ABOUT CURRENT CONNECT

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

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

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

Team KSG

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POLITY

Compensatory Jurisprudence

News Excerpt

Nearly a quarter century after he started his dogged fight for justice, former Indian Space Research Organisation (ISRO) scientist Nambi Narayanan has received an "additional compensation and solatium" totalling Rs.1.3 crore from the Kerala government for being wrongly implicated in the infamous 'ISRO spy case'.

Pre-Connect

Rights of the Victims

The adoption by **the General Assembly of the United Nations** at its 96th Plenary in 1985 recognised the four major components of the rights of victims of crime:

● Access to Justice and fair Treatment
● Restitution
● Compensation and
● Assistance

Analytica

What is compensation

➢ Compensation is defined as financial assistance paid by the government, or by another party unrelated to the offender, to the victims of crime.
➢ The amount of monies paid typically reflects the nature and extent of the injury suffered by the victim.

Lack of Victim centric justice system in India

➢ **Justice Krishna Iyer** makes it clear that criminal law in India is not victim oriented rather it is offender oriented and suffering of victims often immeasurable, are entirely overlooked in misplaced sympathy for the criminal.
➢ Unlike the accused (who gets defence counsel at the costs of the state at the time of the trial,the aftercare reformative and rehabilitative programs for the accused), victims have virtually no rights in criminal proceedings.
➢ Denial of any role of the victim is not only denial of justice to the victims but also would tantamount to **negate the Rule of law, the fundamental of democracy and constitutionalism**.

Compensatory Jurisprudence in India

➢ The principle of payment of compensation to the victim of crime was evolved by the Supreme Court on the ground that **it is duty of the welfare state to protect the fundamental rights of citizens** against the actions of its agencies and is also responsible for hardships suffered by the victims on the grounds of humanitarianism and the obligations of social welfare, duty to protect and equitable justice.
➢ Article 21 and 32 as source of right to Compensation: **RudulSah v. State of Bihar (1983)** was the first case in which the Supreme Court of India interpreted the Constitution, specifically **Article 32,** to include a right to compensation for victims of unlawful imprisonment. The Court held that the petitioner's right to life and liberty under **Article 21** of the Constitution had been violated and that compensation for the deprivation of a fundamental right could be granted under Article 32.
  o Article 32(1) provides for the right to move the Supreme Court by appropriate proceedings for the enforcement of the fundamental rights. The Supreme Court under Article 32(2) is free to devise any procedure for the enforcement of fundamental right and it has the power to issue any process necessary in a given case. In view of this constitutional provision, the Supreme Court may even give remedial assistance, which may include compensation in "appropriate cases"
➢ Compensation on case specific basis: In**Sarwan Singh v. State of Punjab,** the Supreme Court held that in awarding compensation, the court has to take into consideration various factors such as capacity of the accused to pay, the nature of the crime, the nature of the injury suffered and other relevant factors.

- The National Human Rights Commission (NHRC) can grant compensation to the victims of police brutality.
  - This power is granted to the NHRC under **the Protection of Human Rights Act 1993.**
  - Although the NHRC sounds great in theory, in practice members of the human rights community have criticised the NHRC for not recommending compensation in enough cases and for many times recommending too small of an award.
- Recent example: In 2018, the Supreme Court awarded **Nambi Narayanan**, former Indian Space Research Organisation (ISRO) scientist Rs 5 million. An additional 10 lakhs was recommended by the NHRC. In August 2020, the Kerala Government gave Rs 1.3 Crore additional compensation.
- Some sections of CrPc which can be invoked to award compensation:
  - **Section 357** states that if an offender is given a sentence of which fine forms a part, then a certain sum of such fine may be applied in restoring any loss of property that the victim has suffered.
  - **Section 357-A:** Every State Government in Coordination with the Central Government shall prepare a scheme for providing funds for the purpose of compensation to the victim or his dependents that have suffered loss or injury as a result of the crime and require rehabilitation.

Issues with Compensatory Jurisprudence in India

- Although these cases helped establish a right to compensation, the Supreme Court has not interpreted this right as absolute or mandatory.
- The amount of compensation awarded and if any is awarded at all depends on the circumstances of the case and the judge that is hearing it. This discretion has resulted in many victims not receiving or not even seeking the compensation they deserve.

Way Forward

- ✓ The Victim of crime is still a "Forgotten man" in the criminal Justice System. Justice System needs a paradigm shift from criminal Justice to Victim Justice.
- ✓ A mandatory right to compensation must be established for the victims of State imposed abuse.
- ✓ The compensatory jurisprudence introduced by the Supreme Court of India by invoking powers under Article 32 gained tremendous importance in recent times due to the increase of the incidents of State lawlessness, police lawlessness, custodial violence, violence in jails, unlawful detentions and other violations.
- ✓ This innovation made by the Supreme Court is not only reducing the multiplicity of litigation but also helping the courts to render speedy justice to victims of the infringement of right to life and personal liberty.

US Presidential Election

News Excerpt

The 2020 United States presidential election was the 59th quadrennial presidential election, held on 3rd November, 2020. The Democratic candidate, former Vice President Joe Biden and incumbent U.S. senator from California Kamala Harris defeated the Republican candidate incumbent president Donald Trump and vice president Mike Pence.

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Pre-Connect

- In a presidential system, the head of the government is the executive, and he/she is not a part of the legislature.

- The head of the government and the head of the state are one and the same. Also, executive is not responsible to the legislature.

> **PEPPER IT WITH**
> Parliamentary and Presidential form of Government, American Judicial System, Features of Dual Citizenship

- In a presidential system, executive can veto acts by the legislature.

DELHI: VIJAY NAGAR 9717380832 & **OLDRAJENDER NAGAR** 9811293743 | **JAIPUR**: 8290800441
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- President is elected directly by the people or by an electoral college.
- President has the power to pardon or commute judicial sentences awarded to criminals.
- President has a fixed tenure and cannot be removed by a vote of no-confidence in the legislature.
- Because of the strict separation of powers between the executive and the legislature, there can be frequent tussles between both arms of the government, especially if the legislature is not dominated by the president's political party. This can lead to erosion in efficiency because of wastage of time.
- Unlike the Parliamentary system, executives in the Presidential form of government are generally experts with wide experience in their area. Because the executive need not be legislators, the President can choose experts from various fields to head relevant departments or ministries. This will make sure that people who are capable and knowledgeable form part of the government.

U.S. Constitutional Requirements for Presidential Candidates

The president must:

➢ Be a natural-born citizen of the United States.
➢ Be at least 35 years old.
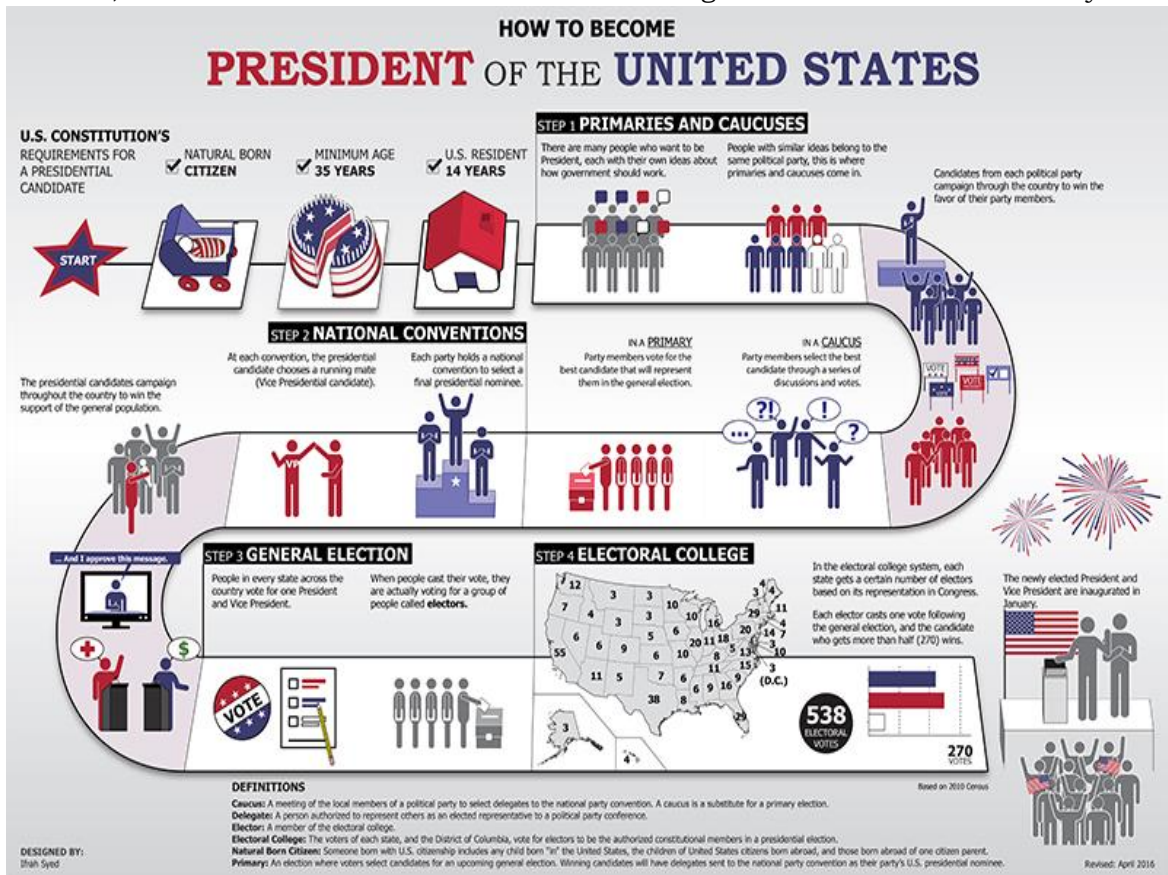➢ Have been a resident of the United States for 14 years.

Anyone who meets these requirements can declare their candidacy for president. Once a candidate raises or spends more than $5,000 for their campaign, they must register with the Federal Election Commission. That includes naming a principal campaign committee to raise and spend campaign funds.

Process for the US Presidential Election

The entire process to elect the US President spans over 9 to 10 months starting in February/March with voting in Novemberand inauguration in January.The US Presidential election can be divided into five parts:

- o Primaries and Caucuses
- o National Convention
- o General Election
- o Electoral College
- o Inauguration

✓ **Primaries and Caucuses:** The first step for the political parties in the White House race is to nominate a leader for the President's post. In order to choose the nominee, parties first hold primaries and caucuses in different states to pick 'delegates' who will then go on to support the Presidential nominee.

✓ **National Convention:** Here delegates vote to elect the Presidential Candidate of the Party.

✓ At this convention, voting also takes place for Vice President Nominee who is also called the Running Mate. The political parties hold their National Conventions separately. Once the Presidential and Vice-Presidential nominees are announced, campaigning, rallies and televised debates begin.

✓ **General Election:** The General Election refers to the voting process in which every US citizen who is at least 18 years of age can vote to choose the President. Unlike in most elections, the person who becomes president is not necessarily the candidate who wins the most votes on Election Day (November 3 this year). Instead, the voting for the president of the United States takes place in two-steps.

✓ First, voters cast ballots on Election Day in each state. In nearly every state, the candidate who gets the most votes win the "electoral votes" for that state, and gets that number of voters (or "electors") in the "Electoral College."

✓ Second, the "electors" from each of the 50 states gather in December and they vote for

HOW TO BECOME
PRESIDENT OF THE **UNITED STATES**

president. The person who receives a majority of votes from the "Electoral College" becomes President.

✓ For example, in 2020 election on November 3, Americans did not directly voted for Joe Biden or Donald Trump. They voted for the electors on November 3 who will then vote for the President in December during Electoral College. The electors are local leaders who collectively form the Electoral College.

✓ **Electoral College:** Under the Electoral College system, each state is assigned a certain number of "votes". There are a total of 538 electoral votes. Which state gets how many electoral votes depends on the size of its population.

✓ **Inauguration:** The role of US Congress is to count the votes and officially declare the winner. This is called "the Inauguration" when the new President takes oath on a fixed date which is January 20.

Conclusion

The US has Presidential system of Government. The President (Head of the Government) is elected not directly by the people, but by the "electors" who in turn are elected directly by the people.

This is unlike Indian Parliamentary system where Head of the Government (the Prime Minister) is elected by the People directly.

15th Finance Commission

News Excerpt

The Fifteenth Finance Commission (XVFC) led by Chairman N K Singh, submitted its Report for the period 2021-22 to 2025-26 to the President of India.

Pre-Connect

- Article 280 of the Constitution of India provides for a Finance Commission as a *quasi-judicial body*. It is constituted by the President of India every fifth year or at such earlier time as heconsiders necessary.

- The commission submits its report to the President. He lays it beforeboth the Houses of Parliament along with an explanatory memorandumas to the action taken on its recommendations.

- The 80th Amendment Act of 2000 and the 101st Amendment Act of 2016 have introduced major changes in the scheme of the distribution of tax revenues between the centre and the states.

- The 80th Amendment was enacted to give effect to the recommendations of the 10th Finance Commission.

- XVFC was constituted on 27 November 2017 against the backdrop of the abolition of Planning Commission, as also of the distinction between Plan and non-Plan expenditure and the introduction of the GST, which has fundamentally redefined federal fiscal relations.

> **PEPPER IT WITH**
> Article 280, 243K, 243I, 263, 268, 269, 269A, 270, 271, 315, 324, 338, 338A, 80th and the 101st Constitutional Amendment Act, Part XI and XII of the Constitution of India, Sarkaria Commission

- The 15th Finance Commission used the following criteria while determining the share of states: (i) 45% for the income distance, (ii) 15% for the population in 2011, (iii) 15% for the area, (iv) 10% for forest and ecology, (v) 12.5% for demographic performance, and (vi) 2.5% for tax effort.

Highlights

➢ While the previous Commission had recommended States be given 42% of all taxes, the 15th Finance Commission had for 2020-21 recommended a devolution of ₹8,55,176 crore, which is 41% of the divisible pool of taxes.

➢ The recommendations of the 15th Finance Commission for 2021-22 to 2025-26 have not been disclosed as it has not been tabled in Parliament.

➢ The 14th Finance Commission had increased the States' share by 10 percentage points to 42% and it remains to be seen what its successor would do considering the Centre is hard-pressed for funds at a time when it is looking to boost the economy through expenditure.

➢ The cover and title of the XVFC Report is unique in this Report- *"Finance Commission in Covid Times"* and the use of Scales on the cover to indicate the balance between the States and the Union.

➢ In 2019, the Commission had submitted its report containing recommendations for the year 2020-21 which was accepted by the Union Government and tabled in the Parliament.

➢ Members of the Commission, Ajay Narayan Jha, Prof. Anoop Singh, Dr. Ashok Lahiri and Dr. Ramesh Chand along with Secretary to the Commission Arvind Mehta accompanied the Chairman while submitting the report.

➢ As per the terms of reference (ToR), the Commission was mandated to give its recommendations for five years from 2021-22 to 2025-26 by 30 October, 2020. The Commission was asked to give its recommendations on many unique and wide-ranging issues in its terms of reference.

➢ Apart from the vertical and horizontal tax devolution, local government grants, disaster management grant, the Commission was also asked to examine and recommend performance incentives for States in many areas like power sector, adoption of DBT, solid waste management etc.

> The Commission was also asked to examine whether a separate mechanism for funding of defence and internal security ought to be set up and if so, how such a mechanism could be operationalised.

Conclusion

Terms of Reference of the XVFC had some distinctive features, including recommending monitorable performance criteria for important national flagship programmes and examining the possibility of setting up a permanent non lapsable funding for India's defence needs. The reorganisation of the State of Jammu and Kashmir into two Union Territories – one of Jammu and Kashmir and one of Ladakh – presented a new dynamic. On the whole, commission faced new challenges in the process of the evolution of federal polity. As an important Constitutional entity, the Commission is committed while balancing competing claims and priorities among all the three tiers of government in a credible manner.

International Parliamentary Union

News Excerpt

Comptroller & Auditor General (CAG) ofIndia, Girish Chandra Murmu has beenelected as External Auditor of InterParliamentary Union (IPU), Geneva fora three-year term.

Pre-Connect

- The International Parliamentary Union is the global organization of national parliaments.

- IPU which began in 1889 as a small group of parliamentarians, dedicated for promoting peace through parliamentary diplomacy and dialogue, has since grown into a truly global organization of national parliaments.

- Presently, its membership inches ever closer to being universal, with 179 Member Parliaments,13 Associate Members, and increasing numbers of parliamentarians from all over the world involved in IPU assignments.

> **PEPPER IT WITH**
> Comptroller and Auditor General, Election Commission of India, Attorney General, Advocate General, UNGA, WIPO, IAEA, World Food Programme

- Its mission is to promote democratic governance, institutions and values, working with parliaments and parliamentarians to articulate and respond to the needs and aspirations of the people. It works for peace, democracy, human rights, gender equality, youth empowerment and sustainable development through political dialogue, cooperation and parliamentary action.

- IPU is financed primarily by its members out of public funds. Its headquarters are in Geneva, Switzerland.

- The IPU has permanent observer status at the United Nations General Assembly.

Highlights

> In the recent past, Girish Chandra Murmu has been posted as the External Auditor of World Food Programme, World Intellectual Property Organization, International Atomic Energy Agency, UN World Tourism Organization, International Organization for Migration, International Maritime Organization and Organization for Prohibition of Chemical Weapons.

> Mr. Murmu takes charge of this position from Supreme Audit Institution of Switzerland.

> The election for this prestigious position took place at the virtual meeting of 284th session of the IPU, which is 179 countries, Parliamentarians body, also having 13 Associate Members.

Member of Legislative Councils (MLCs) and Their Disqualification

News Excerpt

In a major blow to member of Karnataka Legislative Council A H Vishwanath, the Karnataka High Court has held that his disqualification as MLA under the anti-defection law continues and hence, he cannot be appointed as a minister.

Pre-Connect

- The 52nd Amendment Act of 1985 provides for the disqualification of the members of Parliament and the state legislatures on the ground of defection from one political party to another.

- For the amendment purpose, it made changes in four Articles of the Constitution and added a new Schedule (the Tenth Schedule) to the Constitution. This act is often referred to as the **'Anti-Defection Law'**.

- 91st Amendment Act of 2003 provided that for a merger of the party with the another to be legitimate for the purpose of anti-defection law, at least two-thirds of the members of a party have to be in favor of a "merger".

> **PEPPER IT WITH**
> Articles 101, 102, 190 and 191,
> Kihoto Hollohan v. Zachilhu, (1993),
> Articles 168, 169, 170, 171, 172

Deciding Authority

➤ Any question regarding disqualification arising out of defection is to be decided by the presiding officer of the House.

➤ Originally, the act provided that the decision of the presiding officer is final and cannot be questioned in any court. However, in Kihoto Hollohan case (1993), the Supreme Court declared this provision as unconstitutional on the ground that it seeks to take away the jurisdiction of the Supreme Court and the high courts.

➤ It held that the presiding officer, while deciding a question under the Tenth Schedule, function as a tribunal.

➤ Hence, his decision like that of any other tribunal is subject to judicial review on the grounds of mala fides, perversity, etc.

➤ But the court rejected the contention that the vesting of adjudicatory powers in the presiding officer isby itself invalid on the ground of political bias.

Rule-Making Power under the Tenth Schedule

✓ The presiding officer of a House is empowered to make rules to give effect to the provisions of the Tenth Schedule. All such rules must be placed before the House for 30 days.

✓ The House may approve or modify or disapprove them. Further, he may direct that any wilful contravention by any member of such rules may be dealt with in the same manner as a breach of privilege of the House.

✓ According to the rules made so, the presiding officer can take up a defection case only when he receives a complaint from a member of the House.

✓ Before taking the final decision, he must give the member, against whom the complaint has been made, a chance to submit his explanation.

✓ He may also refer the matter to the committee of privileges for inquiry. Hence, defection has no immediate and automatic effect.

Conclusion

The Tenth Schedule of the Constitution (which embodies the Anti Defection law) is designed to prevent the evil or mischief of political defections motivated by the lure of office or material benefits or other similar considerations. It is intended to strengthen the fabric of Indian parliamentary democracy by curbing unprincipled and unethical political defections. Rajiv Gandhi, the then Prime Minister, described it as the 'first step towards cleaning-up public life'. The then Central law minister stated that the passing of the 52nd Amendment Bill (anti-defection bill) by a unanimous vote by both the Houses of Parliament was 'a proof, if any, of the maturity and stability of Indian democracy'.

Regulation of online content and OTT Platform

News Excerpt

Central Government issued a notification bringing digital/online media platforms under the ambit of the Ministry of Information and Broadcasting.

Pre-Connect

- While there exists a legal framework and judicial pronouncements in respect of electronic and print media, there was no equivalent in respect of digital media.

- Digital platforms have been unregulated, having no specific regulatory framework barring the provisions of the Information and Technology Act, 2000 that they are subject to.
- Through several case laws and consultation papers and self-regulation codes formulated in the recent past, several attempts have been made to understand the need for and method of regulating digital content.
- Attempts were made by over the top ("OTT") players towards developing a more transparent system of self-regulation as the MIB maintained its position of having no control over online content while the courts established the capacity of the IT Act to regulate.
- The notification issued by the Centre means that online content providers such as Netflix, Hotstar etc. have now been brought under the jurisdiction of the MIB who shall regulate the policies in this aspect.

> **PEPPER IT WITH**
> Telecom Service Providers, Salient features of IT Act, IPTV, Salient features of the Cinematograph Act, 1952
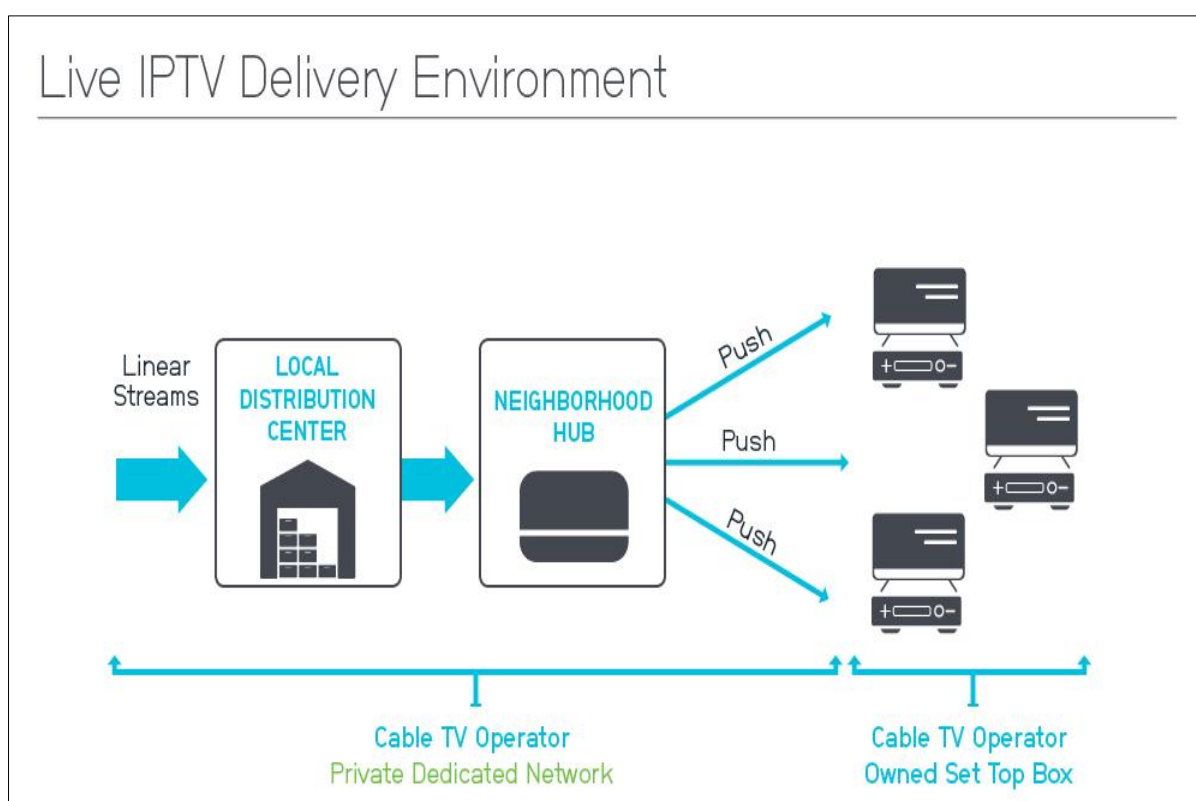
Background

➢ In an RTI reply, MIB had stated that it did not have the authority to regulate or control online content and that it was not seeking to provide a regulatory framework for OTT platforms.

➢ In October 2018, a PIL was filed by an NGO which sought separate guidelines for regulating content on online streaming platforms. While dismissing the petition, the Delhi High Court stated that MIB was of the view that online platforms were not required to obtain any license from it for displaying its content and that the same was not regulated by it.

➢ The Ministry of Electronics and Information Technology ("MeitY") had stated that it does not regulate content on the internet and that there is no provision for regulating or licensing, for any organization or establishment for putting up content on the internet.

➢ The IT Act would be applicable and the concerned statutory authority with jurisdiction under the IT Act would be able to take action by virtue of its powers under Section 69 of the IT Act which includes direction for interception, monitoring or decryption of information, blocking of content etc.

> **What is OTT?**
> OTT (over-the-top) is a means of providing television and film content over the internet at the request and to suit the requirements of the individual consumer. The term itself stands for "over-the-top", which implies that a content provider is going over the top of existing internet services.

➢ The Court further stated that Sections 66A and 67B prescribe the punishment for offences such as sending offensive messages through communication service, publishing or transmitting obscene material in any electronic form, publishing or transmitting material containing sexually explicit material, publishing or transmitting material depicting children in bad taste etc.

➢ The court stated that while no general power for regulation on the internet platform is available, however, if the internet platform is misused for carrying any information or material which is not permissible under the law then the provisions of the IT Act provide for deterrent action to be taken as and when complaints are received.

➢ The court held that it cannot issue a mandamus for framing general guidelines or provisions when there are stringent provisions already in place under the IT Act. The IT Act provided for enough procedural safeguards for taking action in the event of any prohibited act being undertaken by broadcasters or organizations on the online/internet platform.

➢ In October 2020, the Supreme Court had issued a notice to the Centre in a PIL whereby the petitioners demanded the creation of an autonomous regulatory system for online content.

➢ Through several other case laws in the recent years, the courts have held that online content would not fall under the ambit of the Cinematography Act, 1952 and have frequently dismissed broad petitions seeking censorship of online streaming services.

➢ Meanwhile, several OTT operators were increasingly adopting self-regulation codes. Last year, big OTT players such as Netflix and Hotstar along with others had signed a self-regulatory code of best practices under the backing of the Internet and Mobile Association of India (IAMAI).

➢ The objective of the code was to provide guidelines to content providers for ensuring the interests of the consumers and for conducting themselves in a responsible manner.

The Shift from IPTV to OTT

✓ Since the mid-1990's, digital television content delivery via Internet Protocol (IPTV) has been the common way for the TV service providers to distribute content to customers.

✓ Reception typically requires a TV subscription, a contract, a set-top box, and a technician to connect the array of hardware to high-speed internet services in each customer's home or office.

✓ Thus, content is distributed through private **"multicast"** mpeg transport stream networks, meaning multiple streams are pushed to multiple consumer locations, like digital cable and satellite TV.

✓ This locks consumers to one service provider, restricted to whichever is available in your area and the content offered is limited to channels available in their particular area and region.

Live IPTV Delivery Environment

Linear Streams → **LOCAL DISTRIBUTION CENTER** → **NEIGHBORHOOD HUB** → Push / Push / Push

Cable TV Operator Private Dedicated Network

Cable TV Operator Owned Set Top Box

The Amendment brought about by the Notification

▪ The notification issued by the Centre means that online content providers such as Netflix, Hotstar etc. have now been brought under the jurisdiction of the MIB which shall regulate the policies in this aspect.

▪ As per the notification issued, the Government of India (Allocation of Business) Rules, 1961 have been amended to create a new sub-heading VA in the second schedule, titled "Digital/Online Media" and containing the following two entries:
  o Films and audio-visual programmes made available by online content providers
  o News and current affairs content on online platforms.

▪ The second schedule under the Rules has a total of nine categories under the MIB which deal with broadcasting policy and administration, cable television policy, radio, doordarshan, films, advertising and visual publicity, press, publications and research and reference.

▪ The notification includes the new sub-category VA under the category of films. Thus, by this notification, the MIB shall have the power to regulate policies for OTT platforms.

The Law and the provisions

- The IT Act provides for penalties and imprisonment for transmission of obscene materials.
- Section 69A of the IT Act gives the Central Government the power to issue directions to block

Live OTT Delivery Environment

public access to any information online.

- The IT (Intermediary Guidelines) Rules, 2011 provide a due diligence framework to be observed by intermediaries in respect of information being hosted or published on any computer resource of the intermediary.
- The guidelines may also be applicable to the OTT platforms which qualify as intermediaries under the IT Act.
- Online platforms are also subject to provisions of the Indian Penal Code, 1860 such as those that criminalize dissemination of defamatory content, deliberate and malicious intent of outraging religious feelings etc.
- While courts in India have established the capacity of the IT Act to regulate online content with no need for external regulations, the apparent shift from cable television to OTT platforms has been amplified in the post COVID - 19 era, forcing regulators towards establishing a more concrete framework for digital broadcasting.

Conclusion

The regulatory framework concerning OTT platforms has been a work in progress and what remains to be seen is the manner in and extent to which the Government proposes to regulate online content as broadcasters and consumers fear extreme regulation or censorship.

Fight Fake News (BRICS Media Forum)

News Excerpt

Representatives of media organisations from BRICS (Brazil, Russia, India, China, and South Africa) called for the five nations to work together to jointly combat the **"virus of disinformation"** in the pandemic era.

