates in science, technology, engineering and mathematics (STEM)



programmes is lower than 15% for most countries. Girls are less likely to study STEM subjects, while boys are a minority of those studying health and education.

- Despite decades of progress in advancing women's rights, bias against gender equality is increasing in some countries, with evidence of a backlash in attitudes among both men and women. The share of both women and men worldwide with moderate to intense gender biases grew from 57% to 60% for women and from 70% to 71% for men. Surveys have shown that younger men may be even less committed to equality than their elders.

PEPPER IT WITH
European Institute of Gender
Studies, Gender Inequality, UNICEF

- For unpaid care work, women bear a bigger burden - on average spending about 2.5 times **more than men do. This affects women's labour force participation. In 2018**, the global labour force participation rate was around 75% for men and 48% for women. Professional women mostly have two options for their personal partners — a super-supportive partner or no partner at all.

Various Schemes for Minority

News Excerpt

Recently, Ministry of Minority Affairs is implementing various schemes for the socio-economic and educational empowerment of six centrally notified minorities.

Pre-Connect

Minority has been defined under Section 2 (c) of the National Commission for Minorities (NCM) Act, 1992. **As per Section 2 (c) of the NCM Act, "minority", for the purposes of this Act, means a community notified as such by the Central Government.** So far, six communities viz. Muslims, Christians, Sikhs, Buddhists and Zoroastrians (Parsis) and Jains, have been notified as minority communities by the Central Govt.

Various Schemes

Education Empowerment of Minorities

- Pre-Matric Scholarship Scheme (For Class 1 to 10th)
- Post-Matric Scholarship Scheme (For Class 12th to PhD)
- Merit-cum-Means based Scholarship Scheme (For Professional and Technical Courses.)
- Free Coaching and Allied Scheme (NayaSavera) – For Competitive Examination of Professional Courses and Government Jobs.
- Begum Hazrat Mahal National Scholarship for Meritorious Girls belonging to the six centrally notified Minorities (Maulana Azad Education Foundation).
- "PadhoPardesh"**– Scheme of Interest Subsidy on Educational Loans for Overseas Studies.
- Nai Udaan - Support for students clearing Prelims conducted by UPSC, SSC, State Public Service Commission,

Economic Empowerment of Minorities

- Employment-oriented Skill Development Initiatives –SeekhoAurKamao - It is a placement linked skill development programme.
- Nai Manzil – A scheme for formal school education & skilling of school dropouts.
- Gharib Nawaz Employment Training for providing short-term job oriented skill development courses to youths belonging to minority communities (MAEF).
- Gharib Nawaz Employment Training for providing short-term job oriented skill development courses to youths belonging to minority communities (MAEF)

Improving living conditions of Minorities

- Pradhan Mantri Jan Vikas Karyakram (PMJVK):- It is an area development scheme. The Ministry has identified 1300 backward Minority Concentration Areas (MCAs) for the implementation of this scheme. It is a Centrally Sponsored Scheme for creating socio-economic infrastructure as well as basic amenities for uplifting the quality of life of minorities in the MCAs. The amenities are meant for all segments of the society including minorities.

Analytica

Problem Faced by Minorities in India:

- Problem of Identity: Because of the differences in socio-cultural practices, history and backgrounds, minorities have to grapple with the issue of identity everywhere which give rise to the problem of adjustment with the majority community.
- Problem of Security: Different identity and their small number relative to the rest of the society develops feeling of insecurity about their life, assets and well-being. This sense of

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insecurity may get accentuated at times when relations between the majority and the minority communities in a society are strained or not much cordial.

- Problem Relating to Equity: The minority community in a society may remain deprived of the benefit of opportunities of development as a result of discrimination. Because of the difference in identity, the minority community develops the perception of the sense of inequity.

Way Forward

Only a coalition of the oppressed castes, classes and gender across religions can overcome communalism. But that struggle for secularization has to go along with the resistance to the majoritarian attempt to equate majority and minority communalism. The scourge and cycle of communal hatred and violence can be stopped only by ending first the history of false equivalences and selective silences.

Drug Regulation in India

News Excerpt

In a bid to ensure that all medical devices meet certain standards of quality, the Union Health Ministry recently notified medical equipment used on humans or animals as "drugs" with effect from April 1, 2020, which means that now all imported, as well as locally manufactured medical devices sold in India will be required to clearly specific safety and quality standards before they are introduced in the India market.

The Ministry, through a gazette notification, also released the Medical Devices Amendment Rules, 2020, for mandatory registration of medical devices to ensure that all medical devices meet certain standards of quality and efficacy.

Pre-Connect

- In line with the steady growth of the industry and **in line with the 'Make in India', initiative by the Indian Government**, the Central Drugs Standard Control Organization (CDSCO), published the new Medical Device Rules, 2017, which came into force on Jan. 1, 2018.
- The new rules have been formulated to promote domestic manufacturing and to regulate import and manufacturing in line with the GHTF (Global Harmonization Task Force) guidelines.
- These modifications in the medical device rules of 2017 also enable Indian manufactures to export the finished high quality products from India to the world.

United States Food and Drug Administration (USFDA)

The Food and Drug Administration (FDA) is responsible for protecting the public health by assuring the safety, efficacy, and security of human and veterinary drugs, biological products, medical devices, our nation's food supply, cosmetics, and products that emit radiation. The FDA also provides accurate, science-based health information to the public.

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About The Central Drugs Standard Control Organisation (CDSCO)

- CDSCO which is under Directorate General of Health Services, Ministry of Health & Family Welfare is the National Regulatory Authority (NRA) of India.
- CDSCO is constantly thriving upon to bring out transparency, accountability and uniformity in its services in order to ensure safety, efficacy and quality of the medical product manufactured, imported and distributed in the country.
- Under the Drugs and Cosmetics Act, CDSCO is responsible for approval of Drugs, Conduct of Clinical Trials, laying down the standards for Drugs, control over the quality of imported Drugs in the country and coordination of the activities of State Drug Control Organizations by providing expert advice with a view of bring about the uniformity in the enforcement of the Drugs and Cosmetics Act.
- Further CDSCO along with state regulators, is jointly responsible for grant of licenses of certain specialized categories of critical Drugs such as blood and blood products, I. V. Fluids,

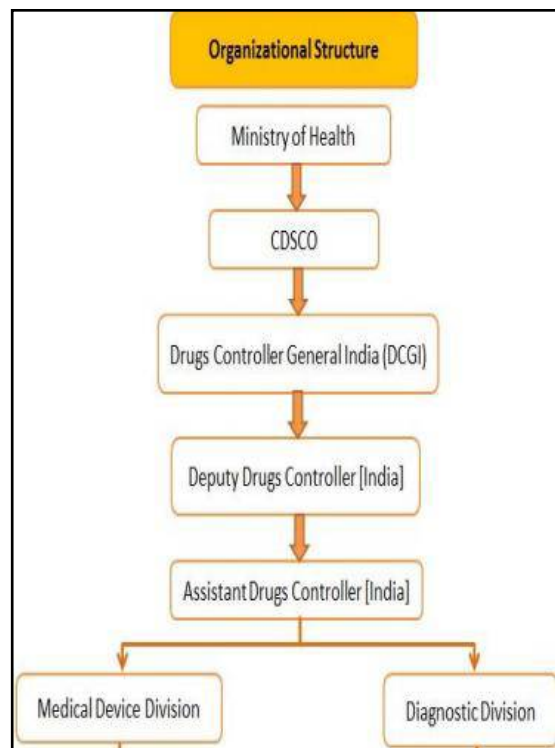
Vaccine and Sera.

Challenges faced by Medical Device industry

- ✓ In the past, the absence of a clear and consistent regulatory framework and lack of adequate incentives and funding for manufacture devices in India has kept the industry from realizing its full potential.
- ✓ High tax rates imposed on domestic manufacturers have made investment unappealing to some foreign companies, especially given the comparatively low amount of tax levied on imported medical goods.
- ✓ It is therefore hardly surprising that foreign firms **often choose to access India's medical market** without establishing a direct presence, many companies establish factories in neighboring countries and export devices into India.

Why was the move required?

- For much of the last one year, the health sector has been at the centre of attention following revelations about faulty hip implants marketed by pharma major Johnson & Johnson.
- This has caused major embarrassment to the government, too, as it exposed the lack of regulatory teeth when it came to medical devices.
- The matter dragged on, exposing the regulatory loopholes until finally the company agreed in court to pay Rs 25 lakh each to the 67 people who had had to undergo revision surgeries because the implants were defective.
- In fact, even after Johnson & Johnson agreed in a Texas court to shell out \$1 billion to settle about 6,000 lawsuits filed by patients in **the US who used its "defective"** pinnacle hip implants for 10 years from 2003 to 2013 before the product was withdrawn, in India it had for a very long time maintained that it had not received any adverse events report in the product.



Other Recent Issues

Recently, 12 children died in Udhampur district of Jammu due to poisoned cough syrup (Coldbest-PC) & many more are fighting for their life in a hospital. A team of doctors attributed the deaths to the presence of diethylene glycol in the cough syrup which was consumed by all the dead children. Diethylene glycol is an anti-freezing agent that causes acute renal failure in the human body followed by paralysis, breathing difficulties and ultimately death. This is the fourth mass glycol poisoning event in India that has been caused due to a pharmaceutical drug.

Way Forward

The Indian pharmaceutical industry is the world's third largest by volume of drugs. The Industry's journey to annual revenues of about USD 38 billion today can be attributed to world-class capabilities in formulation development, the entrepreneurial ability of the firms and the vision of **the industry to establish India's** footprint in large international markets such as the United States. Indian pharmaceutical companies need to take bold strategic moves into uncharted geographies, products and technologies to reclaim its position as a world-class provider of affordable high-quality drugs. Government support in the form of investments, policy support and regulatory interventions is integral to drive this innovation-led growth. IPA can help accelerate the impact by facilitating greater collaboration between the two.

PEPPER IT WITH
Classification of Drugs in
Schedule, Hydroxychloroquine

Freedom in the World 2020

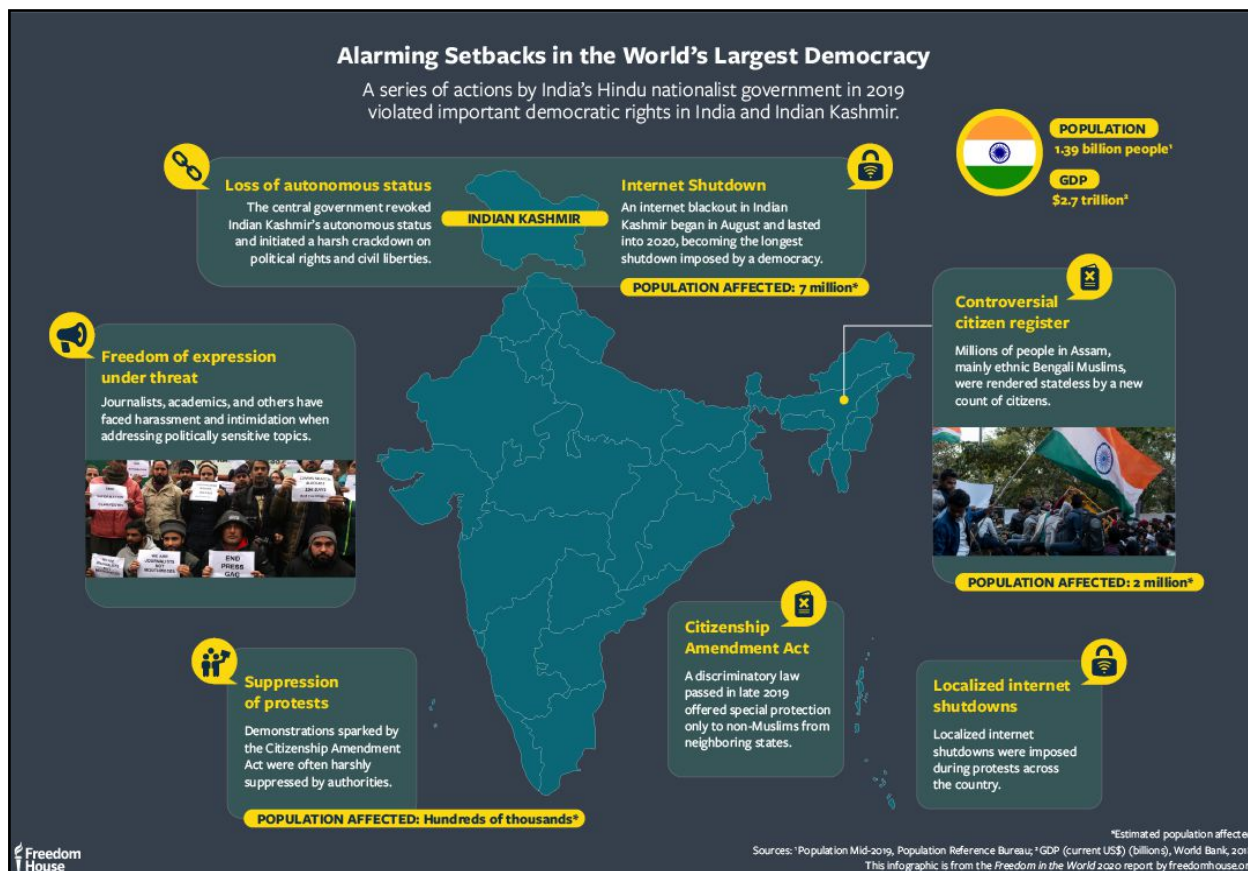
News Excerpt

Recently, Freedom in the World 2020 report has been released.

Pre-Connect

- Freedom in the World is Freedom House's flagship annual report, assessing the condition of political rights and civil liberties around the world.
- It is composed of numerical ratings and supporting descriptive texts for 195 countries and 15

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territories.

- Freedom in the World has been published since 1973, allowing Freedom House to track global trends in freedom over more than 40 years.
- It has become the most widely read and cited report of its kind, used on a regular basis by policymakers, journalists, academics, activists, and many others.

India's performance

- The Freedom in the World 2020 report ranks India at the 83rd position.
- India's score fell by four points to 71, the worst decline among the world's 25 largest democracies this year.
- Only Tunisia has received a lower score than India in the 'free countries' category of 85 nations. India's score was 77 in 2017.

Key Finding of the report on India

- ✓ One of the main reasons is India's Kashmir policy after abrogating Article 370, the National Register of Citizens for Assam, passage of contentious Citizenship Amendment Act (CAA) and frequent internet shutdowns across the country.
- ✓ The Indian government has taken its Hindu nationalist agenda to a new level with a

succession of policies that abrogate the rights of different segments of its Muslim population, threatening the democratic future of a country.

- ✓ It also highlights the spread of fake news and manipulated content, creating political divide. The internet shutdown in Kashmir, has no doubt, contributed to India's performance in terms of internet freedom.
- ✓ Controversies also continued around Aadhaar, the **world's largest biometric identification system**, and a problematic draft data protection bill remained in limbo.
- ✓ The report states that "democracy and pluralism are under assault" across the world

PEPPER IT WITH

Article 19, Free Will, Degree of Freedom

India's Budgetary Allocation for Health

News Excerpt

The total allocation of Rs 69,000 crore for the health sector in Union Budget 2020-21 was about 10 per cent higher from the year ago. National Rural Health Mission (NRHM), the biggest component of the health budget, was allocated Rs 27,039 crore.

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Pre-Connect

The Ministry of Health and Family Welfare has two departments: (i) the Department of Health and Family Welfare, and (ii) the Department of Health Research. The Department of Health and Family Welfare is responsible for functions including: (i) implementing health schemes, and (ii) regulating medical education and training. The Department of Health Research is broadly responsible for conducting medical research.

Ministry of Health and Family Welfare, Union Budget 2020-21:

PEPPER IT WITH

NRHM, Pradhan Mantri Jan Arogya Yojana, Mantri Swasthya Suraksha Yojana, PMSSY

- **The National Health Mission (NHM) receives about 50% of the Ministry's allocation.**
- Other items under NHM include funds for health and medical education amounting to Rs 4,686 crore in 2020-21.
- Allocation to autonomous institutes like the AIIMS and the Indian Council of Medical Research saw a decrease of 5% at Rs 9,616 crore from the revised estimates of 2019-20.
- Pradhan Mantri Jan Arogya Yojana has seen the highest increase in allocation at 100% (Rs 6,400 crore) over the revised estimates of 2019-20 (Rs 3,200 crore). The scheme provides a cover of Rs five lakh per family per year to about 10.7 crore families belonging to the poor and vulnerable population.
- Higher allocation has been made for Pradhan Mantri Swasthya Suraksha Yojana at Rs 6,020 crore (27% increase). It focuses on correcting regional imbalances in the availability of affordable tertiary healthcare services.

Concept of One Health

One Health is a collaborative, multi-sectoral, and transdisciplinary approach—working at the local, regional, national, and global levels—with the goal of achieving optimal health outcomes recognizing the interconnection between people, animals, plants, and their shared **environment**. CDC's **One Health Office leads the agency's One Health** efforts in the United States and abroad.

Analytica

Is Health budgetary allocation sufficient to prepare for an unpredictable epidemic?

It is an incontrovertible truth that the material resources are finite. Demand in the most sectors will continue to exceed supply in times of a pandemic. With the number of SARS-CoV-2 positive cases on the rise, and the number of deaths going up as well, the question is whether national and state health systems will be able to cope with ever-rising demands — for testing kits, hospital beds, ventilators, masks and hand sanitizers.

This extraordinary demand is unable to match the supply. Health-care resources, limited to begin with, are even more so when under stress. At a time when the disease did not have a name, and much less by way of character, in mainland China, the rapidly climbing numbers went far beyond the capacity of the country's renowned industry (where a hospital was built in record time), and the health systems struggled to cope.

India and Côte d'Ivoire for cooperation in the field of Health

Recently, the Union Cabinet has approved a Memorandum of Understanding (MoU) between Ministry of Health and Family Welfare of the Republic of India and the Ministry of Health and Public Hygiene of the Republic of Cote d'Ivoire on Cooperation in the field of Health.

The Memorandum of Cooperation covers the following areas of cooperation:-

- Exchange & training of medical doctors, officials, other health professionals and experts in the field of advanced medical technology, nuclear medicine, renal transplantation, cardiac surgery, nephrology, hemodialysis and medical research;
- Regulation of drugs and pharmaceutical products;
- Assistance in development of human resources and setting up of health care facilities;
- Medical and health research development;
- Management of healthcare sector and public health services including medical evacuations;
- Procurement of generic and essential drugs and assistance in sourcing of drug supplies;
- Collaboration and research in the field of HIV/AIDS;
- Development and improving the techniques and strategies for epidemiological surveillance;
- Exchange of best practices in the field of primary health care;
- Sharing of know-how on management of hospitals and community healthcare centers;
- The promotion of public health and sharing of experiences in medical waste
- Management;
- Health promotion and disease prevention;
- Non-Communicable Diseases;
- Occupational and Environmental Health;
- Medical Research; and
- Any other area of cooperation as may be mutually decided upon.

Conclusion

The Government's impetus on boosting domestic manufacturing of medical devices will reinforce the commitment towards raising awareness for early detection in India. Apart from this, the announcement to boost Artificial Intelligence is a great step to strengthen the usage of technology in the field of healthcare. We believe that the Government has put forward a progressive Budget with a strong vision to take India's social, economic and overall well-being to greater heights

For the years, India's health expenditure as a percentage of GDP has been abysmal at about 1%. As per the National Health Profile, 2019, collated by the Central Bureau of Health Intelligence unit of the Directorate General of Health Services, there has been no significant change in health-care expenditure since 2009-2010. The highest it has been in the decade is 1.28 % of the GDP, and hit the nadir at 0.98 % in 2014-2015.

What is sepsis?

Sepsis is the body's extreme response to an infection. It is a life-threatening medical emergency.

Sepsis happens when an infection you already have—in your skin, lungs, urinary tract, or somewhere else—triggers a chain reaction throughout your body.

Without timely treatment, sepsis can rapidly lead to tissue damage, organ failure, and death.

Complete Lockdown

News Excerpt

The government has declared a three-week nationwide lockdown starting 25th March, explaining that it was the only way of breaking the Covid-19 infection cycle. Social distancing is the only way to break the cycle of infection.

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Pre-Connect

- China locked down its Wuhan and most of the surrounding Hubei provinces in early days of this year to prevent the spread of the COVID-19.
- No journeys were allowed in or out of the city, even for those with compelling medical or humanitarian reasons.
- Nearly two months later, the daily number of new cases in China down to single digits. Wuhan is starting to emerge from two months of isolation, and this approach has become the model for other countries with outbreaks that appear to be sliding out of control.
- The similar step has been taken by a number of countries like Italy, France etc. in other part of world to break the chain of corona virus.

Lock Down

- A lockdown is an emergency protocol that prevents people from leaving a given area. A full lockdown will mean you must stay where you are and not exit or enter a building or the given area.
- This scenario usually allows for essential supplies, grocery stores, pharmacies and banks to continue to serve the people. All non-essential activities remain shut for the entire period.

Highlights

- The Prime Minister announced a nation-wide lockdown, from March 25, 2020 to April 14, 2020.
- The announcement came in the backdrop of the Covid-19 outbreak and is intended to enable **the concept of “social distancing” to contain the spread of the virus.**
- Various states invoked the Epidemic Diseases Act, 1897, to pass orders and guidelines on social distancing measures, closure of establishments and limitation on activity.
- The Ministry of Home Affairs invoked Section 6 (2)(i) of the Disaster Management Act (DMA), 2005 directing the ministries or departments of Government of India, state and union territory governments and authorities to implement the measures laid down in the central **order. The measures restrict residents’ movement outside of their homes and orders a closure of all offices, factories and shops, except those considered as essential goods and services.**
- Any person violating these containment measures will be liable to be proceeded against as per the provisions of Section 51 to 60 of the DMA, 2005, besides legal action under Section 188 of the IPC.

Section 144 of CrPC

It authorises the Executive Magistrate of any state or territory to issue an order to prohibit the assembly of four or more people in an area. According to the law, every member of such 'unlawful assembly' can be booked for engaging in rioting.

Under this, there shall be no movement of public and all educational institutions shall also remain closed and there will be a complete bar on holding any kind of public meetings or rallies during the period of operation of this order.

Analytica

- ✓ Constitutionally, the state government is empowered to deal with matters related to public order and public health, listed in the state list Entry 1 and 6, respectively.
- ✓ The Epidemic Diseases Act, 1897, empowers a state government to prescribe temporary regulations to be observed by the public or any person to prevent the outbreak and spread of a disease.
- ✓ However, Entry 29 of the Concurrent List empowers both the central and state governments to legislate on matters pertaining to the prevention of an infectious or contagious disease

spreading from one state to another.

- ✓ Article 245 of the Constitution and the 'Doctrine of Repugnancy' states that where the provisions of a Central Act and a State Act in the Concurrent List are fully inconsistent and are absolutely irreconcilable, the Central Act will prevail and the State Act will become void in view of the repugnancy.
- ✓ While the scheme of the DMA, 2005 does not specifically deal with the control of a pandemic like Covid-19, the powers of the National Disaster Management Authority under Section 6 of the Act can be broadly interpreted to give a unified command to the central government to effectively manage a disaster throughout India.
- ✓ The Covid-19 outbreak can be classified as a disaster under the DMA, 2005, allowing the central government wide powers to deal with the pandemic by laying down policies, plans and guidelines for disaster management to ensure a timely and effective response to the disaster.
- ✓ Section 38 of the DMA casts a duty on the states to follow the directions of NDMA. Moreover, Section 72 provides that the provisions of the Act, will have an overriding effect on all other laws, to the extent that they are inconsistent.
- ✓ Given the highly communicable nature of the disease and the large population of India, it seems logical for the central government to address the concern under Entry 29 in a unified manner, as opposed to state governments implementing measures not coherent with one another.
- ✓ Declaring National emergency under Article 352 was legally not permissible as post the 44th Amendment, such an emergency can be declared only if the security of India or any part thereof is threatened by war or external aggression or armed rebellion only.

PEPPER IT WITH

National Emergency, Section 140 of IPC, National Disaster management Act, Section 188 of IPC, Epidemic disease Act 1897

Way Forward

- India, being the highly and densely populated nation, is under the great threat due to spread of virus.
- The lock down is a desperate step by the government to stop the virus from spreading in India. Breaking the chain of COVID-19 is the only way out.
- Amid looming fears of coronavirus infection entering the community transmission stage, India needs to boost its overall health infrastructure by initiating measures like designating dedicated hospitals for affected patients in states, ramping up procurement of ventilators and mobilising resources of Railways and armed forces to deal with tougher challenges ahead.
- The Government need to ensure the availability of essential items during the lock down so as to reduce the possibility of any chaos in the public and making the lock down a success. There is a need of special care of daily wagers and labourers.

National Teleconsultation Centre

News Excerpt

The Union Minister of Health & Family Welfare has launched the COVID-19 National Teleconsultation Centre (CoNTeC), implemented by AIIMS, Delhi.

Highlights

- The CoNTeC has been made operational at AIIMS with a view to connect the Doctors across the country to AIIMS in real time for treatment of the COVID-19 patients.
- The Doctors would be available in the facility 24X7 to keep it operational 24 hrs. The boarding and lodging facility are also made available for the Doctors manning it.
- This is a multi-modal telecommunication hub through which two-way audio-video and

PEPPER IT WITH
National Medical College Network

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text communications can be exchanged from any part of the country as well as the from the world. The modes of communication will include simple mobile telephony as well as two-way video communications using WhatsApp, Skype and Google Duo.

- The CoNTeC is also fully integrated with the National Medical College Network (NMCN) to conduct a full-fledged Video Conference between the 50 Medical Colleges connected through the NMCN with its National Resource Centre located at SGPGI, Lucknow.
- The facility has been set up in the AIIMS so that the small states should also make use of the vast experience of the Doctors at AIIMS.
- The easy accessibility of medical experts will avoid the false circulation of symptoms and treatments for Coronavirus which has been widely shared on social media channels.

Pradhan Mantri Garib Kalyan Yojana

News Excerpt

The Union Finance & Corporate Affairs Minister announced Rs 1.70 Lakh Crore relief package under Pradhan Mantri Garib Kalyan Yojana (PMGKY) for the poor to help them fight the battle against Corona Virus.

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Pre-Connect

- The Government has announced a nation-wide lockdown, from March 25, 2020 to April 14, 2020.
- The announcement came in the backdrop of the Covid-19 outbreak and is intended to **enable the concept of “social distancing” to contain the spread of the virus.**
- The lockdown has disproportionately hurt marginalized communities due to loss of livelihood and lack of food, shelter, health, and other basic needs.
- To protect the vulnerable people the Government has launched the PMGKY scheme.

Highlights

The PMGKY is intended at reaching out to the poorest of the poor, with food and money in hands, so that they do not face difficulties in buying essential supplies and meeting essential needs. The components of the Pradhan Mantri Garib Kalyan Package are:

- Insurance scheme for health workers fighting COVID-19 in Government Hospitals and Health Care Centres
 - Safaikaramcharis, ward-boys, nurses, ASHA workers, paramedics, technicians, doctors and specialists and other health workers would be covered by a Special insurance Scheme.
 - A compensation of Rs. 50 lakhs for all health professional if he/she meet an accident while treating Covid-19 patients.
- PM Garib Kalyan AnnYojana
 - Government of India would not allow anybody, especially any poor family, to suffer on account of non-availability of food grains due to disruption in the next three months.
 - 80 crore individuals, i.e., roughly two-thirds of India's population would be provided double of their current entitlement over next three months at free of cost.
 - To ensure adequate availability of protein to all the above-mentioned individuals, 1 kg pulse per family, would be provided free of cost according to regional preferences for next three months.
- Under Pradhan Mantri Garib Kalyan Yojana
 - The first instalment of Rs 2,000 due in 2020-21 will be front-loaded and paid in April 2020 itself under the PM KISAN Yojana. It would cover 8.7 crore farmers
- Cash transfers under PMGKY
 - A total of 20.40 crores PMJDY women account-holders would be given ex-gratia of Rs 500 per month for next three months.

- Gas cylinders would be provided to 8 crore poor families free of cost for the next three months.
 - Wage-earners below Rs 15,000 per month in businesses having less than 100 workers are at risk of losing their employment. The government proposes to pay 24 percent of their monthly wages into their PF accounts for next three months.
 - There are around 3 crore aged widows and people in Divyang category who are vulnerable due to economic disruption caused by COVID-19. The Government will give them Rs 1,000 to tide over difficulties during next three months.
 - MNREGA wages would be increased by Rs 20 with effect from 1 April, 2020, which will provide an additional Rs 2,000 benefit annually to a worker.
 - Limit of collateral free lending for SHGs would be increased from Rs 10 to Rs 20 lakhs.
- Other components of PMGKY
- **Employees' Provident Fund Regulations will be amended to include Pandemic as the reason to allow non-refundable advance of 75 percent of the amount or three months of the wages, whichever is lower, from their accounts.**
 - Welfare Fund for Building and Other Constructions Workers has been created under a Central Government Act. State Governments will be given directions to utilise this fund to provide assistance and support to the workers to protect them against economic disruptions.
 - The State Government will be asked to utilise the funds available under District Mineral Fund (DMF) for supplementing and augmenting facilities of medical testing, screening and other requirements in connection with preventing the spread of COVID-19 pandemic as well as treating the patients affected with this pandemic.

Conclusion

The PMGKY initiative is directed at bringing relief to the urban and rural poor, migrant workers and women in the bottom rung of the socio-economic strata. Amid the lockdown, there are apprehensions that more people would die of hunger instead of COVID-19 infection. In such a situation, the PMGKY is a right step by the government to ensure the safety of its vulnerable people.

Tech for Tribal Programme

News Excerpt

TRIFED and IIT-Kanpur along with IIT-Roorkee, IIM Indore, Kalinga Institute of Social Science, Bhubaneswar and SRIJAN, Jaipur has launched a game changing and unique project aimed to transform 5 crore Tribal Entrepreneurs **under the name "Tech for Tribal"**.

Pre-Connect

- **India's population includes** nearly one hundred million tribal people. India has the second largest tribal population in the world, the first being Africa and tribal Communities are the integral segment of Indian society.
- The tribal people have rich traditions, cultures and heritage with unique life styles and customs.
- Despite some regional variation, the tribes share many common traits, including living in relative geographical isolation, and being relatively more

Minor Forest Produce (MFP)

It is a subset of forest produce consist of all non-timber forest produce of plant origin and includes bamboo, brushwood, stumps, canes, Tusser, cocoon, honey, waxes, Lac, tendu/kendu leaves, medicinal plants and herbs, roots, tuber and the like.

MFP is a major source of livelihood for tribal living in forest areas. It provides food, shelter, medicines and cash income etc. to 100 million forest dwellers. Tribal derive 20-40% of their annual income from MFP on which they spend major portion of their time.

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homogeneous and more self-contained than the non-tribal social groups.

Tribal Cooperative Marketing Development Federation of India (TRIFED)

- Government of India has initiated a number of steps to develop socio economic conditions of tribal population in the country and one of those initiatives, is the formation of Tribal Cooperative Marketing Development Federation of India Limited (TRIFED) in 1987.
- It is a national-level apex organization functioning under the administrative control of Ministry of Tribal Affairs.
- The objective of TRIFED is socio-economic development of tribal people in the country by way of marketing development of the tribal products on which the lives of tribal depends heavily as they spend most of their time and derive major portion of their income.
- It involves capacity building of the tribal people through sensitization, formation of Self-Help Groups (SHGs) and imparting training to them for undertaking a particular activity, exploring marketing possibilities in national as well as international markets, creating opportunities for marketing tribal products on a sustainable basis, creating a brand and providing other services.

Van Dhan Vikas Kendras

- ❖ Van Dhan Vikas Karyakram is an initiative targeting livelihood generation for tribal population by harnessing the wealth of forest. The programme aims to tap into the traditional knowledge and skill sets of tribal people by adding technology and Information Technology for upgradation of output at each stage and to convert the tribal wisdom into a remunerative economic activity.
- ❖ Van Dhan yojana was launched in 2018 under which Van Dhan Vikas Kendra was set up. This Van Dhan Vikas Kendra is to cater to ten Self Help Groups of thirty tribal gathers each. They are then trained and provided with working capital to add value to the products, which they collect from the Jungle.
- ❖ Working under the leadership of Collector, these groups can then market their products not only within the States but also outside the States. Training and technical support is provided by TRIFED.