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Pre-Connect

- The presidium is the decision-making body of the BRICS Media Forum and holds a meeting regularly ahead of the opening of the forum.
- Four forums were held in 2015, 2017, 2018 and 2019 respectively, which issued the Beijing Declaration of the BRICS Media Summit, the Action Plan of Promoting BRICS Media Cooperation, as well as action plans of the BRICS Media Forum for 2018-2019 and 2019-2020.

BRICS Media Forum

Launched in 2015, the BRICS Media Forum mechanism was proposed by Xinhua News Agency and jointly initiated with mainstream media from Brazil, Russia, India and South Africa.

The forum aims to

- o Establish an efficient coordination mechanism among BRICS media
- o Advance innovation-driven media development
- o Gather stronger momentum for the development of BRICS countries through exchange and pragmatic cooperation under the mechanism.

> **PEPPER IT WITH**
> Art. 19(1)(a) of the Indian Constitution, Press Trust of India, United News of India, Associated News of India, ITAR-TASS, AgênciaBrasil, South African Press Association

Highlights

➢ At the fifth BRICS Media Forum, held virtually to coincide with the BRICS summit, media organisations discussed ways in which journalists from the grouping could collaborate more closely to tell stories, with the countries facing many similar challenges, from economic issues to public health, as they grapple with COVID-19.

➢ The heads of five leading news organizations from BRICS countries jointly decided to push ahead with post-pandemic exchanges and cooperation, reaching agreement at a presidium meeting held via video link.

➢ The pledge by the leading BRICS media outlets was natural, as they and others like them have demonstrated through their stories the tough battle against the pandemic and the mutual support between BRICS countries and their people.

Analytica

✓ As the chroniclers of the vicissitudes of the times, promoters of social progress and lookouts on the voyaging ship of history, BRICS media outlets should be more active in facilitating cooperation, especially in times of crisis such as the pandemic.

✓ Despite the geographical distance between them and the challenges brought by the pandemic, BRICS media organizations need to adapt to the new conditions and convey the voice of objectivity and rationality.

✓ Through their work, they can help enhance people-to-people understanding and support between their countries.

✓ As it enters its second decade, BRICS cooperation has borne rich fruit, which cannot be achieved without the contribution of the media in the five countries.

✓ Not long ago, leaders of the five countries discussed cooperation in the fight against COVID-19, exchanged views on the current international situation and reached broad-based consensus at the 12th BRICS summit, which was held via video link.

✓ For BRICS media organizations, it is time to focus on telling the story of the inspiring spirit of developing countries and urging a more just and equitable international order at a time of global challenges.

✓ BRICS media outlets shall stand on the right side of history and make the voice of developing countries heard.

✓ Some Western countries and media outlets frequently distort or smear developing countries, leaving the world with protectionism, headwinds against globalization, and the Cold War mentality.

✓ Under such circumstances, BRICS media outlets bear a special mission: to proactively show the BRICS commitment to multilateralism, and to better safeguard and intensify the international right of speech among developing countries.

Conclusion

Media organizations under the aegis of the BRICS Media Forum have done a commendable job in informing and educating readers, viewers, and listeners on the pandemic and its consequences for people's lives, health and livelihood, and on the development of diagnostics, therapeutics, and vaccines for COVID-19.

SOCIAL ISSUES, SCHEMES, REPORTS & INDICES

Pneumonia and Diarrhoea Progress Report

News Excerpt
The latest annual Pneumonia and Diarrhoea Progress Report was released recently by the International Vaccine Access Centre (IVAC).

Pre-Connect
To help realize this promise for billions around the world, IVAC builds knowledge and support for the value of vaccines. Since 2003, IVAC served as a trusted partner for governments, international agencies, research groups, and non-profit organizations seeking to advance access to life-saving immunizations for all people. Located in the Johns Hopkins Bloomberg School of Public Health, within the Department of International Health. IVAC accelerates equitable access to vaccines through the generation, synthesis, and use of evidence to inform decision-making and action.

The report tracked progress by analysing 10 indicators from the latest available data on how countries are delivering key interventions — including breastfeeding, immunisation, care-seeking and antibiotics, oral rehydration solution (ORS), and zinc supplementation — shown to prevent pneumonia and diarrhoea deaths. Of the 15 focus countries included in the report, India is one of just four countries that exceeded targets for exclusive breastfeeding.

What report says?

- This year's report card finds that although overall the world's health systems are falling short of ensuring that children have access to prevention and treatment services, India has achieved the global target of 90% coverage for three of the five vaccines whose coverage is monitored in the report.

PEPPER IT WITH
Universal immunization programme, national rural health mission, sustainable development goals

- These vaccines are Diphtheria, Pertussis and Tetanus (DPT) vaccine, Measles-containing-vaccine first dose, Haemophilus influenzae type B, pneumococcal conjugate vaccine (PCV), and rotavirus vaccine.

- While India's coverage of rotavirus vaccine increased by 18 percentage points (35% rotavirus coverage in 2018 expanded to 53% in 2019), coverage against pneumococcal pneumonia increased by 9 percentage points (6% PCV coverage in 2018 expanded to 15% in 2019).

- Nearly every country included in the report lagged in access to treatments against pneumonia and diarrhoea.

Report card

Though India has made some strides in its vaccination programme, access to treatment leaves much to be desired

- India's under-five diarrhoea and pneumonia deaths in 2017: **2,33,240**
- India's coverage of rotavirus vaccine increased from **35%** in 2018 to **53%** in 2019
- Coverage against pneumococcal pneumonia increased from **6%** in 2018 to **15%** in 2019
- Treatment for diarrhoea had the lowest coverage with only **51%** of children receiving ORS and **20%** getting zinc

A file picture of a nurse administering pentavalent vaccine to a child in Hyderabad.

- India failed to reach all four targets for treatment, the report stated, adding that the treatment for diarrhoea had the lowest coverage, with only 51% of children receiving ORS and 20% getting zinc.

- Pneumonia continues to kill more children under five worldwide than any other single infectious disease, claiming an estimated 800,000 children's lives in 2018.
- while diarrhoeal diseases — the second leading infectious cause of death of children under 5 — claimed the lives of 437,000 young children.
- Globally, over 1.23 million children died of pneumonia and diarrhoea before reaching their 5th birthday — the equivalent of over 141 child deaths per hour or 3,400 deaths per day.

India's immunisation coverage has improved

➢ India's coverage of the rotavirus vaccine — rotavirus is the cause of the highest number of diarrhoea cases in the world — increased by 18 percentage points. Its coverage was estimated at 53 per cent in 2019, up from 35 per cent in 2018.

➢ In 2019, India completed the "100-days agenda" — an unprecedented national scale-up of the rotavirus vaccine across states to help protect 26 million children born each year against life-threatening cases of rotavirus diarrhoea.

➢ India's immunisation coverage against pneumococcal pneumonia, also increased by 9 percentage points — 15 per cent in 2019, up from 6 per cent in 2018.

Step taken by government to prevent Pneumonia and Diarrhea

❖ In 2014 India launched Integrated Global Action Plan for the Prevention and Control of Pneumonia and Diarrhea (GAPPD) is to reduce deaths from pneumonia to fewer than 3 children per 1000 live births, and from diarrhea to less than 1 in 1000 by 2025.

❖ Universal Immunization Programme (UIP) is one of the largest public health programmes targeting close of 2.67 crore newborns and 2.9 crore pregnant women annually.

❖ Social Awareness and Action to Neutralize Pneumonia Successfully' was launched by the Union Health Ministry to mobilise people to protect children from pneumonia, and train health personnel and other stakeholders to provide prioritized treatment to control the disease.

Conclusion

✓ The efficient rollout of new vaccines has improved India's scores in the 2020 report, global trends find that progress in preventing child morbidity and mortality is lagging behind targets.

✓ The window to act was already urgent in 2019, but in the coming year progress needs to be accelerated in order to sustain decades of progress in reducing childhood mortality.

New UN Alliance to stave off 'catastrophic food crisis'

News Excerpt

Taking cognisance of the catastrophic food crisis and the urgency to tackle it, Food and Agriculture Organization (FAO) of the United Nations launched a **Food Coalition** recently.

Pre-Connect

What is the need of such Alliance?

The novel coronavirus disease (COVID-19) pandemic has pulled food systems apart, threatening food security and nutrition. At least 690 million people went hungry in 2019.

Now, the pandemic could tip over 130 million more people into chronic hunger by the end of 2020.

About the Alliance

- Proposed by Italy and led by FAO, the global alliance aims to help countries get back on track to achieve the UN-mandated Sustainable Development Goals by 2030, especially the ones on ending hunger and poverty. More than 30 countries have already expressed interest in joining the coalition.
- The two countries have already pledged and delivered financial resources and technical support to the coalition. Italy has supported the alliance with an initial contribution of $1.2 million.

- The alliance would work as a network of networks and a multi-stakeholder coalition for a unified global action to support measures to ensure food access and increase the resilience of agricultural food systems in response to COVID-19.
- The alliance involves a devoted trust fund and a web-based hub allowing participants to access a basket of project-focused information and data, as well as the funding and types of assistance needed for many on-the-ground projects.

> **The Food and Agriculture Organization (FAO)** is a specialized agency of the United Nations that leads international efforts to defeat hunger.
>
> Its goal is to achieve food security for all and make sure that people have regular access to enough high-quality food to lead active, healthy lives. With over 194 member states, FAO works in over 130 countries worldwide. We believe that everyone can play a part in ending hunger.

The Food Coalition would work towards:
- Mobilising resources, expertise and innovation
- Advocating for a joint and coordinated COVID-19 response
- Promoting dialogue and exchange of knowledge and expertise among countries
- Working towards solution-oriented plans and programmes
- Expanding international cooperation and partnership for a longer term impact

Way forward
- Countries must make sure that food value chains continue to function well and that the agricultural labour force and poor consumers, both rural and urban are not pushed beyond the poverty line.
- COVID-19 has taught us that we need to increase the resilience of agri-food systems, to be ready to minimise risks and cope with them as they occur.

All India Time use Survey

News Excerpt
Recently, for the first time All India Time use Survey was conducted by the National Statistical Office (NSO), which comes under the Ministry of Statistics and Programme.

About the Time use Survey
- Time Use Survey (TUS) provides a framework for measuring time dispositions by the population on different activities.
- It is an important source of information about the activities that are performed by the population and the time duration for which such activities are performed.
- One distinguishing feature of Time Use Survey from other household surveys is that it can capture time disposition on different aspects of human activities, be it paid, unpaid or other activities with such details which is not possible in other surveys.
- The primary objective of Time Use Survey (TUS) is to measure participation of men and women in paid and unpaid activities. TUS is an important source of information on the time spent in unpaid caregiving activities, volunteer work, unpaid domestic service producing activities of the household members.
- It also provides information on time spent on learning, socializing, leisure activities, self-care activities, etc., by the household members.
- National Statistical Office (NSO) conducted the first Time Use Survey in India during January – December 2019. The survey measures the participation rate and time spent on paid activities, care activities, unpaid activities, etc.

Feature of the Survey
- **Coverage:** This survey covered 1,38,799 households. Information on time use was collected from each member of age 6 years and above of the selected households.
- **Data collection:** In this survey data on time use was collected through personal interview method. Information on time use was collected covering a period of 24 hours starting from 4:00 A.M. on the day before the date of interview to 4:00 A.M. on the day of interview

➢ **Presentation of the estimates:** The results have been presented here considering all the activities in the time slots instead of considering only the major activity. However the Report on Time Use in India-2019 also contains estimates considering only the major activities in the time slots.

The key indicators of time use survey are calculated as follows:

➢ Participation rate in a day in any activity is calculated as the percentage of persons performing that activity during the day.

➢ Average time spent in a day per participant for any activity is calculated by considering those who participated in the activity. Estimates of average time in a day in different activities derived by considering only the participants in the activities are referred to as average time spent in a day per participant.

➢ Average time spent in a day per person for any activity is calculated by considering all the persons irrespective of whether they participated in the activity or not.

Key Finding of the Survey

✓ More than 90% of Indian women participated in unpaid domestic work at home in 2019 compared to 27% of men.

✓ On the other hand, only 22% of women participated in employment and related activities compared to 71% of men.

✓ Though subtle regional variations existed, more than 84% of women participated in unpaid domestic work across all States, regardless of men's participation in such work and women's participation in employment and related activities.

✓ The study also showed that the rate of the urban population participating in leisure activities, including mass-media and sports, was relatively higher when compared to the rural population.

✓ The participation rate for Indians aged above six years on time spent in socialising and communication, community participation and religious practices was 91.3%. The rural participation rate was 91.5% and the urban population's rate was 91%.

✓ The table lists % of men/women aged 15-59 who participated in various activities in a day in 2019.

State-Wise Analysis

Southern, western and central States

▪ In these States, more women went to work compared to other States. However, when it came to household work, there was no significant difference.

▪ More than 90% of women participated in domestic work in these States. Thus their work burden was relatively higher.

▪ Goa was an outlier with relatively more men participating in household work.

Area	Gender	Employment and related activities	Unpaid domestic work
Rural	Male	69.7%	29.2%
	Female	22.5%	93.2%
Urban	Male	73%	22.5%
	Female	19.9%	88.8%
Total	Male	70.7%	27%
	Female	21.7%	91.8%

Northern and eastern States

▪ In these States too, the majority of women participated in household work. However, relatively fewer women were also engaged in employment and related activities.

▪ There was a stark difference in men's participation in unpaid household work: in many northern States, relatively fewer men participated in household work, while in the east, more men participated.

North-eastern States

A relatively higher percentage of men in most of these States participated in household chores. The percentage of women doing such work was also very high.

Analytica

Importance of time use survey for India

♣ Two recent developments which have pushed up the demand for TUS globally are the commitment to achieving the Sustainable Development Goals (SDG) by 2030.

♣ The Government of India is fully committed to the SDGs and has also indicated its inclination to implementing the second.

+ TUS data are also required for understanding and monitoring major socioeconomic concerns of countries.

How India's first time use survey failed?

+ Lack of sex-disaggregated data and other gender-related gaps in Indian government's official data sources is making it difficult to track issues such as girls' and women's employment, asset ownership, health, sanitation and education.

+ This results in a limited understanding of gender issues and poorly designed policies and programmes.

+ Women-specific data points are not collated or made public, and how this makes women invisible and hinders progress towards gender-equality goals.

+ The survey has not been incorporated with Sustainable Development Goals (SDG) by 2030, and the path-breaking Resolution of the 19th International Conference on Labour Statistics, on "Statistics of Work, Employment and Labour Underutilization — International Labour Organization 2013".

+ In the absence of this information, valuation will not be feasible in satellite accounts. Since there is no data collected on the ownership of the assets by gender, valuation by gender will not be feasible.

> **Definition of work**
> The ILO's Resolution — presents a new definition of work, new forms of work and a new labour force status classification. It defines "work" as "any activity performed by persons of any sex and age to produce goods or provide services for use by others or own use". "Work" is divided into five categories: employment (production of goods and services for pay, profit or barter); own use production of goods and services by households; unpaid trainee work, volunteer work; and other work (compulsory work performed without pay to produce goods/services for others). Unpaid domestic services and unpaid care are now formally recognised as "work" for the first time.

Breaks in Indian Survey

o A TUS collects data only for one or two days per person in a week, while according to the ILO, "a person is a worker if she/he has spent at least one hour on work in the reference week".

o As informal work is frequently intermittent and irregular, the TUS information on one day's work (for less than one hour) or non-work cannot qualify the person to be a worker or non-worker. It is quite likely that the person reporting as a non-worker on one day may be working on other days, or one reporting work may not work for

o one hour totally in the week.

o Thus, the TUS cannot provide information on the workforce/employment status of persons. It is necessary, therefore, to draw the TUS sample (which is always smaller) from the same sampling framework that is used by the labour force survey (EUS), with some common units.

> **PEPPER IT WITH**
> Labour force participant rate, reasons for women's less labour force participation, WEF gender gap report, opportunity costs

o The TUS can complement the labour force survey (LFS) information. The independent TUS cannot provide estimates of the workforce/labour force.

o In short, the Indian TUS has missed two important opportunities — of implementing the SDG 5.4 and the ILO's important resolution

What need to be done?

o Time use data are needed for implementing not only the SDG 5.4 on unpaid work, but also for implementing the SDG-1 to the SDG-10.

o Even for the SDG 5.4 — considered to be the most important SDG for measuring and valuing unpaid domestic services and unpaid care by women and men, and reducing unpaid work through public services and infrastructure — the Indian TUS data are not adequate.

o Unpaid work is usually valued using the input method, i.e. valuing the labour input in unpaid work using suitable prices (minimum wages of workers, housekeeper's wages, opportunity costs or specialised wages).

o Satellite accounts of unpaid work, however, takes into consideration capital/technology while computing the accounts. Satellite accounts of unpaid work use the principal functions concept, which can be compared with the national accounts functions.

o Under this approach, unpaid work is presented in terms of this classification of the functions, similar to the classification of the functions under the national-accounts.

o These accounts would be comparable with the national income accounts, and measure the correct contribution of unpaid work to the GDP.

Sarna Tribals

News Excerpt

Recently, Jharkhand legislature passed a government-backed resolution that would allow Tribals in the state to identify with a distinct religion.

Pre-Connect

- Currently, citizens can choose from only limited options. six religions: However, those who do not subscribe to these religions are clubbed together as ORPs.
- A separate column for tribe as a religious identity was included in the census from 1871 to 1951, but was subsequently dropped.

What is the Sarna religion?

➢ The followers of Sarna faith believe pray to nature. The holy grail of the faith is "Jal, Jungle, Zameen" and its followers pray to the trees and hills while believing in protecting the forest areas.

➢ Jharkhand has 32 tribal groups of which eight are from Particularly Vulnerable Tribal Groups.

➢ While many follow Hindu religion, some have converted to Christianity — this has become one of the planks of demanding a separate code "to save religious identity"— as various tribal organisations put it. It is believed that 50 lakhs tribal in the entire country put their religion as 'Sarna' in the 2011 census, although it was not a code.

Why this code is important?

✓ Many of the tribals who follow this faith have later converted to Christianity—the state has more than 4% Christians most of whom are tribals.

✓ Some who still follow the Sarna faith believe the converted tribals are taking the benefits of reservation as a minority as well as the benefits given to Schedule Tribes.

✓ They also believe that benefits should be given specifically to them and not those who have converted.

✓ The population of tribals in the state had declined from the 38.3 per cent in 1931 to 26.02 per cent in 2011.

✓ It cited that one of the reasons for this was tribals who go for work in different states not being recorded in the Census.

✓ In other states, they are not counted as Tribals, the separate code will ensure recording of their population.

✓ The declining numbers affect the constitutional rights given to them and how the rights will be bestowed upon the Adivasis under 5th Schedule of the Constitution.

What are the problems?

▪ There are two problems. One, the term Sarna is not common to all the adherers of a naturalistic religion based on worship of forests, rivers and mountains.

▪ Equating the idea of a naturalistic religion with only the Schedule Tribe population is problematic. It should be open to all.

Way forward

✦ The protection of their language and history is an important aspect with tribals. Between 1871 and 1951, the tribals had a different code. However, it was changed around 1961-62.

✦ The entire world is focusing on reducing pollution and protecting the environment, it is prudent that Sarna becomes a religious code as the soul of this religion is to protect nature and the environment.

Frontier Highway Project

News Excerpt

Arunachal Pradesh wary of increased activities across the Line of Actual Control (LAC) has been pushing for the frontier highway project along the border to facilitate faster movement of troops during a war-like situation and give locals more accessibility by default.

What is Frontier Highway project?

- The Arunachal Frontier Highway is a planned border highway in Arunachal Pradesh which is 2000 KM long.
- This ambitious high-altitude highway will originate from Mago-Thingbu in Tawang district and meander through the following border areas of Arunachal Pradesh along the McMahon Line.
- The highway along the China border would accompany the Trans-Arunachal Highway (through the middle) and the Arunachal East-West Corridor (in the foothills along the Assam border) as major highways spanning the whole state.

How important frontier highway is?

➢ The history of conflicts since 1962 and unfounded claims over Arunachal Pradesh, it is imperative to protect homeland. Many stretches of the border are indeed inaccessible.
➢ The Frontier Highway along the 1,100 km LAC to facilitate faster movement of troops.
➢ Roads are of utmost importance, particularly in border areas from where people have been migrating because of accessibility.
➢ Tourism also needs good roads.

Does frontiers highway project affect ecology of the Eastern Himalayas?

✓ Frontiers highway project is the alignment closest to the Tibetan border with minimum impact on the slopes.
✓ There will be a lot of tunnels for the Frontier Highway that will touch existing roads and tracks in some areas.
- Tunnels are already being built for shortening the highway to Tawang from Assam. The railway to Tawang being surveyed also envisages tunnels.

Problem faced by this project

▪ The terrain and natural factors such as landslides make this projects expensive.
▪ Foreign funding agencies provide loans at cheaper interest rates that benefit many States in India but China has continuously been blocking such funding for us because of its unfounded claim (over Arunachal Pradesh).
▪ China's interference has denied loans from Asian Development Bank and others.

Role of central Government

✛ The Centre has been providing assistance to projects such as the ongoing 1,600 km Trans-Arunachal Highway project, which has had cost overruns due to land compensation issues.
✛ Government have taken action against officials and agencies for misappropriation of funds besides letting the people know if they need roads and other infrastructure, they should give up claiming compensation that takes up a big percentage of a project cost.

2018 Report on Vital statistics of India based on the Civil Registration System

News Excerpt

Recently, a 2018 report on the 'vital statistics on India based on the Civil Registration System has been realised.

Arunachal Pradesh recorded the best sex ratio in the country with 1,085 females born per thousand males, while Manipur fared the worst with just 757.
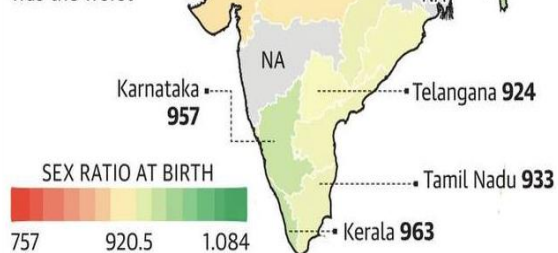
Pre-Connect

The report was released by the Office of the Registrar General & Census Commissioner, Ministry of Home Affairs, GOI and sex ratio was determined on the basis of data provided by 30 states and Union Territories.

About the report

- Besides Arunachal Pradesh, two other North-eastern states topped the list. Nagaland (965) took the second spot and Mizoram (964), the third. The top three states were followed by Kerala at 963 and Karnataka at 957.

- Manipur, which recorded the lowest sex ratio, was followed by Lakshadweep at 839 and Daman & Diu at 877, Punjab at 896 and Gujarat at 896.

- Delhi recorded a sex ratio of 929, Haryana recorded 914 and Jammu and Kashmir 952.

- The report mentioned that "requisite information from six states namely Bihar, Jharkhand, Maharashtra, Sikkim, Uttar Pradesh and West Bengal is not available."

- The level of registration of births had

Gap persists

Among the major States, Kerala (963) had the best sex-ratio at birth (females born per thousand males) while Punjab (896) was the worst

Delhi 929
NA
NA   NA
NA
NA
NA
Karnataka 957
Telangana 924
Tamil Nadu 933
Kerala 963

SEX RATIO AT BIRTH
757   920.5   1.084

The prescribed time limit for registration of birth or death is 21 days. Some States however register the births and deaths even after a year. The birth or death certificate is issued free of charge by the Registrar concerned if reported within 21 days. If reported within 21-30 days, it can be registered on payment of the prescribed fee. If the duration is more than 30 days but within a year, it can be registered with the written permission of the prescribed authority and on production of an affidavit made before a notary public or any other officer authorised by the State government and on payment of a fee.

"Births and deaths reported after one year of occurrence shall be registered only on an order of the Magistrate of the First Class after verifying the correctness and on payment of the prescribed fee.

"increased to 89.3% in 2018 from 81.3% in 2009," with the number of registered births being 2.33 crore in 2018, after 2.21 crore in 2009.

Global HIV Prevention Coalition

News Excerpt

Recently, Union Minister for Health and Family Welfare digitally addressed the Ministerial meeting of the Global Prevention Coalition (GPC) for HIV Prevention.

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Pre-Connect

Launched in 2017, the Global HIV Prevention Coalition aims to bring fresh momentum and clarity to HIV prevention programmes in 28 focus countries—the 28 countries worldwide with the greatest burden of new HIV infections. The 28 coalition countries have identified and promoted priority programme approaches and interventions, rekindled political commitment for HIV prevention and guided and supported programme implementation.

About the conference

- Hosted by UNAIDS and UNFPA United Nations Population Fund, formerly the United Nations Fund for Population Activities) (on behalf of the Global HIV Prevention Coalition (GPC), the conference this year holds significance in achieving the 2016 UNGA commitment to end AIDS by 2030.

- Member States of GPC had agreed to reduce new adult HIV infections by 75% at the end of 2020 from 2010 levels.

Fourth annual progress report of the Global HIV Prevention Coalition

➢ The latest progress report of the Global HIV Prevention Coalition shows that despite observed declines in new HIV infections among adults in several countries, overall progress in reducing new HIV infections in coalition countries is varied.

➢ The report notes that there has been significant progress in implementing 10 strategic actions set out in the Global HIV Prevention 2020 Road Map, but a number of countries still have difficulties in changing underlying factors that hold back effective HIV prevention programmes.

➢ The COVID-19 pandemic is an additional challenge to maintaining progress in HIV prevention this year.

➢ Of particular concern are disruptions in HIV prevention services such as voluntary medical male circumcision, interrupted access to prevention commodities, including safe injection supplies, the effects of lockdowns on educational and social support services and the interplay between economic downturns and heightened HIV risk behaviours and vulnerability.

> **UNAIDS** is leading the global effort to end AIDS as a public health threat by 2030 as part of the Sustainable Development Goals.
>
> UNAIDS is a problem-solver. It places people living with HIV and people affected by the virus at the decision-making table and at the centre of designing, delivering and monitoring the AIDS response. It charts paths for countries and communities to get on the Fast-Track to ending AIDS and is a bold advocate for addressing the legal and policy barriers to the AIDS response.
>
> **UNFPA** is the United Nations sexual and reproductive health agency. Mission is to deliver a world where every pregnancy is wanted, every childbirth is safe and every young person's potential is fulfilled.

India in the conference

✓ Global AIDS response has shown remarkable success in reducing new infections, improving access to prevention services for key population and treatment services for People living with HIV (PLHIV), reducing AIDS related mortality, enabling reduction in mother to child transmission of HIV and creating an enabling environment, the organization "has shown to the world a model where multiple stakeholders can come together and work cohesively towards a common goal

✓ India's unique HIV prevention model which is centred around the concept of 'social contracting' through which the targeted interventions (TI) programme is implemented.

✓ India's prevention model can be adopted and scaled up in many countries by tailoring the intervention as per local settings. It can also be replicated in other prevention and disease control programmes.

Implementation of Prevention 2020 Roadmap

Ten actions	2017	2020
1 - HIV prevention needs assessment	Not done	Done
2 - HIV prevention targets	Done	Done
3 - HIV prevention strategy	Done	Done
4 - Legal and policy reform	Partly done	Done
5a - Key population size estimates	Not done	Partly done
5b - Defined key population package	Not done	Done
5c - Adolescent girls and young women size estimates		
5d - Adolescent girls and young women package		
6 - Capacity development and technical assistance plan	Not done	Done
7 - Social contracting	Done	Done
8 - HIV prevention financial gap analysis	Not done	Done
9 - Strengthen programme monitoring	Not done	Done
10 - Performance review	Not done	Done

● Done ● Partly done ● Not done ○

✓ The government also linked key populations and PLHIV to various social welfare schemes. Advisories and guidance notes were issued by NACO from time to time aligned with global guidelines in the context.

India's Achievement in Prevention and Control of HIV/AIDS

- Over the past decade, India has made significant progress in tackling its HIV epidemic, especially in comparison with other countries in the region.
- India's Unique HIV prevention model is centered around the concept of Social Contacting through which the target Intervention (TI) programme is implemented.
- With support from Non-Government organization, the programme is aimed at providing outreach, service delivery, counselling & testing and ensuring linkages to HIV care.
- The Government of India took swift and timely action by involving communities, civil society, development partners to reach out to the last mile with a robust implementation plan for ARV dispensation.
- The Government also linked key populations and PLHIV to various social welfare schemes. Advisories and guidance notes were issued by NACO from time to time aligned with global guidelines in the context.
- India had revamped its Targeted Intervention (TI) programme to focus on hard-to-reach populations to keep its commitments.
- People living in prisons and other closed settings were considered as priority populations and interventions launched were gradually scaled up since 2016.
- The HIV Counselling & Testing Services (HCTS), Community based Screening of HIV for improving early diagnosis were also ramped up; the coverage of testing for HIV across the country was increased to achieve the Elimination of Mother to Child Transmission of HIV.
- The Test and Treat Policy, approximately 50,000 PLHIV who were lost to follow-up were linked back to Anti-Retroviral Treatment services through 'Mission SAMPARK', while Viral Load Testing facilities have been scaled up from the existing ten public sector labs to 64 labs across the country.
- The Human Immunodeficiency Virus and Acquired Immune Deficiency Syndrome (Prevention and Control) Act, 2017 which has provided a legal and enabling framework for safeguarding the human rights of the infected and affected populations.

Maternity Benefits Scheme

News Excerpt

Recently, Rajasthan government launched 'Indira Gandhi Maternity Nutrition' scheme in the state.

Pre-Connect

The scheme was announced in the last state budget, giving priority to the health and nutrition of women and children.