Highlights

- The initiative aims at capacity building and imparting entrepreneurship skills to tribal forest produce gatherers enrolled under the Pradhan Mantri Van Dhan Yojana (PMVDY). The trainees will undergo a 30 days program over six weeks comprising 120 sessions.
- TRIFED is **establishing 1,200 "Van Dhan Vikas Kendra (VDVK)"**, across 28 States engaging 3.6 Lakhs Tribal Forest Produce gatherers. One typical VDVK comprises of 15 Self Help Groups, each consisting of 20 Tribal gatherers.
- The program aims at providing skill upgradation and capacity building of VDVK lead members.
- Under the Tech for Tribal program, the Partners will develop course contents relevant to Entrepreneurship in Value Addition and Processing of Forest Produces.
- The Tech for tribal capacity building program will ensure higher success rate of the Tribal Entrepreneurs by enabling and empowering them to run their business with marketable products with quality certifications.

PM-CARE & PMNRF

News Excerpt

The Prime Minister of India has launched the **Prime Minister's Citizen Assistance and Relief in Emergency Situations Fund (PM CARES Fund)**, where citizens can contribute to aid the government's efforts in supporting those affected by disasters - like COVID-19.

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Prime Minister's National Relief Fund (PMNRF)

- The fund was established in 1948 with public contributions to assist displaced persons from Pakistan.
- The fund is recognized as a Trust under the Income Tax Act and the same is managed by Prime Minister or multiple delegates for national causes. Disbursements are made with the approval of the Prime Minister.
- PMNRF has not been constituted by the Parliament. It was established entirely with public contributions and does not get any budgetary support.
- PMNRF accepts voluntary contributions from Individuals, Organizations, Trusts, Companies and Institutions etc.
- All contributions towards PMNRF are exempt from Income Tax under section 80(G).
- The resources of the PMNRF are utilized to render immediate relief to families of those killed in natural calamities like floods, cyclones and earthquakes, etc.
- Assists partially to defray the expenses for medical treatment like heart surgery, kidney transplantation, cancer treatment of needy people and acid attack etc.

Highlights

- The PM CARES has been set up as a public charitable trust. The Prime Minister is the chairman of this trust and its members include Defence Minister, Home Minister And Finance Minister.
- PM CARES fund is specially meant for COVID-19 similar pandemic situations, while PMNRF is for all kind of natural disasters.
- Any spending from the Consolidated Fund of India needs to be passed by the Parliament, therefore, creation of a donation-based fund means that legislature hurdle is taken care of.
- COVID-19 has impacted people across the country and therefore, PM CARES attaches a cause to it.
- The PM CARES Fund tries to differentiate itself from PMNRF by enabling micro-donations. One can donate as low as Rs 10 in the PM CARES Fund, while the minimum one can donate in PM National Relief Fund is Rs 100.
- Contributions towards PM CARES Fund will be an eligible expenditure under the Corporate Social Responsibility (CSR) obligations. Under CSR, companies have to spend 2% of their last year's profit towards social causes.
- Like PMNRF, contribution towards PM CARES Fund will also get Section 80 G tax benefits.

PEPPER IT WITH
National Disaster Management
Act, Section 80(G) of ITA

Conclusion

The pandemic of COVID-19 has engulfed the entire world and has posed serious challenges for the health and economic security of millions of people worldwide. The case is no different in India. PM-CARE fund would provide a dedicated national fund with the primary objective of dealing with any kind of emergency or distress situation, like posed by the COVID-19 pandemic, and to provide relief to the affected.

World Happiness Report

News Excerpt

The world happiness report for 2020 has put Finland on the top spot on the happiest country for the third consecutive year. India has dropped down four spots to 144th position in the happiness rankings as compared to its 2019 ranking.

Pre-Connect

- The World Happiness Report is a landmark survey of the state of global happiness. It ranks

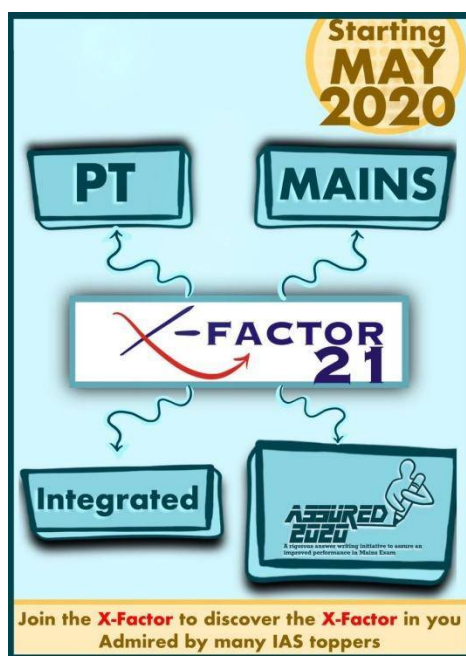
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the citizens of 156 countries based on how happy they perceive themselves to be.

- The World Happiness Report is a publication of the UN Sustainable Development Solutions Network every year.
- Various factors that determine the happiness levels of a country include life expectancy, social support, income, freedom, trust, health and generosity, amongst others.
- Although the World Happiness Reports have been based on a wide variety of data, the most important source has always been the Gallup World Poll, which is unique in the range and comparability of its global series of annual surveys.
- The World Happiness Report 2020 for the first time ranks cities around the world by their subjective well-being and digs more deeply into how the social, urban and natural environments combine to affect our happiness.

Highlights

- This year the World Happiness Report focuses especially on the environment social, urban, and natural.
- India has dropped down four spots in the happiness rankings as compared to its 2019 ranking. In 2019, India was placed on 140th position, but this year its ranking went down to 144.
- Finland, for the third consecutive year, has topped this list. It is followed by Denmark, Switzerland, Iceland, Norway, Netherlands, Sweden, New Zealand, Austria and Luxemburg.
- Afghanistan has topped the list of the unhappiest countries of the world. It is followed by South Sudan, Zimbabwe, Rwanda, Central African Republic, Tanzania, Botswana, Yemen and Malawi.
- The immediate neighbours of India including Pakistan, Nepal, Bangladesh and Sri Lanka are way ahead in the happiness rankings. In this report, Pakistan stands at 66th rank, China at 94, Nepal at 92, Bangladesh at 107 and Sri Lanka at 130, leaving India way behind.
- In the ranking of cities, Helsinki of Finland top the list followed by Aarhus of Denmark. Kabul of Afghanistan is at the last spot whereas Delhi got 180th position out of 186 cities surveyed.



ECONOMY

Input Tax Credit

News Excerpt

The government has temporarily lifted restrictions imposed on businesses to avail GST credit for February to August, a move that would help businesses tide over tight economic conditions following the outbreak of the novel coronavirus. Previous to this, Centre had notified changes to the goods and services tax (GST) rules, lowering the input tax credit to 10% from 20% of eligible credit.

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Pre-Connect

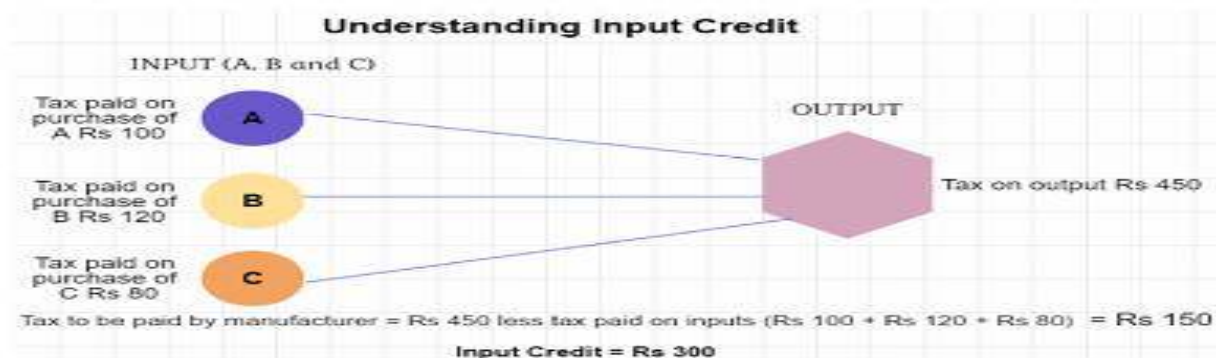
- Input Tax Credit or ITC is the tax that a business pays on a purchase and that it can use to reduce its tax liability when it makes a sale. In other words, businesses can reduce their tax liability by claiming credit to the extent of GST paid on purchases.
- Goods and Services Tax (GST) is an integrated tax system where every purchase by a business should be matched with a sale by another business. This makes flow of credit across an entire supply chain a seamless process.

How does ITC work

Example 1: When a trader sells a good to consumers, he collects GST based on the HSN of the goods sold and the place of destination. Let us assume that the MRP of the good is INR 1000 and the rate of applicable GST is 18%. The consumer will, therefore, pay a total of INR 1180 for the good which includes a GST of INR 180.

Without ITC, the trader will have to pay INR 180 to the government. With ITC, the trader can reduce the total tax that it will have to pay the government. Let us assume that the cost of the good in the hands of the trader is INR 825. This includes INR 125 as GST. The trader can claim INR 125 as ITC and reduce his original tax liability of INR 180 by this amount. In other words, the trader will need to pay only INR 55 (INR 180 – INR 125) to the government.

Example 2:



Conditions for claiming ITC

- It has a GST-compliant invoice
- Its supplier has uploaded the invoice to the GSTN (Goods and service tax Network)
- Its supplier has paid GST to the government
- Returns have been filed

PEPPER IT WITH
GST Portal, GSTR 2A, TDS
IGST, GST Council

A business under composition scheme cannot avail the input tax credit. ITC cannot be claimed for personal use or for goods that are exempt.

Composition Scheme is a simple and easy scheme under GST for taxpayers. Small taxpayers can get rid of tedious GST formalities and pay GST at a fixed rate of turnover. This scheme can be opted by any taxpayer whose turnover is less than Rs. 1.0 crore.

HSN stands for Harmonized System of Nomenclature which was developed by the World Customs Organization (WCO) with the vision of classifying goods all over the World in a systematic manner. HSN contains six digit uniform code that classifies 5,000+ products and which is accepted worldwide.

Analytica

PROS

- Avoid the challenge of **‘tax on tax’**: The term **‘Input’** means any goods other than capital goods used or intended to be used by you in the course or furtherance of your business. The taxes paid on the inward supply of inputs, capital and services are called input taxes. These may include Integrated GST, Central GST, State GST or UT GST. Therefore, ITC means deducting the tax paid on inputs from the tax payable on the final output by you as a registered taxable person.
- Impact on Taxpayers: A complex tax structure before the implementation of GST resulted in a multiplicity of taxes and most importantly cascading of taxes. The cascading effect did not allow you to set-off taxes paid on inputs against output tax payable on goods and services or vice versa. Moreover, taxes paid in one state were not available for set-off against taxes payable in other states. Hence, GST was implemented
 - To consolidate multiple indirect tax levies into a single tax and
 - To allow setting-off taxes throughout the value chain. That is to claim the input tax credit.

CONS

- There could be a possibility of misuse of the provision by unscrupulous businesses by generating fake invoices just to claim tax credit.
- As much as 80% of the total GST liability is being settled by ITC and only 20% is deposited as cash.
- Under the present dispensation, there is no provision for real time matching of ITC claims with the taxes already paid by suppliers of inputs.
- Currently there is a time gap between ITC claim and matching them with the taxes paid by suppliers. Hence, there is a possibility of ITC being claimed on the basis of fake invoices.

Way Forward

Once the new return filing system becomes operational, it would become possible for the department to match the ITC claims and taxes paid on a real time basis. The revenue department would analyse the large number of ITC claims to find out if they are genuine or based on fake invoices and take corrective action.

Indian Banking Sector

News Excerpt

The Reserve Bank of India (RBI) has placed the financially troubled Yes Bank under a moratorium (temporary suspension).

Highlights

- **YES bank is currently India's fifth-largest private sector lender.** As on 30 September, Yes Bank's total deposits stood at Rs. 2.09 trillion. Its total risk weighted assets were Rs.3.1 trillion in the same period. The bank has 18000+ employees and has more than 1100 branches and 1300 ATMs.
- The Gross Non-Performing Assets (NPA) of YES Bank was 7.4% of the gross advances at the end of September 2019. It became 18.87 per cent of the bank's total loan book (Rs 40,709.20

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crore) at the end of December 2019.

- The overall capital adequacy ratio (CAR) dropped to 4.2 per cent from 16.3 per cent in the preceding quarter.
- The bank has experienced serious governance issues and practices in the recent years which have led to steady decline of the bank.
- Domino effect of Infrastructure Leasing & Financial Services (IL&FS) crisis: Yes Bank illustrates the widening damage from **India's** shadow banking crisis, which has left the Bank with a growing pile of bad loans.
- The lender has substantial exposure to several troubled borrowers including the Anil Ambani-led Reliance group, Dewan Housing Finance Corporation Ltd (DHFL) and IL&FS.
- Vicious cycle: Decline in the financial position of Yes Bank has triggered invocation of bond covenants by investors (redeeming of bonds), and withdrawal of deposits.

Analytica

- With Yes Bank under a moratorium, the RBI announced a **draft** 'Scheme of Reconstruction' that entails the State Bank of India (SBI) investing capital to acquire a 49% stake in the restructured private lender.
- The RBI seized control of Yes Bank Ltd, capped withdrawals at Rs. 50,000 (not more than 5 lakhs in certain conditions) and imposed restrictions on its operations till 3rd April.
- The choice of SBI as the investor to affect the bailout reflects the scarcity of options with the government. Several other public sector banks are currently engaged in merging with weaker peers **as part of the Centre's plan**.
- The possibility of renewing or granting loans and making investments by the bank will reduce.

Way Forward

- Yes Bank crisis is not exactly new or unique and its problems with mounting bad loans reflect the underlying woes in the borrowing industries ranging from real estate to power and non-banking financial companies.
- The big challenge that the Indian banking system will face right now is of smaller banks struggling to retain their existing deposits.
- The major burden of learning from the fiasco falls on the shoulders of the banking regulator Reserve Bank of India. This could be a good opportunity for the RBI to review its Prompt Corrective Action guideposts and revise them to ensure that such a slipping under the radar does not recur.
- The Department of Financial Services, which is supposed to keep a watchful eye over the entire financial sector — in particular both public

Shadow Banking System

A shadow banking system is the group of financial intermediaries facilitating the creation of credit across the financial system but whose members are not subject to regulatory oversight. The shadow banking system also refers to unregulated activities by regulated institutions.

Examples of intermediaries not subject to regulation include hedge funds, unlisted derivatives, and other unlisted instruments, while examples of unregulated activities by regulated institutions include credit default swaps.

Domino Effect

In economics, the domino theory is often used to explain how an economic problem in one country can spread like a contagion or domino effect to similar countries and firms.

India's Lehman Moment

The IL&FS default spooked the markets and raised fears of a Lehman-like crisis, referring to the collapse of the US investment bank Lehman Brothers in 2008-09. That event rocked global stock markets and led to the biggest financial crash (Global financial crisis) since the Great Depression 1929. The Yes Bank Crisis reflects RBI big mistake on two counts: The unjustifiable delay, and eroding depositor faith by limiting withdrawals at Rs 50,000.

and private large commercial banks — also needs to do some learning

- There is a risk that the already poor operating environment for the banking sector could suffer further impairment if the **government's efforts to tackle problems** in the bank fail to provide reassurance to depositors and investors.
- There is a need to clean up the financial sector quickly and in a resolute way so that the country can move forward.

PEPPER IT WITH

Merger of Bank, IL&FS crisis, Basel Accords, Tier 1 and Tier 2 capital, Deposit insurance, Prompt Corrective Action

Country-by-Country (CbC) Report

News Excerpt

With Central Board of Direct Taxes (CBDT) notifying rules for furnishing "Country-by-Country Report" (CbC) specifying information pertaining to all large multinational enterprises (MNEs), the Finance Ministry said that Joint Director of Income-tax (Risk Assessment-1) has been designated as the Income-tax Authority before whom particulars of the parent entity and alternate reporting entity would be notified.

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Pre-Connect

- The lack of quality data on corporate taxation has been a major limitation to measuring the fiscal and economic effects of tax avoidance, making it difficult for authorities to carry out transfer pricing assessments on transactions between linked companies and even more difficult to carry out audits.
- The BEPS Action 13 report provides a template for multinational enterprises (MNEs) to report annually and for each tax jurisdiction in which they do business the information set out therein. This report is called the Country-by-Country (CbC) Report.

Base erosion and profit shifting (BEPS)

It refers to tax planning strategies used by MNEs that exploit gaps and mismatches in tax rules to avoid paying tax. BEPS practices cost countries USD 100-240 billion in lost revenue annually.

Working together within OECD/G20 Inclusive Framework on BEPS, over 135 countries and jurisdictions are collaborating on the implementation of measures to tackle tax avoidance, improve the coherence of international tax rules and ensure a more transparent tax environment.

Highlights

- Under BEPS Action 13, all large MNEs are required to prepare a country-by-country (CbC) report with aggregate data on the global allocation of income, profit, taxes paid and economic activity among tax jurisdictions in which it operates.
- A CbC report provides local tax authorities visibility to revenue, income, tax paid and accrued, employment, capital, retained earnings, tangible assets and activities of the concerned MNE.
- As per corresponding provisions of Indian Income tax Laws, every MNE group which has a constituent entity resident in India is mandated to notify the Income-tax Department its parent entity and alternate reporting entity and the countries where such entities are resident.
- Such parent entity or alternate reporting entity is required to furnish a report called "CbC Report" specifying certain information including:

PEPPER IT WITH
OECD, G-20, Transfer pricing

- The aggregate information in respect of the amount of revenue, profit or loss before income-tax, amount of income-tax paid, amount of income-tax accrued, stated capital, accumulated earnings, number of employees and tangible assets not being cash or cash equivalents, with regard to each country or territory in which the group operates;
 - The details of each constituent entity of the group including the country or territory in which such constituent entity is incorporated or organised or established and the country or territory where it is resident;
 - The nature and details of the main business activity or activities of each constituent entity.
- The BEPS Action 13 report also included a requirement that a review of the CbC reporting minimum standard be completed by the end of 2020. In February 2020, the OECD launched a public consultation process on matters where its members seek input from stakeholders in conducting this 2020 review.
- India has recently clarified timelines for the filing of the CbCR for Indian affiliates of foreign-parented MNEs for which India does not have an agreement for exchange of the CbCR or when there is no requirement for filing the CbCR in the country in which the parent company is resident.
- The Indian Revenue Service (IRS) Board has prescribed a 12-month period from end of the reporting accounting year in these cases.
- As of January 2020, there are over 2400 bilateral exchange relationships activated with respect to jurisdictions committed to exchanging CbC reports across globe.

Multilateral Competent Authority Agreement on the exchange of CbC Reports (MCAA CbCR)

- ❖ It is a multilateral framework agreement based on the Convention on Mutual Administrative Assistance in Tax Matters.
- ❖ It provides a standardized and efficient mechanism to facilitate the automatic exchange of CbC Reports.
- ❖ Under this, signatories to the MCAA will automatically exchange CbC Reports with one another on a bilateral basis if both parties are mutually agreeable.

Conclusion

The Government has taken thoughtful step to get its hands-on comprehensive information about MNEs global and India operations. CbCR is step towards achieving the international commitment of India and to prevent base profit erosion. This helps in scrutiny of transfer pricing arrangements of MNEs in India.

Bull & Bear Market, Blue Chips Stocks, Circuit Breaker in Stock Markets

News Excerpt

The last month of the financial year 2020 turned out to be a nightmare for equity investors as Indian benchmark equity indices tanked nearly 25 per cent in March.

The 30 share Sensex plummeted over 9,000 points to 28,440 on March 30 from 38,297 on February 28. Likewise, 50-share Nifty index lost 2,900 points to 8,281 from 11,201 during the same period.

Bull & Bear Market

- The terms bull and bear market are used to describe how stock markets are doing in general i.e., whether they are appreciating or depreciating in value.
- At the same time, because the market is determined by investors' attitudes, these terms also denote how investors feel about the market and the ensuing trends.

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<u>Bull market</u>	<u>Bear market</u>
<ul style="list-style-type: none"> ❖ It refers to a market that is on the rise. ❖ It is typified by a sustained increase in price, for example in equity markets increase in the prices of companies' shares. ❖ In such times, investors often have faith that the <u>uptrend</u> will continue over the long term. ❖ Typically, in this scenario, the country's economy is strong and employment levels are high. 	<ul style="list-style-type: none"> ❖ It is one that is in decline, typically having fallen 20% or more from recent highs. ❖ Share prices are continuously dropping, resulting in a downward trend that investors believe will continue, which, in turn, perpetuates the downward spiral. ❖ During a bear market, the economy will typically slow down and unemployment will rise as companies begin laying off workers.

Blue-Chip Stock

- A blue-chip stock is a huge company with an excellent reputation. These are typically large, well-established and financially sound companies that have operated for many years and that have dependable earnings.
- A blue-chip stock typically has a market capitalization in the billions, is generally the market leader or among the top three companies in its sector, and is more often than not a household name.
- For all of these reasons, blue-chip stocks are among the most popular to buy among investors. Some examples of blue-chip stocks are IBM Corp., Coca-Cola Co. and Boeing Co.
- While dividend payments are not absolutely necessary for a stock to be considered a blue chip, most blue chips have long records of paying stable or rising dividends. The term is believed to have been derived from poker, where blue chips are the most expensive chips.

PEPPER IT WITH
Short term capital gain tax, Long term capital gain tax, Transfer pricing

Features of Blue-Chip stocks

- Assured returns: Blue-chip stocks generate returns quarterly in the form of dividends. The fact that companies which are well-established also serve as a safe investment avenue for most investors.
- Credit-worthiness: Blue-chip companies have enough capital to clear their financial dues and obligations easily. This, in turn, makes the shares issued by such companies high in creditworthiness.
- Risk factor: The risks factor associated with blue-chip stocks are comparatively less.
- Investment horizon: The term of investment is usually over 7 years. Such extended term makes Blue-chip stocks suitable for achieving long-term financial goals owing to its long investment horizon.
- Growth prospect: Blue-chip companies are those large companies who have reached their maximum growth potential. This influences the Blue-chip shares in India who undergo slow but steady growth over time.
- Taxation: The gains generated through blue-chip shares In India are treated as income under Section 80 C of the Income Tax Act.

Circuit Breakers

- Circuit breakers are regulatory measures to temporarily halt in trading on an exchange, which are in place to curb panic-selling.
- Lower or upper circuit is an automatic mechanism to stop a freefall or massive surge in a security or an index during trading hours. It is used to check the volatile swings in the market.

- The index-based market-wide circuit breaker system applies at three stages of the index movement, either way at 10 per cent, 15 per cent and 20 per cent. These circuit breakers when triggered bring about a coordinated trading halt in all equity and equity derivative markets nationwide.
- Duration of halt depends on the time of the breach and the quantum of fall. Trade could be halted for 15 minutes up to the whole day.
- After circuit breach, the market re-opens with a pre-open call auction session of 15 minutes post the duration of halt. The normal trading could begin and continue as long as the next circuit limit does not activate.
- The circuit levels are determined by the stock exchanges so as to protect investors and brokers from an unwanted surprise moment. In case of a sudden swing investors tend to lose a massive chunk of their capital.

New Guidelines for Payment Aggregators

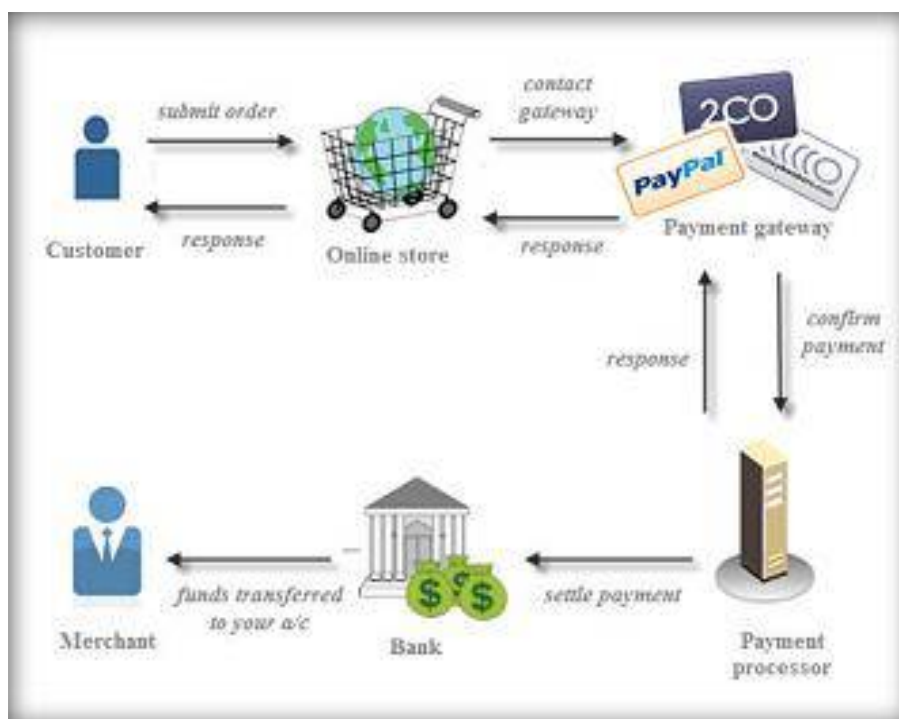
News Excerpt

The Reserve Bank of India has reduced the capital requirements for payment aggregators to Rs 15 crore at the time of application for the license from Rs 100 crore it had proposed earlier.

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Highlights

- RBI said that the payment aggregator (PAs) (entities that facilitate e-commerce sites and merchants to accept various payment instruments) should be a company incorporated in India under the Companies Act, 1956 / 2013.
- It also said that non-bank entities offering payment aggregator services would have to apply for authorization on or before June 30, 2021.
- While both payment aggregators (PAs) & Payment Gateways (PGs) are intermediaries playing an essential function in facilitating payments in the online space, the new guidelines differentiate them both. The current guidelines are, however, aimed at PAs.
- The central bank said that applicants need to have Rs 15 crore of net worth, which needs to be increased to Rs 25 crore within three years of operations.
- Payments Council of India (PCI) is the industry body of payment aggregators and acquirers.



Payment Aggregators (PAs)	Payment Gateways (PGs)
<p>These are entities that facilitate e-commerce sites and merchants to accept various payment instruments from the customers for completion of their payment obligations without the need for merchants to create a separate payment integration system of their own.</p> <p>PAs facilitate merchants to connect with acquirers. In the process, they receive payments from customers, pool, and transfer them on to the merchants after a while. Example: Paytm, PayU, Instamojo, etc.</p>	<p>These are entities that provide technology infrastructure to route and facilitate the processing of an online payment transaction without any involvement in the handling of funds. Examples: Billdesk, CCAvenue, Firstdata, Ingenico Payments, amongst others.</p>

Analytica

- This has been a major relief for the payments industry. Rs 100 crore for the business was too big and could force many smaller payment companies to move out of this aggregation business. Also, the time given is enough for players to prepare well and apply.
- Further, the regulator pointed out that pure-play payment gateway companies would be separated as an entity and would be identified as technology service providers for banks and non-banks.
- The guidelines have been aimed at PAs only. They receive payments on behalf of these companies and transfer the money to their accounts.
- PAs have also been asked to adhere to strict security guidelines, adhere to all KYC and AML (Anti Money Laundering) rules.
- PAs need to check that their merchant customers are not involved in selling of prohibited or fake items.
- The central bank has also asked PAs to set up designated nodal offices to deal with customer grievance. RBI has prohibited PAs from allowing online transactions to be done with ATM pin as the second factor of authentication.
- Entities like Billdesk, CCAvenue, Firstdata, Techprocess were the original players in this space. Then came the wave of startups who transformed the gateway business altogether. Players like Razorpay, Cashfree, Paytm Payment Gateway and others started offering payment services to ecommerce companies.

PEPPER IT WITH
NBFC, SFB, Capital
Requirement

Conclusion

Given the large scale adoption of digital payments and emergence e-commerce along with so many players, the RBI expressed interest in regulating the space.

LLP Settlement Scheme, 2020

News Excerpt

In order to provide relief to law-abiding companies and Limited Liability Partnerships (LLPs), the Ministry of Corporate Affairs (MCA), has introduced the **“Companies Fresh Start Scheme, 2020”** and revised the **“LLP Settlement Scheme, 2020”**.

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Companies Fresh Start Scheme, 2020 (CFSS)

- To facilitate Indian companies to make a fresh start, MCA has taken certain alleviative measures for the benefit of all companies by exercising its power under the Companies Act, 2013 and **introduces the scheme “(CFSS-2020)” with effect from 1st April 2020 to 30th September 2020.**

- Companies Act 2013 mandates all companies to make statutory compliance by filing Annual Return and Financial Statements along with various other documents on MCA21 electronic registry within the prescribed time limit.
- Under this scheme, stakeholders are granted with one-time opportunity to complete their pending compliances including annual filings without any additional fees on account of any delay. It also grants immunity for any prosecution or proceeding against the company for imposing any penalty on account of delay in filing documents.
- The Scheme also provides an opportunity to the inactive company to convert into a dormant company under section 455 of companies act, 2013

LLP Settlement Scheme, 2020

- In March, 2020, the Ministry of Corporate Affairs (MCA) has introduced a scheme namely “LLP Settlement Scheme, 2020” for limited liability partnership (LLPs) by allowing a one-time condonation of delay in filing statutorily required documents with the Registrar of Office (ROC).

- The scheme provided a window from 16th March, 2020 to 30th September 2020 to LLPs for completing overdue or delayed filings of four forms which were due for filing till 31st October, 2019. Also, the additional fee on these forms is reduced to Rs. 10 from Rs. 100 per day of delay with upper cap of Rs. 5,000 per form.

Limited liability Partnership(LLP)

- ❖ LLP is an alternative corporate business form that gives the benefits of limited liability of a company and the flexibility of a partnership.
- ❖ The LLP can continue its existence irrespective of changes in partners. It is capable of entering into contracts and holding property in its own name.
- ❖ The LLP is a separate legal entity, is liable to the full extent of its assets but liability of the partners is limited to their agreed contribution in the LLP.
- ❖ Further, no partner is liable on account of the independent or un-authorized actions of other partners, thus individual partners are shielded from joint liability created by another partner's wrongful business decisions or misconduct.
- ❖ Since LLP contains elements of both ‘a corporate structure’ as well as ‘a partnership firm structure’ LLP is called a hybrid between a company and a partnership.

Analytica

- Due to applicability of additional fee on late filing, a large number of LLPs have remained non-compliant, mainly on account of their inability to pay late fees for the cumulative period of delay. This move is one-time opportunity for LLPs to ensure that they make necessary compliance in defaulting LLPs.
- It should be noted that the Scheme will be applicable to LLP, which is registered under the Limited Liability Partnership Act, 2008 which has made a default in filing of documents on the due date(s) specified under the LLP Act, 2008.
- The defaulting LLPs, which have filed their pending documents till 13th June 2020 shall not be subjected to prosecution by Registrars of Companies (ROC) for such defaults.
- If LLP does not file pending forms till 13th June 2020 then the additional fees would be back to Rs. 100 and it will have no upper cap.

PEPPER IT WITH
Companies Act 2013, LLP ACT
2008, MCA21

Conclusion

The initiative will help non-compliant Limited Liability Partnership (LLP) firms turn compliant and enable ‘Ease of Doing Business’ for such entities. This scheme would provide a one-time relaxation in additional fee to the defaulting LLPs to make good their default by allowing filing of pending documents and help them serve as a compliant LLP in future.