Objective of the Scheme

- The objective of the Indira Gandhi Matritva Poshan Yojana is to improve the nutrition level of pregnant women and children up to the age of three years.
- Promoting appropriate practice, care and institutional service utilization during pregnancy, delivery and lactation.
- Encouraging the women to follow (optimal) nutrition and feeding practices, including early and exclusive breastfeeding for the first six months.

> **PEPPER IT WITH**
> National rural health mission, POSHAN Abhiyaan, NFHS-4, Janani Suraksha Yojana, ICDS, etc

- Providing cash incentives for improved health and nutrition to pregnant and lactating mothers.
- The scheme attempts to partly compensate for wage loss to pregnant and lactating women both prior to and after delivery of the child.

Salient feature of Scheme

➢ The scheme will not only help fight malnutrition, but will also increase awareness among the people about the importance of a mother's health and her nutrition level for proper development of children.

- The scheme has been started in four most backward TSP districts of the state i.e. Udaipur, Banswara, Dungarpur and Pratapgarh, based on the rankings of Mother & Child Nutrition indicators.
- More than 77,000 women will be benefitted from the scheme every year.
- There will be an annual expenditure of Rs 43 crore for the scheme.

Benefits and Beneficiary

- Pregnant women above the age of 19 years are eligible for benefits under IGMSY for the first two live births. All organized sector employees are excluded from the scheme as they are entitled for paid maternity leave.
- The amount entitled to them is Rs.6,000, which is to be distributed in 2 instalments of Rs.3,000 each.

Pradhan Mantri Matru Vandana Yojana (PMMVY)

Pradhan Mantri Matru Vandana Yojana (PMMVY) is a Maternity Benefit Programme that is implemented in all the districts of the country in accordance with the provision of the National Food Security Act, 2013.

Objective

- ❖ Providing partial compensation for the wage loss in terms of cash incentives so that the woman can take adequate rest before and after delivery of the first living child.
- ❖ The cash incentive provided would lead to improved health seeking behaviour amongst the Pregnant Women and Lactating Mothers (PW& LM).

Benefits

- ❖ Cash incentive of Rs 5000 in three instalments i.e. first instalment of Rs 1000/ - on early registration of pregnancy at the Anganwadi Centre (AWC) / approved Health facility as may be identified by the respective administering State / UT, second instalment of Rs 2000/ - after six months of pregnancy on receiving at least one ante-natal check-up (ANC) and third instalment of Rs 2000/ - after child birth is registered and the child has received the first cycle of BCG, OPV, DPT and Hepatitis - B, or its equivalent/ substitute.

The eligible beneficiaries would receive the incentive given under the Janani Suraksha Yojana (JSY) for Institutional delivery and the incentive received under JSY would be accounted towards maternity benefits so that on an average a woman gets Rs 6000 / -

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Safaimitra Suraksha Challenge

News Excerpt

Safaimitra Suraksha Challenge was launched recently by the Union Government.

Pre-Connect

The Prohibition of Employment as Manual Scavengers and their Rehabilitation Act (2013) and various judgements of Hon'ble Supreme Court expressly prohibit hazardous cleaning, i.e. manual entry into a septic tank or sewer without protective gear and observing operating procedures. Despite this, recurring episodes of human fatalities among those engaged in cleaning of septic tanks and sewers, typically belonging to the economically disadvantaged and marginalized communities of society, continue to be an issue of concern.

About Safaimitra Suraksha Challenge

- Safaimitra Suraksha Challenge has been launched during the period 19 November 2020 - 15 August 2021. It aims to ensure that no life of any sewer or septic tank cleaner is ever lost again owing to the issue of 'hazardous cleaning.
- The Challenge, aptly launched on the occasion of World Toilet Day, is aimed at preventing 'hazardous cleaning' of sewers and septic tanks and promote their mechanized cleaning.
- The Challenge will focus extensively on creating citizen awareness on this critical issue along with infrastructure creation for mechanized cleaning and capacity building of workforce.
- Along with this, a dedicated helpline number has been set up to register complaints and provide real-time solutions on desludging or sewer overflow.

ECONOMY

Minimum Support Price

News Excerpt

The major demand of the protesting farmers has been that the government guarantee in writing the MSP system, which assures them of a fixed price for their crops, 1.5 times of the cost of production.

Highlights

- The MSP assures the farmers of a fixed price for their crops, well above their production costs.
- The Union Budget for 2018-19 had announced that MSP would be kept at levels of one and half times of the cost of production.
- As per a government release of March 2020, the Government has increased the MSP for all mandated Kharif, Rabi and other commercial crops with a return of at least 50 per cent of cost of production for the agricultural year 2018-19 and 2019-20.

Analytica

How did the government fix MSPs of crops before every planting season?

➢ The Commission for Agricultural Costs & Prices (CACP) in the Ministry of Agriculture recommends MSPs for 23 crops.

➢ These included 14 grown during the kharif/post-monsoon season and six in rabi/winter (**wheat, barley, chana, masur, mustard and safflower**), apart from sugarcane, jute and copra. The CACP considered various factors while recommending the MSP for a commodity, including cost of cultivation.

➢ It also took into account the supply and demand situation for the commodity; market price trends (domestic and global) and parity vis-à-vis other crops; and implications for consumers (inflation), environment (soil and water use) and terms of trade between agriculture and non-agriculture sectors.

➢ The Budget for 2018-19 announced that MSPs would henceforth be fixed at 1½ times of the production costs for crops as a "pre-determined principle". Simply put, the CACP's job now was only to estimate production costs for a season and recommend the MSPs by applying the 1.5-times formula.

Methods for calculation of production cost

PEPPER IT WITH
FRP, CACP, CCEA, Swaminathan Commission report, APMC, FCI

✓ The CACP does not do any field-based cost estimates itself. It merely makes projections using state-wise, crop-specific production cost estimates provided by the Directorate of Economics & Statistics in the Agriculture Ministry. The latter are, however, generally available with a three-year lag.

✓ The CACP further projects three kinds of production cost for every crop, both at state and all-India average levels. 'A2' covers all paid-out costs directly incurred by the farmer — in cash and kind — on seeds, fertilisers, pesticides, hired labour, leased-in land, fuel, irrigation, etc. 'A2+FL' includes A2 plus an imputed value of unpaid family labour. 'C2' is a more comprehensive cost that factors in rentals and interest forgone on owned land and fixed capital assets, on top of A2+FL.

What is the issue?

- The CACP's 'Price Policy for Kharif Crops: The Marketing Season 2018-19' report stated that its MSP recommendation was based on 1.5 times the A2+FL costs.
- Farm activists, however, had said that the 1.5-times MSP formula — originally recommended by the National Commission for Farmers headed by agricultural scientist M S Swaminathan and promised in the ruling government's 2014 Lok Sabha election manifesto — should have been applied on the C2 costs.
- At present, CACP considers both A2+FL and C2 costs while recommending MSP. CACP reckons only A2+FL cost for return. However, C2 costs are used by CACP primarily as benchmark reference costs (opportunity costs) to see if the MSPs recommended by them at least cover these costs in some of the major producing States.

Ayush Sector: Steps to make it future ready

News Excerpt

Centre is going to set up strategic policy unit to make Ayush sector future-ready.

Highlight

- To facilitate planned and systematic growth of the Ayush sector, ministry of Ayush (Ayurveda, Yoga and Naturopathy, Unani, Siddha and Homoeopathy) plans to set up a strategic policy unit that will help it reach its full potential.

- Setting up of the SPFB is a forward-looking step which will make the Ayush systems future-ready. This bureau will support the ministry in strategic and policy-making initiatives that shall help pave the way to reach the full potential of the sector and stimulate growth and investment. At a time when the Covid-19 pandemic is leaving indelible imprints in the health-seeking behaviors of people around the world, such a strategy unit can be of immense support to the stake-holding groups of the Ayush sector.

- As a partner in the project, Invest India would collaborate extensively with Ayush ministry to frame the work plan of the bureau and define its short- and long-term targets. Invest India is expected to deploy highly trained and expert resources to implement and execute the ministry's plans.

- According to the ministry, the activities that the unit will undertake include knowledge creation and management; strategic and policy-making support; undertaking state policy bench marking to formulate uniform guidelines, regulations regarding Ayush sector in India; investment facilitation and Memorandum of Understandings, and coordination among different department, organisations and states; and issue resolution by working with companies and other institutions across states and among various sub-sectors.

> **PEPPER IT WITH**
> Sowa-Rigpa, International Day for Yoga, Soft Power, Nagoya Protocol, National Biodiversity Authority.

- Some of the specific deliverables of the bureau would include project monitoring for inter-ministerial groups, skill development initiatives, setting up strategic intelligence research unit and initiating an innovation programme.

- The ministry will support the bureau in building links with various stakeholders, such as industry associations, affiliate bodies of the ministry and industry representation.

China's Negative Yield bonds

News Excerpt

Recently, China sold negative-yield debt for the first time, and this saw a high demand from investors across Europe. As yields in Europe are even lower, there was a huge demand for the 4-billion-euro bonds issued by China.

Pre- Connect

- Negative Yield Bonds are debt instruments that offer to pay the investor a maturity amounts lower than the purchase price of the bond.

- These are generally issued by central banks or governments, and investors pay interest to the borrower to keep their money with them.

Analytica

Why do investors buy negative yield bonds?

➢ Negative-yield bonds attract investments during times of stress and uncertainty as investors look to protect their capital from significant erosion.

➢ At a time when the world is battling the Covid-19 pandemic and interest rates in developed markets across Europe are much lower, investors are looking for relatively better-yielding debt instruments to safeguard their interests.

Reasons for the high demand of negative yield bonds

➢ The fact that the 10-year and 15-year bonds are offering positive returns is a big attraction at a time when interest rates in Europe have dropped significantly.

➢ As against minus —0.15% yield on the 5-year bond issued by China, the yields offered in safe European bonds are much lower, between –0.5% and —0.75%.

- While the majority of the large economies are facing a contraction in their GDP for 2020-21, China is one country that is set to witness positive growth in these challenging times i.e. its GDP expanded by 4.9% in the third quarter of 2020.
- While Europe, the US and other parts of the world are facing a second wave of Covid-19 cases, China has demonstrated that it has controlled the spread of the pandemic and is therefore seen as a more stable region.

> **PEPPER IT WITH**
> Helicopter Money Drop, Masala Bond, Panda Bond, Liquidity infusion.

- Many feel that European investors are also looking to increase their exposure in China, and hence there is a huge demand for these bonds.

Key factors responsible for high demand

- The massive amount of liquidity injected by the global central banks after the pandemic began that has driven up prices of various assets including equities, debt and commodities.
- Many investors could also be temporarily parking money in negative-yielding government debt for the purpose of hedging their risk portfolio in equities.
- In case the fresh wave of the Covid-19 pandemic leads to further lockdowns of economies, then there could be further negative pressure on interest rates, pushing yields down further, and leading to profits even for investors who put in money at the current juncture.
- Global central banks have injected an estimated more than $10 trillion of liquidity through various instruments in the financial system — which is finding its way into various assets in the economy.

RBI's individual loan restructuring scheme

News Excerpt

To help the borrowers impacted by Covid-19, the RBI has recently announced guidelines for devising the policy for granting relief to such borrowers.

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Pre-Connect

- Amidst the difficulties faced by individual borrowers in servicing their EMIs due to reduced earning capacity of the salaried as well as self employed, the RBI has advised all the lenders to prepare a resolution policy for the borrowers impacted by the Covid-19 pandemic.
- Due to the impact of pandemic, some employees have lost their jobs and some have been asked to work with reduced salaries. Likewise, many self-employed have seen a slowdown in their business. These people have been facing problem in servicing their EMIs. As a temporary measure, the RBI had allowed banks to grant a moratorium for six months' EMIs, which ended on 31st August 2020.
- The moratorium was available indiscriminately to all the borrowers, but it could not go on for all the borrowers for an indefinite period. So, to help the borrowers impacted by Covid-19, the RBI has announced guidelines for devising the policy for granting relief to such borrowers.

Highlights

> **PEPPER IT WITH**
> Atmanirbhar Package, LTRO, Operation Twist

- RBI changed the definition of Personal loans in the context of new resolution plan as the term created confusion among the borrowers in the earlier policy.
- In the proposed resolution plan, 'Personal Loan' refers to loans given to individuals and consist of

(a) consumer credit,

(b) education loan,

(c) loans given for creation/ enhancement of immovable assets (e.g., housing, etc.),

(d) loans given for investment in financial assets (shares, debentures, etc.).

- Under the resolution plan, as permitted by the RBI, a borrower can avail the facilities only if the loan was outstanding for not more than 30 days as on 1st March 2020.
- In case where loan was overdue for more than 30 days on the cut-off date or had already become an NPA prior to that date, borrower is not entitled to avail this facility.

➤ Borrower can also avail the facility even if she has serviced all the EMIs and her loan is a standard loan even on the date of making application for restructuring. This facility is available whether she had availed the moratorium or not.

➤ In addition to granting a further moratorium of upto two years, a borrower is allowed the facility of rescheduling of loan or of conversion of outstanding interest into a separate credit facility. This is one-time option and the borrower has to apply latest by 31st December 2020.

➤ Lender may refuse the credit restructuring facility if a borrower is found to have a bad credit history. Also, if a borrower decides to avail this facility, it will be reported to credit information bureaus like CIBIL. This will certainly affect one's credit history and credit score adversely, but not as adversely as it would have had loan become an NPA.

➤ Though the benefit of moratorium for six months between 1st March 2020 and 31st August 2020 was available to all the borrowers, the proposal under the resolution plans would be available only to the borrowers who are financially impacted due to Covid-19. So, a salaried who has either lost his job or is working with reduced pay as well as a self-employed individual impacted by this pandemic can also avail the option of restructuring.

Production linked incentive scheme

News Excerpt

The Union Cabinet recently approved Production Linked Incentive (PLI) scheme worth up to Rs 1.46 lakh crore for 10 key sectors in a bid to boost India's manufacturing capabilities and enhancing exports. The scheme will make Indian manufacturers globally competitive, attract investment and enhance exports.

Highlights

• The sectors include automobiles and auto components, pharmaceutical drugs, advanced chemistry cells (ACC), capital goods, technology products, textile products, white goods, food products, telecom and speciality steel.

• Financial outlays have been allocated over a five-year period for the 10 sectors, and the aim of the scheme is to provide a boost to the Indian manufacturing sector, promote exports and make India an integral part of the global supply chain.

Analytica

➤ The PLI scheme focuses on incentivising firms to grow fast. Some of these incentives are meant to help industries where India already has a comparative advantage, like auto components; others for industries where India has the potential to become a world leader, like food; and most importantly, the PLI scheme is for sectors where India has an uncomfortable dependence on Chinese imports.

HOW DOES THE INCENTIVE WORK

It is a kind of subsidy to the sector

| **Is a direct** payment from the budget to goods made in India | **Amount** varies from sector to sector | **Is based on** disadvantage /disability faced by a sector |

➤ A scheme for a few sectors is at best a short- or medium-term fix. In the long run, an economy can become competitive only when sectors can die and be born.

➤ Resources get reallocated to sectors that see higher productivity growth. New sunrise sectors that grew in India, such as pharma or IT, did so without any special sectoral support from the government. If the PLI scheme works and helps in incentivising production, then this would be quite an achievement.

PEPPER IT WITH

Make in India, Assemble in India, Exclusive Manufacturing Zone, Country of Origin, Network Goods

➤ However, analysts have pointed out that for even these sectors to be competitive, the incentives should be temporary, lest they slow down long-term growth in the sector, instead of accelerating it.

➤ Also, the sectors that don't get an incentive are now at a comparative disadvantage, and the government should work doubly hard to improve the business, tax and policy environments in which all businesses can benefit.

ON THE GROUND

Base year of incentive fixed for eligible entity	In year 1, ₹1,100 crore worth goods made
Incentive available on incremental sales from this base year	Incremental production would be ₹100 crore
For example, base year ₹1,000 crore worth goods made	First year benefit, in case of mobiles, 6%
	The producer will get ₹6 crore as incentive from budget
	The amount will fall to 4% of incremental sales by final year

WHAT THE SCHEME SEEKS TO ACHIEVE

- **Make domestic mfg** competitive & efficient
- **Create economies** of scale
- **Make India part of** global supply chain
- **Attract investment in** core mfg & cutting edge tech
- **Competitive mfg** would in turn lift exports

HOW WILL IT WORK

Template for schemes already exists	**Rolled out** for mobiles, pharma and medical devices
Will be implemented by concerned ministry/dept	
Final proposals to be approved by the Cabinet	**Savings** from PLI of one sector can be used to fund others
Any new sector will require fresh approval	

Internal Working Group of the RBI Recommendations

News Excerpt

The Reserve Bank of India had constituted an Internal Working Group (IWG) in June 2020 to review extant ownership guidelines and corporate structure for Indian private sector banks. The IWG has recently submitted its report.

Major Recommendations

- The cap on promoters' stake in the long run (15 years) may be raised from the current level of 15 per cent to 26 per cent of the paid-up voting equity share capital of the bank.

- As regards non-promoter shareholding, a uniform cap of 15 per cent of the paid-up voting equity share capital of the bank may be prescribed for all types of shareholders.

Promoter cap: Cap for promoters may be raised to 26% and for non-promoters to 15% at central bank's discretion

NBFCs: Non-banking financial firms with an asset size of ₹50,000 cr or more can aspire for a banking license

SFBs: Time-frame for payments banks to convert to a small finance bank to be three years from five years

▸ Provision for SFBs and payment banks to list within six years

Bank licensing: Capital level for licensing new universal banks may be doubled to ₹1,000 cr; raised to ₹300 cr for SFBs from ₹200 cr

BIG BANK REFORMS

NOFHC: Non-operative financial holding company must for promoters, promoting entities, converting entities with other group entities

▸ NBFCs wanting to convert into universal banks with interests across financial services will have to set up NOFHCs

▸ Banks licensed before 2013 may move to an NOFHC structure. Have to shift within 5 years of attaining tax-neutral status

▸ Banks under NOFHC structure may be allowed to exit from it if they do not have other group entities in their fold

ILLUSTRATION: AJAY MOHANTY

- Large corporate/industrial houses may be allowed as promoters of banks only after necessary amendments to the Banking Regulation Act, 1949 (to prevent connected lending and exposures between the banks and other financial and non-financial group entities); and

strengthening of the supervisory mechanism for large conglomerates, including consolidated supervision.

- Well run large Non-banking Financial Companies (NBFCs), with an asset size of ₹50,000 crore and above, including those which are owned by a corporate house, may be considered for conversion into banks subject to completion of 10 years of operations and meeting due diligence criteria and compliance with additional conditions specified in this regard.

- For Payments Banks intending to convert to a Small Finance Bank, track record of 3 years of experience as Payments Bank may be considered as sufficient.

- Small Finance Banks and Payments Banks may be listed within '6 years from the date of reaching net worth equivalent to prevalent entry capital requirement prescribed for universal banks' or '10 years from the date of commencement of operations', whichever is earlier.

- The minimum initial capital requirement for licensing new banks should be enhanced from ₹500 crore to ₹1000 crore for universal banks, and from ₹200 crore to ₹300 crore for small finance banks.

- Non-operative Financial Holding Company (NOFHC) should continue to be the preferred structure for all new licenses to be issued for universal banks. However, it should be mandatory only in cases where the individual promoters / promoting entities/ converting entities have other group entities.

- While banks licensed before 2013 may move to an NOFHC structure at their discretion, once the NOFHC structure attains a tax-neutral status, all banks licensed before 2013 shall move to the NOFHC structure within 5 years from announcement of tax-neutrality.

- Till the NOFHC structure is made feasible and operational, the concerns with regard to banks undertaking different activities through subsidiaries/ Joint Ventures/ associates need to be addressed through suitable regulations.

- Banks currently under NOFHC structure may be allowed to exit from such a structure if they do not have other group entities in their fold.

- Reserve Bank may take steps to ensure harmonisation and uniformity in different licensing guidelines, to the extent possible. Whenever new licensing guidelines are issued, if new rules are more relaxed, benefit should be given to existing banks, and if new rules are tougher, legacy banks should also conform to new tighter regulations, but a non-disruptive transition path may be provided to affected banks.

Remark

The changes come against the backdrop of putting the Indian economy on the path of fast growth which would not be possible without strong credit institutions. However, experts caution the liberal norms need be accompanied with changes that ensure stricter supervision and oversight of the banking system.

Virtual Global Investor Roundtable

News Excerpt

The Prime Minister recently chaired the Virtual Global Investor Roundtable (VGIR), with an aim to boost investment into the country.

About VGIR

- The VGIR was organized by the Ministry of Finance, Government of India, and National Investment and Infrastructure Fund.

- It is an exclusive dialogue between leading global institutional investors, Indian business leaders and the highest decision makers from the Government of India and Financial Market Regulators.

- The Roundtable witnessed participation from twenty of the world's largest pension and sovereign wealth funds with a total Assets Under Management of about US$6 trillion. These global institutional investors represent key regions including the US, Europe, Canada, Korea, Japan, Middle East, Australia, and Singapore.

- Apart from global investors, the Roundtable also saw participation of several top Indian Business Leaders.

Analytica

- VGIR 2020 focused on discussions around India's economic and investment outlook, structural reforms and the government's vision for the path to a USD 5 trillion economy.
- The event provided an opportunity to leading global investors and Indian business leaders to engage and deliberate with senior policymakers on how to further accelerate the growth of international investments in India.
- Foreign investments in India this fiscal is the highest ever for the first five months of a financial year. VGIR 2020 also provided an occasion for all stakeholders to further cement the strong partnerships that have been built and to foster engagement with international institutional investors who are looking to increase their Indian investments.

India: Attractive destination for investors

- ✓ At the inauguration, the prime minister rightly said that India offers the investors Democracy, Demography, Demand as well as Diversity. Because of these characteristics, investors get multiple markets within one market. These come with multiple pocket sizes & multiple preferences. These come with multiple weathers and multiple levels of development.
- ✓ He also highlighted multiple initiatives taken by the government to improve our manufacturing potential such as- One Nation One Tax system in the form GST, one of the Lowest Corporate Tax rates and added incentive for new manufacturing, Faceless regime for IT assessment and appeal, a new labour laws regime balancing the welfare of workers and ease of doing business for the employers. Production Linked Incentive schemes in specific sectors and empowered institutional arrangement to handhold investors.
- ✓ Some of the major initiatives for the development of the financial sector are- comprehensive banking sector reforms, strengthening of financial markets, unified authority for the International Financial Services Centre, one of the most liberal FDI regimes, a benign tax regime for foreign capital, suitable policy regimes for investment vehicles like Infrastructure Investment Trust and Real Estate Investment Trust, Implementation of Insolvency and Bankruptcy Code, Financial empowerment through Direct Benefit Transfer and fin-tech based payment systems like Ru-Pay cards and BHIM-UPI.

> **PEPPER IT WITH**
> Ease of Doing Business report, PARIVESH, FDI vs FII, SEZ, Sagarmala, Assemble in India, Make in India.

- ✓ India has an ambitious plan to invest $ 1.5 trillion under the National Infrastructure Pipeline. Various social and economic infrastructure projects are planned in India under the pipeline, aim for faster economic growth and alleviation of poverty in the country.
- ✓ India has embarked on a massive infrastructure building spree of highways, railways, metros, water-ways, airports across the country. Millions of affordable houses for the Neo-middle class are also planned. Thus, to achieve these goals, India needs investments not just in big cities but in smaller cities and towns too.
- ✓ Initiatives around innovation and digital technology have always been at the centre of government policies and reform. The PM pointed out that India has one of the largest number of start-ups and unicorns in the world and is still growing very fast.
- ✓ The Prime Minister highlighted that the recent reforms in agriculture has opened up new exciting possibilities to partner with the farmers of India. The PM envisioned India to soon emerge as an agriculture export hub, with the help of technology and modern processing solutions.
- ✓ National Education Policy will also help in creating opportunities in setting up campuses of foreign universities here.

Conclusion

As pointed out by our leader, India is the place to be, if one wants returns with reliability, demand with democracy, stability with sustainability and growth with a green approach. India's growth has the potential to catalyse global economic resurgence. Any achievement by India will have a potential to create multiplier impact on World's development and Welfare. A strong and vibrant India can contribute to stabilization of the world economic order. And hence, flow of such investments can prove vital in achieving the stated goals of India in our dreams.

WhatsApp Pay on UPI

News Excerpt

The National Payment Corporation of India (NPCI), which manages Unified Payment Interface (UPI), has recently decided to allow Facebook backed messaging service WhatsApp to go live on UPI in the multi-bank model.

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Highlights

- According to NPCI, WhatsApp can expand its UPI user base in a graded manner starting with a maximum registered user base of 20 million in UPI.

- Though the condition of 20 million will be a dampener, it is some relief for WhatsApp, which began its pilot run two years ago, while it awaited regulatory clearances to launch its UPI-based payments for its 400 million users in India.

- In August, NPCI had informed the Reserve Bank of India (RBI) that WhatsApp had met data localization requirements.

Analytica

- In a related development, NPCI has capped the share of total number of transactions that a third-party application can process at 30 per cent of total volume of transactions processed in UPI, effective from January 1,2021.

- The cap of 30 per cent will be calculated on the basis of the total volume of transactions processed in UPI during the preceding three months (on a rolling basis). And, the existing Third-Party Application Providers (TPAPs) such as Google pay, Phonepe who have exceeded the cap, will have a period of two years from January 2021, to comply with the same in a phased manner.

- It can be noted that the TPAPs typically tie-up with banks at the back-end to add users and process payments for them. Data coming out of the usage is a major resource, apart from the revenues made through processing fees.

- According to NPCI, this move will help to address the risks and protect the UPI ecosystem as it further scales up.

- However, experts agree on the fact that a hard cut off at 30 per cent is not the best way to curb dominance. UPI being an interoperable platform there should be a stance on monopoly but having hard limit is not the best thing.

- UPI recorded over two billion transactions in October, a milestone that highlights the faster adoption of digital payments in a post-Covid-19 world. Launched in 2016, it had crossed 1 billion transactions for the first time in October 2019. While it took UPI three years to reach a billion transactions in a month, the next billion came in just a year.

- As businesses open up, there is huge uptake in UPI payments as an increasing number of customers opt for digital payments, owing to convenience and safety.

National Payments Corporation of India (NPCI)

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

- It is an initiative of Reserve Bank of India (RBI) and Indian Banks' Association (IBA) under the provisions of the Payment and Settlement Systems Act, 2007, for creating a robust Payment & Settlement Infrastructure in India.

- Considering the utility nature of the objects of NPCI, it has been incorporated as a "Not for Profit" Company under the provisions of Section 25 of Companies Act 1956 (now Section 8 of Companies Act 2013), with an intention to provide infrastructure to the entire Banking system in India for physical as well as electronic payment and settlement systems.

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

PEPPER IT WITH
Rupay, UPI, BN
Srikrishna Committee, Data Localisation.

INTERNATIONAL RELATIONS

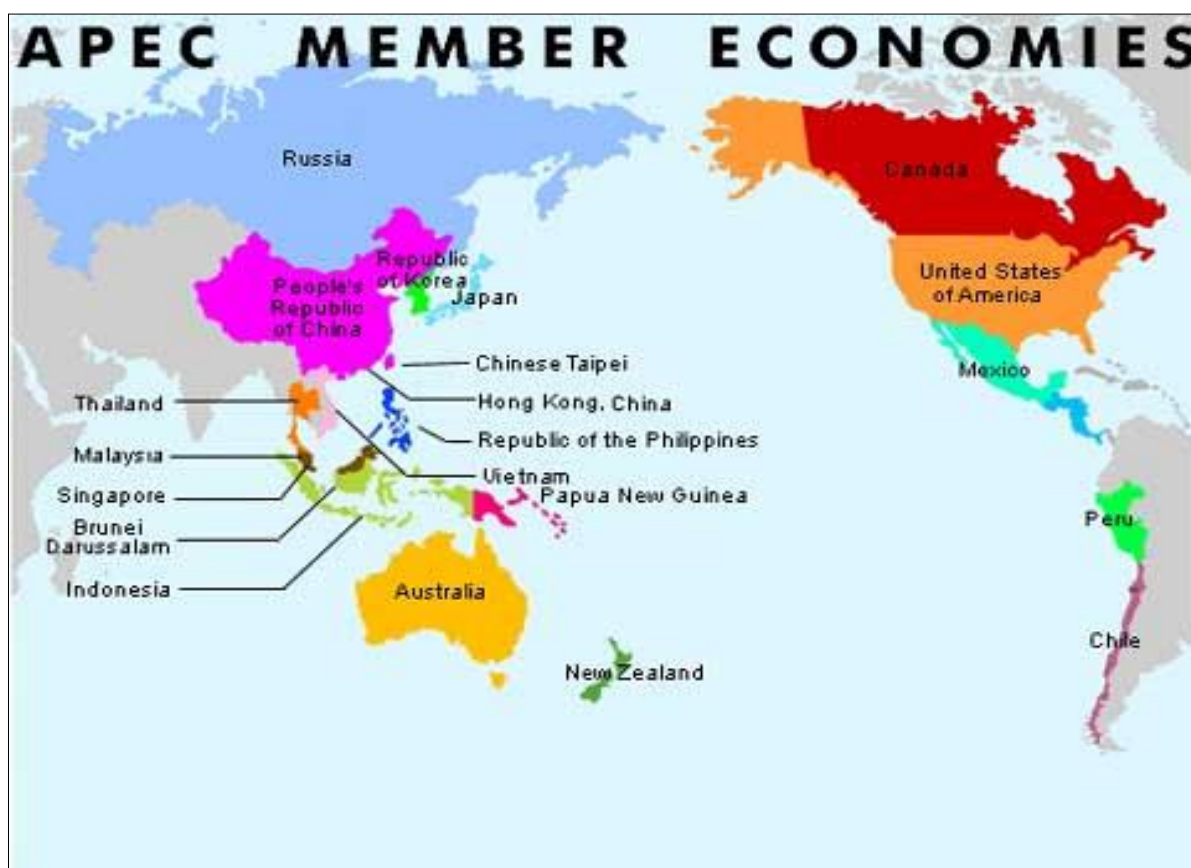| Asia Pacific Economic Cooperation (APEC) |
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News Excerpt

Recently, leaders from the Asia-Pacific Economic Cooperation forum, including US President Donald Trump, have pledged to work towards free, open and non-discriminatory trade and investment to revive their coronavirus-battered economies.

The leaders cast aside differences to issue their first joint statement, in which they agreed to further deepen regional integration by working towards a massive free trade agreement involving all the 21 APEC economies.

Pre-Connect

- The Asia-Pacific Economic Cooperation (APEC) is a regional economic forum established in 1989 to leverage the growing interdependence of the Asia-Pacific. The APEC process is supported by a permanent secretariat based in Singapore.

- The 21 economies cover 37 percent of the global population, 48 percent of the world's trade volume and 60 percent of global gross domestic product.

- APEC's 21 members aim to create greater prosperity for the people of the region by promoting balanced, inclusive, sustainable, innovative and secure growth and by accelerating regional economic integration.

- APEC ensures that goods, services, investment and people move easily across borders. Members facilitate this trade through faster customs procedures at borders; more favourable business climates behind the border; and aligning regulations and standards across the region.

- The forum adapts to allow members to deal with important new challenges to the region's economic well-being. This includes ensuring disaster resilience, planning for pandemics, and addressing terrorism.
- APEC leaders adopted the Putrajaya Vision 2040, a new 20-year growth vision to replace the Bogor Goals named after the Indonesian town where leaders agreed in 1994 to free and open trade and investment. They pledged to build an "open, dynamic, resilient and peaceful region" by 2040, and tasked officers to draw up implementation plans by next year.

Analytica

Why India should join APEC?

➢ APEC members including the United States see RCEP, the world's biggest trade bloc, and the 11-party Trans-Pacific Partnership as steps toward realizing an APEC-wide free trade agreement called the Free Trade Area of the Asia-Pacific.

➢ Membership in APEC will provide India a constructive forum to glean insight from other Asian countries that have already taken significant steps to advance their economies

➢ APEC is the missing link to the India's Act East policy.

➢ Indian labour could be a big beneficiary of India joining the APEC because many APEC economies will face labour shortages in the future because of aging populations.

➢ APEC and the WTO are complementary but unlike WTO, APEC has no treaty obligations.

➢ APEC projects provide digital skills training for rural communities and help indigenous women export their products abroad, which is of great significance to India.

Regional Comprehensive Economic Partnership (RCEP)

News Excerpt

Recently, 15 countries solidified their participation in the Regional Comprehensive Economic Partnership (RCEP). Even as India opted to stay out after walking out of discussions last year, the new trading bloc has made it clear that the door will remain open for India to return to the negotiating table.

Pre-Connect

- Described as the "largest" regional trading agreement to this day, RCEP was originally being negotiated between 16 countries — ASEAN members and countries with which they have free trade agreements (FTAs), namely Australia, China, Korea, Japan, New Zealand and India.

- The purpose of RCEP was to make it easier for products and services of each of these countries to be available across this region.

- It also includes provisions on intellectual property, telecommunications, financial services, e-commerce and professional services.
- Although the RCEP was an ASEAN initiative, it is regarded by many as a China-backed alternative to the Trans-Pacific Partnership (TPP), a proposed deal that excluded China but included many Asian countries.
- Members of the RCEP make up nearly a third of the world's population and account for 29% of global gross domestic product.

Analytica

Why India did not join?

➢ Its decision was to safeguard the interests of industries like agriculture and dairy and to give an advantage to the country's services sector.
➢ India's fears that there were "inadequate" protections against surges in imports. It felt there could also be a possible circumvention of rules of origin— the criteria used to determine the national source of a product — in the absence of which some countries could dump their products by routing them through other countries that enjoyed lower tariffs.
➢ India was unable to ensure countermeasures like an auto-trigger mechanism to raise tariffs on products when their imports crossed a certain threshold.
➢ It also wanted RCEP to exclude most-favoured nation (MFN) obligations from the investment chapter, as it did not want to hand out, especially to countries with which it has border disputes, the benefits it was giving to strategic allies or for geopolitical reasons.
➢ India felt the agreement would force it to extend benefits given to other countries for sensitive sectors like defence to all RCEP members.
➢ RCEP also lacked clear assurance over market access issues in countries such as China and non-tariff barriers on Indian companies.
➢ India has trade deficits with 11 of the 15 RCEP countries, and some experts feel that India has been unable to leverage its existing bilateral free trade agreements with several RCEP members to increase exports.
➢ **The China Factor**- Escalating tensions with China are a major reason for India's decision. While China's participation in the deal had already been proving difficult for India due to various economic threats, the clash at Galwan Valley has soured relations between the two countries. The various measures India has taken to reduce its exposure to China would have sat uncomfortably with its commitments under RCEP.

Arguments in favour

➢ Unless we address the structural issues that impact Indian competitiveness, our domestic industry will find it difficult to leverage any FTA to its advantage.
➢ Those who support India's decision argue that while RCEP may theoretically offer India new opportunities for exports and integration with pan-Asian production networks, we have a lot of work to do internally before we are in a position to make the most of free-trade deals.
➢ India's stance on the deal also comes as a result of learnings from unfavorable trade balances that it has with several RCEP members, with some of which it even has FTAs.
➢ Study shows that while there has been growth rate in both imports from and exports to these FTA partners, the utilisation rate of FTAs both for India and its partners has been "moderate" across sectors, which covers pacts with Sri Lanka, Afghanistan, Thailand, Singapore, Japan, Bhutan, Nepal, Republic of Korea and Malaysia
➢ By staying out of RCEP, India has strengthened incentives to decouple supply-chains that incorporate China, and encourage these to redeploy around India and ASEAN.

Arguments Against

➢ There are concerns that India's decision would impact its bilateral trade ties with RCEP member nations, as they may be more inclined to focus on bolstering economic ties within the bloc.
➢ The move could potentially leave India with less scope to tap the large market that RCEP presents as the countries involved account for over 2 billion of the world's population..

➢ India's decision could impact the Australia-India-Japan network in the Indo-Pacific. It could potentially put a spanner in the works on informal talks to promote a Supply Chain Resilience Initiative among the three.

➢ The RCEP is now seen paving the way for lowering trade barriers for member nations at a time when the pandemic poses a challenge to global commerce.

➢ For India, the withdrawal will result in a loss of 1.2% of the nation's projected GDP in 2030, according to a paper by Peterson Institute for International Economics.

Other Alternatives Available for India

✓ India, as an original negotiating participant of RCEP, has the option of joining the agreement without having to wait 18 months as stipulated for new members in the terms of the pact.

✓ The possible alternative that India may be exploring is reviews of its existing bilateral FTAs with some of these RCEP members as well as newer agreements with other markets with potential for Indian exports. Over 20 negotiations are underway.

✓ There is also a growing view that it would serve India's interest to invest strongly in negotiating bilateral agreements with the US and the EU, both currently a work in progress.

✓ That India offers a far more flexible labour market now than in the past will only redouble the speed with which global manufacturing supply chains begin to centre around India.

India-China

News Excerpt

Recently, Satellite imagery has emerged of China setting up villages in hitherto uninhabited stretches on its disputed borders with India and Bhutan, particularly in Arunachal Pradesh, with experts saying the move could be aimed at buttressing Beijing's territorial claims.

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Highlights

• Several villages have come up in the tri-junction between India, Bhutan and China, and the move follows the upgrading and construction of Chinese military facilities, including heliports and missile bases, all along the Line of Actual Control (LAC) in the aftermath of the 2017 standoff at Doklam.

• According to Dr. Brahma Chellaney, China has been using a strategy of settling Han Chinese and Tibetan members of the Communist Party along the India border to strengthen its territorial claims and escalate border intrusions.

• In September 2017, the Chief of Defense Staff, General Bipin Rawat, then Army Chief, had warned of China's efforts at `salami slicing' into Indian territory. The salami slicing is technique of taking over territory in a very gradual manner.

Pre-Connect

➢ China disputes the legal status of the boundary in the North-Eastern region and Chinese maps continue to show 65,000 square kilometers of territory south of the line as being a part of Beijing's South Tibet Region.

➢ India, which has rejected Beijing's claim for decades, insists that the historic McMohan line proposed by the British administrator Sir Henry McMohan at the 1914 Shimla Convention defines the boundary here.

Analytica

Changing Dynamics in India-China Relations

✓ In 2018, PM Modi and President Jinping agreed to maintain peace along the border at the Wuhan summit.

✓ India and China's collective economies make up over 17% of the entire global economy. Also, China is India's primary trading partner with annual trade worth $92 billion. They have attempted to increase cooperation and build confidence measures by undertaking joint projects including a training program for Afghan diplomats and reviving the Bangladesh-China-India-Myanmar (BCIM) corridor.

✓ However, these efforts are undermined by the pervasive feeling of distrust between the two states and the echoes of Cold War history. Also, the summits and efforts of cooperation have not stopped the outbreaks of violence, nor have they solved any of the underlying issues.

- Underlying issues that strain the Sino-Indian relationship include nuclear weapons, China's support for Pakistan, the situation in Tibet and India's sheltering of the Dalai Lama, the Chinese navy making an appearance in Indian waters and Indian foreign policy.
- The Covid-19 pandemic has added pressure to Sino-Indian relations as the Indian general public blame China for the outbreak thus causing an anti-China sentiment.
- Both states have downplayed the recent stand-off's as short-term and temporary incidents. However, if relations continue to sour over territorial boundaries and the border remains unresolved, this could compromise their economic relationship.
- To prevent prolonged crisis, China would need to withdraw its aggressive position voluntarily through peaceful negotiations with India. Further, India should tread with caution as neighbouring countries including Sri Lanka and Nepal are becoming increasingly supportive of China.

G20

News Excerpt

G20 leaders met in virtual format to address the way forward how to tackle together the ongoing COVID-19 pandemic, finance the development and deployment of a vaccine as well as continue the support to citizens and businesses struggling to cope with the aftermath of the pandemic.

Highlights

- Following the two days Summit, Leaders adopted the G20 Riyadh Declaration to address common global challenges.
- On COVID-19, the G20 noted that Access to COVID-19 Tools Accelerator (ACT-A) initiative and its COVAX facility are the main tools to fight it.
- On climate change, the Summit agreed on a unified paragraph in the G20 Riyadh Declaration, after three consecutive G20 Summits where such consensus could not be reached.
- On debt relief for the most fragile countries, Leaders reconfirmed their support through the G20 Debt Service Suspension Initiative that will provide debt relief and free resources to fight the pandemic. They committed to implementing the Debt Service Suspension Initiative (DSSI) including its extension through June 2021.
- On trade and taxation of the digital economy, Leaders recalled their support to the WTO reform process and recognized the contribution that the Riyadh Initiative on the Future of the WTO has made. They also agreed to strive to find a consensus-based solution for a globally fair, sustainable, and modern international tax system by mid-2021, built on the ongoing work of the OECD.

> The **Riyadh Initiative on the Future of the WTO (the Riyadh Initiative)** was launched by the Saudi G20 Presidency (the Presidency), building on the commitment from G-20 Leaders, to provide an additional opportunity for members to work constructively towards the necessary reform of the WTO. By identifying common ground of WTO objectives and trade policy principles under the Riyadh Initiative, the G20 can play an important role in providing political support for reform discussions.

Organization for Islamic Cooperation (OIC)

News Excerpt

Recently, India hit out at the Organisation of Islamic Cooperation (OIC) for making factually incorrect and unwarranted references to Jammu and Kashmir. The 47th session of the OIC Council of Foreign Ministers on November 27-29 at Niamey, Niger, had made a reference to India over its policies on J&K.

Pre-Connect

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- The OIC — formerly Organisation of the Islamic Conference — is the world's second largest inter-governmental organisation after the UN, with a membership of 57 states.
- The OIC's stated objective is "to safeguard and protect the interests of the Muslim world in the spirit of promoting international peace and harmony among various people of the world".
- OIC has reserved membership for Muslim-majority countries. Russia, Thailand, and a couple of other small countries have Observer status.

Analytica

India's Relationship with OIC

➤ In 1969, India was dis-invited from the Conference of Islamic Countries in Rabat, Morocco at Pakistan's behest.

➤ At the 45th session of the Foreign Ministers' Summit in 2018, Bangladesh, the host, suggested that India, where more than 10% of the world's Muslims live, should be given Observer status.

➤ In 2019, India made its maiden appearance at the OIC Foreign Ministers' meeting, as a "guest of honour". The Ministry of External Affairs said then that the invitation was a "welcome recognition of the presence of 185 million Muslims in India and of their contribution to its pluralistic ethos, and of India's contribution to the Islamic world".

➤ This first-time invitation was seen as a diplomatic victory for New Delhi, especially at a time of heightened tensions with Pakistan following the Pulwama attack.

➤ OIC has been generally supportive of Pakistan's stand on Kashmir, and has issued statements criticising the alleged Indian actions in the state/Union Territory.

➤ Last year, after India revoked Article 370 in Kashmir, Pakistan lobbied with the OIC for their condemnation of the move. To Pakistan's surprise, Saudi Arabia and the UAE — both top leaders among the Muslim countries — issued nuanced statements, and were not as harshly critical of New Delhi.

➤ Individually, India has good relations with almost all member nations. Ties with the UAE and Saudi Arabia, especially, have looked up significantly in recent years.

➤ The OIC includes two of India's close neighbours, Bangladesh and Maldives. Indian diplomats say both countries privately admit they do not want to complicate their bilateral ties with India on Kashmir, but play along with OIC.

Tigray Crisis

News Excerpt

Ethnic strife is once again threatening to tear apart Ethiopia, an African nation with a vast and multi-ethnic population, after fresh war erupted between the federal government and the powerful regional government of Tigray.

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Cause of the Crisis

- Ethiopia has multiple regional federations. Minority Tigray, governed by the Tigray People's Liberation Front (TPLF), had a disproportionate say in the workings of the federal government based in the Addis Ababa capital.
- The Tigray government, which also has multiple militia forces and a powerful army, was often condemned as "repressive and regressive".
- Ethiopia's federal government and the Tigray regional forces regard each other as illegal after a falling-out when Nobel Peace Prize-winning Prime Minister Abiy Ahmed came to power in 2018, sidelining the once-dominant Tigray leaders amid sweeping political reforms.
- Abiy broke apart the powerful ruling coalition led by the TPLF, and brought in a new Prosperity Party, which the Tigray region saw as a power grab and a ploy to weaken the federation.
- He introduced a wave of political reforms in the long-repressive country and announced a shocking peace deal with neighbour and fierce rival Eritrea.
- Tensions between Abiy and leaders from the TPLF went on increasing. Citing the coronavirus, Abiy postponed this year's elections, which Tigray opposed and held nevertheless. The prime minister refused to recognise the results and threatened to pull federal funding. This resulted

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in renewed hostilities and the fighting started after Abiy alleged that the Tigrayans attacked a national military base.

- According to the UN Refugee Agency, the conflict has resulted in more than 25,300 refugees fleeing the Tigray region into Sudan, as fighting spilled beyond Ethiopia's borders and threatened to inflame the Horn of Africa region.

Impact on the Horn of Africa region

➢ With Ethiopian civilians escaping in large numbers to Sudan, the country may find itself inadvertently drawn into the war.

➢ Earlier this year, in the midst of Ethiopia's long-standing conflict with Egypt over the construction of the Grand Ethiopian Renaissance Dam over the Blue Nile, Sudan had already found itself forcefully involved in the spat.

➢ If the conflict were to spill outside Ethiopia's borders, it may potentially destabilise the Horn of Africa region.

➢ The US and China have several strategic military bases in that region, the closest being Djibouti. Russian President Vladimir Putin had approved the creation of a Russian naval facility in Sudan earlier this week that would be "capable of mooring nuclear-powered surface vessels, clearing the way for Moscow's first substantial military foothold in Africa since the Soviet fall."

➢ If these military bases and facilities were to be impacted in any way, it may cause foreign powers to get militarily involved in the region's conflict.

The Horn of Africa

❖ It is situated in an excellent strategic location south-west of the Red Sea and the Gulf of Aden. It refers to four countries — Ethiopia, Eritrea, Somalia and Djibouti — but, in its wider political and economic context, the term also includes Sudan, South Sudan, Kenya and Uganda.

❖ The strategic importance of this East African region comes from it being the source of the Nile and a gate to the Red Sea and the Gulf of Aden.

❖ Its location on one side of some of the world's major trade sea lanes and land routes gives it vital importance. Its importance increases because of its proximity to the oil-rich Arabian Peninsula.

❖ The area has always been a magnet for international powers because of the sea traffic going by, major ports in the area, tremendous nearby riches, weapons trading, crossing points for people and merchandise and the dangers of piracy.

❖ The strategic importance of the Horn of Africa contrasts sharply with its tragic economic conditions. During the past two decades, the region has seen horrible human tragedies because of famines and wars.

Extradition Treaty

News Excerpt

The US government has recently submitted in a California court that Tahawwur Hussain Rana — the key accused in the November 26, 2008 Mumbai attacks — be cleared for extradition to India as his offences and legal situation fulfil all the criteria for his handover.

What is Extradition?

- As defined by Hon'ble Supreme Court of India, 'Extradition is the delivery on the part of one State to another of those whom it is desired to deal with for crimes of which they have been accused or convicted and are justifiable in the Courts of the other State'.

- An Extradition request for an accused can be initiated in the case of under-investigation, under-trial and convicted criminals.

- In cases under investigation, abundant precautions have to be exercised by the law enforcement agency to ensure that it is in possession of prima facie evidence to sustain the allegation before the Courts of Law in the Foreign State.

Legislative basis for extradition in India

➢ To consolidate and amend the law relating to the extradition of fugitive criminals and to provide for matters connected therewith, or incidental thereto, the Extradition Act of 1962 was enacted. It consolidated the law relating to the extradition of criminal fugitive from India to foreign states. The Indian Extradition Act, 1962 was substantially modified in 1993 by Act 66 of 1993.

➢ Requests for extradition on behalf of the Republic of India can only be made by the Ministry of External Affairs, Government of India, which formally submits the request for Extradition to the requested State through diplomatic channels. Extradition is not available at the request of members of the public.

➢ India is able to make an extradition request to any country. India's treaty partners have obligations to consider India's requests. In the absence of a treaty, it is a matter for the foreign country, in accordance with its domestic laws and procedures, to determine whether the country can agree to India's extradition request on the basis of assurance of reciprocity.

➢ Similarly, any country can make an extradition request to India. Extradition is possible from the non-Treaty States as Section 3(4) of the Indian Extradition Act, 1962 provides for the process of extradition with non-Treaty foreign States.

Extradition Treaties

Extradition treaties are traditionally bilateral in character. Yet most of them seem to embody at least five principles, as endorsed by many judicial pronouncements and state practice in respect of domestic extradition legislation:

- o First, the principle of extraditable offences lays down that extradition applies only with respect to offences clearly stipulated as such in the treaty;

- o Second, the principle of dual criminality requires that the offence for which the extradition is sought be an offence under the national laws of the extradition requesting country as well as of the requested country;

- o Third, the requested country must be satisfied that there is a prima facie casemade out against the offender/accused;

- o Fourth, the extradited person must be proceeded against only against the offence (rule of speciality) for which his extradition was requested; and

- o Finally, he must be accorded a fair trial (this is of course part of international human rights law now). Judiciary and other legal authorities are likely to apply these principles equally to situations where no extradition treaty exists.

Present Status

✓ The Government of India, in the recent years, has taken a tougher stance against economic offenders fleeing to foreign jurisdictions to evade criminal prosecution and to enjoy the fruits of their crimes.

> **PEPPER IT WITH**
> Fugitive Offenders Act, Interpol red notice,Mutual Legal Assistance Treaty

✓ The GOI has made concerted efforts to increase the number of countries with which it has extradition treaties including with Afghanistan, Lithuania, Malawi and Morocco.

✓ India has extradition treaties with 50 countries and extradition arrangements with 11 countries.

✓ Since 2002, foreign countries have extradited 75 fugitive offenders to India. Of these, 24 fugitive offenders have been extradited to India in the last five years.

US Withdrawal from Afghanistan

News Excerpt
With the U.S. prepared to reduce its troop presence in Afghanistan to about 2,500 by January 2021, Afghanistan is bracing for an uncertain future.

Pre-Connect
* The modern boundaries of Afghanistan were established in the late 19th century in the context of a rivalry between imperial Britain and tsarist Russia. Modern Afghanistan became a pawn in struggles over political ideology and commercial influence.
* In the last quarter of the 20th century, Afghanistan suffered the ruinous effects of civil war greatly exacerbated by a military invasion and occupation by the Soviet Union (1979–89).
* In subsequent armed struggles, a surviving Afghan communist regime held out against Islamic insurgents (1989–92), and, following a brief rule by mujahideen groups, an austere movement of religious students—the Taliban—rose up against the country's governing parties and warlords and established a theocratic regime (1996–2001) that soon fell under the influence of a group of well-funded Islamists led by an exiled Saudi Arabian, Osama bin Laden.
* The Taliban, who were ousted from power in 2001 after the U.S. invasion and have since been fighting both foreign troops and the Afghan government in Kabul, now control more than half of the country and contest the whole of it.

Impact on India
➢ An agreement signed between the United States and the Taliban on February 29, 2020, marks a milestone in America's longest ever war. Accordingly, the majority of U.S. troops are expected to withdraw from Afghanistan by the end of 2021.
➢ In turn, and if this agreement is successfully implemented, sections of the Taliban could be expected to play a larger role in Afghan politics. This is hardly desirable for a country like India.
➢ The first risk has to do with terrorism. While the U.S.-Taliban agreement states that the Taliban will prevent terrorist outfits from operating on Afghan soil, there is little clarity on how the agreement will be verified and enforced.
➢ The second risk has to do with the growing influence of Pakistan's Inter-Services Intelligence Directorate, which shares an undeniable link with the Taliban, especially the Haqqani group.
➢ The third risk to India's long-term interests in Afghanistan has to do with the increasing political instability in Kabul.
➢ With this stability at risk, India needs to urgently reposition its priorities.

Way Forward for India
✓ **Broader Diplomatic Engagement**: India should consider appointing a special envoy dedicated to Afghan reconciliation. The envoy can ensure that Indian views are expressed at every meeting, broaden engagement with the Afghan government and other political actors, and reach out to certain Taliban representatives.
✓ **Continued Training and Investments**: India should provide more military training to Afghan security forces and invest in longer-term capacity-building programs. It should actively support and invest in the National Directorate of Security (for example, by providing training and sharing intelligence). Finally, given the continued levels of violence and the impact of the coronavirus on the Afghan economy, India should expand its development assistance.
✓ **Working with and Through Others**: India should look to broaden its engagements with Iran and Russia, explore opportunities for cooperation (as limited as they might be) with China, and find common ground with the United States on Afghanistan's future. This does not mean forcing competing interests to align; it means investing in a wider diplomatic initiative with the view to carve out areas of convergence.
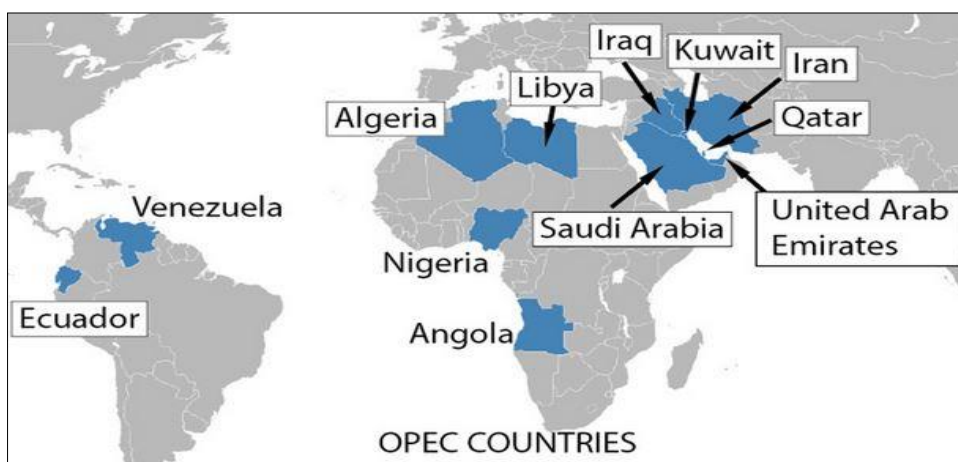
OPEC+

News Excerpt

OPEC+ has finally managed to reach a production cut agreement after several days of increased internal dissent. In its statement, the group reiterated a continued commitment to a stable market, the mutual interest of producing nations, the efficient, economic and secure supply to consumers, and a fair return on invested capital.

Pre-Connect

- OPEC+ refers to the group of 24 crude producers comprising 14 OPEC members and 10 non-OPEC members including Russia.

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

- Saudi and Russ ia, both have been at the heart of a three-year alliance of oil producers known as OPEC Plus — which now includes 11 OPEC members and 10 non-OPEC nations — that aims to shore up oil prices with production cuts.

- OPEC with 14 members controls 35% of global oil supplies and 82% of proven reserves. These figures increase to 55% and 90% respectively with the addition of 10 non-members to form the OPEC+ group. This enables the OPEC+ group to have substantial control of oil prices around the world economy.

OPEC COUNTRIES

Highlights of the new Deal

➢ The production cut agreement that has been in place since April 12 2020 has been slightly adjusted. In light of the current oil market fundamentals and the outlook for 2021, the group has agreed to reconfirm the existing commitment.

➢ At the same time, OPEC+ will be holding monthly OPEC and non-OPEC ministerial meetings starting in January 2021 to assess market conditions and decide on further production adjustments for the following months, with further monthly adjustments being no larger than 0.5 million bpd.

➢ For almost all OPEC+ members, especially Saudi Arabia, the UAE, and Russia, the agreement has become a double-edged sword. Being the market stabilizer and swing producer has not brought the rewards that the group hoped for. Government budgets have been hit, the burden of cuts is not being equally divided, and multiple participants are increasingly unwilling to comply anymore.

➢ The current deal is neither strong enough to drive a market recovery, or broad enough to ensure unity within OPEC.

Analytica

✓ The OPEC+ group was formed in 2017 to take coordinated actions to stabilize oil prices and have been undertaking corrections in supply in the oil markets since 2017. The members agreed to cut production by 9.7 million barrels a day in May and June. This is the deepest cut ever agreed to by the world's oil producers. After that, the group agreed to steadily increase production until the agreement expires in April 2022.

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✓ For Saudi Arabia, turning what had been an ad hoc coalition into a formal group provides a hedge (protection) against future oil-market turbulence. For Russia, the formalization of the group helps expand Putin's influence in the Middle East.

✓ The oil price wars initiated by the OPEC+ group to counter the rise of the shale oil market in the U.S did not meet its intended objectives.

✓ The flooding of oil by Saudi Arabia and Russia in a global oil market already facing a deep fall in demand after the onset of corona virus nearly collapsed the oil market.

✓ OPEC+ seems to misunderstand that OECD economies are on life-support, it is only financial support mechanisms that are keeping these countries afloat. In 2021 most of these financial injections or QE mechanisms will be put on hold, as debt levels are reaching disastrous levels. A major economic downturn should be expected, and such a downturn would have a direct effect on oil and gas demand.

> **PEPPER IT WITH**
> OPEC, West Texas Intermediate, Brent crude

✓ Oil price volatility will lead to disruption as the search for profit is the key short-term incentive for many OPEC members. The sooner Saudi Arabia and Russia come to terms with the reality of today's oil markets the better. Abu Dhabi, on the other hand, must recognize that it is also playing with fire with its threats to leave the group.

Sino-British Joint Declaration

News Excerpt

The United Kingdom recently accused China of breaking the 1984 Sino-British Joint Declaration after it disqualified four pro-democracy legislators in Hong Kong, in the latest incident laying to rest the promise of One Country, Two Systems.

Pre-Connect

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• Under the 1984 agreement—which is legally binding—Beijing was to guarantee Hong Kong's autonomy until at least 2047 under the One Country, Two Systems principle.

• With this agreement, the UK agreed to hand over Hong Kong to China in 1997, ending over a century of British rule.

• This agreement between the UK and China made clear that Hong Kong's high-degree of autonomy, rights and freedoms would remain unchanged for 50 years.

• The undertakings made by China, including the right to freedom of expression, an independent judiciary and the rule of law are considered as essential to Hong Kong's prosperity and way of life.

• The declaration also states that Hong Kong's legal and judicial system would also be unchanged for 50 years after 1997. It held that Britain would be would be responsible for the administration of Hong Kong until 1997 and the Chinese government would give its cooperation.

Analytica

➢ Freed from mainland China's socialist policies, Hong Kong's liberal economic policies helped it become a financial hub of the region.

➢ However, of late, China has increasingly interfered in Hong Kong's domestic political and economic affairs. From the imposition of the National Security Law to the recent disqualification of four pro-democracy lawmakers—leading to the resignation of the entire democratic camp in the Hong Kong Legislature—China has increasingly asserted its control over Hong Kong.

➢ China's actions have created a wave of immigration from Hong Kong as dissidents desiring democracy attempt to claim amnesty in the United Kingdom and abroad. The UK now considers China to have violated the treaty thrice, laying the way for possible sanctions.

➢ The only way to guarantee Hong Kong's future success and stability is by respecting the agreement's conditions and addressing the legitimate concerns of the people of Hong Kong through meaningful political dialogue.

➢ Britain has few options other than demanding reparations; in response China would predictably "strongly condemn" and reject any such requests. However, this scenario would

drastically undermine China's international image and provide a justification for other countries to re-evaluate their own agreements with China.