Recapitalisation of Regional Rural Banks

News Excerpt

The Cabinet Committee on Economic Affairs (CCEA) has given its approval for continuation of the process of recapitalization of Regional Rural Banks (RRBs) by providing minimum regulatory capital to RRBs for another year (up to 2020-21) for those RRBs which are unable to maintain minimum Capital to Risk weighted Assets Ratio (CRAR) of 9%, as per the regulatory norms prescribed by the Reserve Bank of India.

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Highlights

- The CCEA also approved utilization of Rs.670 crores as central government share for the scheme of Recapitalization of RRBs (i.e. 50% of the total recapitalization support of Rs.1340 crores).
- The move is crucial to ensure liquidity in rural areas during the lockdown due to the COVID-19 crisis.

Cabinet Committees

- The Cabinet Committees are extra-constitutional as the Rules of Business provide for their establishment.
- At present there are:
 - Appointments Committee of the Cabinet.
 - Cabinet Committee on Accommodation.
 - Cabinet Committee on Economic Affairs.
 - Cabinet Committee on Parliamentary Affairs.
 - Cabinet Committee on Political Affairs.
 - Cabinet Committee on Security.
 - Cabinet Committee on Investment and Growth.
 - Cabinet Committee on Employment & Skill Development.
- They are mostly headed by Prime Minister. Some times other cabinet ministers also acts as their chairman but in case the prime minister is member of a committee, he invariably presides over it.
- They usually include only cabinet ministers but the non-cabinet ministers are not debarred from their membership.

Capital to Risk weighted Assets Ratio (CRAR)

- ❖ Also known as Capital Adequacy Ratio.
- ❖ It is ratio of bank's capital to its risk.
- ❖ It is used to protect depositors and promote the stability and efficiency of financial systems around the world.
- ❖ It is decided by central banks and bank regulators.

Pre-Connect

- ✓ The Regional Rural Banks (RRBs) were established in 1975 under the provisions of the Ordinance promulgated on 26th September, 1975 and Regional Rural Banks Act, 1976 on recommendation of Narasimham committee 1975.
- ✓ They are scheduled commercial banks (Government banks). The RRBs were owned by three entities i.e. Central govt., State govt. and Sponsor Bank in proportion of 50:15:35.
- ✓ They have been created with a view to serve primarily rural areas of India with basic banking and financial services.
- ✓ The area of operation of RRBs is limited to the area as notified by Government of India covering one or more districts in the State.
- ✓ On recommendation of K C Chakrabarty committee, cabinet in 2011 approved the recapitalisation of RRBs.
- ✓ Identification of RRB requiring recapitalisation is done by NABARD (National Bank for agriculture and rural development).
- ✓ The Government (to enable RRBs to minimize their overhead expenses, optimize the use of

technology, enhance the capital base and area of operation and increase their exposure) has initiated structural consolidation of RRBs in three phase, thereby reducing the number of RRBs from 196 in 2005 to the present 45.

- ✓ In its 2019-20 budget, the government had earmarked Rs 236 crore for the capitalisation of RRBs.

Analytica

- Now, Regional Rural Banks with improved CRAR will enable them to meet the credit requirement in the rural areas.
- RRBs would be able to continue their lending to these categories of borrowers under their PSL target, and thus, continue to support rural livelihoods. As under RBI guidelines the RRBs have to provide 75% of their total credit under PSL.

PEPPER IT WITH

Transaction of Business Rules, Extra Constitutional Bodies, Standing and Ad-hoc committees, Group of Ministers

Conclusion

This is a welcome move of recapitalization of Regional Rural Banks (RRBs) as it will support PSL and will indirectly provide credit to farmers, small scale industries, rural artisans and entrepreneurs hit by the coronavirus (COVID-19) outbreak.

Invest India launched Business Immunity Platform

News Excerpt

Invest India, India's national Investment Promotion & Facilitation Agency, under the Ministry of Commerce and Industry has launched The Invest India Business Immunity Platform (BIP) in March 2020.

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Pre-Connect

- A deadly strain of corona virus named COVID-19 (by WHO) has taken more than 1 lakh lives and affected billions of life worldwide.
- India is also currently facing a rapid spread of the infection, leading government putting the whole country under 21-days lockdown.
- As, COVID-19 continues to disrupt normal life; the impact of this crisis on businesses across the country is being continuously assessed.
- The government, for its part, has issued timely guidelines for businesses. Business owners have been trying to grasp what these guidelines mean for their businesses.

Highlights

- The Invest India Business Immunity Platform is hosted on the Invest India website & is designed as a comprehensive resource to help businesses and investors get real-time updates **on India's active response to COVID-19.**
- The platform keeps a regular track on developments with respect to the virus, provides latest information on various central and state government initiatives, gives access to special provisions, and answers and resolves queries through emails and on WhatsApp.
- BIP is the active platform for business issue redressal, operating 24/7, with a team of dedicated sector experts and responding to queries at the earliest.
- Invest India has also announced a partnership with SIDBI (Small Industries Development Bank of India) for responding and resolving queries for MSMEs.
- The BIP matches the demand and supply of crucial products including masks, sanitizers and ventilators.
- Business persons can ask queries and questions here which will be resolved by government.

Analytica

- ✓ As virus has disrupted normal life across the nation these guidelines provided by government minimise its impact on business sector.
- ✓ It will provide relevant information to businesspersons to run business smoothly in these tough days.

- ✓ Different businesses can help poor and society via this platform.
- ✓ It will help in enchantment and will increase the availability of medical supplies like important drugs, testing kits, ventilators etc around the nation.

Conclusion

- The Invest India Business Immunity Platform will **empower investors under “Make in India” initiative.**
- It would solve the problem of medical supply shortage related to COVID around the nation.

PEPPER IT WITH
Stand up India, Make in India
AarovaSetu Ann

Trade in Cryptocurrencies

News Excerpt

The Supreme Court in March set aside a circular of the Reserve Bank of India (RBI) (issued in 2018) prohibiting banks and entities regulated by it from providing services in relation to virtual currencies (VCs).

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Pre-Connect

- The Reserve Bank of India had virtually banned cryptocurrency trading in India through a circular where it directed that all entities regulated by it shall not deal in virtual currencies or provide services for facilitating any person or entity in dealing with or settling those.
- Regulated entities that were already providing such services were told to exit the relationship within three months. The RBI had earlier issued circulars cautioning users, holders and traders of virtual currencies, including bitcoins, regarding various risks associated in dealing with such virtual currencies. The April 2018 circular was later challenged in the top court.
- The RBI argued in the Supreme Court that it had always been consistent in its opposition to allowing any other payments systems and undermining the integrity of the banking system.
- It also argued that though there was no formal ban on cryptocurrencies under any law in existence in India, it had consistently been warning all those dealing with virtual currencies of the risks inherent in them.
- The RBI order had banned trading of

Types of Currencies

- ❖ **Hard Currency:** It is the international currency in which the highest faith is shown and is needed by every economy. It is basically the strongest currency of the world, which has the highest level of liquidity. Some of the best Hard currencies of the world today are the: US Dollar, The Euro, Japanese Yen, and the UK Pound Sterling.
- ❖ **Soft currency:** It is just the opposite of Hard currency. It is the currency that is easily available in any economy in its Forex market. For example, Indian Rupee is the Soft currency in the Indian Forex market.
- ❖ **Hot Currency:** If any Hard currency is exiting any economy at a fast pace for the time, the Hard currency is said to be Hot currency. For example, in the case of SE Asian crisis, the US Dollar become hot.
- ❖ **Heated Currency:** This term is used to denote the domestic currency which is under pressure (heat) of depreciation **due to a hard currency's high tendency** of exiting the economy. Also known as currency under heat or under hammering.

Virtual currency, or virtual money, is a type of digital currency (mostly unregulated), which is issued and usually controlled by its developers and used and accepted among the members of a specific virtual community.

Distributed ledger technology (DLT) is a digital system for recording the transaction of assets in which the transactions and their details are recorded in multiple places at the same time. Unlike traditional databases, distributed ledgers have no central data store or administration functionality.

all virtual currencies in India. The Internet and Mobile Association of India (IAMAI) was the petitioner in this case on behalf of all the virtual currency trading companies.

- From a permissive draft bill, the Inter-Ministerial Committee went on to recommend a **“total ban” on private cryptocurrencies through a proposed legislation called ‘Banning of Cryptocurrency and Regulation of Official Digital Currency Act’ in February 2019. This proposed law contemplated the creation of a digital rupee as official currency and a legal tender by the central government in consultation with RBI.**

Highlights

- The court held that the ban did not pass the **“proportionality” test**. The test of proportionality of any action by the government, the court held, must pass the test of Article 19(1)(g), which states that all citizens of the country will have the right to practice any profession, or carry on any occupation or trade and business.
- It also pointed out the contradiction in the RBI’s stand where it insisted that virtual currencies are not banned in India, but the circular had then gone on to ban all trading around them.
- In the 2018 circular, the RBI had banned banks from dealing with virtual currency exchanges and individual holders on the grounds that these currencies had no underlying fiat and that it was necessary in the larger public interest to stop banks from providing any services related to these.

Analytica

What are virtual currencies? Are they different from cryptocurrencies?

- ▣ There is no globally accepted definition of what exactly is virtual currency. Some agencies have called it a method of exchange of value; others have labelled it a goods item, product or commodity.
- ▣ Virtual currency is the larger umbrella term for all forms of non-fiat currency being traded online. Virtual currencies are mostly created, distributed and accepted in local virtual networks.
- ▣ Cryptocurrencies, on the other hand, have an extra layer of security, in the form of encryption algorithms. Cryptographic methods are used to make the currency as well as the network on which they are being traded, secure. Most cryptocurrencies now operate on the blockchain or distributed ledger technology, which allows everyone on the network to keep track of the transactions occurring globally.

Inter-Ministerial Committee on Virtual Currencies

- ♣ The committee headed by finance secretary Subhash Chandra Garg has proposed a draft bill “Banning of Cryptocurrency & Regulation of Official Digital Currency Bill, 2019”
- ♣ The Committee highlighted the positive aspect of distributed-ledger technology (DLT) and suggested various applications, especially in financial services, for use of DLT in India.
- ♣ The DLT-based systems can be used by banks and other financial firms for processes such as loan-issuance tracking, collateral management, fraud detection and claims management in insurance, and reconciliation systems in the securities market.
- ♣ As for private cryptocurrencies, given the risks associated with them and volatility in their prices, the Group has recommended banning of the cryptocurrencies in India and imposing fines and penalties for carrying on of any activities connected with cryptocurrencies in India.
- ♣ The Group has also proposed that the Government keeps an open mind on official digital currency.

Are cryptocurrencies dangerous?

- ▣ Organizations across the globe have called for caution while dealing with virtual currencies, while also warning that a blanket ban of any sort could push the entire system underground, which in turn would mean no regulation.
- ▣ In 2013, the RBI had for the first time warned users, holders and traders of virtual currencies

PEPPER IT WITH
FATF, Bitcoin, Index of
regulation of cryptocurrency,
Differences between digital,
virtual and crypto currencies

about the potential financial, operational, legal and customer protection and security-related risks that they were exposing themselves to.

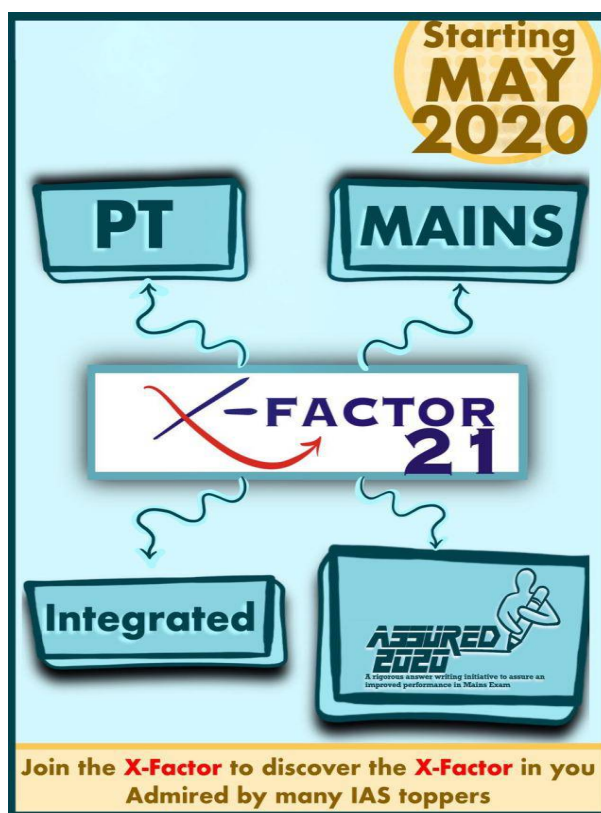
- ▣ The following year, the Financial Action Task Force came out with a report that highlighted both legitimate uses and potential risks associated with virtual currencies. In a different report, it again said use of such virtual currencies was growing among terror financing groups.

Why did the RBI ban virtual currencies?

Owing to the lack of any underlying fiat, episodes of excessive volatility in their value, and their anonymous nature which goes against global money-laundering rules, the RBI initially flagged its concerns on trade and use of the currency. Risks and concerns about data security and consumer protection on the one hand, and far-reaching potential impact on the effectiveness of monetary policy itself on the other hand, also had the RBI worried about virtual currencies.

Conclusion

The Supreme Court's judgment could lead to the RBI rethinking its policies surrounding virtual currencies. RBI might reconsider its approach to cryptocurrency and come up with a new, calibrated framework or regulation that deals with the reality of these technological advancements.



INTERNATIONAL RELATION

OPEC and Oil Price

News Excerpt

Saudi Arabia and the United Arab Emirates announced they would raise crude oil output by the equivalent of 3.6% of global supplies, adding 3.6 million barrels per day (bpd) to a market that is already massively oversupplied. This extraordinary flooding of the market will take place at a time when the coronavirus outbreak has severely impacted businesses and travel, and global demand is predicted to shrink for the first time in nearly 10 years.

Pre-Connect

- OPEC (Organization of Petroleum Exporting Countries) is a permanent intergovernmental organization of 13 oil-exporting developing nations that coordinates and unifies the petroleum policies of its Member Countries. It is Headquartered at Vienna, Austria. OPEC+ is an informal alliance of OPEC and Russia.
- OPEC's objective is to coordinate and unify petroleum policies among Member Countries, in order to secure fair and stable prices for petroleum producers; an efficient, economic and regular supply of petroleum to consuming nations; and a fair return on capital to those investing in the industry.

Highlights

- Saudi Arabia and the UAE have taken a united stand in their ongoing battle with Moscow, which rejected a demand by Riyadh that the OPEC+ should cut production sharply to arrest crashing prices. In retaliation, the Gulf allies have decided to scrap all limits on production.
- The crippling of industrial production in China and other Asian countries such as South Korea has resulted in a sharp reduction in their import of crude oil. Hence, at the meeting of OPEC, Riyadh proposed that OPEC+ should pump about 1 million bpd less, with Russia cutting 500,000 bpd, so that revenue streams do not narrow further for oil export-dependent economies.
- But Moscow argued that production should not be cut until the full impact of the COVID-19 outbreak is assessed in greater detail, and that any attempt to shore up prices would only benefit the costlier US shale industry, which has raised production to levels higher than both Saudi Arabia's and Russia's.

Oil Benchmark

There are dozens of different oil benchmarks, with each one representing crude oil from a particular part of the globe. However, the price of most of them are pegged to one of the following three primary benchmarks:

- ❖ West Texas Intermediate (WTI) refers to oil extracted from wells in the U.S. The product itself is very light and very sweet, making it ideal for gasoline refining, in particular. WTI continues to be the main benchmark for oil consumed in the United States.
- ❖ Brent Crude: Roughly two-thirds of all crude contracts around the world reference Brent Crude, making it the most widely used marker of **all**. **"Brent" actually refers to oil from four different fields in the North Sea.**
- ❖ Dubai/Oman: This Middle Eastern crude is a useful reference for oil of a slightly lower grade than WTI or Brent. **It's somewhat heavier and has higher sulfur content, putting it in the "sour" category.**

How are oil prices determined?

Oil is a commodity, and as such, it tends to see larger fluctuations in price than more stable investments such as stocks and bonds. There are several influences on oil prices, a few of which are outlined below-

- Oil prices are influenced by a variety of factors but are particularly responsive to decisions

about output made by OPEC.

- Like any product, the laws of supply and demand influence prices; a combination of stable demand and oversupply has put pressure on oil prices over the last five years.
- Natural disasters that could potentially disrupt production, and political unrest in an oil-producing juggernaut like the Middle East all impact pricing.
- Production costs influence prices, along with storage capacity; although less impactful, the direction of interest rates can also influence the price of commodities.

Effect of falling oil prices

- ✓ A fall in oil prices should cause a reduction in transport and fuel costs for firms which will also benefit consumers. The lower oil prices will effectively increase their disposable income and enable them to spend more on other goods. This should lead to inflation and can lead to higher rates of economic growth.
- ✓ However, sometimes oil prices crash because there are fears of an economic recession. In this case, falling oil prices are not sufficient to increase economic growth because other factors keep growth low. Also, if oil prices fall sufficiently, it can cause some oil firms to go out of business and this causes a rise in bad debts.
- ✓ Also, falling oil prices will have differing effects depending on the country. Oil importing countries (e.g. Germany, Japan, India) will generally benefit from oil lower prices, but developing economies who rely on oil exports (e.g. Russia, Venezuela) could see a significant fall in export revenue.
- ✓ In current scenario, the fall is due to expectations of a sharp drop in travel and economic recession from the coronavirus. Therefore, there is little expectation that the lower oil prices will have any positive economic effect.
- ✓ Falling oil prices could **delay investment into alternative 'greener' forms of energy**, such as electric cars, and this could have negative consequences.
- ✓ **India is the world's** third-largest oil importer and the fourth-largest buyer of liquefied natural gas (LNG). Every dollar drop in the price of oil decreases the import bill and trade deficit.

PEPPER IT WITH
Shale Gas, Gulf Cooperation
Council, USA's sanction on Iran and
Effect on Indian Energy Security

Conclusion

The Saudi-Russian fight signals an end, at least temporarily, to the truce between these two large oil producers that had brought Moscow a seat at the OPEC high table, and held off a potential price war for more than three years now.

Russia had benefited from the deal not only in terms of oil revenues and expanding business networks, but also in foreign policy — improving relations with Saudi Arabia, has given Russia greater influence over developments in countries like Syria, Iraq, and Libya.

Indian Ocean Commission

News Excerpt

India admitted to the Indian Ocean Commission (IOC: Commission de l'Océan Indien, COI) as an observer after it applied last month to be considered for observer status. It is a move that will **bolster Delhi's Indo-Pacific vision**.

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- Created in 1982 and institutionalized in 1984, the Indian Ocean Commission (IOC) is an intergovernmental organization regrouping five member States: The Union of Comoros, France/Reunion, Madagascar, Mauritius and Seychelles.
- It is the only regional organization in Africa composed solely of islands, it supports the specificities of its member States on the continental and international stages.
- **The IOC's mission is to bring together the strengths and pool the resources of its member**

countries, raise awareness about the specific challenges being faced by developing island States, and promote Indian oceania, a region of unique human, cultural and natural diversity.

Highlights

- The decision was taken at the meeting of the IOC Conference of ministers in Seychelles. The other four observers are China, Malta, European Union and International Organization of La Francophonie (OIF).
- The member states are known to be erstwhile French colonies or partly British, partly French colonies. With France a member of IOC because of the Reunion Islands, it played a key role in ensuring **India's admission**.
- India has made some high-level visits to some of the member states **like India's** Vice President visited Comoros and President Kovind visited Madagascar in 2018.



Analytica

- The admission of India, even as an observer, to IOC is of great strategic significance since it will allow collective engagement with the island nations of western Indian Ocean (WIO) and further boost ties with an already strong friend, France.
- The five-member grouping is important given **India's plans to expand in the Western Indian Ocean (WIO)** which strategically connects the Indian Ocean to the Southeastern coast of Africa and beyond.
- This move enhances **India's** outreach in the western flank of the Indo-Pacific and acts as a stepping stone to security cooperation with East Africa.
- The move will also lend greater significance to **India's SAGAR** (Security and Growth for all in the Region) policy of India.

PEPPER IT WITH
The Indian Ocean Rim Association, SAGAR, STRING OF PEARLS

Conclusion

The growing importance of Africa in Indo-Pacific engagements combined with potential natural gas reserves in the Mozambique Channel will continue to raise the significance of this region in wider maritime security. Keeping in mind the importance of geography for maritime power projection and naval dominance, there is little doubt about the rising significance of the islands in a new geo-political environment in the Indian Ocean.

SAARC

News Excerpt

South Asian Association for Regional Cooperation (SAARC) leaders held a summit via video-conference to discuss the way forward to fight the coronavirus pandemic. The idea of holding a summit via video-conference was initiated by the Prime Minister of India.

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Pre-Connect

- The SAARC was established with the signing of the SAARC Charter in Dhaka on 8 December 1985. SAARC comprises eight member states: Afghanistan, Bangladesh, Bhutan, India, Maldives, Nepal, Pakistan and Sri Lanka. The Secretariat of the Association was set up in Kathmandu on 17 January 1987.
- Decisions at all levels are to be taken on the basis of unanimity; and bilateral and contentious issues are excluded from the deliberations of the Association.

- Following the 2016 Uri terror attack, India cancelled its participation in the 19th SAARC summit, alleging Pakistan's involvement in the terror attack.

Highlights

- The video-conferencing was joined by the heads/official representatives of the SAARC Countries. During the hour-and-a-half-long summit, many of the leaders expressed concern over the economic impact and called for a strategy to deal with the aftermath.
- **Prime Minister's decision to convene a video conference** of leaders of the eight-member SAARC on Sunday represents a much-needed **"out-of-the-box" thinking** as the world faces the COVID-19 coronavirus pandemic.
- The hour-long discussion with the leaders of Afghanistan, the Maldives, Bangladesh, Bhutan, Nepal, Sri Lanka, and the Special Assistant on Health to the Pakistan PM, came up with shared and unique perspectives in dealing with the virus.
- India pledged \$10 million toward a COVID-19 emergency fund and it also announced that it would be putting together a team of specialists for the SAARC states.

Specific Challenges faced by the SAARC countries

- Afghanistan and Pakistan have specific challenges as they share long borders with Iran, which has emerged one of the major hubs of the virus.
- Bhutan, the Maldives, Nepal and Sri Lanka worry about the impact on tourism, which is a mainstay of their economies.
- Another concern is of **an escalation in the virus's spread** in the subcontinent. Though, South Asia has seen a much lower incidence globally, but given its much higher population density, it is clear that any outbreak will lead to far more casualties.
- Other concerns are about under-reporting, as fewer people are being tested in much of South Asia, and whether public health services can cope.

PEPPER IT WITH
BIMSTEC, ASEAN, MVAB
BIN, India-Myanmar-
Thailand highway

Analytica

- ✓ The move to convene a video conference of the SAARC states to collectively rein in the threat of COVID-19 can be seen **as a thoughtful drive to respond to China's growing influence** in the region by reasserting India's leadership.
- ✓ This move has played a great role in triggering SAARC, which has been sluggish since 2016. Following the 2016 Uri terror attacks, the summit was finally called off.
- ✓ It is a positive move toward smooth South Asian integration. Such a grouping is a helpful way for regional nations to show solidarity with countries that face disaster or crisis.
- ✓ The move is seen as a **masterstroke to assert India's leadership** in the South Asian region. India is also pushing for **more clout as the world's largest democracy**.

Conclusion

Pandemics do not recognize political borders, and in times of trouble, reaching out to neighboring countries is the most obvious course of action. Clearly, reviving the SAARC initiative, will not be **easy, given poor ties between SAARC's two largest members, India and Pakistan**. But it is significant that New Delhi seems to be willing to try to put politics aside when dealing with the pandemic that confronts all. It remains to be seen how closely the SAARC countries will cooperate to deal with the virus.

India Myanmar Relations

News Excerpt

India and Myanmar exchanged 10 MoUs/agreements in March 2020 with a focus on the socio-economic development of the southeast Asian nation as Prime Minister Narendra Modi held wide-ranging talks with Myanmar President U Win

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Highlights

- The focus of many agreements was on **development projects under India's assistance**, particularly in the conflict-torn Rakhine state.
- **The agreements included an MoU on 'Cooperation for Prevention of Trafficking in Persons; Rescue, Recovery, Repatriation and Reintegration of Victims of Trafficking'.**
- An agreement regarding Indian Grant Assistance for Implementation of Quick Impact Projects (QIP) was also signed between the two sides.
- Three agreements for development projects in the conflict-torn Rakhine state were also signed. The Rakhine state has witnessed a lot of violence in the past and scores of Rohingyas had fled the state facing persecution.
- Both sides reiterated their mutual respect for the already- demarcated portion of the boundary between the two countries and affirmed their commitments to settle pending issues through the existing bilateral mechanisms, such as the Joint Boundary Working Group Meeting.
- The two sides emphasized the centrality of connectivity in their relationship and reaffirmed their commitments to expedite the completion of the various India-funded projects presently underway in Myanmar.
- India reiterated its commitment towards the construction of the modern Integrated Check Post as Phase-I at Tamu, Myanmar. The two sides committed to the early conclusion of discussions on the pending bilateral Motor Vehicles Agreement to facilitate cross border movement of vehicles.

Analytica

Why Myanmar Should Matter to India?

- Myanmar is the only country that sits at the intersection of India's **"Neighborhood First" policy and "Act East" policy**. Myanmar is an **essential element in India's practice** of regional diplomacy in the Indo-Pacific, and serves as a land bridge to connect South Asia and Southeast Asia.
- Myanmar is geopolitically significant to India as it is the only Southeast Asian country that shares a land border with northeastern India. It also shares a 725-km maritime boundary with India in the Bay of Bengal.
- Myanmar is an important member of the Bay of Bengal Initiative for Multi-Sectoral Technical and Economic Cooperation (BIMSTEC), a regional organization that is committed to fostering bilateral or regional cooperation among Bay of Bengal countries.
- Myanmar is the only Southeast Asian country that has a separate bureaucratic division **(shared with Bangladesh) in India's External Affairs Ministry**, testifying to the continued **importance of Myanmar to India's foreign policy**.
- India sees Myanmar as being vital to fulfilling its ambition to become a \$5 trillion economy by 2024. But with a total bilateral trade of \$2 billion, **India's economic engagement with Myanmar lags behind China, behooving Modi's government to scale up India-Myanmar economic ties**.
- India regards Myanmar as a gateway to link up to the rest of Southeast Asia, and thus has invested in ASEAN-wide infrastructural projects that are able to boost trade in the ASEAN-India Free Trade Area.
- Many Infrastructure projects are underway, such as the **India-Myanmar-Thailand Trilateral Highway and Kaladan Multi-Modal Transit Transport (KMMTT)**, which aims to connect the

PEPPER IT WITH
Look East Policy, Act East
Policy, ASEAN, RCEP,
Kaladan Multimodal project

eastern Indian seaport of Kolkata with the Sittwe deep-water port in Myanmar's Rakhine state by sea.

- India has built on the cultural affinities shared with Myanmar by assisting in restoration work at Anand temple in Bagan. This gives India an enormous goodwill.
- Myanmar has rich reserves of oil and natural gas. Since India imports nearly 80% of its fuel, Myanmar is important for India.

Challenges and Concerns

- Slow pace of implementation of Infrastructure Projects such as India-Myanmar-Thailand Trilateral Highway and Kaladan Multi-Modal Transit Transport (KMMTT).
- Rohingya Influx: India hosts close to 40,000 Rohingya Muslims who are persecuted in Myanmar and sought refuge in India in order to escape religious persecution.
- Lack of basic infrastructure and low trading volume at the Indian border.
- Growing Chinese influence Such as Belt and Road Initiative and Chinese investments in various infrastructure projects including port projects such as Kyaukpyu port.
- Issues related to Insurgency and smuggling of arms, drugs and fake currencies.

Conclusion

India and Myanmar must boost their security cooperation at the border to boost trade ties. Envisioning the potential in India-Myanmar relations has to be prioritized by both countries, and bilateral commitments translated to practical outcomes and take bilateral relationship to the next level of deepening engagement on a sustainable basis.

G20 Summit

News Excerpt

An Extraordinary Virtual G20 Leaders' Summit was convened on 26 March 2020 to discuss the challenges posed by the outbreak of the COVID-19 pandemic and to forge a global coordinated response.

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- G20 is the premier forum of governments & central bank governors for international economic **cooperation**, **representing 85% of the global GDP**. It aims to achieve **robust global economic growth**.
- Created by the G7 countries, G20 is formally **known as the** "Summit on Financial Markets and the World Economy".
- In 2008, the inaugural G20 Summit was held in Washington, D.C. in response to the global financial crisis. Since the Pittsburgh summit 2009, the summit meetings were held semi annually until 2010 and annually from 2011 onwards.
- Focused areas in 2019 Summit were Sustainable & Inclusive Economic Growth, Trade & Investment, Innovation (e.g. Society 5.0), Environment & Energy, Inclusive Employment, Women Empowerment, Development, Health.
- The host cities for 2020, 2021, 2022 Summits are Riyadh, Bari & New Delhi respectively.
- A special

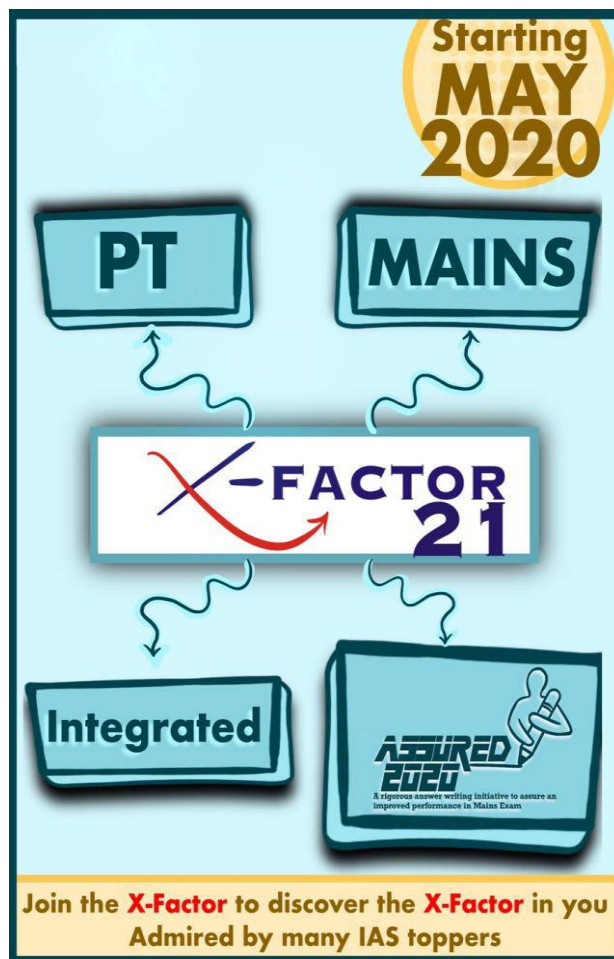
Outcome

- PM of India stressed the need to look at globalisation and multilateralism not just through the prism of economic and financial issues, but also through humanitarian aspects, in order to address future pandemics effectively.

- G20 countries committed to injecting over \$5 trillion into global economy to counter the social and economic impact Covid-19.
- The leaders also committed to provide immediate resources to the **WHO's Covid-19** Solidarity Response Fund, the Norway-based vaccine de Coalition for Epidemic preparedness and Innovation (CEPI), and Gavi, the Vaccine Alliance, on a voluntary basis.
- Leaders also committed to use all available policy tools to minimize the economic and social cost of the pandemic and to restore global growth, market stability and strengthening resilience.

Conclusion

The WHO initially did not have the mandate to deal with a pandemic of this sort, which is why empowering of WHO is necessary, be it in terms of its capacity of early warning or development of effective vaccines, or capacity-building. Global Organisations like G20 can take steps in direction.



ENVIRONMENT

Changes in Global Indicator Framework for SDGs

News Excerpt

Recently, the Global Indicator framework for the Sustainable Development Goals (SDGs) was revised and adopted by the United Nations Statistical Commission (UNSC), at its 51st session.