Gilgit-Baltistan

News Excerpt

Recently, Pakistan government announced the provisional provincial status for Gilgit-Baltistan. To convert Pakistan occupied Kashmir's (PoK) Gilgit Baltistan as the 5th province of the country. By holding elections in GB, Pakistan is trying to strengthen its claim on the region without addressing the region's demand for self-determination. India has firmly rejected the attempt by Pakistan to bring "material changes" to a "part of Indian territory, under its illegal and forcible occupation".

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Pre-Connect

- Gilgit-Baltistan, formerly known as the Northern Areas, is a region administered by Pakistan as an administrative territory, and constituting the northern portion of the larger Kashmir region which has been the subject of a dispute between India and Pakistan since 1947.

- It is the northernmost territory administered by Pakistan. It borders Azad Kashmir to the south, the province of Khyber Pakhtunkhwa to the west, the Wakhan Corridor of Afghanistan to the north, the Xinjiang region of China, to the east and northeast, and the Indian-administered union territories Jammu and Kashmir and Ladakh to the southeast.

- The region is home to some of the world's highest mountain ranges. The main ranges are the Karakoram and the western Himalayas. The Pamir Mountains are to the north, and the Hindu Kush lies to the west. Three of the world's longest glaciers (Biafo Glacier, Baltoro Glacier, and Batura Glacier) outside the Polar Regions are found in Gilgit-Baltistan.

- The region also includes, Deosai Plains, it constitutes the second-highest plateau in the world after Tibet.

- Through a conspiracy, the Federal government of Pakistan signed the Karachi Agreement with the POJK government in 1949 and carved out G-B from it.

Analytica

➢ The region suffers from absolute statelessness and the army has been given a free hand to rule the region. Locals have been hitting the streets to protest against the human rights breaches carried out by the Pakistani Army.

➢ According to the International Crisis Group (ICG), the Karachi Agreement, which formed the basis of Pakistan's administration over G-B, is highly unpopular in the area because G-B was not a party to it even while its fate was being decided upon.

➢ Incidentally, the Pakistani constitution does not recognise G-B to be a territory of Pakistan. The Unrepresented People's Organisation (UNPO) has noticed, "In Gilgit-Baltistan, the majority of human rights activists charged with sedition or terrorism for participating in peaceful demonstrations are being tried in front of

military anti-terrorism courts outside the scope of the Constitution, which is not applicable in the region, due to the fact that Gilgit-Baltistan is not a part of Pakistan.

➢ The timing for this assertion over GB and interest in declaring it as a fifth province, conjoins with the Chinese CPEC whose starting point is the region. The disputed legal status of the region is a bane for both Pakistan and China in effecting the CPEC.

➢ The arrival of CPEC project added to the sufferings of people of Gilgit-Baltistan. Locals see the Chinese hand behind the aggression through which Pakistan is trying to consolidate power and unilaterally merge the area within its territory.

➢ The 2019 report of OHCHR on Jammu and Kashmir has noted that the fashion in which the CPEC projects are being implemented in G-B, raises issues about the enjoyment of rights enshrined in the International Covenant on Civil and Political Rights and the International Covenant on Economic, Social and Cultural Rights, to which Pakistan is a party.

➢ Wahhabi Sunni workers permanently settle in G-B, further radicalising the region and wiping out the Shia majority and the Chinese are exploiting the local population and local resources of the region.

➢ Amidst everything, the voices of G-B residents are getting prominence over the global fora and the Pakistani establishment is facing embarrassments to clarify its position and justify its deeds.

Advisory Committee on Administrative and Budgetary Questions

News Excerpt

In a significant victory for India at the United Nations, Indian diplomat Vidisha Maitra was elected to the U.N. Advisory Committee on Administrative and Budgetary Questions (ACABQ), a subsidiary organ of the General Assembly.

Pre-Connect

● The Advisory Committee on Administrative and Budgetary Questions (ACABQ) is a subsidiary of the General Assembly responsible for "expert examination of the programme budget of the United Nations".

● Established by a UN General Assembly resolution in 1946

● The Advisory Committee is an expert Committee of sixteen Members elected by the General Assembly for a period of three years, on the basis of a broad geographical representation.

● Members serve in a personal capacity and not as representatives of Member States.

● The 193-member General Assembly appoints members of the Advisory Committee. Members are selected on the basis of broad geographical representation, personal qualifications and experience.

● The Chairman and Vice-Chairman of the Committee are elected by the Members of the Advisory Committee.

● It meets in New York in closed sessions
  ○ Meeting records and press releases are not issued

● It reports to the General Assembly on:
  ○ Proposed programme budget
  ○ UN Accounts
  ○ Specific topics relating to the budget and finances of the organization

> **PEPPER IT WITH**
> United Nations General Assembly, Security Council, Group of Asia Pacific States

Analytica

Major functions of ACABQ

➢ To examine and report on the budget submitted by the Secretary-General to the General Assembly;

➢ To advise the General Assembly concerning any administrative and budgetary matters referred to it;

➢ To examine on behalf of the General Assembly the administrative budgets of the specialized agencies and proposals for financial arrangements with such agencies;

> To consider and report to the General Assembly on the auditors' reports on the accounts of the United Nations and of the specialized agencies.

The programme of work of the Committee is determined by the requirements of the General Assembly and the other legislative bodies to which the Committee reports.

Issues related to UN Budgeting

> The UN has faced financial difficulties and it has been forced to cut back on important programs in all areas, even as new mandates have arisen.
> Many member states have not paid their full dues and have cut their donations to the UN's voluntary funds. For example: The Trump administration suspended all funding for the UN Population Fund starting in 2017; UNAIDS and the WHO also experienced significant cuts, losing about 30 percent and 20 percent of their U.S. funding, respectively, in 2018

Calls for reform in UN Financial administration

Many proposals for UN reform call for
- Better budgeting
- Better financial oversight
- More efficient use of funds.
- The UN should seek Alternative Financing (not just dues and voluntary contributions) to fund its programs. A global tax on currency or financial transactions, a carbon tax or taxes on the arms-trade might provide such revenue. But states are jealous of their taxing powers and not keen to transfer such authority to the UN.

Conclusion

India has a stellar record of bringing professional auditing experience to the U.N. and contributing outstanding professionals to U.N. bodies. With India's rising obligations in both assessed as well as voluntary contributions to the U.N, India is taking responsibility of administrative and budgetary management of U.N.'s functioning very seriously. Ms. Maitra election to the U.N. ACABQ is a strong display of support by U.N. member states for India.

KSG

ENVIRONMENT

Panna Tiger Reserve

News Excerpt

Recently, Madhya Pradesh's Panna National Park has been declared as 'UNESCO Biosphere Reserve'. In addition to that Scientists have also started a project of radio-tagging of vultures in Panna Tiger Reserve.

Pre-Connect

Project Tiger

- India hosts more than 70% of total Tigers in the world and in order to conserve 'Project Tiger' was launched in 1973. Panna got the status of a Project Tiger Reserve in 1981.
- This initiative is funded by the Union Govt. of India and administrated under the Ministry of Environment, Forests and Climate Change. National Tiger Conservation Authority (NTCA) is the immediate supervising agency.

Biosphere Reserve

➢ It is a protected area of land meant for the in-situ conservation of wildlife, biodiversity and the traditional practices of the tribal people living in that area.

➢ The purpose of the formation of the biosphere reserve is to conserve in situ all forms of life, along with its support system, in its totality, so that it could serve as a referral system for monitoring and evaluating changes in natural ecosystems.

➢ Every year UNESCO appoints new biosphere reserves and removes others to promote the conservation of biodiversity, resolve the man-animal conflict at that site and allow sustainable use of natural resources.

About

✓ Last year Panna tiger reserve witnessed a remarkable turnaround in tiger population by increasing the number of big cats to 50 from zero estimated a decade ago.

✓ The AllIndia Tiger Estimation reported that Madhya Pradesh has the highest number of tigers. The state has a total of 526 tigers according to the 2018 census.

UNESCO Natural Heritage Sites in India

❖ Great Himalayan National Park Conservation Area (2014)
❖ Kaziranga National Park (1985)
❖ Keoladeo National Park (1985)
❖ Manas Wildlife Sanctuary (1985)
❖ Nanda Devi and Valley of Flowers National Parks (1988,2005)
❖ Sundarbans National Park (1987)
❖ Western Ghats (2012)

Benefits

o This addition to the UNESCO list will help in exploring new measures towards the conservation of wildlife in Panna Tiger Reserve.

o By declaring Panna as a UNESCO heritage site it will draw international attention to the need for the preservation and conservation of the site.

o Panna Tiger Reserve is likely to receive additional funds (from UNESCO) for restoration, preservation, and training which can facilitate partnerships between government, the private sector, and NGOs to achieve conservation goals.

Panna Tiger Reserve and Vulture Conservation

▪ The Wildlife Institute of India (WII) has taken up the research project in association with the Panna Tiger Reserve, under which 25 vultures are to be radio-tagged.

▪ There were about 650 vultures of seven species reported in the tiger reserve in the year 2018. Of these four are resident species while three are migratory.

▪ Vultures are radio-tagged for research purposes, their movement and habitat choice. Moreover, radio tagging can also establish 'habitual changes' due to climate change and various other factors.

▪ The movement and habits of vultures and especially their capacity to travel accurately on a route and find suitable climatic conditions for roosting has been a matter of deep interest and to model that radio tagging is being used. So that future predictions can also initiated.

> **Radio Tagging**
> ❖ Radio-tagging involves attaching a transmitter on Bird's body to monitor its movements.
> ❖ It uses radio signals, which are made up of invisible and silent electromagnetic waves, to determine location.
> ❖ Radio tagging is used to locate birds and track their movement.

▪ The data generated out of radio-tagging – like how far the birds travel, how much time do they stay in a place for feeding or other activities, the difference in habits, if any, between males and females, reproductive period habits – will help considerably for management plan when correlated with other available data on the preying birds.

> **PEPPER IT WITH**
> National Tiger Conservation Authority, M-stripes, MAB, WII, The National Board for Wildlife

▪ The utility of vultures as a natural scavenger cannot be understated, though the bird species has been long under threat due to many reasons, especially the use of painkiller drugs in cattle on the carcass of which they normally feed. Radio Tagging is likely to help in such cases as well.

Conclusion

✛ India has achieved success to conserve the flora and fauna, and declaring as a biosphere reserve is a realization of serious efforts of India, the next step conservation will be facilitated by Global initiatives like this. Along with this a new wildlife conservation practices are likely to deliver better outcomes.

✛ Vultures, are well known as nature's cleanup crew, do the dirty work of cleaning up after death, helping to keep ecosystems healthy as they act as natural carcass recyclers. They provide critically important ecosystem services and socioeconomic benefits. Furthermore, conserving vultures means aiding other wildlife.

Blue Tide

News Excerpt

Recently, Maharashtra has witnessed the spectacle of a fluorescent bluish glow when the waves hit the shoreline. Bioluminescence or light-emitting tide made an appearance on state's coastline.

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About Bioluminescence

• Bioluminescence is the property of a living organism to produce and emit light. Animals, plants, fungi and bacteria show bioluminescence.

• An extraordinary diversity of marine animals and microbes are able to produce their own light. It is found in many marine organisms such as bacteria, algae, jellyfish, worms, crustaceans, sea stars, fish and sharks.

• Luminescence is generally higher in deep-living and planktonic organisms than in shallow species.

Why did the waves appear blue?

➢ The spectacle blue colour occurs when phytoplankton (microscopic marine plants), commonly known as *dinoflagellates*, produce light through chemical reactions in proteins. Waves disturb these unicellular microorganisms and make them release blue light.

➢ It is cited as an anti-predatory response. Bioluminescence is assumed to startle predators, causing them to hesitate, in a form of predator intimidation. Another explanation is that bioluminescence helps these organisms gather together and make colonies.

➢ This can be due to several factors for the occurrence but one of the main factors could be eutrophication – the reduction of oxygen in the water, which makes the phytoplanktons pretty dominant.

Bioluminescent waves in India

➢ Bioluminescence has been an annual occurrence along the west coast since 2016 during the months of November and December.

➢ The sight was observed at Juhu and at Devgad and Velas beaches in Ratnagiri. Recently, the 'blue tide' was witnessed along Dakshina Kannada-Udupi coast.

➢ While bioluminescence is not common in India, there are several tourist places across the world, which are famous for this phenomenon for instance-the Blue Grotto in Malta is one of nine caves near the island of Filfa that produces a phosphorescent glow. Similar to the Blue Grotto is Bioluminescent Bay in Puerto Rico, San Diego in California, Navarre Beach in Florida, and Toyama Bay in Japan.

> The Central Marine Fisheries Research Institute (CMFRI) confirmed that the occurrence of bioluminescence – emission of light by marine organisms - has been observed at several coastal areas this year.

Impacts of Blue Tide

✓ While smaller blooms may be harmless, slow-moving larger blooms may have an impact on deep-sea fishing.

✓ According to marine experts, the phenomenon is an indicator of climate change. Factors such as the pattern of the wind and the temperature of the ocean also determine the occurrence of bioluminescent waves.

✓ It is a believed that it is spectacle but in reality, it is an ecological indicator of degraded water quality.

✓ The phytoplankton shows up where seawater has low dissolved oxygen and high presence of Nitrogen. The bioluminescence could have been caused by heavy rain, fertilizers run off, discharge of sewage into the ocean.

> **PEPPER IT WITH**
> Red Tide, Marine Ecosystem, Coastal Ecosystem, Bio-indicators, Biological Oxygen Demand

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Tarballs

News Excerpt

A new study revealed about existence of Brown Carbon "Tarballs" in Himalayan atmosphere that may trig Melting of Glaciers.

Pre-Connect

• Himalaya-Tibetan Plateau is well known as the "third pole" because the region has the largest reserve of glacial snow and ice outside of the north and south poles.

• The glaciers, which are extremely sensitive to climate change and human influence, have been retreating over the past decade.

About Tarball

➢ "Tarballs" most commonly invoke the image of oil "blobs" in bodies of water. They can also appear at the Himalaya–Tibetan Plateau, which has an average elevation that exceeds 4,500 meters.

➢ Unlike aquatic environments where tarballs mostly form due to oil spills, burning biomass or fossil fuels releases light-absorbing Brown Carbon "Tarballs", and these carbonaceous particles can deposit on snow and ice.

➢ Individual aerosol particles in brown carbon tarballs, consist primarily of carbon and oxygen, with smaller amounts of nitrogen, sulfur and potassium.

Relationship of Burning and 'Tarball'

✓ Primary brown carbon co-emitted with black carbon (BC) from biomass burning is an important light-absorbing carbonaceous aerosol.

✓ Black carbon from the Indo-Gangetic Plain can reach the Himalaya region and influence glacial melting and climatic change.

✓ Till now, there was no direct evidence for primary brown carbon in the Himalayan atmosphere.

✓ Now, light-absorbing tarballs at microscopic scale collected on the northern slope of the Himalayas. Around 28% of thousands of individual particles were detected as tarballs.

✓ The median sizes of externally mixed tarballs and internally mixed tarballs were 213 and 348 nm, respectively.

✓ Air mass trajectories, satellite detection, and Weather Research and Forecasting model coupled to Chemistry (WRF-Chem) simulations all indicated that these tarballs were emitted from biomass burning in the Indo-Gangetic Plain.

✓ Furthermore, data shows that a thick air pollutant layer containing large amounts of smoke aerosols from the Indo-Gangetic Plain climbed along the south ridge of the Himalayas into the Tibetan plateau following the elevated air masses.

✓ The peak high pollution time lines up with the large-scale wheat residue burning that occurs annually after the wheat crops are harvested in April-May in the Indo-Gangetic Plain.

✓ Additionally, Wind patterns and satellite data revealed that southwestern winds in the afternoon of heat day were at fault for bringing high concentrations of air pollutants from the Indo-Gangetic Plain to the south of the Himalayas during both April and May.

✓ A climate model simulation shows a significant heating effect of the tarballs in the Himalayan atmosphere.

✓ It is being concluded that the tarballs from long-range transport can be an important factor in the climatic effect and would correspond to a substantial influence on glacial melting in the Himalaya region.

Analytica

- The increasing percentage of tarballs due to peak pollution level, could contribute to Global warming. This phenomenon can make the climate change more complex and unprecedented. And thus the mitigation could be even more complex.

- Climate change externalities have severe impact on agriculture practices, soil composition, and pattern of vegetation and health impacts. A more prudent way is needed at national as well as at global level.

- The existence of a large amount of tarballs is highly concerning due to the area's "extreme sensitivity to climate change and anthropogenic influence. The Himalaya region is the most vulnerable region on the planet aside from the south and north poles. Compared with other places in the world, anthropogenic aerosols from outside the Himalaya region could trigger various climate and environment problems.

PEPPER IT WITH
Black Carbon, Brown Carbon, PM2.5, PM10, VOCs, Graded response action plan

Way Forward

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+ To counter the anthropogenic emissions, there is dire need to adopt climate centric polices aligned in more sustainable way.
+ Government should strive to provide institutional remedy for crop burning-which is cited as biggest reason for atmospheric 'tarball'. Crop residuals are needed to be managed in more sustainable ways. Government and farmers both have to play a serious role in order to cope with the issue of 'anthropogenic led emission'.
+ Climate models need to consider the long-range transport of primary tarballs on a regional scale in the future.

Monsoon Dynamics

News Excerpt

Rainfall over the Southern peninsular region has been deficient so far. The India Meteorological Department (IMD) had forecast below normal rainfall over the southern peninsula for the current season.
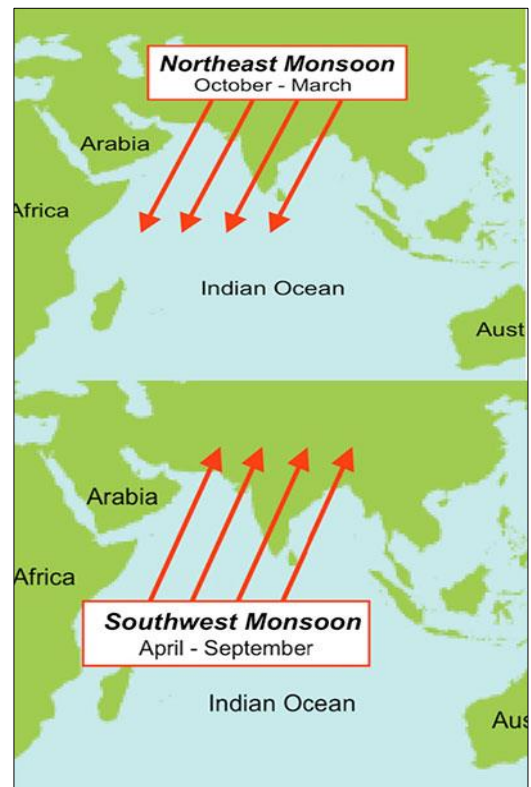
Pre-Connect

- **The northeast Indian monsoon (NEM)** season is generally defined by the calendar months of October–December, when there is significant rainfall in the southeastern part of peninsular India.
- In contrast to the southwest Indian summer monsoon (SISM), the NEM contributes only about 11% of the all-India annual rainfall.

About NEM

➤ The Northeast monsoon occurs during October to December, and is a comparatively small-scale monsoon, which is confined to the Southern peninsula only.

➤ It is also called the winter monsoon, the rainfall associated with the Northeast monsoon is important for Tamil Nadu, Puducherry, Karaikal, Yanam, coastal Andhra Pradesh, Kerala, north interior Karnataka, Mahe and Lakshadweep.

➤ After the complete withdrawal of the Southwest monsoon. The wind pattern rapidly changes from the south-westerly to the north-easterly direction.

➤ The period after the Southwest monsoon season, from October to December, is the peak time for cyclonic activity in the North Indian Ocean region — covering the Arabian Sea and the Bay of Bengal.

➤ The winds associated with the formation of low pressure systems, depressions, or cyclones influence this monsoon, and therefore, the rainfall.

NEM Season this year

✓ IMD had forecast below normal rainfall over Tamil Nadu and normal rainfall over the southern peninsula for the current season.

✓ This year, the Southwest monsoon withdrew completely from the country on October 28, with a delay of a fortnight. On the same day, the IMD declared the onset of the Northeast monsoon over peninsular India. However, rainfall thereafter remained largely subdued and remained below normal till around first week of November.

✓ IMD's data records between October-November show significantly below-normal rain over Lakshadweep (-42%), Puducherry (-39%), Tamil Nadu (-25%) and Kerala (-30 %). The majority of districts in Tamil Nadu remain highly rain-deficient.

✓ South Asian countries such as Maldives and Myanmar, too, record rainfall during October to December. In this season, Sri Lanka also has experienced subdued rain.

Reasons cited for NEM deficiency

- The reason is a prevalent La Niña condition (an abnormal cooling of surface waters), along with a low pressure belt that is currently lying to the north of its normal position. The prevailing La Niña conditions are linked with Pacific Ocean.
- A trough in the easterlies in lower levels is likely to affect the southern peninsula's rainfall pattern. During years when La Nina conditions prevail, the Northeast monsoon remains below normal.
- La Nina is cooler than normal sea surface temperatures recorded along the East and central Pacific Ocean. It influences rainfall over India.
- The current position of the Inter Tropical Convergence Zone (ITCZ) has also contributed to the poor rainfall during the ongoing monsoon season.
- La Niña conditions are expected to prevail until early 2021, with some weather models forecasting it to last even till March. As a result, there are high chances that the southern peninsular region may end up with deficient rainfall by the end of the Northeast monsoon season in December.

Analytica

La Niña link with the Northeast monsoon-

- While La Niña conditions enhance the rainfall associated with the Southwest monsoon, it has a negative impact on rainfall associated with the Northeast monsoon.
- During La Niña years, the synoptic systems — low pressure or cyclones — formed in the Bay of Bengal remain significantly to the north of their normal position.
- Besides, instead of moving westwards, these systems recurve. As they lie to the north of their normal position, not much rainfall occurs over southern regions like Tamil Nadu.

> **PEPPER IT WITH**
> Monsoon trough, Pseudo monsoonal tendencies, Monsoon break, Monsoon burst, Retreating Monsoon, Indian Ocean Dipole

Importance of NEM

The NEM contributes anywhere between 30% and 60% of the annual mean in the provinces of Tamil Nadu, coastal Andhra Pradhesh. Thus, the NEM seasonal rainfall affects the productivity of rice and maize in the provinces of Tamil Nadu and Andhra Pradesh.

WWF identifies 100 cities with severe water risk by 2050

News Excerpt

According to a recent report by World Wide Fund for Nature (WWF) a hundred cities worldwide, including 30 in India will face the risk of 'severe water scarcity' by 2050.

Key Points

- As per the report, more than half of the identified cities are from China and India.
- Jaipur topped the list of Indian cities, followed by Indore and Thane. Mumbai, Kolkata and Delhi also featured on the list.
- The WWF also names 28 other Indian cities, including Lucknow, Chandigarh and Bhopal, that will face an 'increasing water risk in the next few decades'.
- The global list includes cities such as Beijing, Jakarta, Johannesburg, Istanbul, Hong Kong, Mecca and Rio de Janeiro. China accounts for almost half the cities.
- WWF also launched an online tool called the WWF Water Risk Filter to help cities imagine future water risks and plan a better and sustainable future facilitating climate and water resilience.
- Other than droughts and floods, the city's risk levels were scored by evaluating several factors, including aridity, freshwater availability, climate change impact, the presence of regulatory laws governing water use, and conflict.
- According to the scenarios, the 100 cities that are expected to suffer the greatest rise in water risk by 2050 are home to at least 350 million people as well as nationally and globally

important economies. Globally, populations in areas of high-water risk could rise from 17% in 2020 to 51% by 2050.

Pain Points of Urban Water Stress

➢ The water supply in most Indian cities is only available for a few hours per day, pressure is irregular and the water is of questionable quality.

➢ No major Indian city has a 24 hour supply of water, with 4 to 5 hours of supply per day being the norm.

1. Overused groundwater: 21 cities moving towards zero level

The groundwater crisis in the cities is worsening, due to gross urbanisation, unchecked boring, exploitation of groundwater and surface water and a failure by the government or private bodies to rejuvenate groundwater. For instance, Bengaluru, India's Silicon Valley, is so overpopulated that experts predict that it might face a severe problem, which would lead to evacuation by 2025. Uttar Pradesh, the worst-hit state, shows depleting groundwater levels in 660 blocks. Among these, 180 blocks in 45 districts are 'stressed' or over-exploited.

2. Water Contamination

o As per NITI Aayog report, about 85% of India's cities have access to drinking water, though most cities do not have the infrastructure to supply piped water to all homes. Only 20% of water meet health and safety standards.

o This is due to high levels of pollution, with India ranked 120 among 122 countries in the global water quality index. Almost all major rivers and 70 percent of water in India is contaminated, reveals the Central Pollution Control Board.

o In the state of Uttar Pradesh, the cities of Lucknow, Kanpur, Meerut, Ghaziabad, Agra, Noida, and Varanasi are all severely hit by water contamination. Water in these cities have high levels of salinity and heavy contaminants such as fluoride, iron, arsenic, chromium and manganese.

o As water becomes scarce, arsenic and fluoride become more concentrated in water. Nitrates seep in from fertilisers, pesticides and other industrial waste.

3. Mismanaged Sewerage

To fight pollution, the solution is to build wastewater treatment plants in order to decontaminate water before it gets discharged into urban water bodies and rivers. However, as Water Aid's 2018 report titled 'State of Urban Water Supply in India' points out, just a fraction of the wastewater that gets generated and discharged into sewers reach the treatment facilities thanks to silted sewer lines, ill-maintained pumping stations and unreliable power supply. To top it all, only a third of urban houses are linked to the sewer system at all.

Analytica

✓ A lot of planning becomes impossible owing to the lack of data. Now, the data made available by WWF can make significant impact on planning and policies.

✓ As India rapidly urbanizes, demand for water is increasing and supply is struggling to keep up. A combination of climate change, wasteful water policies and inadequate infrastructure could turn the water vulnerability into a full-blown crisis.

✓ Urbanization in India is raising many challenges, but none are as critical as the provision of water. And, on many measures, this challenge is far from being entirely met. For a start, a significant portion of urban Indians lacks access to piped water. For Instance-In 2015-16, according to data from the National Family Health Survey, 31% of urban households lacked access to piped water or public tap water—a proportion that has not decreased significantly for nearly two decades.

✓ Water shortages have many costs ranging from health to economics, but it is the poor who will inevitably suffer the most.

✓ Across India, climate change is disrupting the quantity and frequency of rainfall. A deficient monsoon can mean reservoirs struggle to fill up and less water seeps into the ground (especially in areas with significant urban construction).

✓ With lack of water leading inevitably to economic loss and food scarcity, India might face a 6% loss in its gross domestic product (GDP) by 2050, according to the NITI Aayog report. The low performers on the Water Index compiled by the NITI Aayog house 50% of the country's population and account for 20-30% of agricultural output.

- ✓ These populous northern states of UP, Bihar, Rajasthan, Haryana, and others, accounting for 600 million people are also a management risk. Food security is threatened as 80% of water, the precious resource, is used in agriculture.
- ✓ Water scarcity is also expected to affect health, agriculture, income, industry, property and urban development. For instance, even in a selected smart city such as Solapur, many projects have been held up due to lack of water, as it has scared off a number of investors from exploring the possibilities, say officials in the ministry for water supply and sanitation.

Possible Alternatives

- The Smart Cities initiative in India could offer an integrated urban water management framework combining urban planning, ecosystem restoration and wetland conservation for building future- ready, water smart and climate resilient cities.

PEPPER IT WITH
Smart Cities Mission, NamamiGange Mission

- Urban watersheds and wetlands were critical for maintaining the water balance of a city, flood cushioning, micro-climate regulation and protecting its biodiversity,
- The future of India's environment lies in its cities. As India rapidly urbanises, cities will be at the forefront both for India's growth and for sustainability.
- For cities to break away from the current vicious loop of flooding and water scarcity, nature-based solutions like restoration of urban watersheds and wetlands could offer solutions.

Way Forward

- To manage resilience initiatives, a public funding pool needed to be created in collaboration with the private sector to invest, reduce risk and generate returns and fuel sustainable economic growth.
- There are many initiatives across the country that could be scaled up. Urban planning and wetland conservation needed to be integrated to ensure zero loss of freshwater systems in the urban areas.
- India is looming towards water crisis. Its urban population is likely to suffer from water crisis. A pro-active resilience strategy is must. In which Government, Citizens and academician have to play a combine role to cope with the issue of Water Crisis.
- Cities needed to invest more in nature-based solutions and enhance the health of river basins, watersheds and wetlands to build resilience to water risks. Cities also needed to support greater global efforts to mitigate greenhouse gas emissions to avoid reaching these scenarios. These cities would have to build 'resilience' to manage such scarcity of an important resource.

Global Renewable Energy Investment Meeting and Expo (RE-Invest 2020)

News Excerpt

Recently, the third Global Renewable Energy Investment Meeting and Expo (RE-Invest 2020) has been organized by the Ministry of New and Renewable Energy.

Pre-Connect

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- 3rd RE-INVEST will build upon the success of the first two editions held in 2015 and 2018 and provide an international forum for investment promotion in renewable energy.

The partner countries for the RE-INVEST 2020 are Australia, Denmark, France, Germany, Maldives, the United Kingdom along with European Union and US agencies.

- The theme for the RE-Invest 2020 is "Innovations for Sustainable Energy Transition", and it will discuss renewables and future energy choices, and an exhibition of manufacturers, developers, investors and innovators.

Aim and objective

It aims to accelerate the worldwide effort to scale up the development and deployment of renewable energy and connect the global investment community with Indian energy stakeholders.

Key Highlights

➢ The meeting sends signals to the global renewable community about India's commitment to the development and scaling up of renewable energy to meet its energy requirements in a sustainable manner.