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Pre-Connect

- Agenda 2030 is intended to streamline development policies and action for the higher and time bound achievement of human wellbeing.
- The UN General Assembly Resolution 71/313 had adopted a global indicator framework for SDGs in 2017.
- Resolution also mandated that the Inter-Agency and Expert Group on SDG Indicators (IAEG-SDGs) to look after the development and implementation of the global indicator framework for Sustainable Development.
- For the development and to facilitate the implementation of the global indicator framework, all indicators are classified by the IAEG-SDGs into three tiers based on their level of methodological development and the availability of data.

Tier 1 Indicator	Tier 2 Indicator	Tier 3 Indicator
<ul style="list-style-type: none"> ● Indicators are conceptually clear. ● Indicators are based on internationally established methodology & standards. ● Data is regularly produced by countries. ● Indicators are relevant for at least 50 % of countries and of the population in every region. 	<ul style="list-style-type: none"> ● Indicators are conceptually clear. ● Indicators are based on internationally established methodology & standards. ● Data is not regularly produced by countries. 	<ul style="list-style-type: none"> ● No internationally established methodology or standards are yet available for the indicator. ● Practically No data produced.

- Indicators play an instrumental role in assessing the progress under individual goals. It also makes the concept of sustainable development (SD) appealing to a wide spectrum of potential stakeholders.

Key Revisions under Framework

- These new changes are based on the **‘2020 comprehensive review’** conducted by IAEG-SDGs and presented to the UNSC.
- The revised global framework will have 231 indicators; besides the additions and deletions, eight indicators have been revised and 14 have been replaced.
- Additional indicators were added across six SDG goals — 2, 3, 4, 10, 13 and 16.

PEPPER IT WITH
MDGs, UN
Statistical Commission, National
Indicator Framework, SDG India Index.

Reason for Addition: These are added because a crucial aspect of a target is not being monitored by the current indicators or to address a critical or emerging new issue that is not monitored by the existing indicators, or when a whole Goal has very few tier I or tier II indicators for the follow up.

Newly added Indicator/Goals	Significance
<u>Indicator 13.2.2</u> : on the total greenhouse gas emissions per year for the SDG target 13.2.	It will integrate climate change measures into national policies, strategies and planning
<u>Target 2.2</u> : Prevalence of Anaemia in women aged 15-49 years, by pregnancy status (percentage).	It will pursue national governments to end the forms of malnutrition by 2030.
<u>SDG 3</u> : A new indicator on reducing the percentage of bloodstream infections due to selected antimicrobial-resistant organisms has been added.	It will realize the Global complete health goal.
<u>Indicator 10.7.3</u> : on the number of migrants killed while attempting to cross maritime, land and air borders.	It will boost cooperation among countries during the refugee crisis and significantly address the humanitarian issue.
<u>Indicator 10.7.4</u> : on the proportion of the population who are refugees, by country of origin.	It is likely to promote the sense of recognition among refugees that would help in the rehabilitation process.

- Six indicators across six SDG goals — 1, 4, 8, 11, 13 and 17 — have been deleted. These include-
 - Indicator 1.a.1: on the proportion of domestically-generated resources allocated by the government directly to poverty reduction programmes.
 - Indicator 4.2.1: on the proportion of children under five years of age who are developmentally on track in health, learning and psychosocial well-being, by sex.
 - Indicators that measure progress for children between 0 and 23 months of age, which is currently in tier III, was proposed for deletion.
 - The indicator 13.3.2: quantifying the number of countries that have communicated the strengthening of capacity-building for implementing adaptation, mitigation and technology transfer, and development actions has been deleted.
- Reason for Deletion: When the methodological work of a tier III indicator has stalled or has not produced the expected results, and a replacement will be proposed if the deleted indicator is the only indicator monitoring the corresponding target.

Analytica

The indicator 15.9.1 measures integration of biodiversity into national accounting. It is unprecedented that a greenhouse gas focused indicator has been added, but climate equity would have ideally required a per capita indicator. In addition to that in contemporary times the initiative of climate change is also derailed now.

Sustainable tourism could be a viable alternative of employment but the indicator 8.9.2 on the proportion of jobs in sustainable tourism has been deleted by the UNSC.

Issues with SDGs framework

- ✓ It is being cited that all the SDGs indicators are equally important but the assigned weight is unequal. Therefore, all SDG indicators need to be considered as an integrated package and equally important in order to achieve agenda 2030.
- ✓ SDGs impose an extraordinary demand on the national statistical systems to generate and analyse an unprecedented amount of data, methodology and more so on issues that are complex and evolving. For instance- Neither art nor culture are included in the wellbeing, because they are too difficult to measure.

- ✓ Every country will require robust statistical systems and metrics to translate these goals into action for implementation.
- ✓ Although SDGs represent the aspirations of the global community and also a valiant effort to push the frontiers of sustainable development, the guided suggestions require a focus on individual goals. It would be an easier task if inter-connectedness among goals were defined.
- ✓ The progress towards the SDGs is majorly driven by the policies, schemes, programmes, campaigns of the governments and private sector, and public action, to an extent. Quantifiable data from private sector and NGOs are not included (in India), and at same time data of many regions are not available. The government should either evolve a mechanism or accept data from non-state actors in order to achieve the agenda 2030 for all, there should be no exception.
- ✓ The information gap affects all aspects of the SDGs for instance- Inextricable interconnectedness of the SDGs, limited availability of disaggregated official data project targets of selective Goals only rather than acknowledge the universal target under all SDGs.

India & SDGs Framework

- ❖ India has adopted National Indicator Framework (NIF) prepared by the Ministry of Statistics and Programme Implementation in order to monitor the progress of the SDGs and associated targets.
- ❖ NIF have broader coverage of goals, targets and indicators than the global SDGs framework.
- ❖ India is making a significant progress in implementation of SDGs, for instance- **'Development for All' (SabkaSathSabka Vikas)** ensure the Agenda 2030.
- ❖ Further, some of schemes like-PoshanAbhiyaan, Aayushman Bharat, BetiBachaoBetiPadhao and Aspirational Districts Programme are base schemes **that streamlined the India's agenda on the lines of Agenda 2030.**
- ❖ NITI Aayog has recently released the Sustainable Development Goals India Index 2019.
- ❖ India has improved its score on indicators like health, water and sanitation, but more needs to be done on the poverty, hunger, gender and climate fronts.

Conclusion

- It is now universally acknowledged that the SDGs represent an elaborate agenda for the governments, that necessitates achieving progress simultaneously across social, economic and environmental pillars. SDGs have the potential to move society toward a more holistic and **'sustainable' prosperity. The success of such transformative agenda rests on its implementation.**
- A robust indicator framework will transform the SDGs and their targets into a management tool to help countries to develop implementation strategies, policies, schemes and allocate resources accordingly. Further a framework would act as a report card to measure progress towards sustainable development and ensure the accountability of all stakeholders.
- The 2020 comprehensive review provides a good opportunity to improve the indicator framework to help the global monitoring of the 2030 agenda and to provide the necessary guidance to countries, many of which are already well advanced in implementing through national framework and reporting platforms.

United for Biodiversity Coalition

News Excerpt

The European Commission (EC) **launched the Global Coalition 'United for Biodiversity' on world wildlife day.**

About Coalition

- 2020 is declared a super year for nature and biodiversity.
- Coalition seeks to build public awareness about the present biodiversity crisis and pursue the

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world to adopt a new global framework to take global action to protect as well as restore biodiversity.

- The coalition would include zoos, aquariums, botanical gardens, national parks, and natural history and science museums from worldwide. As these organisations are vital for cataloguing and preserving the natural world, such institutions are indispensable and invaluable centres for education and mobilisation — particularly for young leaders and decision-makers of the future.
- The coalition adopted a common pledge and appeals to visitors to each of their institutions to **“raise their voice for nature.”**
- Intergovernmental Platform on Biodiversity and Ecosystem Services (IPBES), formed by the United Nations Environment Programme, welcomed the formation of the coalition.
- The coalition formed ahead of the crucial COP-15 of the Convention on Biological Diversity proposed to be held in China, October 2020.

IPBES (Intergovernmental Platform on Biodiversity and Ecosystem Services)

- It is not a United Nations body. India has been its founding member since 2012.
- It is an independent intergovernmental body intended to strengthen the science-policy interface for biodiversity and ecosystem services for the conservation and sustainable use of biodiversity and sustainable development.
- IPBES currently has over 134 member States. A large number of NGOs, organizations, experts, academia and civil society groupings also participate in the formal IPBES process.
- The work of IPBES are grouped into four complementary areas: Assessment, Policy Support, Building Capacity & Knowledge and Communication and Outreach.

PEPPER IT WITH
CITES, WPA1972, TRAFFIC, Aichi
Biodiversity Targets, National
Biodiversity Authority

India & Biodiversity

- ✓ India is signatory of convention on Biological Diversity, Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES), Convention on the Conservation of Migratory Species of Wild Animals, Cartagena Protocol on Biosafety, Nagoya Protocol on Access to Genetic Resources.
- ✓ India has enacted the Wild Life (Protection) Act, 1972, Wetland (Conservation and Management) Rules, National Plan for Conservation of Aquatic Ecosystem, Wildlife Crime Control Bureau and many others for not only the conservation but for the development of biodiversity.
- ✓ India has adopted national biodiversity target viz. -

<u>Reference</u>	<u>Target</u>	<u>Aichi Targets</u>
National Biodiversity Target 1	By 2020, a significant proportion of the country's population, especially the youth, is aware of the values of biodiversity and the steps they can take to conserve and use it sustainably.	1
National Biodiversity Target 2	By 2020, values of biodiversity are integrated in National and State planning processes, development programmes and poverty alleviation strategies.	2
National Biodiversity Target 3	Strategies for reducing the rate of degradation, fragmentation and loss of all-natural habitats are finalized and actions put in place by 2020 for environmental amelioration and human well-being.	5, 15
National Biodiversity Target 4	By 2020, invasive alien species and pathways are identified and strategies to manage them developed so that populations of prioritized invasive alien species are managed.	9

National Biodiversity Target 5	By 2020, measures are adopted for sustainable management of agriculture, forestry and fisheries.	6, 7, 8
National Biodiversity Target 6	Ecologically representative areas on land and in inland waters, as well as coastal and marine zones, especially those of particular importance for species, biodiversity and ecosystem services, are conserved effectively and equitably, on the basis of PA designation and management and other area-based conservation measures and are integrated into the wider landscapes and seascapes, covering over 20% of the geographic area of the country, by 2020.	10, 11, 12
National Biodiversity Target 7	By 2020, genetic diversity of cultivated plants, farm livestock and their wild relatives, including other socioeconomically as well as culturally valuable species, is maintained, and strategies have been developed and implemented for minimizing genetic erosion and safeguarding their genetic diversity.	13
National Biodiversity Target 8	By 2020, ecosystem services, especially those relating to water, human health, livelihoods and wellbeing, are enumerated and measures to safeguard them are identified, taking into account the needs of women and local communities, particularly the poor and vulnerable sections.	14
National Biodiversity Target 9	By 2015, Access to Genetic Resources and the Fair and Equitable Sharing of Benefits Arising from their Utilization as per the Nagoya Protocol are operational, consistent with national legislation.	16
National Biodiversity Target 10	By 2020, an effective, participatory and updated national biodiversity action plan is made operational at different levels of governance.	3, 4, 17
National Biodiversity Target 11	By 2020, national initiatives using communities' traditional knowledge relating to biodiversity are strengthened, with a view to protecting this knowledge in accordance with national legislations and international obligations.	18
National Biodiversity Target 12	By 2020, opportunities to increase the availability of financial, human and technical resources to facilitate effective implementation of the Strategic Plan for Biodiversity 2011–2020 and the national targets are identified and the Strategy for Resource Mobilization is adopted.	19, 20

Significance of Biodiversity

- Biodiversity benefits the people in almost every aspect of human development and are key to the success of the new Sustainable Development Goals.
- Biodiversity helps to produce food, clean water, regulate climate and even control disease.
- Biodiversity is the key indicator of the health of an ecosystem. Biodiversity conservation is vital for economic growth and poverty reduction.
- Biodiversity conservation can help address the effects of climate change. Conserving habitats can reduce the amount of carbon dioxide released into the atmosphere. Biodiversity is of great importance in order to maintain stable ecosystems. If there is a sudden **change in that community's environment, the balance of the community** may change which may cause it to be destroyed.

Conclusion

Biodiversity is being depleted and degraded faster than at any other point in human history. There is a dire need to conserve biodiversity by harnessing the best expertise from across all scientific disciplines and knowledge communities and to provide policy-relevant knowledge and to catalyze the implementation of knowledge-based policies at all levels in government, the private

sector and civil society. The destruction of ecosystems can have a very serious effect both on local and global levels. Protection of the existence of living beings, Sustainability of resources, balance in natural processes and socio-economic development go simultaneously to biodiversity conservation. Such initiatives should include all stakeholders and address the emerging challenges.

Gaur and Valmiki Tiger Reserve

News Excerpt

Recently Gaur (*Bos Gaurus*) had been spotted in the **Bihar's Valmiki Tiger Reserve (VTR)** due to increase in grassland cover.

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Pre-Connect

- The Gaur, are native to south and southeast Asia, recently they had shifted to Chitwan National Park (Nepal) a few years back due to grassland destruction in VTR.
- The Gaur is listed as **'vulnerable' on the IUCN Red List** and listed under Appendix-I of CITES.
- The Indian Gaur is listed as Schedule-I species under the Wildlife Protection Act, 1972.

Valmiki Tiger Reserve

- Valmiki Tiger Reserve forms the eastern most limit of the Himalayan Terai forests, VTR encompasses foothill ranges of Siwaliks Himalayan and is the only tiger reserve of Bihar.
- VTR is situated in the Gangetic Plains and has a combination of bhabar and terai tracts. VTR lies in the Champaran of Bihar.
- River Gandak forms the western boundary of Valmiki wildlife sanctuary.
- Sonha, Pachnad, Harha - Masan River system originates from the Valmiki Forests and forms Gandak River.
- River Pandai flows into Bihar (India) from Nepal in the eastern end of the Sanctuary.
- All these rivers with their precursor and tributaries namely Rohua, Kotrahia, Manor, Bhapsa, Koshil, Singha, Dhonghi, Ganguli, Dohram are full of youth and verve.
- 'Tharu', a scheduled tribe, is the dominant community in the landscape. Community also has cross border linkages with Nepalese Tharu.
- Another tribe Dhangar comprises four tribes: Oraon, Munda, Lohra and Bhuiya. The 'Dhangars' were brought to this area as agricultural laborers from the Chota Nagpur Hills. Each Dhangar tribe has its own dialect.

Gaurs in India

- ✓ Gaurs are the world's largest and tallest wild bovines with the 85% population found in India.
- ✓ Gaur spread across a variety of habitats, including tropical forests, grasslands, etc., across the hilly ranges of the Western Ghats, the northern limit of this animal along the west coast.

Gaurs are present in-

- ❖ Nagarhole National Park, Karnataka
- ❖ Bandipur National Park, Karnataka
- ❖ Mudumalai National Park, Tamil Nadu
- ❖ Periyar National Park, Kerala
- ❖ Kaziranga National Park, Assam
- ❖ Bhadra Wildlife Sanctuary, Karnataka
- ❖ Sathyamangalam Wildlife Sanctuary, Tamil Nadu
- ❖ Radhanagari Wildlife Sanctuary, Maharashtra
- ❖ Wayanad Wildlife Sanctuary, Kerala
- ❖ Tadoba National Park, Maharashtra
- ❖ Indravati National Park, Chhattisgarh
- ❖ Kanha and Bandhavgarh National Park, Madhya Pradesh
- ❖ Konkan wildlife sanctuary
- ❖ Phansad Wildlife Sanctuary

Analytica

- **Gaur as an 'Indicator species':** Indicator Species is an organism whose presence, absence or abundance echoes a specific environmental condition. It indicates changes in biological conditions of a particular ecosystem. For instance- Gaur migrated due to the deterioration in

VTR's grassland & returned back when grassland resurge.

- **Grassland's Importance:** The increase in VTR's grassland will provide a better environment for the tigers. Herbivores depend on such grassland, and on Herbivores the tigers prey on for food needs. Thus, an increase in Grassland cover would help in supporting the prey population, in turn increasing the chances of the carnivores' survival. It will certainly add to biodiversity and Population of Gaur would definitely contribute to the regional biodiversity.

Conservation Challenges

- **Poaching:** The gaur is very fearless of humans that constitutes the biggest threat to it. Poachers often capitalised this human friendly nature from time to time. Gaur meat is a delicacy popular with tourists and local people.
- **Climate Change:** Gaurs feed on grasses in grassland topography. Unprecedented heat waves, change in rainfall pattern cause deterioration in grassland and ultimately the population of the Gaurs. For example- gaurs migrate in search of grasses.
- **Habitat Loss:** Grasslands are lost due to the invasion by agricultural communities. For instance- Cultivation of sugarcane and paddy in VTR is dominantly performed. It causes threat of habitat loss apart from loss due to climate change.
- **Diseases:** Diseases, particularly rinderpest, anthrax and foot and mouth disease, transmitted by domestic cattle, are potentially serious threats for bovine animals.

PEPPER IT WITH
IUCN List, NTCA, WPA 1972
Schedules, Indicator Species

Uranium Contamination in Groundwater

News Excerpt

Recently the minister of State for Jal Shakti provided information about the prevalence of uranium contamination in India's groundwater.

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Groundwater Contamination

- The occurrence of uranium in groundwater sources depends on several Natural factors like-
 - **The amount of uranium contained in an aquifer's rocks**
 - Water-rock interactions that cause the uranium to be extracted
 - Oxidation conditions that enhance the extracted **uranium's solubility in water**
 - The interaction of the extracted uranium with other chemicals in the groundwater, such as bicarbonate, which can further enhance its solubility.
- Anthropogenic reasons also cause contamination like- The fast declining of groundwater table due to overexploitation for agricultural irrigation purposes and high use of fertilizers does nitrate contamination.
- In Geogenic conditions, the bicarbonate and oxidizing conditions are two of the most important chemical factors controlling uranium concentrations in groundwater.
- Natural phenomena: **Many of India's aquifers are composed of clay, silt and gravel or uranium-rich granitic rocks.** When over-pumping of these aquifers' groundwater occurs and their water levels decline, it induces oxidation conditions that, in turn, enhance uranium enrichment in the shallow groundwater that remains.

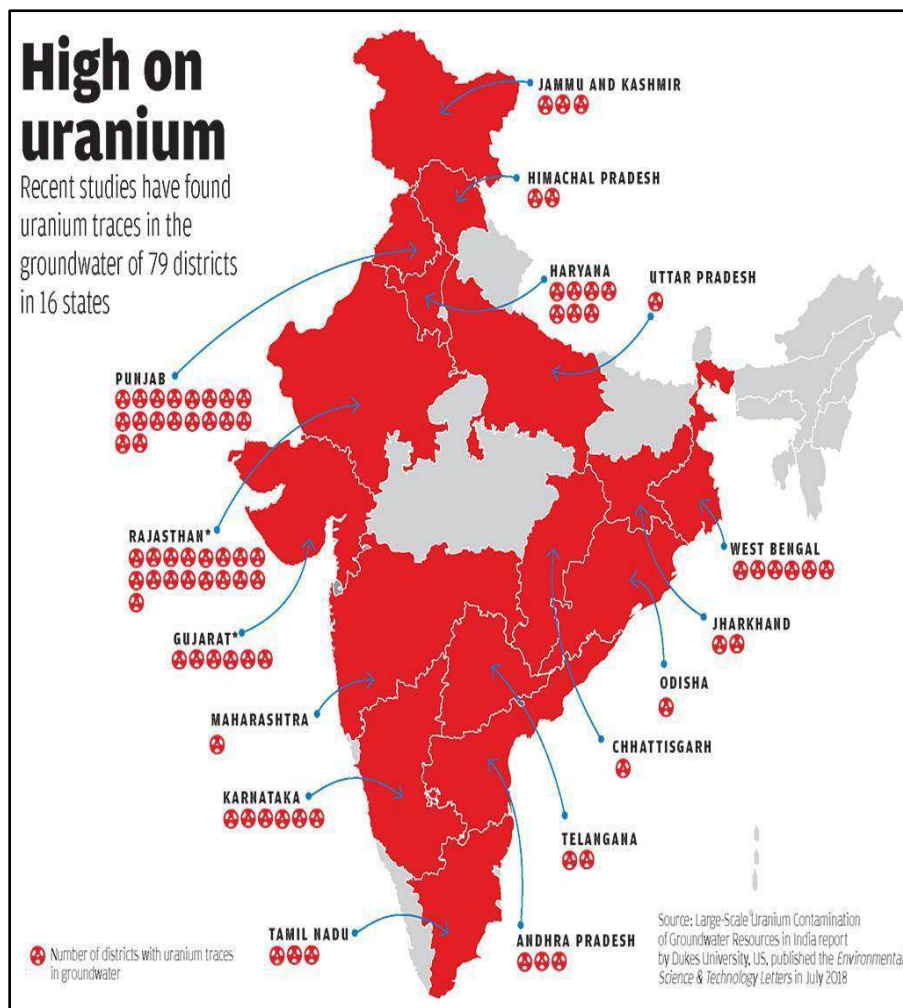
PEPPER IT WITH
CGWB, NRDWP, Water (Prevention
and Control of Pollution) Act, 1974

Key Concerns

- A report brought by Duke University, Central Ground Water Board and State Ground Water departments concluded that some of States have localized occurrences of Uranium concentration.
- Water in more than 300 wells has uranium in much higher quantities than the WHO's

provisional standard.

- The WHO has set a provisional safe drinking water standard of 30 micrograms of uranium per liter whereas the Bureau of Indian Standard (BIS) is working to incorporate the maximum permissible limit of Uranium as 0.03 mg/l in all drinking water standards.
- Elevated uranium levels in drinking water cause chronic kidney disease, deformity of bones and liver.
- Contaminated groundwater used for irrigation affects agricultural productivity which can cause food shortage, affect biodiversity at large scale and cause a variety of health risks for humans.
- Twin Toxicity: India suffers from chemical as well as radiological toxicity. Groundwater has issues like high salinity, fluoride, and nitrate, which makes water unsuitable for consumption apart from radiological contaminated water, chemical toxicity is a greater threat than the radiological toxicity.



Analytica

- ✓ Bicarbonate concentrations in water provides in-situ information about the suitability of the water for drinking purposes and is helpful in studying speciation of uranium radionuclides in aquatic environments.
- ✓ The threat of twin toxicity has the potential to transform into a chain of toxicity, toxic irrigated water cause toxicity in crops or animals as water is the principal need for survival. Over Reliance on ground water must be checked to address this concern.
- ✓ **Government's** dormancy: Despite such huge prevalence, uranium has yet not been included in the list of contaminants monitored under the Bureau of Indian Standards' Drinking Water Specifications. The work is being carried out yet to be completed. The evidence of impact of uranium exposure to human health is present but the Centre denied and had cited studies from Canada and Finland where high uranium levels were found without any increase in diseases.
- ✓ The Indian Standard IS 10500: 2012 for Drinking Water specification has specified the maximum acceptable limits for radioactive residues as alpha and beta emitters, values in excess of which render the water not suitable. These requirements take into account all radioactive elements including uranium. No individual radioactive elements have been specifically identified.

Way Forward

- Water Quality: There is a need to revise current water-quality monitoring programs in India and re-evaluate human health risks in areas of high uranium prevalence. Developing effective remediation technologies and preventive management practices should also be a priority to recognize the health costs of uranium traces in drinking water.
- Rainwater harvesting as an alternative source for drinking water: There is a dire need to reduce the drinking water dependency on groundwater. Rain water harvesting is a visible alternative to avoid human-uranium contacts.
- Nudge farmers to avoid either water intensive crops or use smart irrigation systems in order to avoid excess groundwater extraction.

Eurasian Otter

News Excerpt

Recently Eurasian otters have been found in Western Ghat and its population in Chilka Lake was also found.

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Pre-Connect

- Otters adopt habitats ranging from marine to freshwater, and perform nomadic life between March and August.
- Otters are found worldwide, except in Australia, New Zealand, Madagascar, and other oceanic islands.
- TRAFFIC is also monitoring and documenting the trade in otter skins in an effort to better enforce regulatory measures to curb it.
- In India, the nomadic hunting tribes such as Gilhara, Badiya and Jogis are known to regularly kill otters for their skin and flesh.

Tungabhadra Otter Reserve Sanctuary
Tungabhadra Rivers of Karnataka are home to smooth coated otters and also the state has India's first ever otter reserve as Tungabhadra Otter Reserve Sanctuary.

Otters in India

- Otters are reportedly breeding in Corbett and Dudhwa National Parks and Katarniaghat Wildlife Sanctuary in north; Kaziranga National Park in North East; Sunderbans, Bhitarkanika and Coringa in the eastern coast; and Periyar and Nagarhole National Parks in the South.
- Otter are widely noticed in Ganga/Brahmaputra Delta, Chambal River – Central India, Tungabhadra River, Mandovi River
- All three species of otters are protected in India under the Wildlife (Protection) Act, 1972 (WPA) and are listed under CITES.
- India is home to 3 of the 13 species of otters found worldwide-

Otter Species	Distribution in India	State	Habitat
Eurasian Otter (Common Otter)	Himalayas and Western Ghats	CITES: Appendix I WPA: Schedule II IUCN: Near Threatened	Rivers and coastal region
Smooth-Coated Otter	Found throughout the country from the Himalayas southward	CITES Appendix II WPA Schedule II IUCN: Vulnerable	Seasonal swamps, rivers and rice paddies in most of India
Small-Clawed Otter	Himalayas and Western Ghats	CITES Appendix II WPA Schedule I IUCN: Near Threatened	Swamps, mangrove forest and freshwater wetlands of North east India, Kaziranga Tiger Reserve.

- **Threat:** Extensive poaching, loss of wetland habitat and contamination of water is a threat to the species.

Way Forward

- ✓ It is important to reinforce a sympathetic attitude towards the plight faced by the otters, through more research and conservation effort for this species.
- ✓ Policy advocacy needs to be promoted in order to ensure long term survival of otters in their natural habitats and for their conservation. This is vital for understanding their population dynamics, and to plan species-oriented conservation programmes to strengthen more research and conservation effort for these species.

PEPPER IT WITH
WPA 1972, CITES, IUCN
Classification WWF

Potential Fishing Zone

News Excerpt

Recently, the Indian National Centre for Ocean Information Services (INCOIS), Ministry of Earth Sciences has reported the Oceansat Satellite data from ISRO that used to prepare the Potential Fishing Zone (PFZ) advisories.

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Pre-Connect

- About 7 million people living along the Indian coastline, spanning over 8100 km, are depending **on fishing for their livelihood and India's coastline** has a rich diversity of marine life.
- There are nearly 1570 species of finfishes and around 1000 species of shellfishes known from the seas.
- Oceansat-2 is an Indian satellite mounted with a Colour Monitor instrument on Oceansat-1 able to monitor sea surface.
- Indirect method of monitoring fishing zone through sea surface temperature and phytoplankton pigments (chlorophyll *a*) at sea surface from satellites is found very ideal as it provides high receptivity and large spatial coverage making available a real-time picture of any one of these parameters or a combination of more than one parameter.

Potential Fishing Zone

- Potential Fishing Zone (PFZ) is a reliable and short-term forecast on the fish aggregation zones in the open sea.
- The Potential Fishing Zone (PFZ) is a proxy to potential shoals of fish aggregation will benefit the fishing community to reduce the time and effort spent in searching the shoals of fish, thus improving the profitability and hence, the socio-economic status.

Advantages of PFZ

1. PFZ helps to locate the fish in the areas where fish congregate.
2. Saving on valuable fuel and human drudgery.
3. Reduction in search time by 30 to 70 %.
4. Fishing period reduced from 3-5 days to 1-2 days.
5. The PFZ forecast is more useful to pelagic gears like Purse seine, gill nets and long line, because the PFZ is derived from surface parameters like chlorophyll and sea surface temperature.
6. It may also be useful to mid water trawls and near shore and shore operated gears irrespective of depth.
7. Traditional fishermen can benefit by the use of PFZ forecast when available near shore.

Fishing & Aquaculture in India

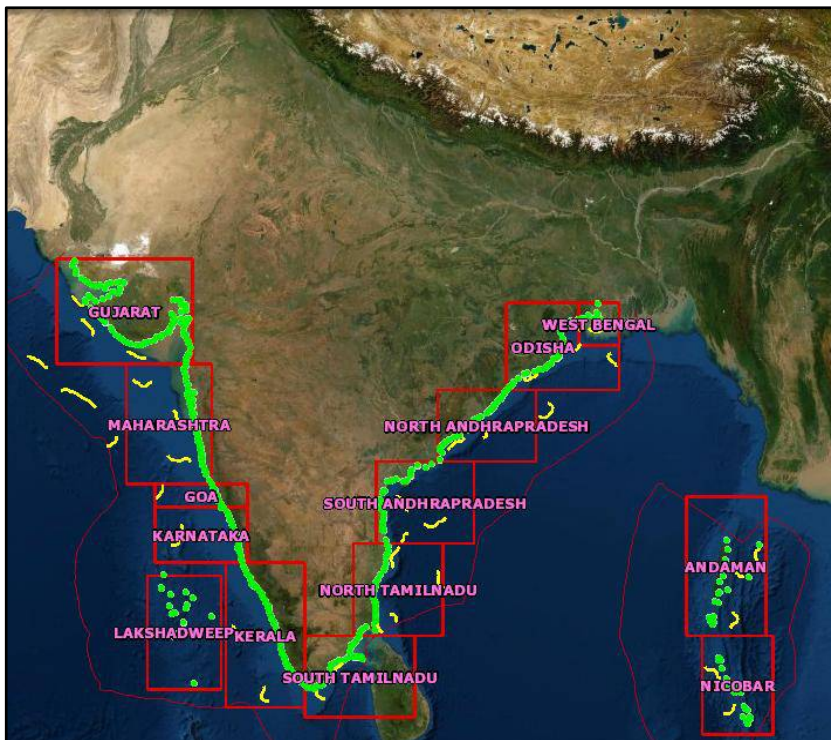
- ✓ **The fisheries and aquaculture production contributes nearly 1% to India's Gross Domestic Product (GDP) and more than 5% to the net agricultural GDP.**
- ✓ The total fish production during 2017-18 is estimated to be more than 12 million metric tonnes, of which nearly 65% comes from the inland sector and about 50% of the total

production is achieved through culture fisheries that constitutes about 6.3% of the global fish production.

- ✓ Fisheries in India is a very important economic activity and a flourishing sector with varied resources and potentials. India ranks second in the world in inland fish production, next to China.
- ✓ Fish contributes substantially to the domestic food security of India which has a per capita consumption of more than 6.00 kg per annum

Challenges faced by fishery sector in India

- As per estimates, the majority of fish is wasted by being discarded at sea after the catch.
- In addition to the economic loss the issue of conservation is attracting increased attention.
- Fisheries suffer from insufficient institutional support, also lack of legal and political support especially for Fisheries.
- Aquatic pollution, destruction of fish habitats, loss in aquatic biodiversity due to a variety of anthropogenic activities. For Instance- Climate change, Global Warming.
- Unorganized market system, Non availability of skilled manpower, and Lack of value addition technology poses greater challenges in terms of resources.
- Decline in fish catch and depletion of natural resources due to over exploitation of coastal fisheries.
- Frequent confrontation of Indian Fishermen with Sri Lankan Navy



Efforts of Govt to improve Fisheries & Aquaculture

Blue Revolution: Integrated Development and Management of Fisheries
 Fisheries and Aquaculture infrastructure development fund,
 Pradhan Mantri Matsya Yojana
 National Fishers Development Board,
 Blue Economy: Under Vision of the decade KCC for Fisherman

Way Forward

- ♣ Integration of the blue revolution with MGNERGA would address the twin issue of employment and food. For Instance- Pond made under MGNERGA can be used for aquaculture promotion.
- ♣ The government in association with regional academic institutions must impart skill and training to the fishermen in order to achieve sustainable fish practices.
- ♣ Infrastructure bottlenecks need to be addressed for optimum economic returns. Affordable Cold Storage facilities, landing centers can help fishermen to fetch a good price.