➢ The virtual conference on renewables and future energy choices and an exhibition of manufacturers, developers, investors and innovators engaged in the clean energy sector.

➢ It provides a great opportunity to various countries, states, business houses & organizations to showcase their strategies, achievements and expectations.

➢ It would facilitate collaboration and cooperation with key stakeholders in India, which has emerged as one of the world's largest renewable energy markets today.

India's performance in term of Renewable Energy

➢ During the last six years, India's renewable energy capacity has increased by two and half times.

➢ Solar energy capacity has increased 13 times. The share of non-fossil fuel energy sources in our power generation capacity has increased to 136 GW, or about 36 per cent of our total capacity

➢ By 2022, the share is expected to further increase to over 220 GW.

➢ While COVID-19 has caused significant disruption, the renewable energy sector has rebounded remarkably. The pace of bidding for RE projects since the lockdown is even faster than in the corresponding period last year.

PEPPER IT WITH
International Solar Alliance, National Action Plan for Climate Change, India's INDCs

➢ During the last six years, over Rs 4.7 lakh crore were invested in India and it has become a favored destination for investment in renewables.

➢ India's plans for renewables for 2030 will translate into an investment opportunity of around Rs 1 lakh crore per year.

How well India is Doing in this front?

➢ India has very liberal foreign investment policy for renewables, allowing foreign investors, either on their own or in joint ventures with Indian partners, to set up renewable energy based power generation in India.

➢ The efforts being taken by the government for creating an enabling ecosystem for domestic manufacturing of solar PV cells and modules.

➢ Government schemes alone have created a domestic demand and assured market of around 40 GW of domestically manufactured solar PV cells and modules.

➢ Recently announced Production Linked Incentive for manufacturing solar PV is expected to give a fillip to domestic manufacturing.

➢ PM-KUSUM scheme aims to replace 20 lakh diesel pumps with standalone solar pumps, solarize 15 lakh grid connected pumps, and 10 GW decentralized solar power plants in uncultivable lands of farmers within next four years. Initiative to include solarisation of agricultural feeders under the scheme has been taken.

Conclusion

✓ India is showing to the world that sound environmental policies can also be sound economics urging global investors to consider tapping the recently approved production-linked incentive scheme for manufacturing high-efficiency solar power modules in the country.

✓ There are huge renewable energy deployment plans for the next decade. These are likely to generate business prospects of the order of around 20 billion dollars per year. India need to invite investors, developers and businesses to join India's renewable energy journey.

Mansar Lake

News Excerpt

Recently, Jammu and Kashmir lieutenant governor inaugurated Mansar Rejuvenation and Development plan.

About Manasar lake

- Among the many lakes dotting Jammu, the Mansar Lake is located 37 km from the main city.
- The location of this lake is in the middle of a dense forest, hills and small gardens. There are two old shrines located at the site of Mansar Lake – Umapati Mahadev and Narasimha Temple as well a temple of Durga Devi.
- There are 207 species of algae, 15 species of waterfowl and seven varieties of fish living in the lake.
- Mansar is of immense importance from pilgrimage as well heritage point of view beyond being the most scenic attraction due to vast Mansar Lake and its flora and fauna.

The Mansar Rejuvenation and Development plan

- ➢ After implementation of this project the number of tourists/pilgrims will increase to 20 lakhs per year from 10 lakhs in the Mansar region. It will have direct impact on people's income.
- ➢ Mansar Rejuvenation Plan will lead to employment generation of about 1.15 crore man-days.
- ➢ It will generate more than Rs 800 crore of income per year.
- ➢ It is an immensely important project which will attract tourists to Mansar Lake and its flora and fauna.

> **PEPPER IT WITH**
> NLCP, NWCP, Ramsar Convention

- ➢ A multi-pronged approach is being adopted to bring Jammu and Kashmir as one of the most preferred tourist destinations in the World Map.

Significance of the move

- ✓ After the abrogation of article 370 Union Government has initiated various development project. It can be cited that government's priorities are aligned to create development driven employment opportunities.
- ✓ It is expected that this project will help in the generation of employment of about 1.15 crore man-days and income of Rs 800 crore per year.
- ✓ 7% of the region's GDP is contributed by tourism such rejuvenation effort may increase the overall numbers and increase prosperity in the region.

Project Lion

News Excerpt

Under the project lion, six new sites have been identified for relocation of lion in order to strengthen the conservation effort of this species.

Pre-Connect

- To strengthen the conservation initiatives, the Union Ministry of Environment, Forests and Climate Change (MoEFCC) approved the project for FY 2018-19 to FY 2020-21.
- The programme has been launched for the conservation of the Asiatic Lion, whose last remaining wild population is in Gujarat's Asiatic Lion Landscape.
- The Asiatic Lion is endemic to Gir landscape of Gujarat, is one of the 21 critically endangered species identified by the Ministry for taking up recovery programmes.
- Asiatic Lion, being listed in Schedule-I of Wildlife (Protection) Act, 1972, to be accorded the highest degree of protection. Additionally, it is registered as CITES Appendix I and IUCN Red List status is Endangered.

Key Highlights

- ➢ The six new sites identified for possible lion relocation in the future include:
  1. Madhav National Park, Madhya Pradesh
  2. Sitamata Wildlife Sanctuary, Rajasthan
  3. Mukundra Hills Tiger Reserve, Rajasthan

4. Gandhi Sagar Wildlife Sanctuary, Madhya Pradesh
5. Kumbhalgarh Wildlife Sanctuary, Rajasthan
6. Jessore-BalaramAmbaji WLS and adjoining landscape, Gujarat

➢ The proposal seeks to create free ranging lion populations within Gujarat and in India to counter lack of genetic diversity within Asiatic lions.

➢ The motive behind finding a relocation site for the species is because the population in Gir has low genetic diversity, making it vulnerable to threats of extension from epidemics.

- For the first time, the genome of the Asiatic lion has been sequenced by scientists from CSIR-Centre for Cellular and Molecular Biology, Hyderabad.
- The full genome sequencing of Gir lions has shown them to be lacking genetic diversity in comparison to other lion populations and historical samples of Asiatic lions.

Analytica

✓ Lion relocation has been talked about since 1995, when the KunoWildife Sanctuary was identified as an alternate site.

✓ Lions are currently surviving in this landscape as a metapopulation wherein Gir acts as a 'source' and other satellite pockets act as 'sinks' and individual lions from different breeding populations can potentially disperse among these populations.

✓ This project has "Species Conservation over a large landscape" approach. Besides this approach, the Greater Gir Region (GGR) is being divided into various zones and management approach for sustainable conservation.

PEPPER IT WITH
Project Lion, Wildlife Protection Act

✓ This project includes Habitat improvement, protection, wildlife health service, addressing to man-wild animal conflict issues, eco-development and voluntary relocation of PA resident people, research and monitoring, awareness generation, and ecotourism. therefore, be beneficial in further strengthening the conservation and protection of Asiatic Lion in the country.

Conclusion

▪ Project Lion will entail habitat development, engage modern technologies in lion management and address the issues of disease in lion and its associated species through advanced world class research and veterinary care.

▪ The project envisages a scientific management with involvement of communities in coordination with multi-sectoral agencies for disease control and veterinary care for overall conservation of Lion.

One Health Global Leaders on Antimicrobial Resistance

News Excerpt

Recently, One Health Global Leaders on Antimicrobial Resistance was launched by the Food and Agriculture Organization (FAO), World Organisation for Animal Health (OIE) and the World Health Organization (WHO).

Pre-Connect

- The establishment of a One Health Global Leaders Group on Antimicrobial Resistance was recommended by the Interagency Coordination Group (IACG) on Antimicrobial Resistance.

- The Global Leaders Group includes members from Member States, civil society and the private sector. The Interagency Coordination Group (IACG) on Antimicrobial Resistance concluded its mandate by submitting its report to the UN Secretary-General (UNSG) in April 2019.

Need of One Health Global Leaders on Antimicrobial Resistance

The group will harness the leadership and influence of these world-renowned figures to catalyse global attention and action to preserve antimicrobial medicines and avert the disastrous consequences of antimicrobial resistance.

Functions of the group

- The group has to monitor the global response to antimicrobial resistance
- maintain public momentum

- provide regular reports on the science and evidence related to AMR to the UN member states, advocate for the inclusion of AMR 'lens' in investments on agriculture, health, development, food and feed production
- push for multi-stakeholder engagement on the issue.

Analytica

What is Antibiotic resistance?

➢ Antibiotics are medicines used to prevent and treat bacterial infections. Antibiotic resistance occurs when bacteria change in response to the use of these medicines.

➢ Bacteria, not humans or animals, become antibiotic-resistant. These bacteria may infect humans and animals, and the infections they cause are harder to treat than those caused by non-resistant bacteria.

➢ Antibiotic resistance leads to higher medical costs, prolonged hospital stays, and increased mortality.

How Big is the problem?

➢ Antibiotic resistance is rising to dangerously high levels in all parts of the world. New resistance mechanisms are emerging and spreading globally, threatening our ability to treat common infectious diseases. A growing list of infections – such as pneumonia, tuberculosis, blood poisoning, gonorrhoea, and foodborne diseases – are becoming harder, and sometimes impossible, to treat as antibiotics become less effective.

> Antibody, also called immunoglobulin, a protective protein produced by the immune system in response to the presence of a foreign substance, called an antigen. Antibodies recognize and latch onto antigens in order to remove them from the body. A wide range of substances are regarded by the body as antigens, including disease-causing organisms and toxic materials such as insect venom.

➢ Where antibiotics can be bought for human or animal use without a prescription, the emergence and spread of resistance is made worse. Similarly, in countries without standard treatment guidelines, antibiotics are often over-prescribed by health workers and veterinarians and over-used by the public.

➢ Without urgent action, we are heading for a post-antibiotic era, in which common infections and minor injuries can once again kill.

WHO Response

Tackling antibiotic resistance is a high priority for WHO. A global action plan on antimicrobial resistance, including antibiotic resistance, was endorsed at the World Health Assembly in May 2015. The global action plan aims to ensure prevention and treatment of infectious diseases with safe and effective medicines.

The "Global action plan on antimicrobial resistance" has 5 strategic objectives:

✓ To improve awareness and understanding of antimicrobial resistance.

✓ To strengthen surveillance and research.

✓ To reduce the incidence of infection.

✓ To optimize the use of antimicrobial medicines.

✓ To ensure sustainable investment in countering antimicrobial resistance.

> **PEPPER IT WITH**
> Jaipur Declaration on Antimicrobial resistance, National Action Plan for Antimicrobial resistance, Red Line Campaign

Deemed Forest

News Excerpt

Recently, Karnataka Government has announced to declassify lakhs of hectares of deemed forests land in the state (nearly 67%) and planned to hand over to Revenue authorities.

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Pre-Connect

- Preservation of forest areas in India are under the Forest Conservation Act, 1980.

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- After Godavarman case judgment in 1996, it is mandatory for state government to take permission in such cases from Supreme Court (SC).
- It has been more than 20 years since the Supreme Court asked all states in the country to identify deemed forests, but their status in several states is still unclear.
- A fresh application showing the extent of land to be released from the deemed forest category as 6.64 lakh hectares is about to filed by karanataka.

What is deemed Forest

➢ While the concept of deemed forests has not been clearly defined in any law including the Forest Conservation Act of 1980.
➢ As per the SC, it covers all statutorily recognised forests, whether designated as reserved, protected or otherwise for the purpose of the Forest Conservation Act.
➢ According to Supreme Court, the provisions enacted in the Forest Conservation Act 1980 for the conservation of forest and the matters connected therewith should apply to all forest so understood irrespective of the ownership or classification thereof.
➢ But, An expert committee constituted by the Karnataka government after the Supreme Court order identified 'deemed forests' as "land having the characteristic of forests irrespective of the ownership'.
➢ As per the expert committee, thickly wooded areas of the Revenue Department not handed over to the Forest Department; thickly wooded areas recommended to be handed over to the Forest Department; thickly wooded land distributed to grantees but not cultivated; and thickly wooded plantations of the Forest Department could all be 'deemed forests'.

Utilization of deemed forest land

✓ Land removed from the classification of deemed forest would be transferred to the Revenue Department.
✓ In order to utilize the land the government department would give first preference to government institutions and civic amenities. The remaining land would be transferred to those who have been tilling it for a long time based on various procedures.

Analytica

Deemed Forest in Karnataka and Issue

- Reports by expert committees in 1997 and 2002 identified 43.18 lakh hectares of forest land for conservation in Karnataka, which included 33.23 lakh hectares notified forest area as per forest records and 9.94 lakh hectares 'deemed forests'.
- In 2014, Former government decided to have a relook at the categorisation of forests. The 'statutory forest' has been wrongly classified as 'deemed forest' by the expert committee constituted after the Supreme Court order.
- The Definition of forests was applied to identify thickly wooded areas as deemed forests too, thus a well-defined scientific, verifiable criterion was not used, and this had resulted in a subjective classification of areas as deemed forests.
- The subjective classification in turn resulted in conflicts between the Forest Department and other departments like Revenue, Irrigation, Public Works and Energy further that land was randomly classified as deemed forest by officials, causing hardship to farmers in some areas. There is also a commercial demand for mining in some regions designated as deemed forests.

- The SC, in a 1996 judgment, had broadened the definition of forest.
- SC has included not just land classified as forest under forest or revenue departments, but also those that are forests according to the definition of a forest. (i.e.- deemed Forest)
- SC stated that States have to form committees to identify forests, irrespective of the nature of land ownership or whether they are notified, recognised or classified in a time-bound manner.
- There are forests that are notified either with the forest department or revenue department. Then there are those areas that are like forests but are neither recorded, nor notified.
- The Supreme Court had ordered that the states identify and classify these as deemed forests.

PEPPER IT WITH
The Scheduled Tribes and Other Traditional Forest Dwellers (Recognition of Forest Rights) Act, CAMPA, Forest Survey, National Green Mission

▪ It is being cited that large amounts of agriculture and non-forest land are "unscientifically" classified. This move would have impact on farmers, as well as barred large tracts from mining, the classification was done without taking into account needs of people.

Way Forward

✦ States Government must constitute committees in compliance of SC verdict, additionally states-level committees should take care of regional forest diversity and classification should be in that manner along with rights of forest dwellers. Or else States inactivity to form committees could result into bone of contention.

✦ Although, India has taken many steps to conserve forest and to improve forest cover. There is dire need to take citizens on board to rejuvenate, conserve and protect the deemed forests as well. Government can use CAMPA fund provisions to give monetary support to such type of initiatives.

Smog and it's danger

News Excerpt

Delhi's air has registered a sharp deterioration in Air quality. The smog and existing pollution level in the city exceed the standard level of pollutant.

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Pre-Connect

• Every year during the onset of cold weather in the Capital, Air quality has its ominous adverse impact.

• The Centre for Science & Environment (CSE) stated that Air pollution is five times higher than the national standard and increasing number of vehicles is the biggest contributing factor for rising air pollution.

• According to a CSE release, particulate matter in Delhi air has registered a rise of 47 per cent between 2000 and 2011. Nitrogen dioxide levels too leapt by 57 per cent during the period. Delhi's air has shown presence of high levels of nitrogen dioxide, carbon monoxide, ozone, and benzene.
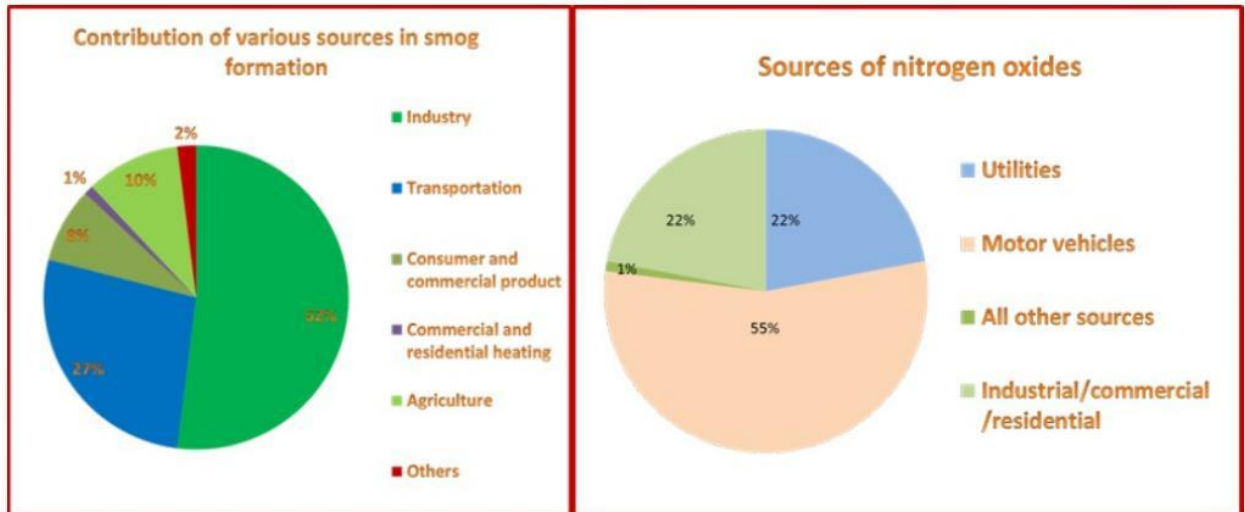
About

➢ Smog consists of smoke and fog. Smog is a mixture of many pollutants. Smog is common in industrial areas. Today, most of the smog we see is photochemical smog. The smoke usually came from burning coal and fossils.

➢ The National Capital Region is badly hit, as the burning of agricultural residue in Punjab and Haryana is releasing large volumes of smoke containing, among other pollutants, highly damaging fine particulates, or PM2.5.

➢ This problem is aggravated by the local anthropogenic factors such as-burning of urban waste, diesel soot, vehicular exhaust, road and construction dust, and fossil led power generation.

> **Some Global Instances**
> ❖ The 'Great Smog of London' or 'The Big Smoke' in 1952 was the most severe air pollution crisis in European history, causing around 8,000-12,000 deaths.
> ❖ In 1948 Donora Smog in the US led to formation of Smog clouds, consisting metal dust, sulfur dioxide and carbon monoxide. As a result, around 7,000 residents suffered from various breathing problems and were hospitalised. At least 20 residents died within 5-6 days.
> ❖ Similarly, Beijing suffered major air pollution in 2013 due to burning of coal, which caused 366,000 premature deaths.
> ❖ The environmental disasters like Smog did not happen in a day. There were many alarming signs, like the ones we are witnessing in Delhi nowadays.

➢ Pollutants

➢ Primary pollutants are the ones that contribute to smog formation and are emitted directly from the source.

➢ Secondary pollutants form in the atmosphere by chemical interactions of primary pollutants with normal environmental conditions.

- The key pollutants that lead to air pollution are oxides of nitrogen, especially nitrogen oxides and nitric oxides, which are released in the atmosphere by combustion of fossil fuel coming from coal power plants, factory emissions and car exhausts.
- Nitrogen dioxide is a serious air pollutant, which, on inhalation, causes pulmonary edema (an accumulation of excessive fluid in the lungs). Moreover, it contributes to photochemical smog, thus, causing serious damage to the environment.

Sources of Smog and weightage

Who is Most at Risk from Smog?

✓ High exposure to smog laden poor Air Quality is known to lead to increased hospitalisation for asthma, lung diseases, chronic bronchitis and heart damage. Long-term exposure can even cause lung cancer.

✓ The nitrogen dioxide levels can trigger serious respiratory conditions and sudden death syndrome among infants.

✓ Smog can cause or aggravate health problems such as eye irritation and reduced resistance to colds and lung infections.

✓ The ozone in smog also inhibits plant growth and can cause widespread damage to crops and forests.

✓ Physical activity causes people to breathe faster and more deeply, exposing their lungs to more ozone and other pollutants. Group of people are particularly sensitive to ozone and other air pollutants in smog are--

1. **Children**: Active children run the highest risks from exposure to smog. Children are also more prone to asthma—the most common chronic disease for children and other respiratory ailments than adults.

2. **Adults who are active outdoors**: Healthy adults of any age who exercise or work outdoors are considered at higher risk from smog.

3. **People with respiratory diseases**: People with asthma or other chronic respiratory diseases are more sensitive and vulnerable to the effects of ozone. Typically, they will experience adverse effects sooner and at

Indoor air quality
❖ Not only outdoor, but also indoor air quality is a great concern since people consider their homes a safe refuge and become carefree.
❖ Sources of indoor pollution are VOCs and soot from open air stoves or kerosene stoves; mold and spores from damp places, especially the washroom area, dead skin and insect particles as well as pollen from planted flowers or dustaccumulated in blankets and mattresses.
❖ This problem is so common that it has been given a special name: Sick Building Syndrome.
❖ Exposure to such indoor air pollutants maycause allergy, asthma, cardiovascular disease, memory loss, cancer and can be harmful to fetal development.

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lower levels of exposure than those who are less sensitive.

4. **People with unusual susceptibility to ozone**—Some otherwise healthy people are simply more sensitive to the pollutants in smog than other people and may experience more adverse health effects from exposure.

Steps Taken by Government to deal with menace

o Delhi government had introduced emission control norms for the first time in 1991. Since then, the standards have got stricter in the form of pollution control certificates. Currently, only Bharat Stage-VI (BS-IV) compliant vehicles can be registered in Delhi.

o Delhi government phased out lead petrol, reduced the amount of benzene in fuel, and introduced low-sulfur diesel to provide vehicles with cleaner fuel. Mitigation measures also involved major infrastructure investments.

o The most prominent among them, which also tackles traffic congestion, is the creation of mass rapid transport schemes like Delhi Metro, which has taken lakhs of vehicles off the road. It could have taken off 1.4 lakh vehicles from the road and would have made a dent in the current smog scenario.

o An air ambiance fund has been created to fund mitigation initiatives from money collected from diesel sales.

o Recently, the court, executive and civil society came together to ban even bursting of crackers in Delhi on Diwali to help reduce the famous after Diwali smog.

o One more novel scheme tested by the government was an anti-smog gun, the prototype of which was tested by the Delhi government at Anand Vihar, one of the most polluted locations in the capital. The concept is that the gun will shoot a mist of high pressure water into the air, which will capture and immobilize pollutants and particles, making them settle on the ground later.

o To spread awareness on the dangers of pollution and its mitigation methods, the Delhi Pollution Control Board conducts routine awareness programs and workshops.

o The tree transplantation policy of the Delhi government mandates 80% of the trees affected by construction and development activities must be transplanted, along with 80% out of them surviving after a year. This is in addition to the mandatory requirement of planting 10 saplings in case one tree is cut for construction purposes, which has helped increase the green cover in Delhi.

o They have taken steps like starting an anti-dust campaign, using the bio-decomposer technique for stubble burning, launching the electric vehicle policy, announcing the tree transplantation policy, etc, under its 'Yuddh. PradushankeViruddh' anti-pollution campaign.

o To reduce pollution in the city, the Delhi government is also setting up a smog tower at Connaught Place which will distribute clean air in the national capital.

o In an effort to reduce the contribution of vehicular emissions to Delhi's PM2.5 concentrations, the Delhi government has introduced the new EV policy. The government is providing subsidies and incentives on their purchase to promote large scale adoption of EVs.

Analytica

➢ Measures taken by government had met with varying degrees of success, which aren't always quantifiable due to the diffuse and multi-source nature of the problem and too many variables at play. A coordinated and unison effort is required instead of fragmented approach.

➢ Perhaps the most positive action of the government was formation of the SAFAR air quality index, which combines five of the most pressing pollutants into a single air quality index (AQI). This ranges from good to severe and can help in policy formulation as well as precautionary measures. The data and quality of Index is questioned on the ground of WHO's standard. SAFAR AQI is different from the WHO's Air quality methodologies. Thus, Contradictory approach invites criticism.

➢ The recently introduced smog Gun is unable to cope with the issue. Since the range of this method is low and it's only effective in the immediate time frame, it can only be used near sensitive locations such as hospitals or schools. There is need to adopt a sustainable and permanent solution.

Way Forward

✓ It is evident that most of the measures taken against smog and pollution are punitive and ad hoc in nature and address the symptoms and not the root cause of the problem. Actions to tackle the smog problem should be both preventive and punitive.

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✓ To find a permanent and sustainable solution to air pollution and smog, there needs to be a synergy between all levels of policy formulation and implementation from the Delhi government, Centre, National Green Tribunal, judiciary, expert agencies and most importantly people. Also, opinions and considerations from all sections of the society, especially experts of agriculture, environment, chemistry, industry etc. would have to be taken.

✓ Comprehensive studies, evaluating the pros and cons of personal mitigation devices for a permanent solution to air pollution crisis of Delhi, need to be conducted with a holistic and interdisciplinary approach.

SCIENCE & TECHNOLOGY

Procedure for drug approval

Issue

Three vaccine developers have now made applications to the Central Drug Standard Control Organisation (CDSCO), India's drug regulator, seeking emergency use approval for their candidate Covid-19 vaccines which are still under trials.

History of drug approval process in India

- The Drug and Cosmetic Act 1940 and Rules 1945 were proclaimed by the India's parliament to regulate the import, manufacture, distribution and sale of drugs and cosmetics. The Central Drugs Standard Control Organization (CDSCO) and the office of the Drugs Controller General (DCGI) was established.

- In 1988, the Indian government added Schedule Y to the Drug and Cosmetics Rules 1945. Schedule Y provides the guidelines and requirements for clinical trials, which was further revised in 2005 to bring it at par with internationally accepted procedure. When a company in India wants to manufacture/ import a new drug it has to apply to seek permission from the licensing authority (DCGI) by submitting the data as given in Schedule Y of Drugs and Cosmetics Act 1940 and Rules 1945.

- In order to prove its efficacy and safety in Indian population it has to conduct clinical trials in accordance with the guidelines specified in Schedule Y and submit the report of such clinical trials in specified format.

> **Central Drugs Standard Control Organisation (CDSCO)**
> ❖ The Central Drugs Standard Control Organisation (CDSCO)under Directorate General of Health Services, Ministry of Health & Family Welfare, Government of India is the National Regulatory Authority (NRA) of India.
> ❖ The Drugs & Cosmetics Act,1940 and rules 1945 have entrusted various responsibilities to central & state regulators for regulation of drugs & cosmetics. It envisages uniform implementation of the provisions of the Act & Rules made there under for ensuring the safety, rights and well being of the patients by regulating the drugs and cosmetics.

Some important rules in the procedure for drug approval in India

> As per the Drug and Cosmetics Act, the clinical trials may be waived in the case of new drugs which are approved and being used for several years in other countries.

> Section 2.4 (a) of Schedule Y of Drugs and Cosmetics Act 1940 and Rules 1945 says for those drug substances which are discovered in India all phases of clinical trials are required. Whereas its section 2.4(b) says that for those drug substances which are discovered in countries other than India; the applicant should submit the data available from other countries and the licensing authority may require him to repeat all the studies or permit him to proceed from Phase III clinical trials.

> Demonstration of safety and efficacy of the drug product for use in humans is essential before the drug product can be approved for import or manufacturing of new drug by the applicant by Central Drugs Standard Control Organization (CDSCO).

> The regulations under Drugs and Cosmetics Act 1940 and its rules describe the information required for approval of an application to import or manufacture of new drug for marketing. For an investigational new drug, the sponsor needs to provide detailed information to the DCGI about:

> **Bulk drugs or APIs**
> A bulk drug, also called an active pharmaceutical ingredient (API), is the key ingredient of a drug or medicine, which lends it the desired therapeutic effect or produces the intended pharmacological activity. For example, paracetamol is a bulk drug, which acts against pain. It is mixed with binding agents or solvents to prepare the finished pharmaceutical product, eg a paracetamol tablet, capsule or syrup, which is consumed by the patient.

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- o Generic name, Patent status, Brief description of physico-chemical/biological, Technical information, Published clinical trial reports, Proposed protocol and pro forma, Trial duration, During master file, Undertaking to Report Serious or Life-threatening Adverse Drug Reactions.
- ➤ The need for local clinical trials in India depends on the status of drug in other countries. If the drug is already approved in other countries, generally Phase III trials are required. Phase I trials are not allowed in India unless the data is available from other countries. Permission is granted by DCGI to conduct Phase 1 trials in India, if the drug has special relevance to a health problem in India, like malaria or tuberculosis.
- ➤ Bioavailability and bioequivalence (BABE) studies should be conducted as per BABE guidelines. The comprehensive information on the marketing status of the drug in other countries is also required other than the information on safety and efficacy. The information regarding the prescription, samples and testing protocols, product monographs, labels must also be submitted.
- ➤ An application to conduct clinical trials in India should be submitted along with the data of chemistry, manufacturing, control and animal studies to DCGI.

Stages of approval

1. Submission of Clinical Trial application for evaluating safety and efficacy.
2. Requirements for permission of new drugs approval
3. Post approval changes in biological products: quality, safety and efficacy documents.
4. Preparation of the quality information for drug submission for new drug approval.

- ➤ Clinical trials of new drugs and vaccines, and their approvals, are governed by the New Drugs and Clinical Trials Rules, 2019.
- ➤ The 2019 rules provide for "accelerated approval process" in several situations that would include the one like the current pandemic. In such situations, there is a provision for granting approval to a drug that is still in clinical trials, "provided there is a prima facie case of the product being of meaningful therapeutic benefit".
- ➤ "Accelerated approval may also be granted to a new drug if it is intended for the treatment of a serious, or life-threatening condition, or disease of special relevance to the country, and addresses unmet medical needs," one of the relevant provisions of the Rules says. The definition of new drug in the 2019 Rules includes a vaccine.

Emergency use authorisation (EUA)

What is emergency use authorisation (EUA)?

- ✓ Vaccines and medicines, and even diagnostic tests and medical devices, require the approval of a regulatory authority before they can be administered. In India, the regulatory authority is the Central Drugs Standard Control Organisation (CDSCO).
- ✓ For vaccines and medicines, approval is granted after an assessment of their safety and effectiveness, based on data from trials. In fact, approval from the regulator is required at every stage of these trials. This is a long process, designed to ensure that a medicine or vaccine is absolutely safe and effective. The fastest approval for any vaccine until now — the mumps vaccine in the 1960s — took about four-and-a-half years after it was developed.
- ✓ In emergency situations, like the current one, regulatory authorities around the world have developed mechanisms to grant interim approvals if there is sufficient evidence to suggest a medical product is safe and effective. Final approval is granted only after completion of the trials and analysis of full data; until then, emergency use authorisation (EUA) allows the medicine or the vaccine to be used on the public.

What is the process of getting an emergency use authorisation in India?

- ✓ Experts suggest that India's drug regulations do not have provisions for an EUA, and the process for receiving one is not clearly defined or consistent.
- ✓ However, CDSCO has been granting emergency or restricted emergency approvals to Covid-19 drugs during this pandemic — for remdesivir, favipiravir anditolizumab.

How will a Covid-19 vaccine get an EUA in India, then?

- ✓ Any company seeking to launch a vaccine approved elsewhere would have to conduct local trials to prove it is safe and effective on the Indian population.
- ✓ In the case of the AstraZeneca-Oxford candidate (AZD1222), Serum Institute of India is conducting trials of its version, Covishield, on around 1,600 participants in India. Bharat

Biotech is currently conducting phase 3 trials of its vaccine, Covaxin, and has said it will not be approaching CDSCO for an EUA.

✓ Serum Institute of India has suggested that the company plans to apply for EUA by approaching CDSCO for such approval only after AZD1222 received EUA in countries like the UK.

How often has EUA been granted?

✓ EUA is a relatively recent phenomenon. The FDA granted its first EUA for the civilian population in 2009. The first EUA allowed the use of Tamiflu drug for infants and young children for the treatment of H1N1 infection.

✓ **Since then, EUAs have been granted for several medicines, diagnostics, and equipment like ventilators or even PPEs, but never for a vaccine. An EUA can be granted only in a declared public health emergency; previous EUAs came during the spread of the Ebola virus, Zika virus and MERS coronavirus.**

✓ Remdesivir or faviparir, which received EUA for treatment of Covid-19, including in India, are existing drugs approved for other ailments. They could not be administered to Covid-19 patients without extensive trials, but because they showed promise in limited testing, in specified conditions, they were therefore "repurposed" for Covid-19 patients through EUAs.

Is there a risk in using a product that has only been granted an EUA?

According to the US FDA, the public has to be informed that a product has only been granted an EUA and not full approval. In the case of a Covid-19 vaccine, for example, people have to be informed about the known and potential benefits and risks, and the "extent to which such benefits or risks are unknown", and that they have a right to refuse the vaccine.

Chapare Virus

News Excerpt

At a time when countries across the globe are struggling to contain the Covid-19 pandemic, the United States' Centers for Disease Control and Prevention (CDC) has announced that a deadly virus, which causes haemorrhagic fever like Ebola, can now also be transmitted through people.

Pre-Connect

• The Chapare virus was first discovered in 2004 in the Bolivian province of Chapare, from where it gets its name. Though it disappeared in 2004, an outbreak last year infected at least five people.

• The biggest outbreak of the 'Chapare virus' was reported in 2019, when three healthcare workers contracted the illness from two patients in the Bolivian capital of La Paz.

• Two of the medical professionals and one patient later died. Prior to that, a single confirmed case of the disease and a small cluster were documented in the Chapare region over a decade ago.

Analytica

What is the Chapare virus?

➢ The Chaparehaemorrhagic fever (CHHF) is caused by the same arenavirus family that is responsible for illnesses such as the Ebola virus disease (EVD), which is generally carried by rats and can be transmitted through direct contact with the infected rodent, its urine and droppings, or through contact with an infected person.

➢ The virus, which is named Chapare after the province in which it was first observed, causes a haemorrhagic fever much like Ebola along with abdominal pain, vomiting, bleeding gums, skin rash and pain behind the eyes.

Centres for Disease Control and Prevention (CDC)

❖ The Centers for Disease Control and Prevention (CDC) is a national public health institute in the United States.

❖ Its main goal is to protect public health and safety through the control and prevention of disease, injury, and disability in the US and internationally.

❖ The CDC focuses national attention on developing and applying disease control and prevention.

CDC researchers' recent findings about the virus

✓ The virus can spread from person to person, particularly in healthcare settings.

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✓ Healthcare workers are at higher risk of contracting the illness and must thus be extremely cautious while dealing with patients to avoid contact with items that could be contaminated with their blood, urine, saliva or semen. The disease can also be sexually transmitted.

✓ Researchers also discovered signs of the virus in rodents in the "home and nearby farmlands" surrounding the first person infected during the 2019 outbreak.

Threats posed by the Chapare virus

▪ Chapare virus is much more difficult to catch than the coronavirus as it is not transmissible via the respiratory route. Instead, Chapare spreads only through direct contact with bodily fluids.

PEPPER IT WITH
Ebola virus disease (EVD), Covid-19 pandemic, Pradhan Mantri Bhartiya JanaushadhiPariyojana

▪ The people who are particularly at risk of contracting the illness are healthcare workers and family members who come in close contact with infected people.

▪ The disease is also known to be most commonly transmitted in more tropical regions, particularly in certain parts of South America where the small-eared pigmy rice rat is commonly found.

Treatment for the Chaparehaemorrhagic fever

✛ Since there are no specific drugs to treat the disease, patients generally receive supportive care such as intravenous fluids.

✛ The CDC website lists maintenance of hydration, management of shock through fluid resuscitation, sedation, pain relief and transfusions as the supportive therapy that can be administered on patients suffering from CHHF.

Sentinel-6 satellite

News Excerpt

Recently, the Copernicus Sentinel-6 Michael Freilich satellite, designed to monitor oceans, was launched from the Vandenberg Air Force base in California aboard a SpaceX Falcon 9 rocket.

GS CONNECT											
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Pre-Connect

• The Sentinel-6 Michael Freilich satellite has been named after Dr. Michael Freilich, who was the Director of NASA's Earth Science Division.

• This is a part of the next mission dedicated to measuring changes in the global sea level. Other satellites that have been launched since 1992 to track changes in the oceans on a global scale include the TOPEX/Poseidon, Jason-1 and OSTN/Jason-2, among others.

Analytica

Mission Details

➢ The mission, called the Jason Continuity of Service (Jason-CS) mission, is designed to measure the height of the ocean, which is a key component in understanding how the Earth's climate is changing.

➢ It has been developed jointly by the European Space Agency (ESA), NASA, European Organisation for the Exploitation of Meteorological Satellites (Eumetsat), the USA's National Oceanic and Atmospheric Administration (NOAA) and the EU, with contributions from France's National Centre for Space Studies (CNES).

PEPPER IT WITH
TOPEX/Poseidon, OSTN/Jason-2, SpaceX Falcon, Sea Level Rise, IPCC Special Report on the Ocean and Cryosphere

Primary function of the satellite

✓ The satellite will ensure the continuity of sea-level observations into the fourth decade and will provide measurements of global sea-level rise.

✓ The satellite will send pulses to the Earth's surface and measure how long they take to return to it, which will help scientists measure the sea surface height. It will also measure water vapour along this path and find its position using GPS and ground-based lasers.

✓ Further, the data it collects will support operational oceanography, by providing improved forecasts of ocean currents, wind and wave conditions. This data will allow improvements in both short-term forecasting for weather predictions in the two-to-four-week range (hurricane

intensity predictions), and long-term forecasting, for seasonal conditions like El Niño and La Niña.

Significance of measuring the height of the ocean

- Sentinel-6 will help scientists foresee the effects of the changing oceans on the climate.
- In order to measure and track changes in the oceanic heat budget, scientists need to know the ocean currents and heat storage of the oceans, which can be determined from the height of the sea surface.

16 Psyche

News Excerpt

A recent study has found that asteroid 16 Psyche, which orbits between Mars and Jupiter, could be made entirely of metal and is worth an estimated $10,000 quadrillion — more than the entire economy of Earth.

About asteroid 16 Psyche

- First discovered in 1853, located around 370 million kilometres away from Earth, asteroid 16 Psyche is one of the most massive objects in the asteroid belt in our solar system. The somewhat potato-shaped asteroid has a diameter of around 140 miles.

> **NASA's Psyche mission**
> The Psyche mission is a journey to a unique metal asteroid orbiting the Sun between Mars and Jupiter. What makes the asteroid Psyche unique is that it appears to be the exposed nickel-iron core of an early planet, one of the building blocks of our solar system.

Highlights of the latest study on asteroid 16 Psyche

- The study involved the first ultraviolet observation of Psyche, offering a clearer picture of the asteroid's composition for the first time.
- Unlike most asteroids that are made up of rocks or ice, scientists believe that Psyche is a dense and largely metallic object thought to be the core of an earlier planet that failed in formation.
- Metal asteroids are not commonly found in the solar system, and scientists believe that studying 16 Psyche may offer a rare glimpse of what the inside of a planet really looks like.

> **Is the asteroid really worth $10,000 quadrillion?**
> - NASA scientists believe that the asteroid is made up of almost entirely of iron, nickel and several other rare materials like gold, platinum, cobalt, iridium and rhenium.
> - Hypothetically, if it was to be transported to Earth, NASA has calculated that the iron alone would be worth more than $10,000 quadrillion.
> - However, NASA clarified that there was no way for the asteroid to actually be brought back to Earth as we lacked the technology to do so.
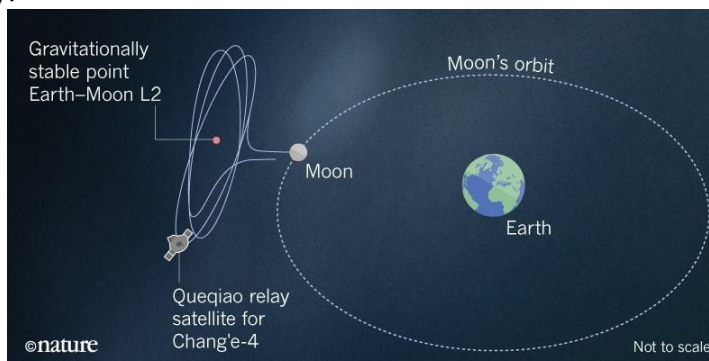
Chang'e -5 probe

About Chang'e -5 probe

- The Chang'e-4 lunar probe mission - named after the moon goddess in Chinese mythology is humanity's first probe to land on and explore the far side of the moon.
- No lander or rover has ever touched the surface there, positioning China as the first nation to explore the area.
- Unlike the near side of the moon that is "tidally locked" and always faces the earth, and offers many flat areas to touch down on, the far side is mountainous and rugged. It was not until 1959 that the Soviet Union captured the first images of the heavily cratered surface, uncloaking some of the mystery of the moon's "dark side".
- A major challenge for such a mission is communicating with the robotic lander: as the far side of the moon always points away from earth, there is no direct "line of sight" for signals. As a solution, China blasted the Queqiao ("Magpie Bridge") satellite into the moon's orbit, positioning it so that it can relay data and commands between the lander and earth.

Recent Findings

➢ So far, the probe has survived on the far side of the Moon for 630 Earth days, equivalent to 45 lunar days, and the rover has travelled 547.17 meters.

➢ The rover also explored the impact crater about 1.3 kilometres northwest of the landing site and the areas with high reflectivity.

➢ With the panoramic camera, infrared imaging spectrometer and lunar radar, the rover can peer beneath the surface of the mysterious far side of the Moon, based on which multiple achievements have been made and published recently in the journal Nature Astronomy.

➢ The scientific team carried out in-depth study on the radar detection data and obtained important findings on the lunar soil and shallow structure of the landing area.

➢ The latest discoveries are of great significance for understanding the evolution of the South Pole-Aitken basin of the Moon, as well as for the future exploration and study on the composition and structure of the lunar interior.

BMI and India

News Excerpt

According to a study in The Lancet that was published recently, India ranks third and fifth from the bottom respectively among countries where 19-year-old girls and boys have a low body mass index.

Observations of the recent Lancet study

• The study provides new estimates for height and BMI trends in 2019 across 200 countries after analysing data from 2,181 studies.

• The mean BMI of 19-year-old boys is 20.1 in India, compared to a high of 29.6 in the Cook Islands and a low of 19.2 in Ethiopia.

• For Indian girls, the mean BMI is again 20.1, compared to a high of 29.0 in Tonga and a low of 19.6 in Timor-Leste.

• The mean height of Indian 19-year-olds is 166.5 cm for boys and 155.2 cm for girls, well below the high of Netherlands boys (183.8 cm) and girls (170 cm).

• The 20 cm or higher difference between countries with the tallest and shortest mean height represents approximately 8 years of growth gap for girls and approximately 6 years for boys. For example, 19-year-

THE TOP 3, THE BOTTOM 3, AND INDIA

BOYS, AGE 19		GIRLS, AGE 19	
MEAN HEIGHT, 2019		MEAN HEIGHT, 2019	
Netherlands	183.8 cm	Netherlands	170.4 cm
Montenegro	183.3 cm	Montenegro	170.0 cm
Estonia	182.8 cm	Denmark	169.5 cm
India	166.5 cm	India	155.2 cm
Solomon Islands	163.1 cm	Nepal	152.4 cm
Lao PDR	162.8 cm	Bangladesh	152.4 cm
Timor-Leste	160.1 cm	Guatemala	150.9 cm
MEAN BMI, 2019		MEAN BMI, 2019	
Cook Islands	29.6	Tonga	29.0
Nauru	29.5	Cook Islands	28.9
Tuvalu	28.2	Nauru	28.6
India	20.1	India*	20.1
DR Congo	19.9	Romania	19.9
Niger	19.8	Timor-Leste	19.6
Ethiopia	19.2	*India 3rd from bottom	

Source: The Lancet

- old girls in India have the same mean height as 12-year-old Dutch girls.

Way Forward

Although both height and BMI have increased from 1985 to 2019, there is still a great deal of potential for height while curbing any future rise in obesity. Hence the programmes targeted towards the poor from birth through school years are the need of the hour.

> **Body Mass Index**
> ❖ Body mass index (BMI) is a measure of body fat based on height and weight that applies to adult men and women.
> ❖ BMI is measured as the weight in kg divided by the square of the height in metres. World Health Organization guidelines define a normal BMI range as 18.5 to 24.9, overweight as 25 or higher, and obesity as 30 or higher.

Supercomputers in India

News Excerpt

Recently Atos, the global information technology service provider has announced two supercomputers from India — PARAM Siddhi-AI and Mihir — have made it to the TOP500 list of the world's most powerful supercomputers.

History of Supercomputing in India

- Supercomputing in India has a history going back to the 1980s. The Government of India created an indigenous development programme as they had difficulty purchasing foreign supercomputers. As of June 2020, when ranking by number of supercomputer systems in the TOP500 list, India is ranked 23rd in the world.

- In 1986 the National Aerospace Laboratories (NAL) started the Flosolver project to develop a computer for computational fluid dynamics and aerospace engineering.

- In 1987 the Indian Government had requested to purchase a Cray X-MP supercomputer; this request was denied by the United States government as the machine could have a dual use in weapons development. After this problem, in the same year, the Government of India decided to promote an indigenous supercomputer development programme. Multiple projects were commissioned from different groups including the Centre for Development of Advanced Computing (C-DAC), the Centre for Development of Telematics (C-DOT), the National Aerospace Laboratories (NAL), the Bhabha Atomic Research Centre (BARC), and the Advanced Numerical Research and Analysis Group (ANURAG). C-DOT created "CHIPPS": the C-DOT High-Performance Parallel Processing System. BARC created the Anupam series of supercomputers. ANURAG created the PACE series of supercomputers.

- The Indian Government has proposed to commit 2.5 billion USD to supercomputing research during the 12th Five-Year Plan period (2012–2017). The project will be handled by Indian Institute of Science (IISc), Bangalore. Additionally, it was later revealed that India plans to develop a supercomputer with processing power in the exaflops range. It will be developed by C-DAC within the subsequent five years of approval.

National Supercomputing Mission

- o In 2015 the Ministry of Electronics and Information Technology announced a "National Supercomputing Mission" (NSM) to install 73 indigenous supercomputers throughout the country by 2022. This is a seven-year program worth $730 million (Rs. 4,500 crore). Whilst previously computer was assembled in India, the NSM aims to produce the components within the country. The NSM is being implemented by C-DAC and the Indian Institute of Science.

- o The aim is to create a cluster of geographically-distributed high-performance computing centers linked over a high-speed network, connecting various academic and research institutions across India. This has been dubbed the "National Knowledge Network" (NKN). The mission involves both capacity and capability machines and includes standing up three petascale supercomputers.

Recent Developments

➢ Two supercomputers from India — PARAM Siddhi-AI and Mihir, have been ranked 63rd and 146th, respectively, and remain the only two supercomputers from India in the latest list of TOP500 released recently.

➢ PARAM Siddhi-AI has a Rpeak capacity of 5.267 Petaflops and Rmax capacity of 4.6 Petaflops. It was led and built on NVIDIA DGX SuperPOD architecture. The system, jointly

built by the Department of Science and Technology and Ministry of Electronics and IT under the National Supercomputing Mission, was conceptualised by the Centre for Development of Advanced Computing.

➢ This Artificial Intelligence-based system's wide applications cover advanced materials, education, space, agriculture, defence and national security, computational chemistry and astrophysics, drug design and preventive healthcare systems, as well as flood forecasting in major cities like Delhi, Mumbai, Chennai, Patna and Guwahati.

➢ 'Mihir' is a 2.8 Petaflop supercomputer which has been operational at the National Centre for Medium Range Weather Forecast (NCMRWF), Noida. It is one of the powerful systems owned by the Ministry of Earth Sciences and has helped improve India's forecasting skills.

Significance of supercomputers in India

✓ Many of the institutions across India like IITs in Kharagpur, Madras, Goa and Palakkad will soon house the National Centre for Human Resource Development. At these centres, skilling and training facilities will be provided to the user communities aimed at familiarising themselves with next-generation technology, high-performance computing and artificial intelligence.

✓ Apart from academia and research institutions, open access of supercomputing facilities will be extended even to industries and start-ups.

✓ Sectors like health, climate modelling, oil explorations, etc. will enjoy benefits of supercomputers, which will in turn contribute towards the socio-economic upliftment of the nation.

✓ Employment generation for skilled work force: Under NSM, the long-term plan is to build a strong base of 20,000 skilled persons over the next five years who will be equipped to handle the complexities of supercomputers.

> **Major international developments**
> ❖ Japanese supercomputer Fugaku (442 petaflops) and IBM's Summit (148.8 petaflops) are the two most powerful supercomputers in the world, according to the Top500 list.
> ❖ Chinese Sunway TaihuLight is number four on the list (93 petaflops), developed by the National Research Center of Parallel Computer Engineering & Technology (NRCPC) in China.

> **PEPPER IT WITH**
> Digital India, Make in India, Param Shivay, Centre for Development of Advanced Computing (C-DAC),

Conclusion

Given the current pace at which things are moving forward, experts suggest that India may soon have motherboards and sub-systems manufactured in the country, making supercomputers indigenously designed and manufactured. The National Super Computing Mission (NSM) is rapidly boosting high power computing in the country through its various phases to meet the increasing computational demands of academia, researchers, MSMEs and startups in areas like oil exploration, flood prediction, genomics and drug discovery.

Ariel Space Mission

News Excerpt

Recently European Space Agency adopted Ariel (Atmospheric Remote-sensing Infrared Exoplanet Large-survey) Space Mission, which scientists are planning to launch in 2029, will perform a large-scale survey of over a thousand exoplanets over a period of four years.

Analytica

What do we understand by exoplanets?

• Planets that lie outside of the Solar System and orbit around stars other than the Sun are called exoplanets or extrasolar planets.

• Exoplanets are not easy to detect since they are much less bright than the stars they orbit and hence it is difficult to see them directly using telescopes.

• As per NASA, only a handful of exoplanets have been found using telescopes and the rest have been detected using indirect methods. One of these methods involves tracking the dimming of a star that happens when a planet passes in front of it. NASA's Kepler Space telescope uses this method to spot thousands of planets.

- Other methods to track exoplanets include gravitational lensing and the "wobbling method", which is based on the idea that an orbiting planet will cause its parent star to orbit slightly off-centre.

Significance of the study of exoplanets

➢ The search for exoplanets is driven by the possibility that life may exist beyond Earth and even if there is no evidence for this, scientists believe that their hunt for an answer will reveal details about where humans came from and where we're headed.

➢ Its search is driven by one of the most profound and thought-provoking questions humanity has ever asked that is, "Are we alone in the universe?"

What is the Ariel Space Mission all about?

✓ Ariel is the first mission of its kind dedicated to measuring the chemical composition and thermal structures of hundreds of exoplanets.

✓ Ariel will help to answer one of the key questions of ESA's Cosmic Vision Plan, which is, "What are the conditions for planet formation and the emergence of life?".

✓ A large-scale survey that Ariel will perform is required to know more about exoplanets and exoplanetary systems.

European Space Agency (ESA)

❖ The European Space Agency (ESA) is Europe's gateway to space. Its mission is to shape the development of Europe's space capability and ensure that investment in space continues to deliver benefits to the citizens of Europe and the world.

❖ ESA is an intergovernmental organisation of 22 member states dedicated to the exploration of space. Established in 1975 and headquartered in Paris, ESA has a worldwide staff of about 2,200 in 2018 and an annual budget of about €6.68 billion in 2020.

PEPPER IT WITH
Goldilocks Zone, Circumstellar habitable zone, Luhman 16A, Habitable-Zone Planet Finder,

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Cord Blood Banking

News Excerpt

Recently, Community Cord Blood Banking helped save the life of a girl child making it India's first dual cord blood transplant through an unrelated donor.

Analytica

What is cord blood banking?

- Cord blood (short for umbilical cord blood) is the blood that remains in the umbilical cord and placenta post-delivery.

- At or near term, there is a maternal–foetal transfer of cells to boost the immune systems of both the mother and baby in preparation for labor. This makes cord blood at the time of delivery a rich source of stem cells and other cells of the immune system.

- Cord blood banking is the process of collecting the cord blood and extracting and cryogenically freezing its stem cells and other cells of the immune system for potential future medical use.

PEPPER IT WITH
Immune system disorders, Private (commercial) cord banks, Direct-donation banks, Stem cells, The Indian Council of Medical Research (ICMR) Guidelines.

Benefits of cord blood banking

➢ Cord blood taken from a baby's umbilical cord is always a perfect match for the baby. It gives protection to a baby against all conditions treatable using stem cells (own & donor).

➢ In addition, immediate family members are more likely to also be a match for the banked cord blood. Thus, giving protection to the baby's siblings, parents and grandparents (maternal & paternal) by providing unrelated donor stem cells.

Why is the recent success in Cord Blood Banking a big feat?

✓ In the majority of the blood-related disorders treatable by transplants, patients' own stem cells are not suitable. Hence, the best donor is a close family member, usually a sibling.

✓ However, in this particular case, there was only a 50% match with the sibling and that's why a high-quality match from an unrelated donor was crucial for a successful transplant.

✓ The purpose of Community Cord Blood Banking is to ensure easy and rapid access to stem cells for every Indian without the hurdles of public and private banking models. While stem cells from the umbilical cord blood can be procured from global public banks, the probability of finding a match for a patient of Indian origin is less than 10% because of the low inventory of available units plus the big issue of donor dropouts.

✓ The community banking model made it possible and the child in this case received a timely transplant with an encouraging prognosis.

Stem cell therapy

❖ Stem cell therapy, also known as regenerative medicine, promotes the repair response of diseased, dysfunctional or injured tissue using stem cells or their derivatives.

❖ Researchers grow stem cells in a lab. These stem cells are manipulated to specialize into specific types of cells, such as heart muscle cells, blood cells or nerve cells.

❖ The specialized cells can then be implanted into a person. For example, if the person has heart disease, the cells could be injected into the heart muscle. The healthy transplanted heart muscle cells could then contribute to repairing defective heart muscle.
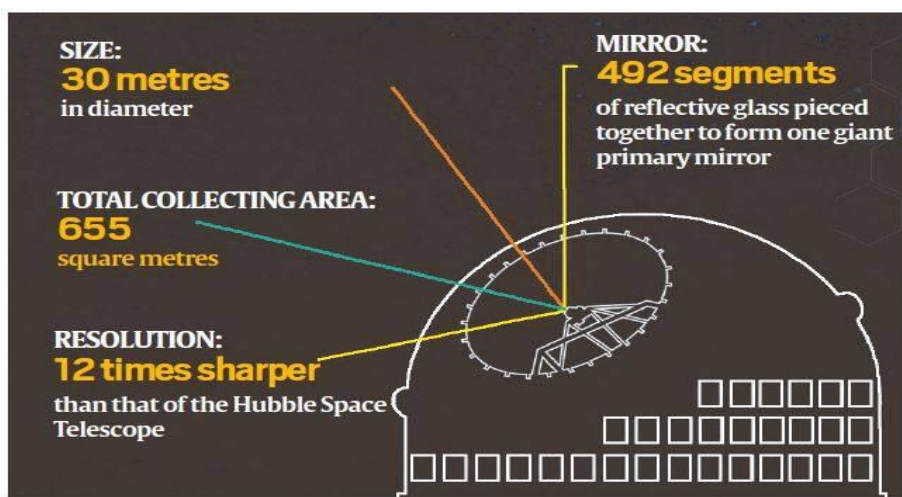
30 metre Telescope

News Excerpt

2020 Physics Nobel Laureate Prof. Andrea Ghez had worked closely with Indian astronomers on the design of back-end instruments and possible science prospects of the Thirty Meter Telescope (TMT) project being installed at Maunakea in Hawaii, which can revolutionize the understanding of the universe and the enigmas in it.

About Thirty-meter telescope Project

• The Thirty-meter telescope (TMT) project is an international partnership between CalTech, Universities of California, Canada, Japan, China, and India; through the Department of Science and Technology (DST) and Department of Atomic Energy (DAE).

• "Thirty Metre" refers to the 30-metre diameter of the mirror, with 492 segments of glass pieced together, which makes it three times as wide as the world's largest existing visible-light telescope. The larger the mirror, the more light a

SIZE: **30 metres** in diameter

MIRROR: **492 segments** of reflective glass pieced together to form one giant primary mirror

TOTAL COLLECTING AREA: **655** square metres

RESOLUTION: **12 times sharper** than that of the Hubble Space Telescope

Source: Thirty Meter Telescope International Observatory

telescope can collect, which means, in turn, that it can "see" farther, fainter objects.

• It would be more than 200 times more sensitive than current telescopes, and would be able to resolve objects 12 times better than the Hubble Space Telescope.

• Some of the key areas of study that this telescope can contribute immensely are the study of exoplanets as well as the study of far-off blackholes.

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BENGALURU: KORMANGALA 7619166663 &**CHANDRA LAYOUT** 7619136662 | **BHOPAL:** 7509975361
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Desalination Plant

News Excerpt

Recently, Maharashtra announced the setting up of a desalination plant in Mumbai, making it the fourth state in the country to experiment with the idea as one possible answer to stave off water crisis.

Pre-Connect

- Desalination has largely been limited to affluent countries in the Middle East and has recently started making inroads in parts of the United States and Australia.

- In India, Tamil Nadu has been the pioneer in using this technology, setting up two desalination plants near Chennai in 2010 and then 2013. The two plants supply 100 million litres a day (MLD) each to Chennai. Two more plants are expected to be set up in Chennai.

> **PEPPER IT WITH**
> NITI Aayog's Composite Water Management Index 2018, Jal Jeevan mission, Rainwater harvesting

- The other states that have proposed these plants are Gujarat, which has announced to set up a 100 MLD RO plant at the Jodiya coast in Jamnagar district. There are also proposals to set up desalination plants in Dwarka, Kutch, Dahej, Somnath, Bhavnagar and Pipavav, which are all coastal areas in Gujarat. Andhra Pradesh, too, has plans of setting up a plant.
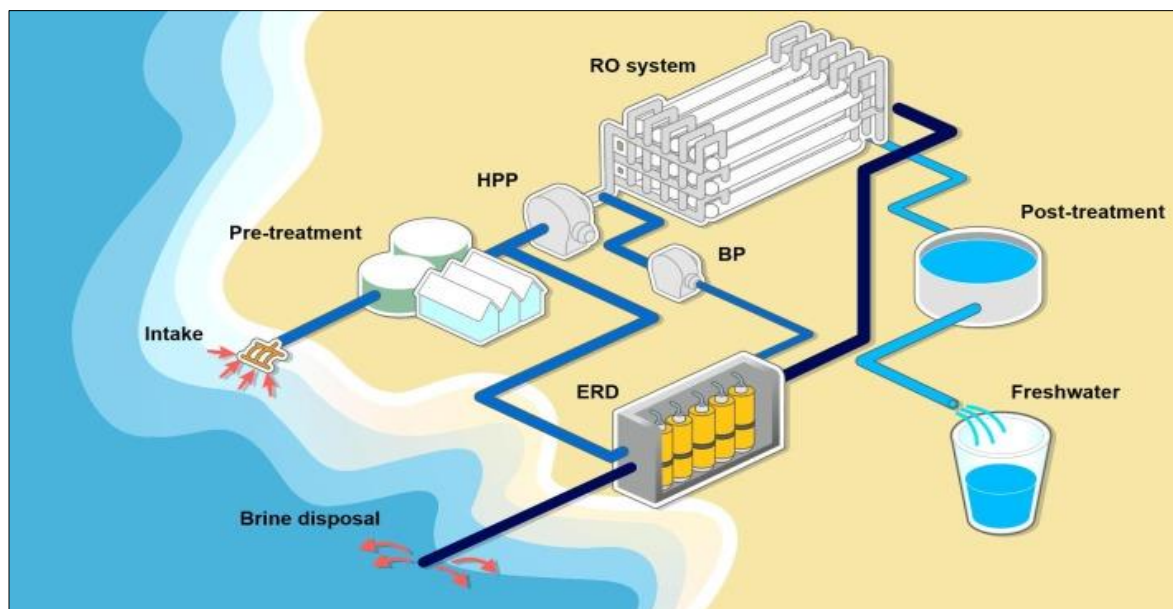
Analytica

About desalination plants

- A desalination plant turns salt water into water that is fit to drink.
- The most commonly used technology used for the process is reverse osmosis where an external pressure is applied to push solvents from an area of high-solute concentration to an area of low-solute concentration through a membrane. The microscopic pores in the membranes allow water molecules through but leave salt and most other impurities behind, releasing clean water from the other side.
- These plants are mostly set up in areas that have access to sea water.