PEPPER IT WITH
 Blue Revolution, National Fisheries Development Board, MPEDA

Kyasanur Forest Disease (KFD) or monkey fever

News Excerpt

Recently the outbreak of a highly infectious tick-borne virus that causes Kyasanur Forest disease (KFD) has been noticed by health authorities of several States.

About KFD

- **KFD is not a fresh outbreak, it was identified in 1957. It is known as “monkey disease/monkey fever” because of its association with monkey deaths.**
- Hard ticks are the reservoir of KFD virus and once infected, remain so for life. Cattles are also hosts for the primary vectors of KFDV (Kyasanur Forest Disease virus).
- KFD is frequently fatal among non-human primates and is known to affect two South Indian species; *Macaca radiata* and langurs.
- **Transmission:** KFDV is transmitted by an infected tick, especially nymphal stage ticks. The wild monkeys, *Macaca radiata*, get the disease when infected ticks bite. Infection causes illness and infected monkeys die, the ticks drop from their body, thereby generating “hot spots” of infectious ticks that further spread the disease.

PEPPER IT WITH
Zoonotic Diseases, FMD, Nipah Virus

Humans can get the disease from an infected tick bite or by contact with an infected animal. The outbreaks relate to the activity of nymphs, which is very high during November to May. The epidemic period usually begins in October or November and peaks from January to April, then declines by May and June.

- There is limited availability of information on KFD vaccine for human use in India and No specific treatment for KFD is available due to absence of effective policy and measures that can counter the rising instances of zoonotic diseases.

For Zoonotic diseases and public health in India refer KSG Current Connect, October 2019, Page No-80.

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Concentration of Black Carbon in Himalayan Glacier

News Excerpt

Recently researchers conducted a study on black carbon and its levels in Himalayan Glaciers that may influence melting of Gangotri Glacier.

Major Finding of Study

- Black carbon concentration near the Gangotri glacier rose 400 times in summer due to forest fires and stubble burning from agricultural waste. Black carbon absorbed light therefore can trigger glacial melting.
- The monthly mean concentration of EBC (equivalent black carbon) was found to be minimum in August and maximum in the month of May. The observed seasonal mean concentrations of EBC indicated a pristine glacial source and an absence of EBC sources in the locality.
- The Equivalent Black Carbon (EBC) aerosols contribute significantly towards global warming due to its light-absorbing nature. Their presence in the eco-sensitive zone, such as the Himalayan glacier valleys, is a matter of serious concern.
- **Impact of Black Carbon on glacier:** Black carbon absorbs solar energy and warms the atmosphere. When it falls to earth with precipitation, it darkens the surface of snow and ice, reducing their albedo (the reflecting power of a surface), warming the snow, and hastening melting.

Black Carbon

- Black carbon results from the incomplete combustion of fossil fuels and biomass. It mainly comes from diesel engines, industrial smokestacks, burning of wood & cow dung for residential cooking and heating, open air cremation of dead bodies, jungle fire, incomplete burning of biomass, old brick kilns & from burning of incense sticks & oil lamps.

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- The fine particles absorb light and about a million times more energy than carbon dioxide. Therefore, it significantly contributes to the warming of the atmosphere.
- Black carbon is short-lived and remains in the atmosphere only for days to weeks before it descends as rain or snow.
- Black carbon also affects snow albedo, snow and glacier melting, regional climate and water resources.
- It further affects cloud formation either acting as cloud nuclei or in-creasing the evaporation rates in cloudy layers.
- India is the second largest emitter of black carbon in the world and Indo Gangetic plains said to be the largest contributor.
- Study by a UN expert panel says that black carbon may increase earth's temperature by 0.5 degree by 2050.

Ways to Reduce Black Carbon Concentration

- ✓ Banning of vehicles that emit high levels of black carbon and particulate filter in every fuel engine.
- ✓ Strict regulatory measures to tackle the issue of crop burning.
- ✓ Rapid response to the incidents of forest fires.
- ✓ Use of black carbon filter in industrial, household & other chimneys.
- ✓ Installation of low emission brick kilns having black carbon filter facility.
- ✓ Use of modern biomass burning stoves to reduce black carbon emissions.
- ✓ Use of coal briquettes instead of coal to reduce black carbon emission.
- ✓ Ban of fossil fuel burning in open air.
- ✓ Use of battery operated vehicles for public transport in big cities.

PEPPER IT WITH
Brown Carbon, Global Warming
Potential, Kyoto Protocol

Coal Bed Methane

News Excerpt

Recently, the coal ministry has opened up the plans to utilise Coal Bed Methane (CBM) for household energy purposes and soon launch a large scale programme.

Pre-Connect

- Coal India has set a target of producing 1 Million Metric Standard Cubic Meter per Day of CBM by 2023-24.
- In 2018, the Union Cabinet relaxed the rules for Coal India Limited (CIL) to extract natural gas. **CIL accounts for over 80 % of India's domestic coal output.**
- Under the CBM policy, CBM bidding rounds have been implemented in 33 CBM blocks. It is expected that India will have 2,600 billion cubic meters of CBM.
- India has the fifth-largest coal reserves in the world, and CBM has been looked at as a clean alternative fuel with significant prospects.
- **The country's coal and CBM reserves are found in 12 states. The Gondwana sediments of eastern India host the bulk of India's coal reserves and all the current CBM producing blocks.** For instance-CBM projects exist in Raniganj coalfield, the Parbatpur block in Jharia coalfield and the East and west Bokaro coalfields.
- The vast majority of the best prospective areas for CBM development are in eastern India, situated in DamodarKoel valley and Son valley.

About CBM

- CBM is a clean non-conventional source of energy extracted from unconventional gas reservoirs. Where gas is extracted directly from the coal that is the source of the gas.

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- CBM is formed during the process of coalification – the transformation of plant material into coal. The methane is present as lining in the inside of pores within the coal.
- The methane is held underground within the coal and is extracted by drilling into the coal seam and removing the groundwater.
- Coal bed methane contains very little heavier hydrocarbons such as propane or butane, and no natural-gas condensate.
- **It is called ‘sweet gas’ because it does not contain any hydrogen sulphide.** The gas often contains up to a few percent of carbon dioxide.
- **Uses of CBM:** CBM can be used for power generation, as compressed natural gas (CNG) auto fuel, as feedstock for fertilisers, industrial uses such as in cement production, rolling mills, steel plants, and for methanol production.

PEPPER IT WITH
CNG, HELP, NELP, Conventional
and non-Conventional Sources

Analytica

- ✓ The government in 2019 liberalised foreign investment (FDI) norms in coal mining. For sale of coal, allowing 100 % FDI for coal mining activities including associated processing infrastructure. This move is expected to attract international players and create an efficient and competitive coal market. Coal bed methane should also be included in this.
- ✓ Coal extraction and its widespread use as an energy resource pollutes the environment a lot. Coal is becoming outdated practice, instead of it the electricity led infrastructure should be given preference. Though CBD is relatively a cleansource its extraction requires coal mining which is not a clean way of harnessing energy.
- ✓ The poor permeability of coal seams makes CBM production a major challenge for extraction. Also, the gas present in the coal seams depends on the type of coal and the quantity of gas present may vary depending upon the coal type.

Issues involved in CBD Extraction

- **Water pollution:** Coal bed methane exploration involves pumping large volumes of water out of coal seams to reduce the hydrostatic pressure and liberate the gas. Either water gets contaminated or polluted.
- **Global Warming:** Methane is the potential Greenhouse Gas its leakage and inefficient extraction may contribute to GHG which ultimately contribute to global warming.
- **Environmental Clearance:** CBD producers need to get environmental clearance. It is time consuming and prone to delays, causing losses. Further local resistance would also limit the potential of CBD extraction.

Conclusion

India should ensure its energy security and CBD as a cleaner source of energy is a sustainable **alternative source for augmenting India’s energy resource**. CBD extraction would reduce crude Oil and Gas Imports and therefore reduce import billing. Further CBD doesn't involve huge cost as its proximity with coal mining is well defined. Power is essential in economic development. Therefore, India should diversify its power sources in order to achieve sustainable development goals by harnessing resources which are present with it.

New Variety of Paddy: ‘Sahyadri Megha’

News Excerpt

University of Agricultural and Horticultural Sciences (UAHS), Shivamogga, has developed ‘Sahyadri Megha’, a new red rice variety that is resistant to blast disease and rich in nutrients.

Pre-Connect

- There has been a decline in net cultivable area under paddy cultivation because paddy varieties become vulnerable to blast disease and other infestations.

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- Red rice is rich in fiber and protein, enriched with the goodness of antioxidants and magnesium, rice helps in controlling diabetes.
- Red rice can also prevent asthma and improves consumption of oxygen for health-savvy individuals in urban areas.

About New Variety

- Sahyadri Meghais a blast resistant red rice variety developed to cope with diseases prevalence and need of enriched macro-nutrient in paddy.
- Sahyadri Meghais the result of the hybridization breeding method cross-breeding among the 'Jyothi' variety + 'Akkalu' variety, a native disease-resistant and protein-rich paddy variety.
- It has been approved by the State-level Seed Sub-Committee and soon the new variety will be notified under the Indian Seed Act 1966 and afterwards it will become a part of the seed chain distribution.

Rice Blast Disease

- ❖ This disease is caused by a fungal pathogen.
- ❖ Also known as rotten neck or rice fever.
- ❖ Reported from 80 rice-growing countries. First recorded in India during 1918.
- ❖ Expected grain loss: 70 to 80%
- ❖ It affects almost all parts of the plant but very damaging during seedling and panicle filling stage.
- ❖ In India, the disease appears where ever rice is grown but more prevalent in the areas where high humidity and low temperature is present during nights.
- ❖ This disease can be managed very effectively by using resistant crop varieties. Like-Sahyadri Megha

	Hybridization	Genetically Modified Crops
What?	<ul style="list-style-type: none"> • Hybridization is the process of interbreeding between individuals (two or many) different species or genetically different species. • It can occur naturally or by humans. 	<ul style="list-style-type: none"> • Genetically modified crops are created by additions or deletions to DNA or in particular Gene. It involves gene splicing. • It can only be done in lab
Limitation	<ul style="list-style-type: none"> • Take longer to develop and are more trouble to produce. • Sub-optimal result if seed of hybrid are re-introduced. 	<ul style="list-style-type: none"> • GMC has a negative impact on biodiversity. • Replication or re-sown not possible.
Advantages	<ul style="list-style-type: none"> • Faster growth • More vigor and are more resistant to a variety of diseases and illness 	<ul style="list-style-type: none"> • Drought, Diseases and temperature tolerant • Designed to deliver specific nutrients.

Analytica

Significance of New Variety

- ✓ The decreasing trend of rice cultivation is likely to stall as the new variety would encourage farmers with its features of disease resistance and better yield. For instance- the yield per hectare from 'Sahyadri Megha' is around 65 quintals, substantially higher than other red paddy varieties.
- ✓ Further enriched nutrients would help farmers to fetch good prices. The protein content in the new variety is 12.48% which is higher than the other red rice varieties.
- ✓ New variety is less prone to production losses due to erratic meteorological conditions as the new variety has 120 days of sowing, even it can be sown in delay in the onset of monsoon.

- ✓ The cultivation switching of Paddy growers to commercial crops like arecanut, ginger and rubber for lucrative returns can be retained to rice cultivation through new varieties to address the feed and nutrition demands of the population, and to fetch good income at low cost. Further such efficient, low cost, nutritious paddy varieties are likely to achieve the visionary goals of doubling farmer income.

Relevance of Hybrid Seed

- The Ratio of food producers to food consumers has significantly declined. This has placed pressure on food production to feed a rapidly growing population, and even gets intensified in case of significant crop losses due to severe heat and drought. Such extreme weather events raised concern for global food security. Hybrid seed offers efficient agricultural production and has a potential to meet these challenges.
- Efficiency in agriculture by reduction of its environmental footprint is the need of the hour. Enrichment of human diets with more nutritious foods can be fetched by hybrid seed without much externalities on the environment. The loss of the diversity through the genetic bottlenecks of domestication is very low in case of hybridization led seed.
- Hybrid technology can remarkably transform dry land cultivation and rain fed agriculture.
- Hybridization is convenient, suitable and well-known practices which don't cause threat to biodiversity likewise genetically modified crops does. Further two different varieties used in hybridization belong to that region. A new variety is likely to have common adaptation. Hence their introduction is simpler.

The Indian Council of Agricultural Research (ICAR), State Agricultural Universities and private companies are engaged in the development of hybrids and High Yielding Varieties (HYVs) seeds of different crops suitable for the varied agro climatic conditions. Government provides financial assistance to States and implementing agencies through various ongoing crop development schemes viz. -

1. National Food Security Mission (NFSM),
2. Bringing Green Revolution in Eastern India (BGREI),
3. Rashtriya Krishi Vikas Yojana (RKVY)

PEPPER IT WITH
DNA Splicing, CRISPR
cas9, ICAR-NRRI, RKVY

Carissa Kopilii

News Excerpt

Carissa kopilii, a multi utility wild berry is threatened by a hydroelectric project and water turned acidic.

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Background

- A multi-utility wild berry *Carissa carandas*, better known as karonda in Hindi, has a hitherto unknown cousin in Assam, *Carissa kopilii*.
- *Carissa kopilii* is a wilder variety of the more familiar *Carissa carandas*.
- *Carissa kopilii* is named after a river — Kopili in central Assam.

- The plant is distributed sparsely, rooted in rocky crevices along the Kopili riverbed at altitudes ranging from 85-600 metres above sea level.
- *Carissa kopilii*, yields white flowers from August-October and fruits from November-January.

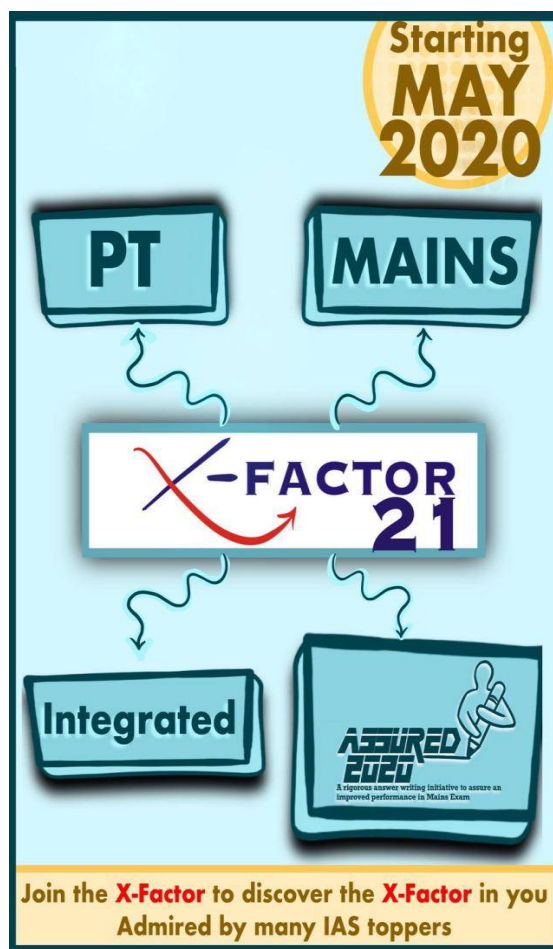
Issues

- Unlike the abundant *Carissa carandas*, *Carissa kopilii* is threatened by the very river it is named after.
- It is threatened by a hydroelectric project on the river and water turned acidic because of coal mining in Meghalaya upstream.

Carissa Carandas

Carissa carandas has been used as a traditional herbal medicine for a number of ailments such as diarrhoea, anaemia, constipation, indigestion, skin infections and urinary disorders. The leaves have been used as fodder for silkworms while a paste of its pounded roots serves as a fly repellent.

The *Carissa carandas* was among several thorny plants the British had grown 140 years ago for a 1,100-mile barrier apparently to enforce taxes and stop the smuggling of salt.



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SCIENCE & TECHNOLOGY

Acute Encephalitis Syndrome

News Excerpt

A three-year-old boy died in Bihar due to Acute Encephalitis Syndrome (AES), also known as brain fever, which killed about 200 children in the state last year.

Pre-Connect

- Last year, around 200 children have lost their life in Bihar after consuming lychee fruit.
- According to several reports, the fruit was found to be infested with virus and the patients showed symptoms similar to that of AES.
- All of the kids experienced similar symptoms, with a sudden drop in the blood sugar levels which led to their untimely death.
- The reason for high mortality in children is the lack of nourishment, which leads to a mismatch in the blood sugar levels and compromises your immunity as well.

What is AES?

- AES is characterized as acute-onset of fever and a change in mental status (mental confusion, disorientation, delirium, or coma) and/or new-onset of seizures in a person of any age at any time of the year.
- Japanese encephalitis virus (JEV) is the major cause of AES in India. The disease most commonly affects children and young adults and can lead to considerable morbidity and mortality.
- JEV has its endemic zones running along the Gangetic plain including states of UP (east), Bihar, West Bengal and Assam, and parts of Tamil Nadu.
- Viruses are the main causative agents in AES cases, although other sources such as bacteria, fungus, parasites, spirochetes, chemicals, toxins and non-infectious agents have also been reported over the past few decades.
- The outbreak of JE usually coincides with the monsoon and post monsoon period when the density of mosquitoes increases while encephalitis due to other viruses specially enteroviruses occurs throughout the year as it is a water borne disease.
- Symptoms include dizziness, headache, body aches, fever, nausea, vomiting, fatigue, confusion, feeling anxious or acting or talking oddly, vision impairment, hearing loss, back pain, weakness, trouble walking, or paralysis, unconsciousness.

Treatment and prevention

- The first treatment plan for this viral infection is hydration and increasing the glucose levels in the body.
- The first thing to do to stop the mosquito-borne disease is to keep the areas around your vicinity sanitised and stop the breeding of mosquitos.
- Doctors also suggest drinking plenty of water to stay hydrated which supplies essential vitamins and flushes out any toxins from the body.
- In other cases, getting vaccines for diseases like measles, mumps and varicella which affect children the most also help stay safe.

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Linkage with Lychee

- ❖ Children suffering from chronic malnutrition normally have depleted glycogen levels in their livers.
- ❖ The fruit contains a toxin that inhibits the body's ability to produce glucose, which can affect young children whose blood sugar levels are already low because they have skipped dinner.
- ❖ When these children eat unripe lychees, hypoglycaemia is induced in them - which is aggravated by toxins in the fruit.
- ❖ This hypoglycaemia is irreversible and can hamper the functioning of the brain unless there is a quick and timely intervention in the form of glucose injections.

Huntingtin Disease

News Excerpt

Huntington's disease can be challenging on a good day, therefore preparing for self-isolation and being informed on the best ways to cope during this difficult and confusing time of isolation due to COVID-19 is very important.

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What is Huntingtin Disease?

- It is a progressive brain disorder that causes uncontrolled movements, emotional problems, and loss of thinking ability (cognition).
- Adult-onset Huntington disease, the most common form of this disorder, usually appears in a person's thirties or forties. Early signs and symptoms can include irritability, depression, small involuntary movements, poor coordination, and trouble learning new information or making decisions.
- Many people with Huntington disease develop involuntary jerking or twitching movements known as chorea. As the disease progresses, these movements become more pronounced.
- Affected individuals may have trouble walking, speaking, and swallowing. People with this disorder also experience changes in personality and a decline in thinking and reasoning abilities.
- A less common form of Huntington disease known as the juvenile form begins in childhood or adolescence. It also involves movement problems and mental and emotional changes.
- Additional signs of the juvenile form include slow movements, clumsiness, frequent falling, rigidity, slurred speech, and drooling. School performance declines as thinking and reasoning abilities become impaired.
- Juvenile Huntington disease tends to progress more quickly than the adult-onset form; affected individuals usually live 10 to 15 years after signs and symptoms appear.
- Mutations in the HTT gene cause Huntington disease. The HTT gene provides instructions for making a protein called huntingtin. Although the function of this protein is unknown, it appears to play an important role in nerve cells (neurons) in the brain.
- There are no curative or preventive therapies, but there has been an explosion of research in the last few years.

Bio-fortified Crop MACS 4028

News Excerpt

Scientists from Agharkar Research Institute (ARI), Pune have developed a biofortified durum wheat variety MACS 4028, which shows high protein content.

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Pre-Connect

- Malnutrition poses serious socio-economic implications worldwide, more specifically in the underdeveloped and developing countries.
- As per the National Family Health Survey (NFHS)-4 (2015-16), 35.7 per cent children below five years are underweight, 38.4 per cent are stunted and 21 per cent are wasted in India.
- India in terms of hunger rankings has slipped from 95th rank in 2010 to 102nd in 2019.
- The global community set '**Sustainable Development Goals (SDGs)**' which aim to end malnutrition in all its form. SDG2 (Zero Hunger) aims to end hunger through improved food and nutritional security. SDG3 (Good Health and Well-being) aims to ensure healthy lives and promotes well-being of people at all ages.
- Since 'dietary-**diversification**' may not be feasible in many developing and underdeveloped countries, addition of nutrients artificially is a solution of malnutrition.
- Indian Council of Agricultural Research (ICAR) has improved the nutritional quality of more than 5600 high yielding varieties of crops of which number of biofortified varieties is negligible.

The biofortified varieties assume great significance to achieve nutritional security of the country.

Highlights

- Scientists from Agharkar Research Institute (ARI), Pune, an autonomous institute under the Department of Science & Technology, Government of India, have developed a biofortified durum wheat variety MACS 4028, which shows high protein content.
- The wheat variety shown high protein content of about 14.7%, better nutritional quality having zinc 40.3 ppm, and iron content of 40.3ppm and 46.1ppm respectively, good milling quality and overall acceptability.
- MACS 4028 is a semi-dwarf variety, which matures in 102 days and has shown the superior and stable yielding ability of 19.3 quintals per hectare. It is resistant to stem rust, leaf rust, foliar aphids, root aphids, and brown wheat mite.
- The MACS 4028 variety is also included by the Krishi Vigyan Kendra (KVK) programme for United Nations Children's Fund (UNICEF) to alleviate malnutrition in a sustainable way and can boost the Vision 2022 **"KuposhanMukt Bharat"**, the National Nutrition Strategy.

Bio-fortification

- ❖ Fortification is the practice of deliberately increasing the content of an essential micronutrient, i.e. vitamins and minerals in a food, so as to improve the nutritional quality of the food supply and provide a public health benefit with minimal risk to health.
- ❖ Biofortification is the process by which the nutritional quality of food crops is improved through agronomic practices, conventional plant breeding, or modern biotechnology.
- ❖ Biofortification differs from conventional fortification in that biofortification aims to increase nutrient levels in crops during plant growth rather than through manual means during processing of the crops.
- ❖ Biofortification may therefore present a way to reach populations where supplementation and conventional fortification activities may be difficult to implement and/or limited.
- ❖ Examples of biofortification include: iron-biofortification of rice, beans, sweet potato, cassava and legumes; zinc-biofortification of wheat, rice, beans, sweet potato and maize etc.

Conclusion

Wheat crop in India is grown under six diverse agroclimatic zones. In the peninsular zone of India, the crop experiences moisture stress due to dependency on rain and limited irrigation facility. Hence, there is a high demand for drought-tolerant varieties. The MACS 4028 will help farmers in such situation. The variety will also help improve nutritional security of country.

Quantum Computing and Quantum Technology

News Excerpt

The Indian government is planning to invest ₹8,000 crores (\$1.12 billion) in quantum computing research over five years. The government in its budget 2020 has announced a National Mission on Quantum Technologies & Applications (NM-QTA) to be implemented by the Department of Science & Technology (DST).

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Pre-Connect

- India's investment comes quite late as plenty of nations have already allotted grants for research in the area.
- The European Commission and the US has already allotted grants in the area. Meanwhile, China has already committed more than \$2 billion over the years to fuel quantum research. Other countries such as Japan, Germany, and Canada have also announced various schemes to boost quantum computing programs.

- To catch up with other countries in the quantum computing field, India will need to invest in the right kind of projects.

What is Quantum Computing?

- An ordinary computer chip uses bits. These are like tiny switches, that can either be in the off position – represented by a zero – or in the on position – represented by a one. Every app you use, website you visit and photograph you take is ultimately made up of millions of these bits in some combination of ones and zeroes.
- However, in nature, things aren't just on or off. They're uncertain. And even our best **supercomputers aren't very good at dealing with uncertainty**. When one goes down to a really small scale, weird things start to happen.
- Instead of bits, quantum computers use qubits. Rather than just being on or off, qubits can also be in **what's called 'superposition'** – where they're both on and off at the same time, or somewhere on a spectrum between the two. A qubit allows for uncertainty.
- The other thing that qubits can do is called entanglement. Normally, if two coins are flipped, the result of one-coin toss has no bearing on the result of the other one. They're independent. In entanglement, two particles are linked together, even if they're physically separate. If one comes up heads, the other one will also be heads.
- Almost anything can knock a qubit out of the delicate state of superposition. As a result, quantum computers have to be kept isolated from all forms of electrical interference, and chilled down to close to absolute zero.



केन्द्रीय बजट
UNION BUDGET 2020

Budget 2020 announced Rs 8,000 crore over the next 5-yr in the National Mission on Quantum technology and its applications

- ⚙️ The areas of focus for the NM-QTA Mission will be in fundamental science, translation, technology development and towards addressing issues concerning national priorities
- ⚙️ The mission can help prepare next generation skilled manpower, boost translational research and also encourage entrepreneurship and start-up ecosystem development.
- ⚙️ Quantum principles will be used for engineering solutions to extremely complex problems in computing, communications, sensing, chemistry, cryptography, imaging and mechanics





- ⚙️ Their applications which will be boosted include those in aero-space engineering, numerical weather predictions, simulations, securing the communications & financial transactions, cyber security, advanced manufacturing, health, agriculture, education
- ⚙️ It can bring India in the list of few countries with an edge in this emerging field will have a greater advantage in garnering multifold economic growth and dominant leadership role

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Advantage

- Quantum computers aren't only about doing things faster or more efficiently but the things **that even the best supercomputer just isn't capable of**.
- They have the potential to rapidly accelerate the development of artificial intelligence. Google is already using them to improve the software of self-driving cars. **They'll also be vital** for modelling chemical reactions.
- Right now, supercomputers can only analyse the most basic molecules. But quantum **computers operate using the same quantum properties as the molecules they're trying to simulate**. They should have no problem handling even the most complicated reactions.
- That could mean more efficient products – from new materials for batteries in electric cars, through to better and cheaper drugs, or vastly improved solar panels. Scientists hope that **quantum simulations could even help find a cure for Alzheimer's**.
- Quantum computers will find a use anywhere from predicting the financial markets, to improving weather forecasts, to modelling the behaviour of individual electrons, Cryptography etc.

Conclusion

Quantum technology is opening up new frontiers in computing, communications, cyber security with wide-spread applications. It is expected that lots of commercial applications would emerge from theoretical constructs which are developing in this area. With a solid research base and workforce founded on significant and reliable government support, it can lead to the creation of innovative applications by industries, thereby stimulating economic growth and job creation, which will feed back into a growing **quantum-based economy**. **The government's financial and organizational support will establish standards to be applied to all research and help stimulate a pipeline to support research and applications well into the future.**

Modified Electronic Manufacturing Clusters Scheme

News Excerpt

The Union Cabinet chaired by the Prime Minister has approved financial assistance to the Modified Electronics Manufacturing Clusters (EMC2.0) Scheme for development of world class infrastructure along with common facilities and amenities through Electronics Manufacturing Clusters (EMCs).

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Pre-Connect

- Ministry of Electronics and Information Technology (MeitY) notified Electronics Manufacturing Clusters (EMC) Scheme to build and create requisite infrastructure ecosystem for electronics manufacturing in 2017.
- A period of 5 years (i.e. upto 2022) is available for disbursement of funds for the approved projects. Under EMC scheme, 20 Greenfield EMCs and 3 Common Facility Centres (CFCs) measuring an area of 3565 acres have been approved in 15 states across the country.
- There is a need for continuation of such scheme in modified form for further strengthening the infrastructure base for electronics industry in the country and deepening the electronics value chain.
- **India's electronics production** has increased from Rs. 1,90,366 crore (US\$29 billion) in 2014-15 to Rs. 4,58,006 (US\$ 70 billion) in 2018-19, at a Compound Annual Growth Rate (CAGR) of about 25%.
- **India's share in global electronics manufacturing grew from 1.3% (2012) to 3.0% (2018)**. It accounts for 2.3% of India's GDP at present.

Highlights

- The Modified Electronics Manufacturing Clusters (EMC 2.0) Scheme would support setting up of both Electronics Manufacturing Clusters (EMCs) and Common Facility Centers (CFCs).
- For the purpose of this Scheme, an EMC would set up in geographical areas of certain

minimum extent, preferably contiguous, where the focus is on development of basic infrastructure, amenities and other common facilities for the ESDM (Electronic system design and manufacturing) units.

- For Common Facility Centre (CFC), there should be a significant number of existing ESDM units located in the area and the focus is on upgrading common technical infrastructure and providing common facilities for the ESDM units in such EMCs, Industrial Areas/Parks/Industrial corridors.
- The total outlay of the proposed EMC 2.0 Scheme is Rs. 3,762.25 crore over a period of eight years.
- The Scheme will create a robust infrastructure base for electronic industry to attract flow of investment in ESDM sector and lead to greater employment opportunities. Following are the expected outputs/outcomes for the Scheme:
 - Availability of ready infrastructure and Plug & Play facility for attracting investment in electronics sector
 - New investment in electronics sector
 - Jobs created by the manufacturing units;
 - Revenue in the form of taxes paid by the manufacturing units
- These EMCs would help development of entrepreneurial ecosystem, drive innovation and catalyse the economic growth of the region by attracting investments in the sector, increasing employment opportunities and tax revenues.

Analytica

- India's electronics production is estimated at Rs 4.58 trillion in 2018-19, which despite accelerated growth in recent years, still represents only 3.3 per cent share of the global market.
- The domestic electronics hardware manufacturing sector faces lack of level-playing field against competing nations on account of several disabilities which render the sector uncompetitive.
- The National Policy on Electronics 2019 aims to promote domestic manufacturing and export in the entire value-chain of Electronics System Design and Manufacturing (ESDM) to achieve a turnover of \$400 billion (Rs 26 lakh crore) by 2025.
- The issues faced by the sector include lack of adequate infrastructure, domestic supply chain and logistics, high cost of finance, inadequate availability of quality power, inadequate components manufacturing base, limited design capabilities and focus on research and development by the industry, and inadequacies in skill development.
- India is heavily dependent on the import of electronic components and systems. **In fiscal year 2019, India's** electronics imports stood at \$55.6 billion, most of it for use in smartphones.
- According to a joint study by ASSOCHAM and NEC Technologies, domestic demand for electronic products is expected to grow at a CAGR (compound annual growth rate) of 41 per cent during 2017-2020 to reach a turnover of US\$ 400 billion by 2020.
- The same study also mentions that domestic manufacturing of electronic hardware, which is currently growing at a CAGR of 27 per cent, may touch US\$ 104 billion in 2020. This offers a huge opportunity for the Indian electronics manufacturing services (EMS) sector.

PEPPER IT WITH
National Policy on Electronics
2019, M-SIPS

Way Forward

- ✓ EMCs would aid the growth of the ESDM sector, help development of entrepreneurial ecosystem, drive innovation and catalyze the economic growth of the region by attracting investments in the sector, increasing employment opportunities and tax revenues.
- ✓ This new policy also advances the Prime Minister Narendra Modi's vision expressed in the National Policy for Electronics (NPE), 2019 to make India a global hub for mobile and

component manufacturing.

- ✓ **Local firms backed by the 'Make in India' initiative**, as well as global giants looking to relocate their manufacturing bases from China to alternate locations such as India, Vietnam and Indonesia due to mounting labour costs, will provide a strong impetus to the Indian electronics industry.
- ✓ There is a need to end tax uncertainties and simplify tax regime and provide investment incentives. Electronics Export Clusters could be established in identified big coastal economic zones under Sagarmala Project.

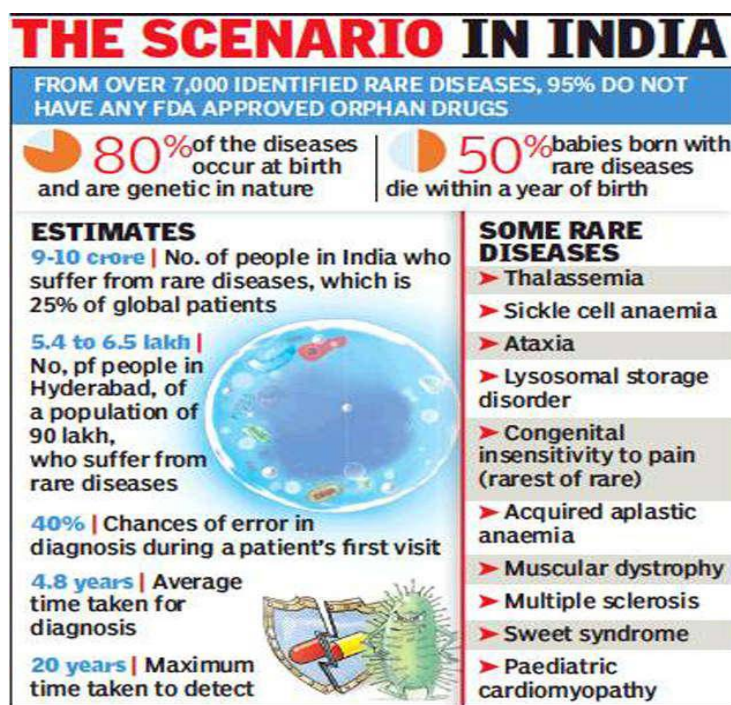
Rare Diseases

News Excerpt

The Madras High Court has recently expressed dismay over the delay on the part of the Centre in finalising the National Policy on Treatment of Rare Diseases and the reluctance of the State government to allocate funds for treatment of rare diseases on the perception that treatment could only prolong longevity of patients and not cure them permanently.

Pre-Connect

- WHO defines rare disease as often debilitating lifelong disease or disorder condition with a prevalence of 1 or less, per 1000 Population.
- Rare diseases include genetic diseases, rare cancers, infectious tropical diseases and degenerative diseases. 80% of rare diseases are genetic in origin and hence disproportionately impact children.
- Rare diseases are also called 'orphan diseases' and drugs to treat them are called 'orphan drugs'.
- According to the government, so far only about 450 diseases have been recorded in India from tertiary care hospitals that are globally considered as rare diseases. The most commonly reported diseases include Haemophilia, Thalassemia, Sickle-cell Anaemia and Primary Immuno Deficiency in children, auto-immune diseases, Lysosomal storage disorders such as **Pompe disease, Hirschsprung disease, Gaucher's disease, Cystic Fibrosis, Hemangiomas** and certain forms of muscular dystrophies.



Analytica

Issues

- **Lack of epidemiological data**- Data on how many people suffer from different rare diseases in India is lacking. The cases identified so far have been diagnosed at tertiary hospitals.
- **Diagnosis of rare diseases**- Diagnosis of a rare condition may take upto several years, owing to difficulty in diagnostic modalities and lack of awareness among doctors. For many rare diseases, no diagnostic method exists, or diagnostic facilities are unavailable.
- **Challenges in research and development**- A fundamental challenge in research and development for the majority of rare diseases is that there is relatively little known about the

pathophysiology or the natural history of these diseases. Rare diseases are difficult to research upon as the patient pool is very small and it often results in inadequate clinical experience.

- Prohibitive cost of treatment- As the number of persons suffering from individual rare diseases is small, they do not constitute a significant market for drug manufacturers to develop and bring to market drugs for them. For this reason, rare diseases are also called **'orphan diseases'** and drugs to treat them are called **"orphan drugs"**. Where, they do make drugs to treat rare diseases, they sell them at extremely high costs, to recoup the cost of research and development.

PEPPER IT WITH

FDA, RashtriyaArogya Nidhi, Ayushman bharat scheme

Concerns

- ✓ The health ministry had formulated a national policy on treatment of rare diseases in 2017, which envisaged the setting up of a corpus fund with an initial amount of ₹100 crore towards funding treatment of rare genetic diseases, but this never picked up due to budget constraints. Thus, recently it was suspended due to implementation issues and to widen scope and treatment options.
- ✓ The scope of the draft policy proposes to limit financial support to patients suffering from only a few rare diseases, categorised under Group 1, like osteopetrosis and certain immune deficiency disorders that can be cured with treatment, and certain diseases **Tyrosinemia, Fabry's disease and Maple Syrup Urine Disease**, which require kidney or liver transplants. This is a cause of concern.
- ✓ Availability and access to medicines are important to reduce morbidity and mortality associated with rare diseases. Despite progress in recent years, effective or safe treatment is not available for most of the rare diseases.

Government Initiatives

In its draft rare diseases policy 2020, the government has proposed a financial support of up to Rs 15 lakh under the umbrella scheme RashtriyaArogya Nidhi for those that require a one-time treatment, provided the patient was eligible under its flagship health insurance scheme, **Ayushman Bharat's Pradhan Mantri Jan Arogya Yojana**.

Way Forward

- Government must take measures to improve research and development for treatment, diagnostic modalities, care and support including assistive devices, drug development for rare diseases etc.
- Create a corpus fund at Central and State Level for part funding treatment of rare diseases on the basis of technical criteria developed by the Technical cum Administrative Committee.
- Take legal and other measures to control the prices of drugs for rare diseases to ensure its affordability and health system sustainability.
- Encourage funding support from Public Sector Undertakings (PSUs) and corporate sector and exploring other options for sustainable funding for the corpus.
- In the US, the Orphan Drugs Act provides incentives to drug manufacturers to encourage them to manufacture drugs for rare diseases, and similar incentives are also provided in the UK and certain other developed countries. India must also follow this initiative.

Thus a robust policy is necessary to devise a multipronged and multi-sectoral approach to build **India's capacity to tackle rare diseases comprehensively**.

Cord Blood Banking



News Excerpt

Poona Citizen Doctor Forum (PCDF), a body that aims to rebuild trust among citizens and doctors and promote ethical rational medical practice, has come forward to bust the aggressively promoted concept of cord blood banking.

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Pre-Connect

- Cord blood is collected from the placenta and umbilical cord after a baby is delivered. Not only does it contain all components of whole blood (red and white cells, platelets, and plasma), but it contains blood stem cells, also called hematopoietic stem cells, which can produce all types of blood and immune cells for a person's entire life.
- Blood stem cells can be used to treat and even cure some diseases of the blood and immune system through a stem cell transplantation. These stem cells can be collected from cord blood as well as from bone marrow and peripheral blood (e.g. from an arm vein) and then delivered intravenously to a patient.
- Cord blood can be used immediately to treat disease, or easily stored for future public or private use.
- Cord blood banking is the process of collecting the cord blood, extracting and cryogenically freezing its stem cells and other cells of the immune system for potential future medical use.

RISKS AND REMEDIES		
WHAT IS CORD BLOOD? It is the blood that remains in the baby's umbilical cord after it is cut. Considered a rich source of stem cells, this blood is used for treating critical diseases 	CURE <ol style="list-style-type: none"> Cancer: Acute and chronic leukemia Blood disorders: Aplastic anaemia, thalassemia Immune disorders: Histiocytic disorders Inborn errors of metabolism: Hurler syndrome, Krabbe syndrome 	
CORD BLOOD BANK It is a place where umbilical cord can be stored for future use. While government blood banks accept donations from anyone, private ones allow families to preserve their blood for their own use for a fee	KEY CONCERN Most diseases currently treatable by cord blood stem cell transplant are hereditary. The genetic defect for which a treatment is sought is likely to be present in the cord blood as well. So, it cannot be used	WAY FORWARD Public banking should be promoted. It helps increase the donor pool for patients suffering from blood-related disorders. Those donating their children's cord blood may get preference

Analytica

What Can It Be Used For?

- Globally, cord blood banking is recommended as a source of hematopoietic stem cell transplantation for haematological cancers and disorders. For all other conditions, the use of cord blood as a source of stem cells is not yet established.
- Cord blood contains blood-forming stem cells that can be used in the treatment of patients with blood cancers such as leukemias and lymphomas, as well as certain disorders of the blood and immune systems, such as sickle cell disease and Wiskott-Aldrich syndrome.

Using cord blood as a source of stem cells for transplantations

Advantages

- ✓ Stem cells from cord blood have a lower risk of carrying blood borne infectious diseases, or of causing the potentially fatal immune response, graft-versus-host disease.
- ✓ Cord blood may offer a matched source of stem cells for patients who cannot find an immunological match in bone marrow donor registries.

PEPPER IT WITH
Cryopreservation, FDA,
stem cell

Disadvantages

- ✓ Fewer blood stem cells are available from an umbilical cord sample than other sources. Two cords are typically required for each adult transplant.
- ✓ The immune system recovers more slowly after a cord blood transplantation, putting the recipient at greater risk for certain infections.
- ✓ There is a higher probability that a cord blood transplant will be unsuccessful.

Concerns

- Cord blood banking involves taking the umbilical cord blood, which is a rich source of stem cells, and preserving it for future use. Private companies who have forayed into this field offer packages anywhere between ₹50,000 and ₹1 lakh to store and preserve the cells in right

conditions. However, the Indian Council of Medical Research (ICMR) does not recommend commercial stem cell banking.

- Stem cell banking has been aggressively marketed over the past decade even as its use is still in experimental stages. Companies charge enormous fees from parents to preserve cells. Moreover, the concern is that it is merely by emotional marketing that companies convince parents to bank the cells for several years promising future therapeutic use.
- So far there is no scientific basis for preservation of cord blood for future self-use and this practice therefore raises ethical and social concerns.

Alternatives to cord blood banking

Bone marrow and other sources- If someone doesn't have cord blood stored, they will have to rely on stem cells from another source. For that, we can go back to the history of cord blood, which really begins with bone marrow. Bone marrow contains similar although less effective and possibly tainted versions of the same stem cells abundant in cord blood. Scientists performed the first bone marrow stem cell transplant in 1956 between identical twins.

Conclusion

Cord blood is one of the sources of blood stem cells that can repopulate a patient's blood and immune system. Cord blood has both advantages and disadvantages compared to bone marrow or peripheral blood as a source of blood stem cells. It is unlikely that someone will use their own stem cells in a blood stem cell transplant. It is currently recommended that cord blood is donated to public banks to increase the chance that people in need of a transplant can find an immunological match.

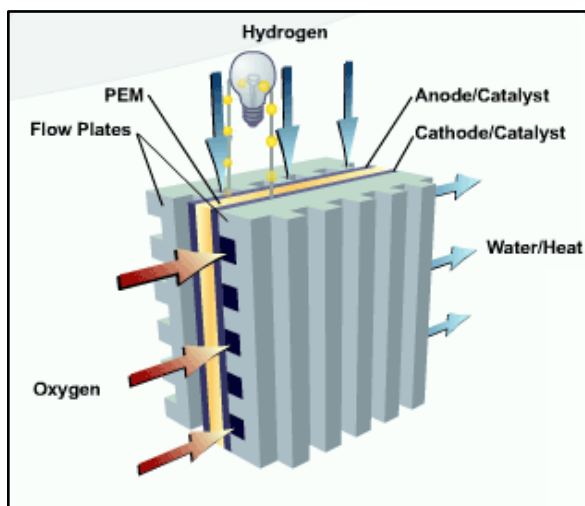
ARCI develop's Fuel Cell Technology for Disaster Management

News Excerpt

Scientists at International Advanced Research for Powder Metallurgy & New Materials (ARCI), Hyderabad, has developed Polymer Electrolyte Membrane fuel cells (PEMFC).

Pre-Connect

- ARCI, established in the year 1997, is an Autonomous Research and Development Centre of Department of Science and Technology (DST), Government of India.
- A fuel cell is a device that uses hydrogen (or hydrogen-rich fuel) and oxygen to create electricity. Fuel cells are more energy-efficient than combustion engines and the hydrogen used to power them can come from a variety of sources. If pure hydrogen is used as a fuel, fuel cells emit only heat and water, eliminating concerns about air pollutants or greenhouse gases.
- One of the common types of fuel cell is the Polymer Electrolyte Membrane (PEM) fuel cell. The PEM fuel cell consists of an electrolyte membrane sandwiched between an anode (negative electrode) and a cathode (positive electrode).
- The PEM is a thin, solid, organic compound, typically the consistency of plastic wrap and about as thick as 2 to 7 sheets of paper.



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Analytica

- PEMFC applications include electric utilities, portable power, and transportation. Its main advantages are that the solid electrolyte reduces corrosion, operates at low temperatures, and delivers quick start-up. Its disadvantages are that the cell requires expensive catalysts and the cell has high sensitivity to fuel impurities.

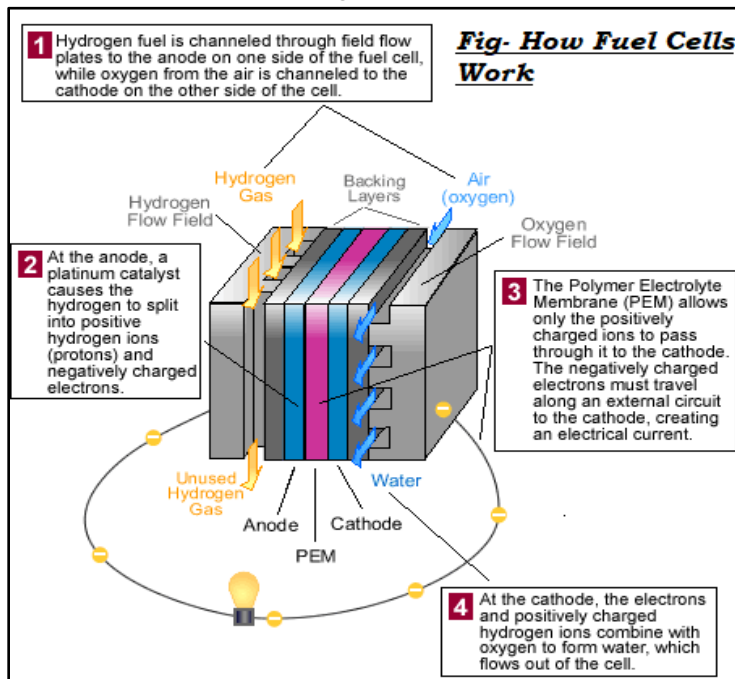
- PEMFC, in its entirety, have an application in decentralised power generation systems. Through intense R&D efforts in the area of fuel cell technologies, ARCI at its Centre for Fuel Cell Technology, Chennai has developed in-house PEMFC systems in the power range of 1 to 20 kiloWatt (kW) and demonstrated the same in stationary (1-20 kW) and transport applications (1,3,5 kW).

- Emergency Operation Centres (EOC) backed with 10 kW system along with fuel cell stack (providing sustainable electricity using hydrogen gas without the need of grid power), air moving sub systems, power control devices and control and monitoring system is being planned as a natural disaster management measure.

- Tamil Nadu is generally affected by five to six cyclones every year, of which two to three are severe. There has been a paradigm shift in the focus of Disaster Management, from response-centric (rescue, relief, rehabilitation, and reconstruction) to laying greater emphasis on the other elements of disaster management cycle (prevention, mitigation, and preparedness) as a means to avert the impact of future emergencies.

- Hence, the State Government decided to look at the prospect of converting the existing Control Room to EOC backed with 10 kW system along with fuel cell stack, air moving sub systems, power control devices and control and monitoring system. Fuel cell systems offer a potential benefit in terms of providing sustainable electricity using hydrogen gas without the need of grid power as required by conventional battery backup systems.

- ARCI is also planning to set up a PEMFC system up to 10 kW capacity at Tamil Nadu State Emergency Operation Centre (TN SEOC) to operate the systems like early warning systems, VHF set, IP phone, BSNL Ethernet and office equipment like scanner, computers, printers, phone, FAX and normal requirements like lighting and fan.



PEPPER IT WITH
National Hydrogen Energy Board,
Alkaline Fuel Cell (AFC), Phosphoric
Acid Fuel Cell (PAFC), Molten
Carbonate Fuel Cell (MCFC), Solid
Oxide Fuel Cell (SOFC)

Fuel cell Technology and Environment

- ❖ Fuel cells are efficient and clean energy producer. Fuel cells have been used in space flights and being introduced in electric vehicles for reducing urban air pollution.
- ❖ Compared to vehicles powered by the internal combustion engine, fuel cell powered vehicles have very high-energy conversion efficiency, (almost double that of currently used engines) and near-zero pollution.
- ❖ Fuel-cell-powered EV's (electric vehicles) score over battery operated EV's in terms of increased efficiency and easier and faster refuelling.

Conclusion

Fuel cell systems are excellent options for small-scale decentralized power generation. Fuel cells can thus supply combined heat and power to buildings, hospitals, airports and military installations at remote locations. Fuel cell systems are modular (i.e. additional capacity can be added whenever required with relative ease) and can be set up wherever power is required. Thus, the ARCI has been at the forefront of PEMFC development in the country. During the last few years, the Centre has developed process know-how for the various components used in the fuel cell stacks, demonstrated fuel cells in electric vehicle for use as range extenders and recently power control devices and control and monitoring system is being planned as a natural disaster management measure.

In-Flight Wi-Fi

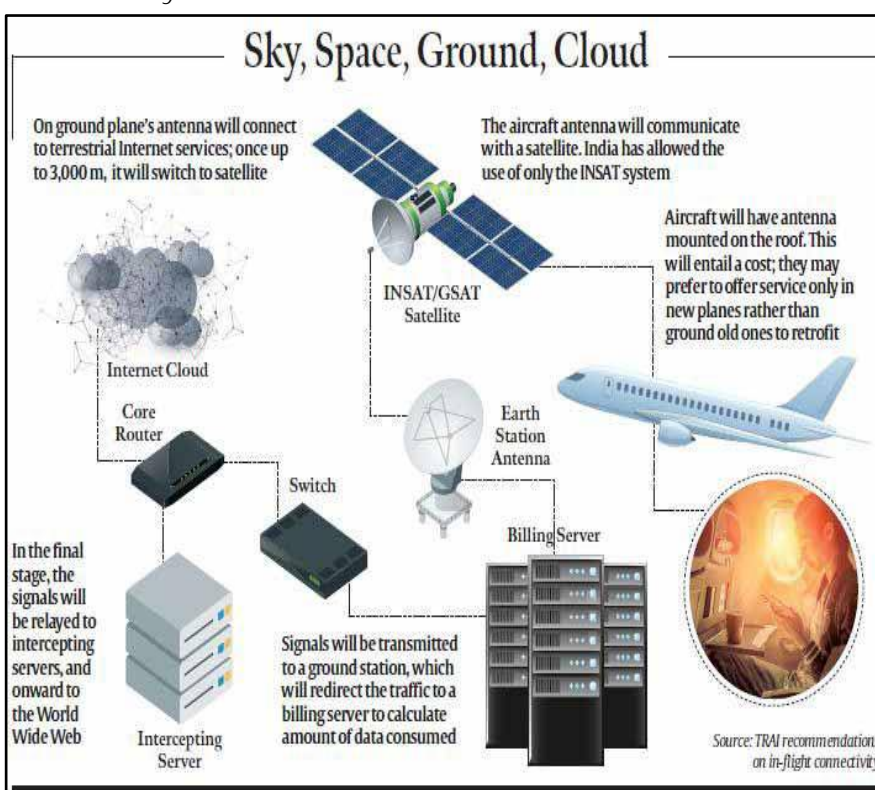
News Excerpt

The central government has recently permitted airlines operating in India to provide in-flight Wi-Fi services to passengers.

Pre-Connect

- The Digital Communications Commission (Erstwhile Telecom Commission) had given its green signal to in-flight connectivity of Internet and mobile communications on aircraft in Indian airspace in 2018.
- State-owned telecom service provider Bharatiya Sanchar Nigam Limited (BSNL) had earlier received licence from the Department of Telecommunications to provide Internet and mobile services on flights.
- The DoT had notified its rules earlier allowing airlines flying within and transiting through India to provide Internet and voice services on mobile phones along with an Indian telecom operator or licensee. So far, SpiceJet has announced that it will offer Internet access to passengers. Vistara has evinced interest in this service.
- According to the rules, passengers can make phone calls or use Internet when a flight is at a minimum height of 3,000 m in Indian airspace to avoid interference with terrestrial mobile networks.

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Analytica

Two systems of connectivity for inflight Wi-Fi - Air-to-ground and satellite.

<u>Air-to-ground system</u>	<u>Satellite based Wi-Fi system</u>
<ul style="list-style-type: none"> ❖ Air-to-ground system is a ground based system that works similar to mobile data network on cell phones. There are towers that project signals upwards unlike mobile data towers that project downwards. Antennae fitted beneath the airplanes receive signals from these towers and send them to an on-board server. The server has a modem that converts these signals, thereby providing WiFi to passengers. These towers are connected to operation centres run by service providers. ❖ The air-to-ground system works seamlessly, unless the airplane is flying over a space with no towers. In that case, satellite Wi-Fi systems can be utilised. 	<ul style="list-style-type: none"> ❖ In Satellite based Wi-Fi system, antennae are fitted on the top of airplanes. Antennae receive signals from satellites orbiting the earth. The antennae need to constantly adjust their position to receive signals as both the satellite and the airplane are constantly moving. These satellites are linked to ground stations that are connected to operation centres run by service providers.

Concerns

- The main captain will have the authority to switch on or switch off the Wi-Fi in flights, and the captain will be required to follow certain guidelines on this matter. For example, Wi-Fi would be switched on only when the plane is at the cruising speed. During take-off or landing, it will not be available. Also, if the weather is not clear, chances are that the captain will not turn on Wi-Fi.
- Airlines will have to bear the initial cost of installing antennae on aircraft. Some airlines have said it would be easier to have the equipment installed on their new aircraft rather than taking planes out of service for retrofitting. The additional cost could find a way into ticket prices.
- In general, Wi-Fi on a plane is slower than on the ground — even though this is changing with newer technologies. Technology and laws allow calls to be made from aircraft, but many airlines do not want noisy cabins.

PEPPER IT WITH
UDAN Scheme, IFC, AAI, TRAI

Conclusion

In-flight internet access is getting popular day by day. Government recently permitting airlines operating in India to provide in-flight Wi-Fi services to passengers will provide various benefits. Passengers will be able to check their messages, email via laptop or mobile phone, can enjoy music or read via e-reader, tablets. Thus, despite it is expected that there will be hike in ticket prices and slow speed, passengers would prefer to fly with an airline offering inflight connectivity.

Raider-X

News Excerpt

An explosive detection device, Raider-X, was recently unveiled at the National Workshop on Explosive Detection (NWED-2020) in Pune.

Pre-Connect

- Raider -X is a Rapid Identification Detector, used to identify a wide range of explosives. The device is capable of detecting concealed explosives using the Raman Spectroscopy-based technique Umars (Universal Multiple Angle Raman Spectroscopy) from a distance.

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- The data library can be built in the system to expand its capability to detect a number of explosives in pure form as well as with the contaminants.
- Raider-X can detect up to 20 explosives within a distance of about two metres, but can be expanded as the requirements with certain limitations. It is developed jointly by High Energy Materials Research Laboratory (HEMRL), Pune and IISc Bengaluru.

PEPPER IT WITH
DRDO, High Energy
Materials

Analytica

- There is no universal solution in the field of explosive detection as it is constantly evolving. There is a need for a synergetic approach towards developing latest explosive detectors by bringing scientific institutes, academia, security agencies, armed forces and police on one platform.
- Raider-X has the capability to detect explosives from a stand-off distance and since the nature of homemade explosives can vary and change over time, law enforcement agencies have the option to update **the detector's data library**.
- The device has various applications including narcotics, for local police, for customs and other detection agencies who need to detect various elements which may be explosive or non-explosive in nature.

Conclusion

With increasing terrorist activities, detection of explosives became a compelling need of the hour. Security agencies are continuously suffering from Naxal attacks in various parts of our country. To effectively thwart the attempts of these anti-social elements, academia, DRDO and other scientific institutes must focus on explosive detection in both bulk and trace forms. Thus, the workshop will help in the further development of explosive detection devices and keep abreast on the recent development and advancements in the field of explosive detection.

Mac-Binding

News Excerpt

The use of social media was allowed recently in Jammu and Kashmir, with an order laying down the latest rules for the use of Internet in the Union Territory. Among various conditions, the order, issued by the Principal Secretary, Home, says Internet connectivity will be made available **"with mac-binding"**.

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Pre-Connect

- Media Access Control (MAC) address is a permanent address which is assigned to the network interface of every network connected device (NIC Cards, Wireless Adapters, etc.) by the hardware manufacturers.
- MAC address, is a 48- bit address (IPV4) or 64-bit address (IPV6) associated with a network adapter.

Analytica

- Every device has a Media Access Control (MAC) address, a hardware identification number that is unique to it. While accessing the Internet, every device is assigned an IP address. Mac-binding essentially means binding together the MAC and IP addresses, so that all requests from that IP address are served only by the computer having that particular MAC address.
- In effect, it means that if the IP address or the MAC address changes, the device can no longer access the Internet. Also, monitoring authorities can trace the specific system from which a particular online activity was carried out.
- MAC addresses are useful for security purposes, as they are only rarely changed from the default. IP addresses can change dynamically, especially on networks using DHCP to assign IP addresses, so MAC addresses are often a more reliable way to identify senders and receivers of network traffic.

Conclusion

Internet connectivity in Jammu Kashmir thus made available with mac-binding, will enable authorities to trace a device on the basis of its online activity. Through this process, a request from a particular machine which has its MAC address and IP address binded will be accepted. It means that one can only open websites that have been allowed by the administration using a system which has its MAC and IP.

Geo Imaging Satellite-1 (GISAT-1)

News Excerpt

Indian Space Research Organisation (ISRO) recently said that GSLV-F10 will launch geo imaging satellite, GISAT-1, from Satish Dhawan Space Centre in Sriharikota.

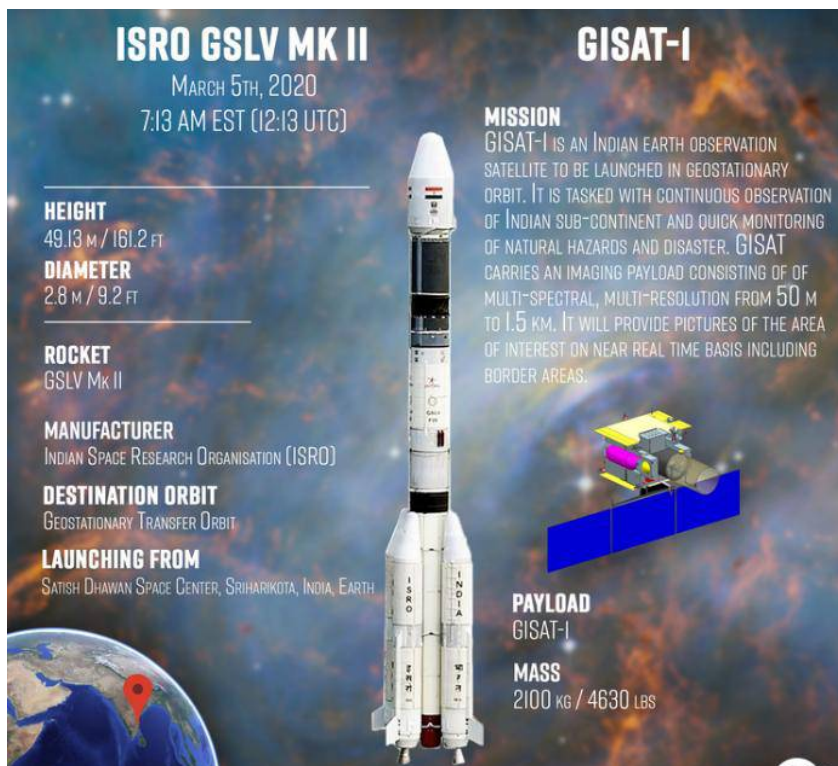
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Pre-Connect

- GISAT-1 or Geo Imaging Satellite-1 is **India's first earth imaging** satellite in a geostationary orbit.
- A satellite in geostationary orbit (about 36,000 km above earth) has an orbital period equal to **earth's rotational period**.

Highlights

- The GSLV flight will have a four-metre diameter ogive-shaped payload fairing being flown for the first time. A payload fairing is a nose cone used by a spacecraft for protection against dynamic pressure and aerodynamic heating during launch.
- After the launch, the earth observation satellite will use its on-board propulsion system to reach its final geostationary transfer orbit of around 36,000 km. All Indian earth observation satellites have been placed somewhere around 600 km orbits so far and circle the earth pole to pole.
- The orbital slot where GISAT-1 will operate is 93.5° E. This means that it will be collocated with Insat 3A, Insat 4B and GSat 15.
- The GISAT-1 has a lifespan of 7 years.
- The earth observation satellite weighs 2,275 kg.
- The main equipment it is carrying is the multi- and hyper-spectral imager along with the 700 mm Ritchey-Chretien telescope to carry out its function of earth observation and data collection.
- Also it has a high resolution camera.
- It is powered by a deployable solar array and batteries.
- GISAT is built on a modified I-1K (I-1000) Bus.



ISRO GSLV MK II
MARCH 5TH, 2020
7:13 AM EST (12:13 UTC)

HEIGHT
49.13 M / 161.2 FT

DIAMETER
2.8 M / 9.2 FT

ROCKET
GSLV Mk II

MANUFACTURER
INDIAN SPACE RESEARCH ORGANISATION (ISRO)

DESTINATION ORBIT
GEOSTATIONARY TRANSFER ORBIT

LAUNCHING FROM
SATISH DHAWAN SPACE CENTER, SRIHARIKOTA, INDIA, EARTH

MISSION
GISAT-1 IS AN INDIAN EARTH OBSERVATION SATELLITE TO BE LAUNCHED IN GEOSTATIONARY ORBIT. IT IS TASKED WITH CONTINUOUS OBSERVATION OF INDIAN SUB-CONTINENT AND QUICK MONITORING OF NATURAL HAZARDS AND DISASTER. GISAT CARRIES AN IMAGING PAYLOAD CONSISTING OF OF MULTI-SPECTRAL, MULTI-RESOLUTION FROM 50 M TO 1.5 KM. IT WILL PROVIDE PICTURES OF THE AREA OF INTEREST ON NEAR REAL TIME BASIS INCLUDING BORDER AREAS.

PAYLOAD
GISAT-1

MASS
2100 KG / 4630 LBS

Analytica

How will GISAT-1 work?

- ✓ GISAT carries a high resolution camera. The imaging payload consists of multi-spectral (visible, near infra-red and thermal), multi-resolution from 50 m to 1.5 km.
- ✓ This means that GISAT-1 will be able to send a selected sector-wise image every 5 minutes and an image of the entire Indian landmass every 30 minutes at 50 m spatial resolution.
- ✓ The geo imaging satellite will help keep a check on natural hazards and disasters, keep a constant watch on the border areas, and monitor any geographical changes.
- ✓ It will be able to carry out rapid surveillance. It will rotate the earth and return the same spot every two hours and when needed, it can spend a longer time on certain areas.

What all will GISAT-1 carry as its payload?

The GISAT payload consists of:

- 700 mm Ritchey-Chretien telescope based on the design of Cartosat 2
- Array detectors in VNIR, SWIR and LWIR bands
 - High-resolution multi-spectral VNIR (HRMX - VNIR): 50 m resolution
 - High-resolution multi-spectral (HRMX - LWIR): 1.5 km resolution
 - Hyper-spectral VNIR: 320 m and 192 m resolution
 - Hyper-spectral SWIR: 320 m and 192 m resolution
 - Data handling system and camera electronics
- Transmit antenna system which is electronically steerable
- High agility platform to enable large payload steering requirements

PEPPER IT WITH
NAVIC, INSAT, Cartosat, RISAT

Benefits of GISAT-1

- It will help to obtain spectral signatures of agriculture, forestry, mineralogy, disaster warning, cloud properties, snow, glaciers and oceanography.
- Facilitates near real time observation of the Indian sub-continent, under cloud free condition, at frequent intervals.
- Helps quick monitoring of natural disasters.
- Keep a constant watch on borders.
- Monitor any changes in the geographical condition of the country.

Conclusion

The state-of-the-art earth observation satellite GISAT-1 will thus operate from a geostationary orbit or a fixed spot and provide near to real-time observation data on the Indian subcontinent at frequent intervals under cloud-free conditions. While GISAT-1 is the first ISRO satellite to be launched in 2020, ISRO is planning the launch of 10 more satellites which would boost space and border surveillance, and crack down on terrorist infiltration.

Pradhan Mantri Bhartiya JanaushadhiPariyojana (PMBJP)

News Excerpt

The Prime Minister, recently interacted with the beneficiaries of Pradhan Mantri Bhartiya JanaushadhiPariyojana (PMBJP) and store owners of Jan AushadhiKendras, through video conference. The Janaushadhi week is being celebrated across the country from 1st March to 7th March 2020.

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Pre-Connect


- In 2015, the 'Jan Aushadhi Scheme' was revamped as 'Pradhan Mantri Jan Aushadhi Yojana' (PMJAY). In, 2016, to give further impetus to the scheme, it was again renamed as "Pradhan Mantri Bhartiya JanaushadhiPariyojana" (PMBJP).
- PMBJP is a campaign launched by the Department of Pharmaceuticals to provide quality

medicines at affordable prices to the masses.


- PMBJP stores have been set up to provide generic drugs, which are available at lesser prices but are equivalent in quality and efficacy as expensive branded drugs.
- BPPI (Bureau of Pharma Public Sector Undertakings of India) has been established under the Department of Pharmaceuticals, Govt. of India, with the support of all the CPSUs for co-coordinating procurement, supply and marketing of generic drugs through the Jan Aushadhi Stores. BPPI is the implementation agency for PMBJP.
- State Governments or any organization / reputed NGOs / Trusts / Private hospitals / charitable institutions / Doctors / Unemployed pharmacist/ individual entrepreneurs are eligible to apply for new Jan Aushadhi stores.

Janaushadhi Kendras Taking Affordable Medicines to All






5,322 Kendras are functional under Pradhan Mantri Bhartiya Janaushadhi Pariyojana (PMBJP)



Out of these, **144 PMBJP Kendras are run by persons belonging to SC/ST community**



39 PMBJP Kendras have been opened in North-East and Naxal-affected areas in financial year 2018-19

Analytica

➤ Benefits of Jan Aushadhi Initiative

- ✓ Promote greater awareness about cost effective drugs and their prescription.
- ✓ Make available unbranded quality generic medicines at affordable prices through public-private partnership.
- ✓ Encourage doctors, more specifically in government hospital to prescribe generic medicines.
- ✓ Enable substantial savings in health care more particularly in the case of poor patients and those suffering from chronic ailments requiring long periods of drug use.

PEPPER IT WITH
Central Drugs Standard Control
Organization (CDSCO), ICMR,
UHC, PMSSY, FDCs, AB-PMJAY

➤ Quality Assurance

- ✓ To ensure high quality, medicines are procured from WHO Good manufacturing practice (GMP), Current Good Manufacturing Practice and CPSUs manufacturers for supplying to Pradhan Mantri Bhartiya JanaushadhiKendras.
- ✓ Each batch of drugs procured is tested random at BPPI's empanelled National Accreditation Board for Testing and Calibration Laboratories (NABL) accredited laboratories thereby ensuring quality, safety and efficacy of medicines and conformance with required standards. Only after being certified by these laboratories, medicines are dispatched to C&F agents, Distributors and JAKs.

➤ Jan Aushadhi Kendra- Taking Affordable medicines to all

- ✓ Supplying affordable 900 generic medicines, other wellness products and 154 surgical items, the **Jan Aushadhi Kendra is world's largest chain of pharma stores covering all major therapeutic categories** such as anti-infective, anti-diabetic, anti-cardiovascular, anti- gastrointestinal and even anti-cancer. This scheme also provides a good source of self-employment with sustainable and regular earnings.

➤ Government Initiatives

- ✓ In order to ensure the availability of high quality medicines at lower prices, Government had earlier taken two steps. First, the cost of 850 essential medicines were regulated

and the prices of heart stent and equipment for knee surgery were reduced. Second, a series of *Jan Aushadhi Kendras* were started throughout the country. These steps have greatly benefitted not only the poor, but also the middle class.

- ✓ Initiatives like Ayushman Bharat, PMSSY, National Health policy-2017, etc. has been undertaken by Government in the direction of making quality healthcare for all.

Conclusion

The Pradhan Mantri Bhartiya Janaushadhi Pariyojana was thus launched with an objective of making high-quality medicines available to all at an affordable prices, especially to the poor and underprivileged, through exclusive outlets of Jan Aushadhi Medical Stores. It also intends to extend the coverage of quality generic medicines so as to reduce the out of pocket expenditure on medicines and thereby redefine the unit cost of treatment per person. It will create awareness about generic medicines through education and publicity so that quality is not synonymous with an only high price.

ICONSAT 2020

News Excerpt

The International Conference on NanoScience and NanoTechnology (ICONSAT) 2020 is being organized during 5th-7th March at Kolkata (West Bengal).

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Pre-Connect

- Nano Technology is a knowledge-intensive and "enabling technology" which is expected to influence a wide range of products and processes with far-reaching implications for the national economy and development.
- The Government of India launched the Nano Mission in May 2007 as an "umbrella capacity-building programme". As a result of the efforts led by the Nano Mission, today, India is amongst the top five nations in the world in terms of scientific publications in nano science and technology.
- ICONSAT is the series of biennial international conference held in India under the aegis of Nano Mission, Department of Science and Technology, Government of India, that provides a global platform of interactions among eminent scientists to bring to fore the recent advances in the area of nanoscience and technology.
- This conferences series have earlier been hosted by premier national institutes like CeNS Bengaluru (2018), IISER-Pune (2016), INST Mohali (2014), ARCI Hyderabad (2012), IIT Bombay (2010), IIT Madras (2008), IIT Delhi (2006) and SINP Kolkata (2003).

Highlights

- The conference intends to bring out cutting-edge developments in the domain of physical, chemical, materials as well as biological sciences with the help of nanotechnology.
- It aims to provide a potential platform for young researchers and students from within the country and abroad to keep pace with the latest development in the emerging areas of Nano Science and Technology.
- The event emphasised on 5Ms – Mechanical, Material, Machines, Manufacturing and Manpower, and integration of these 5 Ms with nano-science and technology.
- It also aimed to integrate nanotechnology with sustainable development and new technology (machine learning, artificial intelligence and so on).
- It emphasized the need to create a network of experts in nano-science and to collaborate the knowledge across sectors like energy, agriculture, transport, health and so on.

The following broad areas were covered in the conference

- ✓ Emerging materials for nanoscience and nanotechnology
- ✓ Quantum Materials

- ✓ Energy materials
- ✓ Nanoelectronics and Nanophotonics
- ✓ Synthesis, Properties and Application of Nanomaterials
 - Thermoelectric
 - Nanomagnetism
 - Plasmonics
- ✓ Theory and simulation of nanomaterials
- ✓ Nanotechnology for agriculture, biomaterials, tissue engineering, stem cell technology, etc.
- ✓ Industrial nanomaterials

PEPPER IT WITH
International Conference on
Bio-Nano Innovation (ICBNI
2020), Nanomaterial.

Conclusion

Nanoscience and nanotechnology are at the forefront of modern research. The fast growing economy requires experts who have an outstanding knowledge of nanoscience in combination with the skills to apply this knowledge in new products. A multidisciplinary scientific education is crucial to provide industry and research institutes with top quality experts who have a generic background in the different sub-disciplines such as electronics, physics, chemistry, material science, biotechnology, and at the same time be experts in one particular field. Thus, ICONSAT international conference **will** provide a global platform of interactions among eminent scientists to bring to fore the recent advances in the area of nanoscience and technology.

NIDHI PRAYAS Programme

News Excerpt

A technology developed under the NIDHI PRAYAS program initiated by the Department of Science and Technology (DST) by an incubatee company of SciTech Park, Pune has emerged as an effective solution for India's fight against COVID-19 by reducing the viral load of infected areas within a room significantly within an hour.

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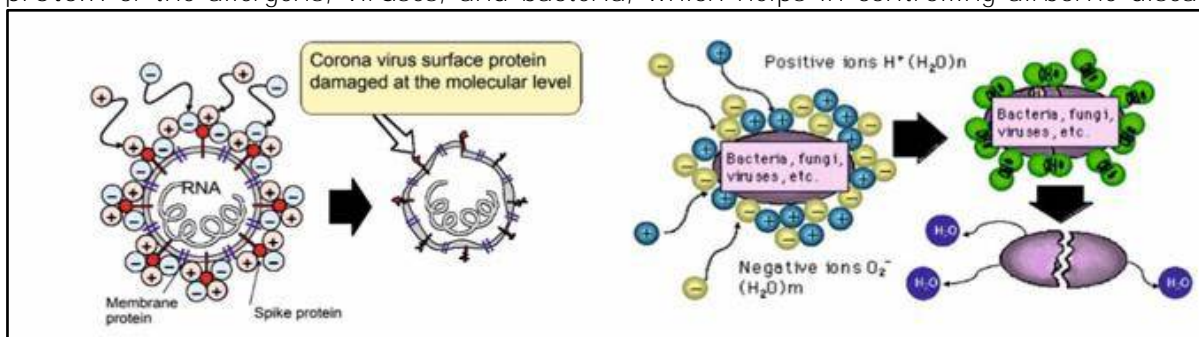
NIDHI PRAYAS

- NIDHI (National Initiative for Development and Harnessing Innovations) is an umbrella program, pioneered by the DST for nurturing ideas and innovations (knowledge-based and technology-driven) into successful start-ups.
- There are 8 components of NIDHI that support each stage of a budding start-up from idea to market.
- NIDHI – PRAYAS (Promoting and accelerating Young and Aspiring Innovators and Start-ups) is a component under the programme to facilitate and enable minimum 100 innovators annually across the country in translating their ideas into prototype through funding support to maximum 10 PRAYAS Centres (PC) in the country.
- It aims to support innovators to build prototypes of their ideas by providing a grant up to Rs.10 lakhs and an access to Fabrication Laboratory.

Highlights

- An air purifying technology developed by an incubatee company of the Pune-based Science and Technology Park could **offer an effective solution to the country's fight against** the COVID-19 contagion by reducing the viral load of the infected areas.
- **The technology has been developed under the 'Nidhi PRAYAS' programme.**
- The SciTech Aironionizer machine generates negatively charged ions at approximately hundred million per 8 seconds (10 ions per sec).
- The negative ions generated form clusters around microparticles such as airborne mold, corona or influenza viruses, mite allergens, bacteria, pollens, dust etc. and render them inactive through a chemical reaction by creating highly reactive hydroxyl radicals and atmospheric detergents (hydroxyl groups are composed of one hydrogen atom bonded to one oxygen atom and denoted as -OH or HO-).
- The detergent property generated by the ion generator helps in the breakdown of the outer

protein of the allergens, viruses, and bacteria, which helps in controlling airborne diseases.



- It increases the body's resistance to infections and harmful environmental factors. This resistance could be helpful for the next 20-30 days outside the ion atmosphere.
- It also decomposes gaseous pollutants like Carbon Monoxide (1000 times more harmful than Carbon dioxide), Nitrogen dioxide, and Volatile Organic Compounds.
- It could also be useful against floating viruses in the air on public transport, train stations, or airports, or especially within a confined space like a plane cabin, house, hospital ward, and so on.
- One hour of operation of Ion generator machine reduces viral load within a room by 99.7% depending on room size.

Conclusion

The negative ion generator could help to control the virus, bacteria, and fungal infections in a closed environment and clean up the air and disinfect areas which are exposed to the infection through COVID-19 positive cases and suspects. Hence it could ensure the wellbeing of the staff, doctors, and nurses who are working round the clock in the quarantine facilities by enhancing their disease resistance power and ability to fight the virus.

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SECURITY

National/State Disaster response Forces (NDRF/SDRF)

News Excerpt

The National Disaster Response Force (NDRF) has decided to equip 600 of its personnel in every battalion (50% of its strength) to help health workers contain the Covid-19 virus outbreak. The Centre has also invoked Disaster Management Act to put the onus on local administration to check movement of workers and daily laborer.

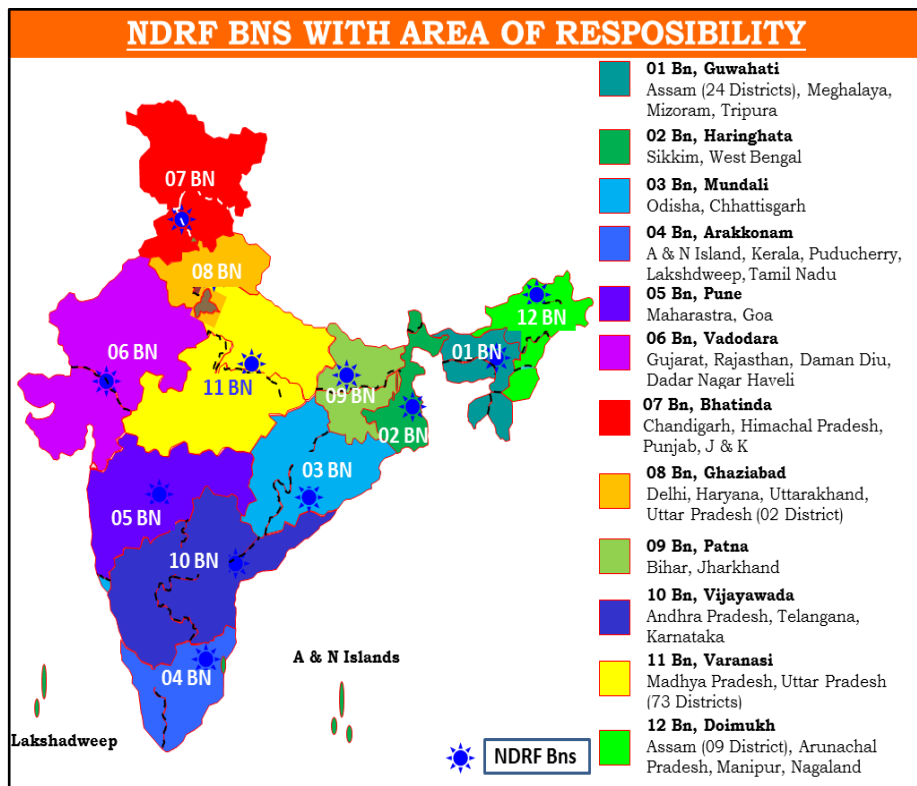
Pre-Connect

- The Disaster Management Act, 2005 provided for the constitution of the National Disaster Response Force (NDRF) for the purpose of specialized response to natural and man-made disasters. Accordingly, in 2006, NDRF was constituted with 8 Battalions.
- NDRF is a unique Force functioning under the Ministry of Home Affairs within the overall command, control and leadership of the Director General, NDRF.
- At present, the NDRF consists of 12 battalions, three each from the BSF and CRPF and two each from CISF, ITBP and SSB. The total strength of each battalion is 1,149.
- All the 12 battalions have been equipped and trained to respond to natural as well as man-made disasters. Battalions are also trained and equipped for response during chemical, biological, radiological and nuclear (CBRN) emergencies.
- These NDRF battalions are located at 12 different locations in the country based on the vulnerability profile of the country and to cut down the response time for their deployment at disaster sites.
- At present, 24 State/UTs have raised their State Disaster Relief Force (SDRF) as per the National Policy on Disaster Management 2009.
- The SDRF are also used for Community Capacity Building and Awareness Generation programs within the State.

Highlights

- NDRF first flagged the threat from the COVID-19 in February and has since then been training personnel at land, seaports and airports to handle inbound passengers and create awareness.
- During a medical emergency, the NDRF is third in line after doctors, paramedics/ health

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PEPPER IT WITH
DMA Act, 2005,
NDMA, SDMA, NDR and
SDRFund

workers. Together with the National Disaster Management Authority (NDMA), NDRF has trained as many as 25,700 personnel across India at various ports

- Amid the continued exodus of migrants on the sixth day of the 21-day nationwide lockdown, the Centre has used the Disaster Management Act to put the onus on local administration to check movement of workers and daily laborer.
- **As per the Centre's directives, it is the** district administration and its officials who will be directly responsible to seal the state and district borders and also make arrangements for those stranded on the roads.
- **The Disaster Management Act, 2005 provides for** "the effective management of disasters and for matters connected therewith or incidental thereto." **It allows certain financial freedom** to tackle the growing epidemic.
- By invoking this act, the government has now access to the National Disaster Response Fund to deal with the current crisis.
- The act gives the central, state, and district authorities sweeping powers to deal with a crisis. The Act also provides for civil and criminal liabilities for those violating its provisions.
- The NDRF will work in a collaborative model with the states for example, there will be a local policeman, a local medical professional, then there will be an NDRF personnel so that it can economize the whole exercise and judiciously use our force.

Analytica

- The burden of control and eradication of disease when it reaches alarming proportions does **not fall entirely on a country's health system. It is supported by various other agencies.**
- While in India, the ministry of health and family welfare is the nodal ministry handling biological and health emergencies, such crises also come under the purview of disaster management agencies, the ministry of home affairs and the National Crisis Management Committee (NCMC).
- **India has pioneered the 'Delhi Declaration on Emergency Preparedness'** which identifies risks, implements disaster risk reduction measures and prepares and operationalizes readiness for a broad range of disasters, including diseases and outbreaks.
- The standard procedure for a health emergency would start at the point of outbreak, then be tackled from a state perspective and, finally, be seen through a national lens. However, when the threat is coming from an international source, like nCoV, the system is reversed.
- In the event that a health outbreak is identified as a national threat, each state has a disease surveillance programme which sends a daily report to the NCMC and the NDMA. The latter then view the crisis from a national and inter-state perspective and work with state teams to recommend measures, check resources and connect states to border and central agencies, if needed.
- States can use disaster response funds from the NDMA to detect and handle a crisis. Each state is also equipped with district emergency centres, and district magistrates become incident commanders.

Conclusion

- ✓ Overall, our health disaster management largely rests on short-term steps for control and eradication. The long-term repercussions still need to be considered. There are other aspects of a pandemic that could have crippling effects on morale and economy. Food shortages, financial loss, miscommunication and human rights abuse are aspects of disaster management that have never been handled before.
- ✓ Another loophole in the system is the presence of multiple agencies, the health and home ministries, NCMC, NDMA, NDRF, NCDC and state health departments each with a stake in biological disaster management. Having too many bureaucratic players inevitably leads to longer decision time, confusion and overlap in responsibilities. While we have the guidelines on paper, real life implementation is an altogether different story.

Crime Multi Agency Centre (Cri-MAC)

News Excerpt

On the occasion of National Crime Records Bureau's (NCRB) 35th Inception Day, the Crime Multi Agency Centre (Cri-MAC) was launched for sharing information on heinous crime and other issues related to inter-state coordination.

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Pre-Connect

- NCRB was set-up in 1986 to function as a repository of information on crime and criminals so as to assist the investigators in linking crime to the perpetrators.
- It was set up based on the recommendation of the Task force and National Police Commission by merging the Directorate of Coordination and Police Computer (DCPC), Statistical Branch of BPR&D, Inter State Criminals Data Branch of CBI and Central Finger Print Bureau of CBI.
- Crime and Criminal Tracking Network and Systems (CCTNS) is a Mission Mode Project under the National e-Governance Plan (NeGP) of Government of India.
- CCTNS aims at creating a comprehensive and integrated system for enhancing the efficiency and effectiveness of policing through adopting the principle of e-Governance and creation of a nationwide networking infrastructure for evolution of IT-enabled-state-of-the-art tracking system around 'Investigation of crime and detection of criminals'.

PEPPER IT WITH
NCCC, CCTNS, NTRO,
CERTs, CDAC

Highlights

- Crime Multi Agency Centre (Cri-MAC) has been launched for sharing of information on heinous crime and other issues related to inter-state coordination.
- The government has also launched National Cyber Crime Training Centre (NCTC) for professional quality e-Learning services on cybercrime investigation to police officers, judges, prosecutors and other stakeholders.
- The huge database of CCTNS will help investigators in solving crime cases faster. National Fingerprint Identification System (NAFIS) is also being set up by NCRB and it will be a game changer for police.
- The system will also generate alerts on matching of recovered and stolen vehicles based on the national database of CCTNS.

Conclusion

The Cri-MAC will help in greater coordination among the security agencies as well as issues related to interstate coordination. Seamless integration of various facilities along with trained human resources is the need of the hour. There is an immense scope for further improvement in this regard.



ART & CULTURE

Various schemes to preserve and promote languages, Folk dance, Art & Culture of Tribals

News Excerpt

In a written reply in the Lok Sabha, the Minister of State of Culture and Tourism has informed about the various schemes that have been launched to preserve and promote languages, folk dance, Art and culture of tribals.

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Pre-Connect

- Sahitya Akademi, an autonomous organization under Ministry of Culture, encourages the preservation and promotion of languages, especially the unrecognized and tribal languages. The Akademi periodically organizes language conventions throughout the country in this regard.
- The Government of India has set up seven Zonal Cultural Centres (ZCCs) with headquarters at Patiala, Nagpur, Udaipur, Prayagraj, Kolkata, Dimapur and Thanjavur. These ZCCs organize various cultural activities and programmes all over the country on regular basis.

Some of the scheme launched by Zonal Cultural Centres (ZCCs) under Ministry of Culture are:

- Award to Young Talented Artists: **The Scheme “Young Talented Artists” is carried out to encourage and recognize the young talents especially in the field of rare art forms. Talented youngsters of the age group of 18-30 years are selected and given a onetime cash award of Rs. 10,000/-.**
- Theatre Rejuvenation: To promote theatre activities including stage shows and Production oriented workshops, etc. Honorarium Up to Rs. 30,000/- per show excluding TA & DA is paid.
- Shilpgram: To promote folk and tribal art and crafts of the zone by organizing seminar, workshops, exhibitions, craft fairs, design development and marketing support to the artisans living in the rural areas.
- Octave: To promote and propagate the rich cultural heritage of North East region comprising of eight States namely Arunachal Pradesh, Assam, Meghalaya, Mizoram, Sikkim, Nagaland, Manipur and Tripura to the rest of India.
- Research & Documentation: To preserve promote and propagate vanishing visual and performing art forms including folk, tribal and classical in the field of music, dance, theatre, literature, fine arts etc. in print/ audio – visual media. The art form is finalized in consultation with state Cultural Department.
- National Cultural Exchange Programme (NCEP): Under this scheme, various festivals of performing arts, exhibitions, yatras etc are organized in member States. Artists from other zones/states are invited to participate in these programmes. Participation of artists from the Zone in festivals held in other parts of the country are also facilitated. These festivals provide opportunity to taste and understand various cultures of our country.

Ministry of Culture is implementing a Scheme namely, ‘Scheme of Scholarship and Fellowship **for Promotion of Art and Culture**’, which consists of three components viz

- ❖ Award of Scholarships to Young Artists in Different Cultural Fields,
- ❖ Award of Senior/Junior Fellowships to Outstanding Persons in the Fields of Culture and
- ❖ Tagore National Fellowship for Cultural Research.

PEPPER IT WITH
Ek Bharat Shreshtha Bharat
Project Mausam, Ustad
scheme

IITFC Programme

News Excerpt

The Ministry of Tourism, Government of India has launched the Incredible India Tourist Facilitators (IITF) Certification Programme, a Pan-India online learning program that is open to all, subject to fulfilment of eligibility criteria, and can be undertaken from anywhere in the country.

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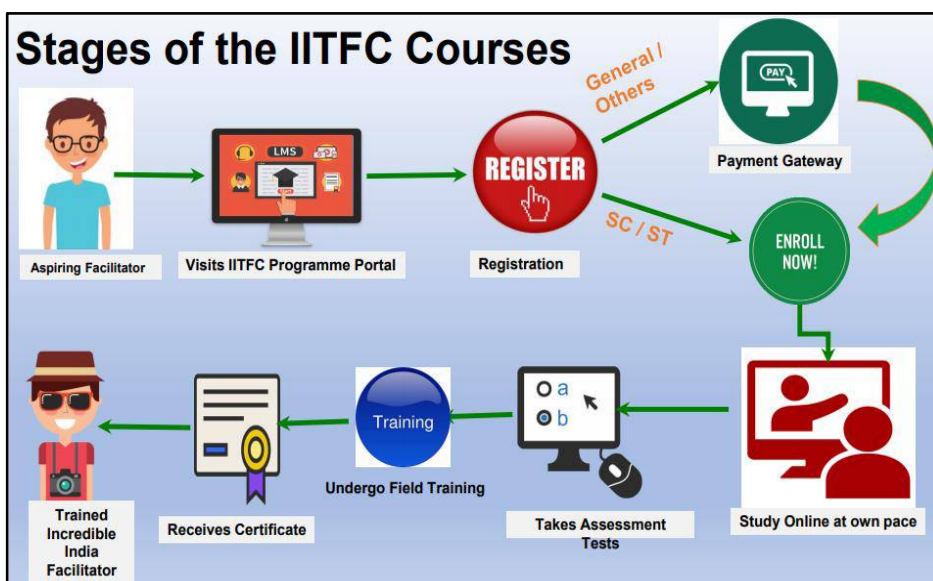
Pre-Connect

- IITFC Programme is a digital initiative of Ministry of Tourism for the citizens of India to become a part of the booming Tourism Industry. It is an online programme where one can learn about tourism at their own time, space, path and pace.
- The successful completion of this programme would enable the learner to become a Certified Tourist Facilitator of Ministry of Tourism, Govt. of India.
- There are two categories of IITF Certification Programme i.e. Basic & Advanced (Heritage & Adventure) with an optional specialization programme of fluency in spoken foreign language other than English.



Analytica

- As per the data shared by the Minister of State for Tourism, the tourism sector contributed an estimated 5.06 per cent to the Gross Domestic Product (GDP) of the country during 2016-17. The employment in this sector is increasing gradually with India becoming the global destination for medical and education tourism.
- In today's context, one of the biggest hurdles being faced in the tourism industry in India is the presence of quality and quantity gaps. The numbers of places of tourist importance are many as opposed to the short supply of trained Tourist Facilitators. Further, in many cases the existing Facilitators do not possess requisite skills and knowledge, thereby disappointing the visitors and causing harm to the brand Incredible India.
- IITF Certification Programme will ensure a rewarding experience for the tourists, as this



initiative will address the issue of tourist guides shortage as well as it will provide a lot of competition that will further ensure in providing the best tourist facilitators.

- This online programme will lead to various advantages such as job creation for the local people, granting the local experience and traditional knowledge on tourist places. Moreover, this programme will change the concept of the tourist guides and it will be replaced by the tourist facilitators across the country.

PEPPER IT WITH

Niche Tourism, Swadesh
Darshan. PRASHAD Scheme

Conclusion

Thus, the objective of IITFC Programme is to create a pool of trained professionals for facilitating the visit of tourists at destinations across the country. The programme will help in enhancing the overall experience of the tourists, who would benefit from the knowledge of the local tourist facilitators and it will also help in creating employment opportunities even in the remotest parts of the country.

‘Dholavira-A Harappan City’ and ‘Monuments & Forts of Deccan Sultanate’

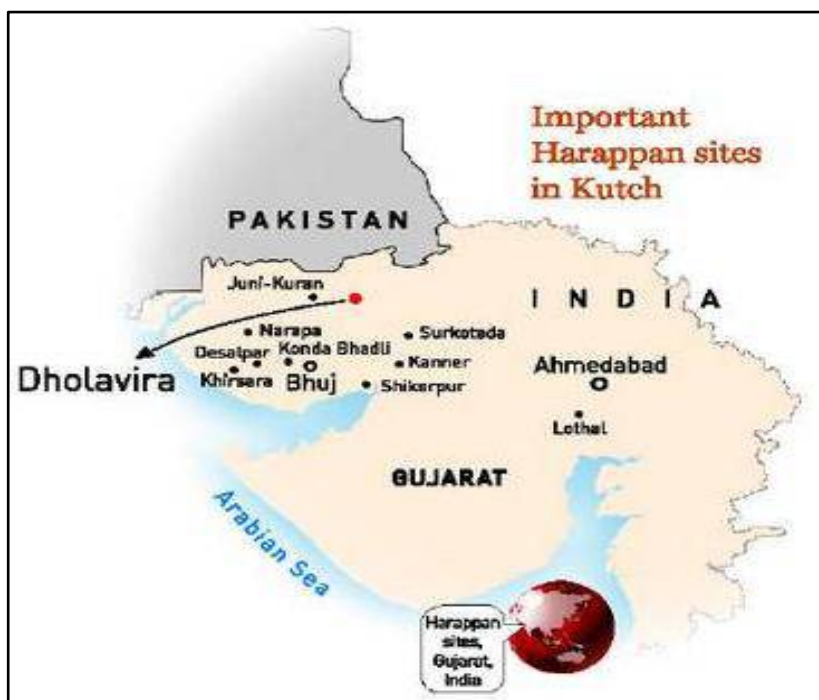
News Excerpt

Government of India has submitted two nomination dossiers namely **‘Dholavira: A Harappan City’** and **‘Monuments & Forts of Deccan Sultanate’** for inclusion in the World Heritage List for the year 2020.

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Pre-Connect

- UNESCO seeks to encourage the identification, protection and preservation of cultural and natural heritage around the world considered to be of outstanding value to humanity. The list of World Heritage Sites is maintained by the international 'World Heritage Programme', administered by the UNESCO World Heritage Committee.
- Karnataka and Telangana have earlier together nominated the forts & monuments of the Deccan Sultanate for a global heritage tag from UNESCO. The monuments proposed include Vijayapura's Gol Gumbaz, the Haft Gumbaz tombs of Kalaburagi district and the Bidar Royal Citadel.
- The Deccan Sultanates were five dynasties that ruled Bijapur, Golconda, Bidar, Ahmadnagar and Berar. The Kingdoms became independent in the late 15th and early 16th century as the Bahmani Sultanate broke up. Although rivals, they came together to ally against the Vijayanagara empire in 1565.
- The Kingdoms were taken over by the Mughals in the 17th century. Their architecture is predominantly Indo-Islamic, with influences from Persia and central Asia.



About Dholavira-A Harappan City

- The ancient site Dholavira is located half a way between the range of low hills and the Greater Rann of Kachchh. Situated close to the northern border of Kachchh in the Khadir Bet,

Dholavira is the largest wellpreserved Harappan city in Gujarat. It was excavated by R.S Bisht in 1985.

- Dholavira, belonging to the urban phase, represents the easily recognizable face of the Indus civilization. With its sheer size and fabulous architectural remains, Dholavira has few parallels among the Indus cities.
- This major Harappan city is remarkable for its exquisite planning, aesthetic architecture, amazing water management system, fortification wall etc. The inhabitants of Dholavira were master water conservationists.

About Monuments and Forts of Deccan Sultanate

- ✓ The Deccan Sultanate capitals characterise an ensemble of royal, religious, funerary monuments (tombs and mausoleums), defence structures commissioned for the royal citadel and urban quarters. They bear a testimony to the distinct cultural traditions of the sultanate kingdoms within the context of both Indian and Middle Eastern cultural traditions and their influence on art, music, languages and literature.
- ✓ The contributions of Deccan Sultanate to the arts and architecture of India is impressive with iconic Indo Islamic monuments constructed in Gulbarga, Bidar, Bijapur and Hyderabad. These sites emerged as important medieval fortifications and walled cities of the Deccan Sultanates. It has vigorous new architectural style that emerged from encounters with the Deccan Hindu heartland of the period.
- ✓ Individually, each of the components of Deccan Sultanate cover important aspects of Sultanate history with Gulbarga evolving as the first capital of Bahmani Kingdoms in mid14th Century CE including its impressive fortifications, Jami Masjid and royal tombs; Bidaras the next Bahmani capital in mid15th Century CE; further evolution of the Deccani Sultanate style by Adil Shahi dynasty in the monuments at Bijapur such as the Gol Gumbaj that stands as the 2nd largest dome in world history; and the final diversification and manifestation of the style in the Qutub Shahi monuments of Golconda fort, tombs and the Charminar at Hyderabad.



PEPPER IT WITH

Kalibangan, Lothal,
Suktanendor KotDihii Ronar

Marakkar and Zamorin of Calicut

News Excerpt

Recently, a petition was filed in the Kerala High Court against the film- Marakkar: The Lion of the Arabian Sea, **alleging 'distortion of history' and demanding a stay on the release.** It is a war film depicting the heroics of the Marakkar clan, whose leaders were naval chieftains of the Zamorin of Calicut during the 16th and 17th centuries.

Who were the Marakkars?

- By some accounts, they were of Arab origin and had migrated from Tunisia to Panthalayani near Koyilandy in present-day Kozhikode, and later moved to the region around present-day Kottakkal and Thikkodi near Payyoli.
- By other accounts, the Marakkars were descendants of affluent businessman from the Cochin kingdom who migrated later to Calicut.
- As per Historian, **the name 'Marakkar' could have originated from maram or marakkalam,** meaning ship, as these families lived along the coast and used ships. Alternatively, it could have originated from the Arabic word markaba, meaning those who migrated via ships.
- The Marakkars were mostly Muslims, but in some parts, they have been found to be Hindus as well.
- The Marakkars fought against Portuguese invaders for nearly a century.

About Zamorin of Calicut

- The Zamorin, Samoothiri in Malayalam, was the title given to rulers of the Calicut kingdom on the Malabar Coast.
- The Zamorins ruled for almost six centuries, between 12th and 18th century AD based at the city of Calicut, the one of most important trading centre in South India. At the zenith in the 15th century, the kingdom covered almost all of present day northern and central regions of Kerala state.
- It was after the disintegration of the Later Chera Kingdom in early 12th century, the Zamorins (**originally Eradis of NediyrippuSwarūpam**) **became completely independent and became a powerful economic and naval force.**
- The relative absence of intra-family quarrels and splits (like other Nair royalties) was one of the factors in the dramatic success of the Zamorins.
- They had good trade relations with the Muslim-Arabs and Chinese, the primary spice traders on the Malabar Coast in the Middle Ages.
- The KunhaliMarakkars, the famous Muslim admirals, were the naval chiefs of the Zamorins. The Zamorins held most of the other important trading ports on the across Malabar Coast.

Solar Charkha Mission

News Excerpt

Based on the Expression of Interest (EOI), a total of 10 proposals have been approved under Mission Solar Charkha till date which is expected to benefit about 13784 artisans/workers.

Pre-Connect

- The Ministry of Micro, Small and Medium Enterprises (MSME) had launched the Mission Solar Charkha in 2018-19 for implementation of 50 Solar Charkha Clusters across the country.
- It is an enterprise driven scheme and envisages setting up of **'Solar Charkha Clusters' which will have 200 to 2042 beneficiaries** (Spinners, Weavers,

PEPPER IT WITH
Sampark portal,
UdyamSakhiPortal

Stitchers and other skilled artisans). Each spinner will be given two charkhas of 10 spindles each.

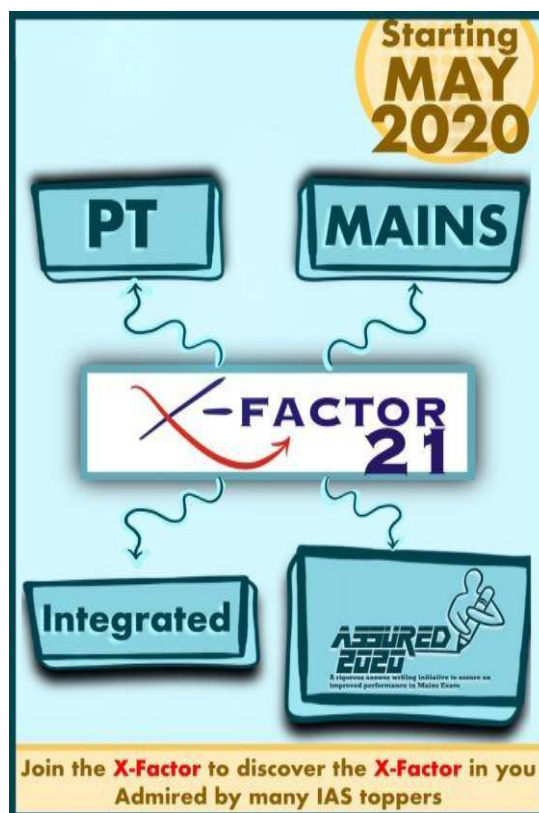
- These solar charkhas are to be operated using solar power which is a renewable energy source. It will help in development of Green Economy as it is an environment friendly programme. It will also generate sustainable employment for the artisans.

Objectives of Solar Charkha Mission are:-

- To ensure inclusive growth by generation of employment, especially for women and youth and sustainable development through solar charkha cluster in rural areas.
- To boost rural economy and help in arresting migration from rural to urban areas.
- To leverage low-cost, innovative technologies and processes for substance.

Scheme for Pension and Medical Aid to Artistes

- ❖ The Scheme for Pension and Medical Aid to Artistes is being implemented by the Ministry of Culture.
- ❖ The objective of the Scheme is to improve financial and socio-economic status of the old aged artistes and scholars who have contributed significantly in their specialized fields of arts, letters etc. but leading a miserable life or are in penury condition.
- ❖ The Scheme has also provision to provide medical aid facility to such Artistes and his/her spouse by covering them under a convenient and affordable Health Insurance Scheme of the Government.



MISCELLANEOUS

MISCELLANEOUS

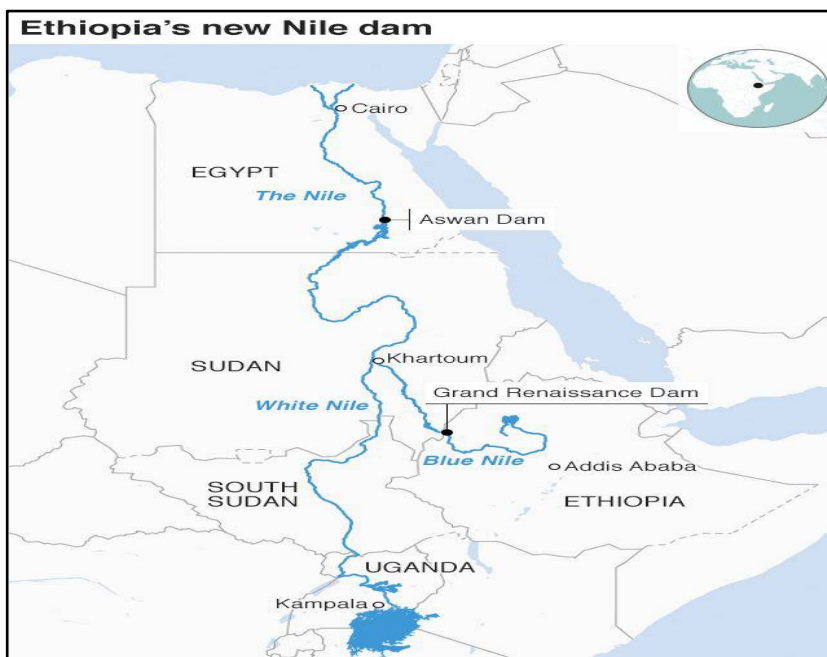
Shared Economy

- The shared economy in India is estimated to be an about \$2 billion industry by the end of the current year, according to a recent report by Maple Capital Advisors.
- Sharing economy (also known as share economy or collaborative consumption or peer economy) is a hybrid market model (in between owning and gift giving) which refers to peer-to-peer-based sharing of access to goods and services (coordinated through community-based online services). The concept is not new. The sharing of resources is for example well known in business-to-business (B2B) like heavy machinery in agriculture and forestry as well as in business-to-consumer (B2C) like self-service laundries.
- **The 'shared economy' includes segments such as co-working (Awfis, WeWork India), co-living (Stanza Living, OYO Life, Oxford Caps), shared mobility (Uber, Ola, Shuttle) and furniture rental (Furlenco, Rentomojo.)**

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Grand Ethiopian Renaissance Dam

- Grand Renaissance Dam, which Ethiopia is building, will be Africa's biggest hydroelectric power plant. Its construction began in 2011 on the Blue Nile tributary in the northern Ethiopia highlands, from where 85% of the Nile's waters flow.
- However, the mega dam has caused a row between Egypt and Ethiopia, with Sudan caught in between, which some fear could lead to war, and the US is now helping to mediate.



Article 114 and Appropriation Bill

- The government recently introduced the Appropriation Bill in the lower house of Parliament after discussions on Budget proposals and Voting on Demand for Grants. The Appropriation Bill is first passed by the Lok Sabha and then sent to the Rajya Sabha. The Rajya Sabha has the power to recommend any amendments in this Bill. However, it is the prerogative of the Lok Sabha to either accept or reject the recommendations made by the upper house of Parliament.
- Appropriation Bill is a money bill that allows the government to withdraw funds from the Consolidated Fund of India to meet its expenses during the course of a financial year. As per Article 114 of the Constitution, the government can withdraw money from the Consolidated Fund only after receiving approval from Parliament.

Differences between LPG, CNG and LNG

Natural gas price may go up by 18% from next month. The increase will mean a spike in prices of piped cooking gas (LPG) and compressed natural gas (CNG) used as transportation fuel. Comparably, Crisil Research estimates spot Liquefied Natural Gas (LNG) prices to be in the range of \$6.5-7 per mBtu.

<u>Liquefied Petroleum Gas (LPG)</u>	<u>Compressed Natural Gas (CNG)</u>	<u>Liquefied Natural Gas (LNG)</u>
This fuel mainly comprises of propane, produced as a by-product of natural gas processing and petroleum refining. Heavier than air, there is a high tendency for LPG to settle and accumulate in low areas, resulting in explosion hazards. Other than risks of explosion, it is often too costly for non-domestic uses.	It is a type of natural gas that is made up of mostly methane, drawn from a gas well or from crude oil production. It is stored in high-pressure tanks. With natural gas compressed down to only 1% of its original volume, it is much cheaper and more convenient for transportation. In addition to increased portability and reduced cost, CNG is also a much cleaner fuel, making it a popular transportation fuel for large vehicles.	The introduction of natural gas into the world began with the use of pipeline systems. However, with technological advances, natural gases can now be delivered via conventional transportation such as trucks and Lorries. This is done so through cooling Methane gas to -161°C and by which it gets converted into LNG, a liquefied natural gas that is 1/600th the volume of its gaseous form. Along with improvements in infrastructure that has greatly reduced the cost of storage, production and transportation, LNG offers a great advantage over the above fuels.

[Sukhna Lake](#)

- The Punjab and Haryana High Court recently has asked the Punjab and Haryana governments to stop illegal structures mushrooming in the eco-sensitive catchment zone of **Chandigarh's Sukhna Lake**. **Declaring the lake a "living entity"**, the Court directed that all illegal constructions in the catchment zone be demolished within three months. Invoking the **'polluter pays' principle of environmental law**, the Court said in its order: "The States should have taken precautionary measures to save the catchment of Sukhna lake." Thus for the Lake's survival, preservation and conservation, the Court declared the Lake a legal entity/legal person/juristic person/juridical person/moral person/artificial person with the rights, duties and liabilities of a living person.
- **Precedent exists in India-** This is not the first time a water body has been declared a living, legal entity. In 2017, the Uttarakhand High Court had declared the Ganga and **Yamuna rivers "living entities"**, but the order was struck down by the Supreme Court after the State government put forward several arguments, including that these rivers flow through multiple states, the responsibility for their well-being lies with the Centre and not any individual state.

[Article 80](#)

President of India, recently nominated Justice Gogoi to the Rajya Sabha under Article 80(1)(a) of the Constitution, which says that the Council of States (Rajya Sabha) shall consist of 12 members to be nominated by the President in accordance with the provisions of clause (3). Clause (3) of Article 80 says that the members to be nominated shall consist of persons having special knowledge or practical experience in respect of such matters as the following, namely, literature, science, art and social service.

[Indian Strategic Petroleum Reserve Limited](#)

- India plans to take advantage of low prices for oil from Saudi Arabia and the United Arab Emirates to top up its strategic petroleum reserves (SPR). Global oil prices have fallen around 40% in March as the impact of the coronavirus pandemic has destroyed demand.
- India, the world's third biggest oil importer and consumer, imports about 80% of its oil needs and has built strategic storage at three locations in southern India to store up to 36.87 million

barrels of oil or about 5 million tonnes to protect against supply disruption.

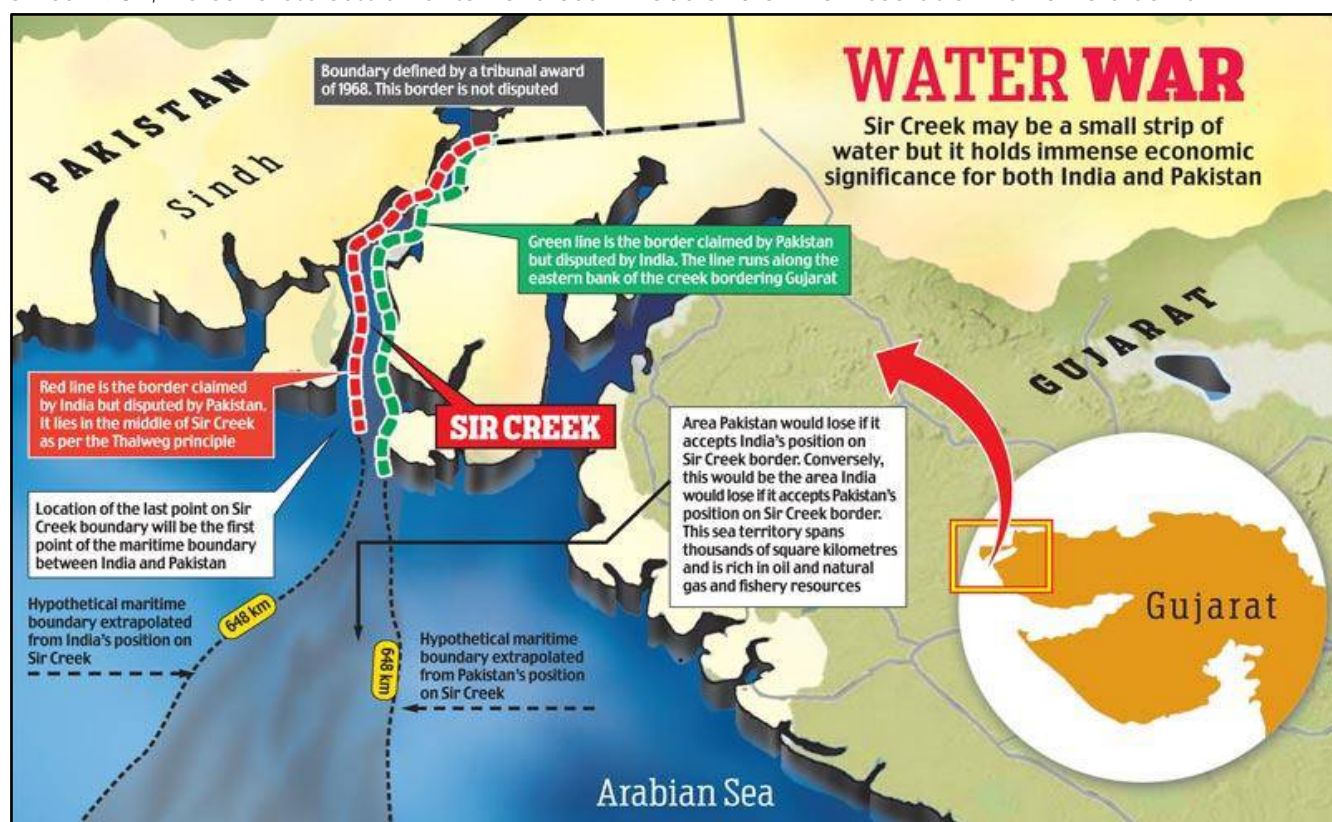
- Indian Strategic Petroleum Reserves Ltd (ISPRL), a company charged with building of strategic storage, has signed a memorandum of understanding (MOU) with the UAE's national oil company ADNOC for the lease of half of its 2.5 million tonnes Padur facility.

Indira Gandhi Matritva Poshan Yojna

Strengthening its efforts to tackle high level of maternal and child malnutrition in the state, Rajasthan has decided to extend the benefits of the Indira Gandhi Matritva Poshan Yojana (IGMPY) in four tribal districts to pregnant women expecting their second child. In the pilot phase, the scheme would be rolled out in four districts - Banswara, Dungarpur, Pratapgarh and Udaipur.

Sir Creek

At the third edition of WION's global summit held in Dubai, former Pakistan Minister Kasuri recalled the plan for the Sir Creek Pact. The dispute over Sir Creek lies in the interpretation of the maritime boundary line between Kutch and Sindh. This dispute has been going on for a long time, and even after several rounds of long drawn out dialogues between India and Pakistan since 1989, no concrete settlements have been made and a final resolution remains elusive.



Herd Immunity and community transmission

- Covid-19, the global pandemic has infected over a million people across the world.
- Community transmission: This is the possibility in which the virus enters the community and a substantial portion of the population gets infected. Moreover, the people who are more vulnerable in the community can die due to the infection.
- However, in the process of the community transmission, the population starts becoming immune to the infection, causing the positive cases to slow down and eventually causing the virus to become ineffective. Known as the principle of herd immunity, this situation is almost inevitable once community transmission commences. For the novel coronavirus, herd immunity will mean about 55% to 60% of the population to be infected. But, this process could harm a large number of individuals.

Wings India 2020

The four-day civil aviation business exhibition and air show, Wings India 2020 was held recently. The biennial event was organized by Federation of Indian Chambers of Commerce and Industry (FICCI) along with Ministry of Civil Aviation.

Earth Hour

- It is a **World Wildlife Fund for Nature (WWF)**'s annual initiative which held on the last Saturday of March since 2007.
- The event was first started in Sydney, Australia. The main aim of the initiative is to call attention towards climate change, global warming and loss of biodiversity and promote conservation and sustainable energy.
- People from more than 180 countries are encouraged to switch off the lights from 8.30 pm to 9.30 pm as per their local time to support the cause of environmental protection.
- In year 2020 it was celebrated on 28th March with main focus on eliminating single-use of plastic which is one of the major causes for marine life contamination. The focus was also on preserving biodiversity and nature along with preventing climate change.

Kurzarbeit Scheme

- **Kurzarbeit** is German for "short-work".
- Kurzarbeit scheme provides for a short-time work allowance which partially compensates for lost earnings during uncertain economic situations.
- The policy was rolled out during the 2008 economic crisis while its origins date back as far as the early 20th century, before and after World War I.
- In eve of recent developing economic crises due to outbreak of corona virus multiple organisations are suggesting to apply this scheme worldwide.



Concept Clearing Assignment

1. **Law Commission of India** said “Singing from the same songbook is not a benchmark of patriotism in a democracy. People should be at liberty to show their affection towards their **country of their own free will.**” **Elaborate. Critically analyze sedition law in India in light of the Supreme Court judgement.**
2. What do you understand by cryptocurrency? What are various potential risks associated with it? **On what grounds Supreme Court of India termed RBI’s ban on cryptocurrency illegal?**
3. River interlinking project is seen as a panacea to all the problems related to drought and flood. Do you agree? Discuss opportunities and challenges associated with it.
4. The ultimate test of majority is not held in the Raj Bhavan but on the floor of the House. In light of the above statement, discuss the importance of floor tests in a Parliamentary democracy.
5. While Article 142 is a potent tool available to the Supreme Court for doing complete justice, the Court must also exercise appropriate judicial restraint. Discuss.
6. Discuss limitations of Epidemic disease Act 1897 because of which Center was forced to take recourse to Disaster Management Act 2005 to deal with Coronavirus outbreak. Suggests measures to prepare India better for future pandemics.
7. The Higher Education system in India needs a revamp to produce future leaders of India. What are the problems being faced by our Higher Education system? List some of the initiatives being taken by the government to improve this ecosystem.
8. What do you understand about the concept of one health? **Do you think India’s healthcare system follows this concept? Why or Why not? What steps should be taken to bring our healthcare system closer to One Health concept?**
9. Comment on problems faced by migrant workers due to lockdown. What are steps being taken by the Government to ensure wellbeing of unorganized sector workers during lockdown imposed to deal with Coronavirus?
10. What do you understand by biofortification? Discuss its importance in ensuring nutritional security of India?
11. Industry 4.0 will be driven by Electronics. What are the challenges faced by the Electronics sector in India? How the National Policy on Electronics 2019 aims to address them?
12. India has recently become a member of Indian Ocean Commission. Name some of the other members of the Commission. How this membership is going to help India increase her geopolitical heft?
13. What is stem cell technology? List some of its applications. What are the ethical issues linked to it?
14. Discuss the challenges and opportunities related to the fishing sector in India? Name some of the potential fishing zones in India.
15. Recently Indian Prime Minister took initiative to bring all SAARC nations on board to fight Coronavirus. Do you believe that SAARC as a regional grouping still have meaningful potential? What are the roadblocks in realization of this potential?

P.T Oriented Questions

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| <p>1. Consider the following statements regarding Anti-National Activities:</p> <ol style="list-style-type: none"> 1. When a person attempts to excite disaffection towards the government it may be termed as Anti-government activity. 2. As Article 14 ensures equality before law to any person, it allows foreigners to protest in India. <p>Which of the statements given above is/are correct?</p> <p>(a) 1 only
(b) 2 only
(c) Both 1 and 2
(d) Neither 1 nor 2</p> <p>2. With reference to National Interlinking of Rivers Authority, consider the following statements:</p> <ol style="list-style-type: none"> 1. It will help in flood managements as well as in drought/scarcity management in the country. 2. It will take intra state projects in which both central and states invest equally. <p>Which of the statements given above is/are correct?</p> <p>(a) 1 only
(b) 2 only
(c) Both 1 and 2
(d) Neither 1 nor 2</p> <p>3. Consider the following statements regarding the 'floor test' recently seen in news:</p> <ol style="list-style-type: none"> 1. It is a motion through which the government of the day seeks to know whether it still enjoys the confidence of legislature. 2. If the confidence motion fails to pass or it's a tie then chief minister has to resign. 3. Recently, floor tests have been ordered in Karnataka, Maharashtra and Madhya Pradesh. <p>Which of the statements given above is/are correct?</p> <p>(a) 1 and 2 only (b) 1 and 3 only
(c) 3 only (d) 2 and 3 only</p> | <p>4. Consider the following statements regarding Epidemic Diseases Act 1897</p> <ol style="list-style-type: none"> 1. The Act authorized government to enforce a lockdown in the country. 2. This act gives more power to government than the National Disaster Management Act 2005. <p>Which of the statements given above is/are correct?</p> <p>(a) 1 only (b) 2 only
(c) Both 1 and 2 (d) Neither 1 nor 2</p> <p>5. Consider the following statements regarding the Freedom in the World report 2020:</p> <ol style="list-style-type: none"> 1. The report is published by United Nations Development Programme (UNDP). 2. It is an annual report assessing the condition of the political rights and civil liberties around the world. 3. India's score has seen a big drop as compare to the previous report. <p>Which of the statements given above is/are correct?</p> <p>(a) 1 and 2 only (b) 2 only
(c) 1 and 3 only (d) 3 only</p> <p>6. Consider the following statements regarding Diethylene glycol syrup:</p> <ol style="list-style-type: none"> 1. It is an anti-freezing agent that causes acute renal failure in the human body. 2. Recently, many children died in Jammu due to this syrup. <p>Which of the statements given above is/are correct?</p> <p>(a) 1 only (b) 2 only
(c) Both 1 and 2 (d) Neither 1 nor 2</p> <p>7. Consider the following statements regarding "Tech for Tribal programme":</p> <ol style="list-style-type: none"> 1. It is launched by Tribal cooperative Marketing Development Federation of India (TRIFED) and Tribal research institute. 2. The programme helps in the development of the tribal products. <p>Which of the statements given above is/are correct?</p> <p>(a) 1 only (b) 2 only
(c) Both 1 and 2 (d) Neither 1 nor 2</p> |
|---|--|

8. Consider the following statements regarding the **PM-CARE Funds and PM's National Relief Fund (PMNRF)**:

1. There is no minimum donation amount fixed in both PM-CARE and PMNRF.
2. Both funds will get the Section 80 G tax benefits.
3. PMNRF does not get any budgetary support while PM-CARE fund get budgetary support.

Which of the statements given above is/are correct?

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

9. Which of the following organizations **published the recent "World Happiness Report"**

- (a) United Nation Development Programme (UNDP)
(b) UNESCO
(c) UN Sustainable Development Solutions
(d) None of the above

10. Consider the following statements regarding the Geo Imaging Satellite-1 (GISAT-1):

1. It will observe Indian sub-continent, under any weather condition at frequent intervals.
2. It helps in quick monitoring of natural disasters and keep watch on borders.

Which of the statements given above is/are correct?

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

11. Which of the following statements best **describe the term 'Raider-X'** recently seen in news?

- (a) **It is DRDO's air to surface missile.**
(b) It is an Explosion detection device developed by DRDO.
(c) **DRDO's Air Defence Fire Control Radar.**
(d) None of the Above

12. With reference to fuel cell, consider the following statements:

1. Fuel cell is a device that uses hydrogen, oxygen and carbon to create electricity.
2. Recently, Polymer Electrolyte Membrane Fuel Cell (PEMFC) is developed by Council of Scientific and Industrial Research (CSIR) for disaster management.
3. PEMFC provides sustainable electricity without the need of grid power at the time of disaster.

Which of the statements given above is/are correct?

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

13. Consider the following statements **regarding the 'Cord Blood'** recently seen in news:

1. It is the blood that remains in the **baby's umbilical cord after it is cut.**
2. It is rich source of stem cell.
3. This blood is used for treating diseases like Cancer or Immune disorder.

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

14. Consider the following statements regarding India-Myanmar relations:

1. Myanmar is the only country that **sits at the intersection of India's "Neighborhood First" policy and "Act East" policy.**
2. Recently, both country sign the agreements for the development projects in the Rakhine state.

Which of the statements given above is/are correct?

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

15. Which of the following is/are not the members of Indian Ocean Commission?

1. The Union of Comoros
2. France/Reunion
3. Madagascar,
4. Mauritius
5. Seychelles.

Select the correct answer using the code given below?

- (a) 1 only
- (b) 2 and 3 only
- (c) 4 only
- (d) None of the above

16. Which of the following is/are the advantages of Quantum computer, recently seen in news?

1. Quantum computer is faster or more efficient than supercomputer.
2. Quantum computer can solve even very complicated reactions.
3. It can perform its application at high temperature as well as in low temperature condition.

Select the correct answer using the code given below:

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

17. Which of the following statements is/are correct regarding the District Mineral foundation (DMF) Funds, recently seen in news?

1. DMF is a trust set up as a non-profits body in those district affected by the mining works.
2. Recently, finance minister allow state government to use DMF fund for the welfare of those workers involving in mining works and affected by COVID-19 pandemic.

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

18. Consider the following statements regarding the MACS 4048:

1. It is a biofortified variety of rice developed by Agharkar Research institute, Pune.

2. MACS 4028 show high protein content and better nutritional quality.

3. MACS 4028 variety gives boost to the Vision 2022 “KuposhanMukt Bharat”.

Which of the statements given above is/are correct?

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

19. With reference to Huntingtin Disease, consider the following statements:

1. It is an inherited disease that causes the progressive breakdown (degeneration) of nerve cells in the brain.
2. It develops involuntary jerking or twitching movement in many people.

Which of the statements given above is/are correct?

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

20. Which of the following statements is/are correct regarding Acute Encephalitis Syndrome (AES)?

1. The major cause of AES is Japanese encephalitic virus.
2. The disease most commonly affects children and senior citizens.
3. Lychee fruit is one of the sources for the spread of this disease.

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

21. Which of the following is the objective of ‘Van Dhan Vikas Kendras’, recently seen in news?

- (a) It is an initiative targeting livelihood generation for tribal population by harnessing the wealth of forest.
- (b) To create institutions for the Scheduled Tribes to support

- marketing and development of activities they depend on for their livelihood.
- (c) To support tribal people in of production of both forest and agricultural produce.
- (d) None of the above
22. Consider the following statements regarding the COVID-19 National Teleconsultation centre (CoNTeC):
1. It is developed by Indian Council of Medical Research (ICMR) and AIIMS Delhi.
 2. It helps small states doctors to communicate with AIIMS doctors through video call.
- 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
23. Consider the following statements regarding to "Article 142":
1. It empowers the Supreme Court to pass such "decree or order as may be necessary for doing complete justice between the parties".
 2. Recently, SC invoked this power to remove a cabinet minister from the Manipur Government.
- Which of the following statements is/are correct?
- (a) 1 only (b) 2 only
(c) Both 1 and 2 (d) Neither 1 nor 2
24. Recently, which of the following commodities has been put under Essential Commodities Act (ECA) by the Government?
1. Masks
 2. Hydroxychloroquine
 3. Sanitizer
 4. Personal Protection Equipment
- Select the correct answer using the code given below:
- (a) 1, 2 and 3 only
(b) 2 and 3 only
(c) 1 and 3 only
(d) 1, 2, 3 and 4
25. Consider the following statements regarding to the Gender Social Norm
- Index:
1. The index is published by the United Nation Development Programme.
 2. The report said that no country in the world has achieved gender equality.
- 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. Consider the following statements about theminorities in India: (UPSC 2001)
1. The Government of India has notified fivecommunities, namely, Muslims, Sikhs, Christians, Buddhists and Zoroastrians as Minorities.
 2. The National Commission for Minorities was givenstatutory status in 1993.
 3. The smallest religious minority in India are theZoroastrians.
 4. The Constitution of India recognizes and protectsreligious and linguistic minorities.
- Which of these statements are correct?
- (a) 2 and 3 (b) 1 and 4
(c) 2, 3 and 4 (d) 1, 2, 3 and 4
27. There are more anti-bacterial drugs than anti-viraldrugs because (UPSC 1989)
- (a) Bacterial diseases are intra-cellular.
 - (b) Viral diseases are intra-cellular.
 - (c) Virus are smaller than bacteria.
 - (d) Drugs can penetrate bacteria more effectively
28. Consider the following statements: (UPSC 2010)
1. Every individual in the population is equallysusceptible host for Swine Flu.
 2. Antibiotics have no role in the primary treatmentof Swine Flu.
 3. To prevent the future spread of Swine Flu in theepidemic area, the swine (pigs) must all be culled.
- Which of the statements given above is/are correct?
- (a) 1 and 2 only
(b) 2 only
(c) 2 and 3 only

- (d) 1, 2 and 3
29. Which of the following statements is/are correct? (UPSC 2013)
1. Viruses lack enzymes necessary for the generation of energy.
 2. Viruses can be cultured in any synthetic medium.
 3. Viruses are transmitted from one organism to another by biological vectors only.
- Select the correct answer using the codes given below.
- (a) 1 only
(b) 2 and 3 only
- (c) 1 and 3 only
(d) 1, 2 and 3
30. Consider the following statements: (UPSC 2017)
1. In tropical regions, Zika virus disease is transmitted by the same mosquito that transmits dengue.
 2. Sexual transmission of Zika virus disease is possible.
- Which of the statements given above is/are correct?
- (a) 1 only
(b) 2 only
(c) Both 1 and 2
(d) Neither 1 nor 2

Answer Key

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



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KANISHAK KATARIA
(AIR - 1)

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I am highly indebted to Khan Sir and KSG for their guidance and feedback, especially for the interview. 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 advice on topics which were quite broad. Thank you Sir for your support & guidance.

Signature: 

AKSHAT JAIN
(AIR - 2)

TESTIMONIAL

I would like to thank KSG and Khan Sir for their guidance and motivation. The mock interview at KSG was particularly helpful in understanding the intricacies of the interview/personality test. It helped me identify my strengths and weaknesses in a timely manner, and work upon them accordingly.

Signature: 

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 helping a positive mindset. Your guidance for the personality test has helped me significantly in achieving 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)

TESTIMONIAL

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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. Thank you for all the support.

Signature: 

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