Challenges associated with desalination plant

- Desalination technology is an expensive way of generating drinking water as it requires a high amount of energy.

- Ecological problem associated with the disposal of the by-product; a highly concentrated brine of the desalination process is a major concern. In many places brine is pumped back into the sea, there have been rising complaints that it ends up severely damaging the local ecology around the plant.
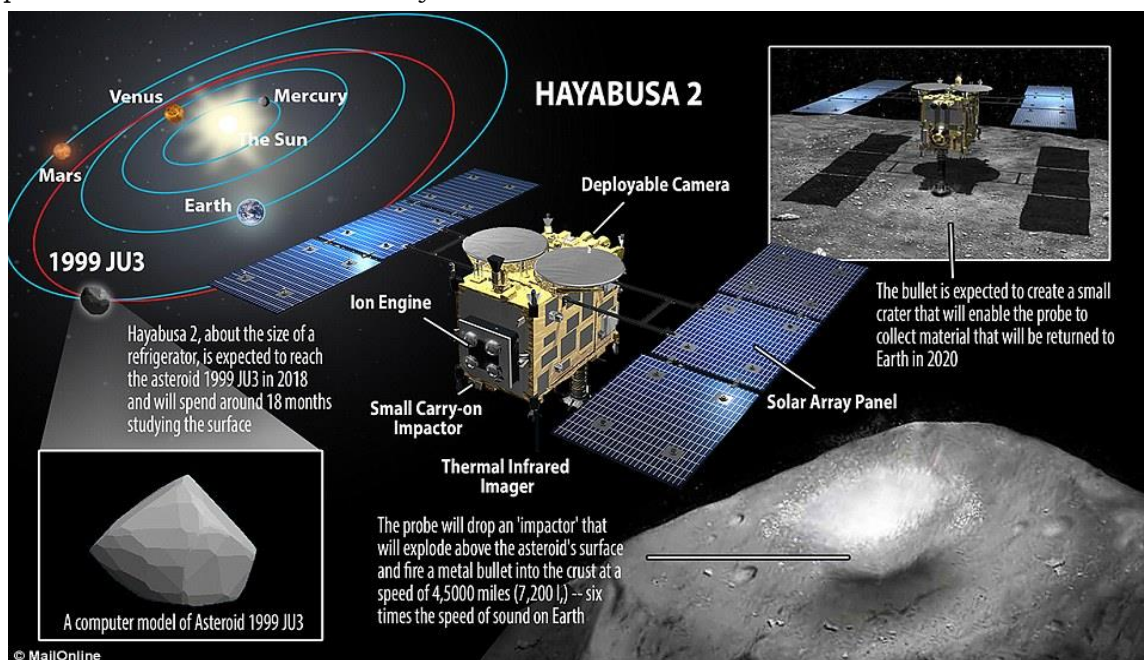
Japan's Hayabusa 2

News Excerpt

Six years after Japan's Hayabusa2 mission was launched, it is set to return to Earth, carrying with it samples from the one-kilometre wide Ryugu asteroid that orbits the Sun.

About Hayabusa2 mission

- Hayabusa2 is an asteroid sample-return mission operated by the Japanese state space agency JAXA. It is a successor to the Hayabusa mission, which returned asteroid samples for the first time this year. Hayabusa2 was launched in 2014 and rendezvoused in space with near-Earth asteroid 162173 Ryugu in June 2018. It surveyed the asteroid for a year and a half and took samples.

- Hayabusa2 carries multiple science payloads for remote sensing, sampling, and four small rovers to investigate the asteroid surface and analyze the environmental and geological context of the samples collected.

- The Japan's Hayabusa2 mission is similar to NASA's OSIRIS-REX mission that brought back samples from asteroid Bennu.

- According to the Japanese Aerospace Exploration Agency (JAXA), this is the first time that a probe has visited a celestial body that is under 100 metres in diameter.

Fast Radio Bursts

News Excerpt

After more than a decade of detective work, astronomers have found the best evidence yet for what's causing fast radio bursts, or FRBs.

Pre-Connect

- NASA has reported that it has observed a mix of X-ray and radio signals that was never observed before in the Milky Way. Significantly, the flare-up it observed included the first fast radio burst (FRB) seen within the galaxy.

- Three papers reporting the detection of the phenomenon called FRB were published in the journal Nature in November.

- The X-ray portion of the simultaneous bursts was detected by several satellites, including NASA's Wind mission, and the radio component was discovered by the Canadian Hydrogen Intensity Mapping Experiment (CHIME), a radio telescope.

- Further, a NASA-funded project called Survey for Transient Astronomical Radio Emission 2 (STARE2) also detected the radio burst seen by CHIME.

> **Magnetar**
> ❖ As per NASA, a magnetar is a neutron star, "the crushed, city-size remains of a star many times more massive than our Sun." The magnetic field of such a star is very powerful, which can be over 10 trillion times stronger than a refrigerator magnet and up to a thousand times stronger than a typical neutron star.
> ❖ Magnetars are a subclass of these neutrons and occasionally release flares with more energy in a fraction of a second than the Sun is capable of emitting in tens of thousands of years. In the case of SGR 1935, for instance, the X-ray portion of the simultaneous bursts it released in April carried as much energy as the Sun produces in a month.
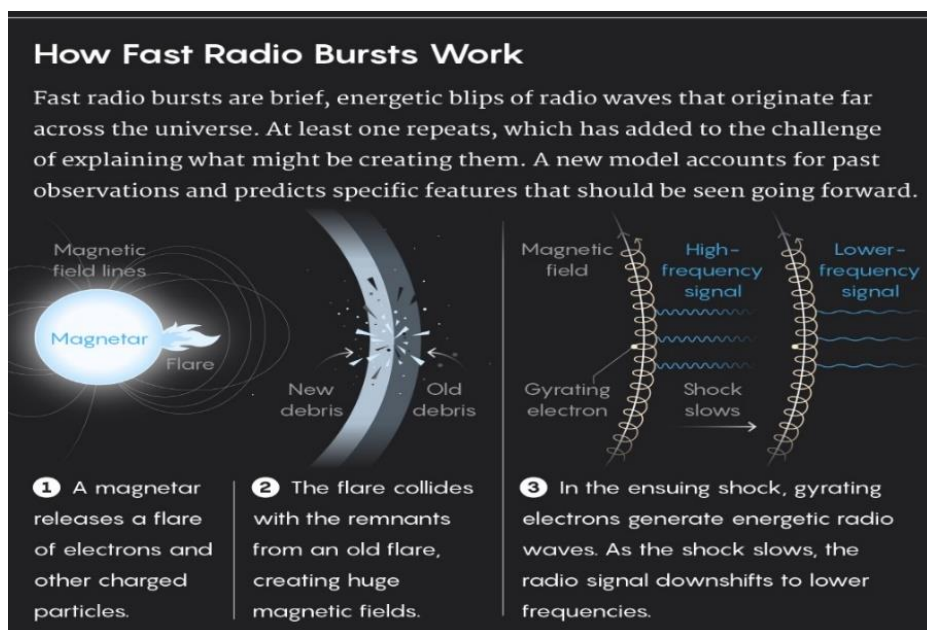
Analytica

About Fast radio Bursts (FRB)

➢ FRBs are bright bursts of radio waves (radio waves can be produced by astronomical objects with changing magnetic fields) whose durations lie in the millisecond-scale, because of which it is difficult to detect them and determine their position in the sky.

➢ The first FRB was discovered in 2007, since when scientists have been working towards finding the source of their origin.

The origin of the recent FRB detected

✓ The source of the FRB detected in April in the Milky Way is a very powerful magnetic neutron star, referred to as a magnetar, called SGR 1935+2154 or SGR 1935, which is located in the constellation Vulpecula and is estimated to be between 14,000-41,000 light-years away.

How Fast Radio Bursts Work

Fast radio bursts are brief, energetic blips of radio waves that originate far across the universe. At least one repeats, which has added to the challenge of explaining what might be creating them. A new model accounts for past observations and predicts specific features that should be seen going forward.

❶ A magnetar releases a flare of electrons and other charged particles.

❷ The flare collides with the remnants from an old flare, creating huge magnetic fields.

❸ In the ensuing shock, gyrating electrons generate energetic radio waves. As the shock slows, the radio signal downshifts to lower frequencies.

✓ The FRB was part of one of the magnetar's most prolific flare-ups, with the X-ray bursts lasting less than a second.

Significance of the recent FRB observation

Until now, there were various theories that tried to explain what the possible sources of an FRB could be. One of the sources proposed by the theories has been magnetars. But before this year, scientists did not have any evidence to show that FRBs could be blasted out of a magnetar. Therefore, the observation is especially significant.

EOS-01

News Excerpt

India successfully launched its latest earth observation satellite EOS-01 and nine international customer spacecraft on board a Polar rocket, in its first mission this year amid the COVID-19 pandemic.

About EOS-01

- **New nomenclature**: EOS-01 is nothing but another Radar Imaging Satellite (RISAT) that will work together with RISAT-2B and RISAT-2BR1 launched last year. With EOS-01, ISRO is moving to a new naming system for its earth observation satellites which till now have been named thematically, according to the purpose they are meant for. For example, some INSAT-series, Resourcesat series, GISAT, Scatsat, and some more are all earth observation satellites, named differently for the specific jobs they are assigned to do, or the different instruments that they use to do their jobs.

- **Use of a New Rocket:** For the launch of EOS-01, ISRO used a new variant of its PSLV rocket that has been flown only once before. This variant of PSLV does not become waste after depositing its satellite in the orbit. Instead, the last stage of the rocket, the one that remains after the satellite is separated, can acquire its own orbit and be used as an orbital platform for other onboard instruments to perform experiments in space. In effect, the fourth stage acts like another satellite, with a life span of about six months.

- **Primary property and application**: Use of Radar Imaging: EOS-01, like its cousins RISAT-2B and RISAT-2BR1, uses synthetic aperture radars to produce high-resolution images of the land. One big advantage that radar imaging has over optical instruments is that it is unaffected by weather, cloud or fog, or the lack of sunlight. It can produce high-quality images in all conditions and at all times.

SECURITY

ADMM-Plus

News Excerpt

Recently, India's Defense Minister virtually attended the 14th ASEAN Defence Ministers' Meeting Plus (ADMM-Plus). In the meeting he flagged threats to the rules-based order as one of the main challenges that need to be addressed, and called for avoiding actions that may further complicate the situation. Chinese defense minister was also present at the meeting.

Pre-Connect

- The ADMM-Plus is a platform for ASEAN and its eight Dialogue Partners Australia, China, India, Japan, New Zealand, Republic of Korea, Russia and the United States (collectively referred to as the "Plus Countries"), to strengthen security and defense cooperation for peace, stability, and development in the region.

- The Inaugural ADMM-Plus was convened in Ha Noi, Viet Nam in October 2010.

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Significance of ADMM-Plus

➢ Threats to the rules-based order, maritime security, cyber-related crimes and terrorism etc. remain the challenges that need to be addressed as a forum.

➢ Amid the current regional environment with visible strains, ASEAN led forums can play central role, including ADMM-Plus in promoting dialogue and engagement towards a pluralistic, cooperative security order in Asia.

➢ The challenges are becoming increasingly trans-boundary in character and thus, forging closer military-to-military interactions and cooperation amongst the ADMM-Plus countries has become a necessity.

➢ The conduct of field training exercises and table-top exercises amongst the ADMM-Plus countries can prove as important tools in order to understand each other, cooperate to enhance security and maintain peace in the region.

PEPPER IT WITH
ASEAN, RCEP, ASEAN Regional Forum, East Asia Summit

➢ Such forums can also boost collaborative and collective efforts that are needed in the current situation because of Covid-19 pandemic.

BRICS Counter Terrorism Strategy

News Excerpt

For the first time, the bloc of five emerging economies have approved a counter-terrorism strategy aimed at strengthening linkages on combatting terrorism and sharing of timely information.The document was released after the leaders of Russia, India, Brazil, China and South Africa held their 12th annual summit recently through a video conference.

Pre-Connect

- BRICS is the group composed by the five major emerging countries - Brazil, Russia, India, China and South Africa -, which together represent about 42% of the population, 23% of GDP, 30% of the territory and 18% of the global trade.
- The acronym BRIC was coined by Goldman Sachs in 2001 to indicate the emerging powers that would be, alongside the United States, the five largest economies of the world in the 21st century.
- In 2006, BRIC countries started their dialogue, which since 2009 takes place at annual meetings of heads of state and government. In 2011, with South Africa joining the group, the BRICS reached its final composition, incorporating a country from the African continent.
- Throughout its first decade, BRICS has developed sectorial cooperation in different areas, such as science and technology, trade promotion, energy, health, education, innovation and fight against transnational crime. Currently, sectorial cooperation, which covers more than 30 subject areas, brings important concrete benefits to the populations of the five countries.
- At the Fortaleza Summit (2014), in Brazil, important institutions were created: The New Development Bank (NDB) and the Contingent Reserve Arrangement (CRA). The CRA is operational and is an important financial stability mechanism for countries affected by crises in their balance of payments.

Highlights

➢ The virtual BRICS Summit was chaired by Russian President Vladimir Putin.
➢ The theme of this year's summit - 'BRICS Partnership for Global Stability, Shared Security and Innovative Growth'
➢ With the summit held against the backdrop of the COVID-19 pandemic, the joint statement recognised the role of "extensive immunization" and called for availability of "quality, efficacious, effective, accessible and affordable" vaccines.In his address Indian PM mentioned that India and South Africa have proposed an exemption from the Intellectual Property agreements relating to the COVID-19 vaccine, treatment and investigation.
➢ PM mentioned that terrorism is the biggest menace the world is facing today. The countries that support and help terrorists should also be held to account, and this problem must be dealt in a united manner. The BRICS Counter Terrorism Strategy will help in addressing this menace.

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BRICS Counter Terrorism Strategy

→ The BRICS countries have elaborated this Counter-Terrorism Strategy with the aim of strengthening the security of the BRICS countries.
→ The objective of BRICS counter-terrorism cooperation is to complement and strengthen the existing bilateral and multilateral ties among the BRICS countries, and to make a meaningful contribution to the global efforts of preventing and combating the threat of terrorism.

The BRICS countries' counter-terrorism cooperation is based on the following principles:

→ Full respect for the sovereignty of the participating countries and noninterference in their internal affairs;
   ✓ Commitment to the principles of international law and recognition of the central and coordinating role of the United Nations on the issues of peace and security;
   ✓ Recognition of the role of regional organizations in countering the threat of terrorism;
   ✓ Need for all States to refrain from organizing, instigating, facilitating, participating in, financing, encouraging or tolerating terrorist activities and to take appropriate practical measures to ensure that their territories are not used for terrorist bases or

preparation or organization of terrorist acts intended to be committed against other States or their citizens;

✓ Due consideration of national interests and priorities;

✓ Openness, information sharing, and consensus-based decision-making;

✓ Recognition of the decisive role of States and their competent authorities in combating terrorism and extremism conducive to terrorism with due account for national experience and countries' specificities;

✓ Inadmissibility of using terrorist groups, or issues pertaining to countering international terrorism and extremism conducive to terrorism, for political ends;

✓ Adoption of a comprehensive approach to combating terrorism;

✓ Rejection of double standards on countering terrorism and extremism conducive to terrorism;

✓ Addressing of the conditions conducive to the spread of terrorism and attach full importance to countering the extremism conducive to terrorism.

> PEPPER IT WITH
> NDB, CRA, Comprehensive Convention on International terrorism (CCIT)

Conclusion

Menace of terrorism can not be dealt with by an individual country in isolation. It needs collaborative and cooperative efforts. And thus, 'Global Counter Terrorism Strategy' can act as milestone in dealing with the issue. Sincere implementation holds the key.

SITMEX-20

News Excerpt

A trilateral naval exercise involving India, Singapore and Thailand recently took place in the Andaman Sea. The two-day long exercise, SITMEX-2020, was scheduled in a "non-contact, at sea only format", in wake of the COVID-19 restrictions.

Pre-Connect

- Indian Prime Minister, during his keynote address at Shangri-La Dialogue in June 2018, announced the conduct of a trilateral naval exercise between India, Singapore, and Thailand.

- The maiden edition of the exercise was conducted off Andaman and Nicobar Islands in September 2019 with the harbour phase conducted at Port Blair and a sea phase in the Andaman Sea spanning over five days.

Highlights

➢ The SITMEX series of exercises are conducted to enhance mutual inter-operability and imbibing best practices between IN, Republic of Singapore Navy (RSN) and Royal Thai Navy (RTN).

➢ The 2020 edition of the exercise was hosted by RSN.

➢ The Indian Navy is represented by two indigenous warships -- an ASW corvette, INS Kamorta, and a guided Missile corvette, INS Karmuk. The force would also include the ships' integral air assets.

➢ The primary aim of the exercise was to further consolidate interoperability between the three navies and also enhance understanding, sharing best practices and procedures for multi-faceted maritime operations.

➢ This edition of the exercise involved a war-at-sea exercise, naval manoeuvres, weapon firing on the surface and aerial targets, seamanship evolutions, and coordinated navigation operations.

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✓ The exercise despite the challenging times posed by the pandemic is a direct testimony to India's long-standing friendship with Singapore and Thailand with special emphasis on strong military cooperation in the Maritime domain.

KSG

✓ The exercise was envisaged to see greater cooperation in the coming years with the participation of advanced platforms in complex exercises spanning over the entire spectrum of warfare at sea.

✓ On conclusion of SITMEX, participating ships from RSN will exercise with the Indian Navy as part of SIMBEX 20, in the Bay of Bengal.

PEPPER IT WITH
Malabar Exercise, SIMBEX, MILAN, ADMM+ exercise

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ART & CULTURE

LachitBorphukan

News Excerpt

Recently, birth anniversary of 17th century general of Assam's erstwhile Ahom Kingdom LachitBorphukan was celebrated. Also, National Award-winning filmmaker JahnuBarua recently announced that he will direct a Hindi film on the legendary Ahom General LachitBorphukan.

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Who was LachitBorphukan?

• Originally named as Lachit Deca, LachitBorphukan, the fierce and indefatigable Ahom Commander, was born during the early 17th century at Betioni in the Golaghat district of modern Assam.

• His father, MomaiTamuliBorbarua was the 'Governor' of the kingdom and also 'Commander-in-Chief' of Ahom army under King Pratap Singha during his reign starting from 1603 to 1639.

• Lachit received military training from an early age and joined the Ahom King Jayadhvaj Singha (1648-1663) as a scarf-bearer. The post 'scarf-bearer' or 'SoladharaBarua' is considered as a part of the incumbent king's personal staff.

• In the subsequent time, owing to his military training, Lachit was appointed as 'GhoraBarua' or 'Superintendent of Royal Horses'. Later he was promoted to the post of Commander of the Simulgarh Fort situated at the south bank of Brahmaputra.

• When Chakradhwaj Singha became the king of Ahom dynasty during 1663 to 1669, he appointed Lachit as the Superintendent of the Royal Guards.

• Finally, Lachit was appointed as 'Borphukan' by King Chakradhwaj Singha. Then onwards, Lachit Deka was known as LachitBorphukan.

• The position of Borphukan, which is one of the top five councillors in the Ahom kingdom, was instituted by King Prataap Singha (1603-1641). Borphukan is a position embedded with both executive and judicial powers with its headquarters at Kaliabor in Assam. Lachit shifted the headquarters to Itakhuli in Guwahati.

Battle of Saraighat

➢ In August 1667, Chakradhvaj Singha appointed LachitBorphukan as the Commander-in-Chief of Ahom kingdom. Immediately, Lachit started operation against the invading Mughal army to reclaim Guwahati.

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- By November 1667, Lachit, with his military prowess, evicted the last vestiges of Mughal presence from the frontier of Assam. Mughal Emperor Aurangzeb Alamgir was enraged after the humiliating defeat and in January 1668 sent a strong contingent of Mughal army under Raja Ram Singh Kachwaha of Amber to defeat LachitBorphukan and his army.

- Raja Ram Singh Kachwaha was supported by a massive 71,000 Mughal troops. On the other hand, LachitBorphukan was fighting the battle with a few thousand soldiers.

- The battle of Saraighat, which was occurred in 1671, was the culmination of many small fights in between the two rival armies. The Mughal troops started fighting under Raja Ram Singh since February 1669.

- Lachit led the fight from the front and inflicted crushing defeat to the Mughals at every front. Lachit outmanoeuvred the army of Raja Ram Singh at every war, which led to the stalemate of the battle.

- Aurangzeb asked his general to initiate diplomacy and sign a friendly treaty for the time being. But Lachit's trusted lieutenant AtanBurhagohain, who later became the Commander-in-Chief opposed such a deal stating that the treaty would be an example of typical Mughal treachery.

- The final battle of Saraighat started in 1671. On the day of Saraighat battle, Lachit was terribly unwell. However, despite being ill, he displayed tremendous valour, extraordinary bravery and exemplary leadership. Such an action by an ailing yet forceful Lachit motivated his troops. They fought the battle with fierce zeal and intense courage. The Mughal army suffered comprehensive defeat in the hands of Lachit's army.

- In April 1672, a year after the decisive battle of Saraighat, Lachit died at his Kaliabor headquarters.

- Owing to his unparallel heroism, Lachit has been a hero and an inspiration for generations of Assamese. People of all hues in Assam invoke Lachit's name to fight back and win from the verge of defeat. LachitBorphukan is an example of bravery, courage and statesmanship.

Kevadia Tourism Circuit

News Excerpt

Recently, Prime Minister inaugurated 17 tourism projects around the Statue of Unity (SoU), now called the 'Kevadia Tourism Circuit', on his two-day visit to Gujarat, the first since the pandemic struck.

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Pre-Connect

- Nestled between the Satpura and Vindhyachal mountain ranges in Kevadia of Narmada district, the 182-metre-high statue dedicated to Sardar Vallabhbhai Patel, built at a cost of Rs 3,000 crore, is said to be the tallest in the world.

- Since the SoU was inaugurated in October 2018, the state government has worked to bring Kevadia on the world map of tourism with a cluster of theme-based projects.

- The government projects the SoU to have an economic impact of Rs 9,000 crore by 2022, which will translate into the socio-economic uplift of the region up to a radius of about 100 km around the statue.

Analytica

Kevadia Tourism Circuit

- Kevadia, a village in the tribal Narmada district, is home to the Sardar Sarovar Dam reservoir on the Narmada river, and was a popular picnic spot even before the SoU came up.

- The circuit covers 35 tourist spots, out of which the Valley of Flowers, Vishwa Van, Jungle Safari, Cactus Garden, Butterfly Garden, Ekta Nursery, Tent City, Khalvani Eco-tourism, Zarwani Eco-tourism, NaukaVihar and River Rafting, located around the periphery of the statue and the Narmada Dam, are already open.

- In 2019, the Gujarat Assembly passed a Bill to establish the Statue of Unity Area Development and Tourism Governance Authority (SoUTA) that will have powers ranging from acquiring land for any development project in the area, which is predominantly tribal, to taking punitive action against those violating it or encroaching on it.

- What is billed as India's first commercial sea plane service will connect the SoU to the Sabarmati riverfront in Ahmedabad. A ropeway is also coming up across the Narmada dam, connecting the two banks of the Narmada river.
- About 116 houses in 22 villages around the SoU have been identified to make 252 rooms available for tourists wishing to enjoy an experience of a homestay in a tribal village. The spare rooms in homes of families have been renovated for the purpose, which aims to generate income for the host families.

Major Attractions in Kevadia

Sardar Patel Zoological Park and Jungle Safari-The park is spread over an area of 375 acres at seven levels ranging in altitude from 29 metres to 180 metres. In all, the safari will have 1,100 birds and animals, and will be the only safari of its kind in the country with such a wide range of exotic animals.

Children's Nutrition Park- The park is billed as the "world's first technology driven Nutrition Park". It will offer a "nutri-train" ride on a 600-m track around the 35,000 sq m park.

The Mirror Maze- It has a 5D virtual reality (VR) theatre and augmented reality (AR) games to enhance nutritional awareness through entertainment.

Carnival look and Riverfront cycling tour

Sardar Vallabhbhai Patel

News Excerpt

Recently, death anniversary of Sardar Vallabhbhai Patel was celebrated.

Analytica

- Sardar Vallabhbhai Patel accepted Mahatma Gandhi's leadership, having been tremendously impressed by the fearless lead that Mahatma Gandhi gave to right public wrongs. In 1917 he was elected for the first time as the Sanitation Commissioner of Ahmedabad.
- From 1924 to 1928 he was Chairman of the Municipal Committee. The years of his association with the Municipal administration were marked by much meaningful work for the improvement of civic life.
- There were also calamities like plague in 1917 and famine in 1918, and on both occasions Vallabhbhai did important work to relieve distress. In 1917 he was elected Secretary of the Gujarat Sabha, a political body which was of great assistance to Gandhiji in his campaigns.
- The association with Mahatma Gandhi became closer during the Kheda Satyagraha in 1918, which was launched to secure exemption from payment of the land revenue assessment since the crops had failed. It took three months of intense campaigning that was marked by arrests, seizures of goods, chattels, livestock and much official brutality before relief was secured from an unwilling Colonial Government.
- During Khilafat Movement, Vallabhbhai left his practice for good and gave himself up wholly to political and constructive work, touring villages, addressing meetings, organizing picketing of foreign cloth shops and liquor shops.
- **The Bardoli Satyagraha-** It was against the Government's decision to increase the assessment of land revenue from Bardoli taluka by 22 per cent and in some villages by as much as 50 to 60 per cent. Having failed to secure redress by other means, the agriculturists of the taluka decided at a Conference on February 12, 1928, to withhold payment of land revenue under the leadership of Vallabhbhai Patel. The Government had to ultimately bow before popular resolve and an inquiry was instituted to find out to what extent the increase was justified and the realization of the increased revenue was postponed. It was a triumph not only of the 80,000 peasants of Bardoli but more particularly of Vallabhbhai personally; he was given the title of "Sardar" by the nation.
- The boycott of the Simon Commission was followed by the launching of the famous Salt Satyagraha by Gandhiji. Vallabhbhai Patel, though he had not committed any breach of the Salt Law, was the first of the national leaders to be arrested.

- In March 1931 Vallabhbhai presided over the 46th session of the Indian National Congress which was called upon to ratify the Gandhi-Irwin Pact, which had just then been concluded.
- When India attained Independence, he became the Deputy Prime Minister and was responsible for the Home, States and the Information and Broadcasting portfolios.
- It was in this capacity that he was called upon to tackle the most intricate and baffling problem of the States' integration into the Union of India. And it is here that his tact, his powers of persuasion and his statesmanship came into full play. The integration of the States could certainly be termed as the crowning achievement of Vallabhbhai Patel's life.
- He sorted out the problems of partition, restored law and order and dealt with the rehabilitation of thousands of refugees with great courage and foresight.
- He re-organised our Services which had become depleted with the departure of the British and formed a new Indian Administrative Service, to provide a stable administrative base to our new democracy.

Miyas of Assam and their Char-Chapori culture

News Excerpt

Recently, a proposed "Miya museum" reflecting the "culture and heritage of the people living in char-chaporis" has stirred up a controversy in Assam.

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Analytica

- The 'Miya' community comprises descendants of Muslim migrants from East Bengal (now Bangladesh) to Assam. They came to be referred to as 'Miyas', often in a derogatory manner.
- The community migrated in several waves — starting with the British annexation of Assam in 1826, and continuing into Partition and the 1971 Bangladesh Liberation War — and have resulted in changes in demographic composition of the region.
- Years of discontent among the indigenous people led to the six-year-long (1979-85) anti-foreigner Assam Agitation to weed out the "illegal immigrant", who was perceived as trying to take over jobs, language and culture of the indigenous population.
- A char is a floating island while chaporis are low-lying flood-prone riverbanks. They are used interchangeably or with a hyphen. They keep changing shapes — a char can become a chapori, or vice versa, depending on the push and pull of the Brahmaputra.
- While Bengali-origin Muslims primarily occupy these islands, other communities such as Misings, Deoris, Kocharis, Nepalis also live here. In popular imagination, however, chars have become synonymous to the Bengali-speaking Muslims of dubious nationality.
- The community's cultural motifs and heritage are related to agriculture and the river. The community has a variety of songs (bhatiali related to the river, magangeet or harvest songs, noikhelorgeet or boat songs etc), instruments and equipment to catch fish, as well as different kinds of boats.
- They have an ancient performative martial art called the Lathibari. While the norm is to traditionally wear colourful clothes, their version has a white vest and dhoti, an Assamese gamosa on heads and waists.
- While identifying themselves as Assamese, the 'Miya' community feels that like other ethnic groups, they too should celebrate their own culture and heritage within the larger Assamese fold.

Socio Economic Status of the Miya Community

➢ The website of the Directorate of Char Areas Development puts the population of chars at 24.90 lakh as per a socio-economic survey in 2002-03.
➢ Prone to floods and erosion, these areas are marked by low development indices. According to Government data, 80% of the Char population lives below poverty line.
➢ A UNDP Assam Human Development report from 2014 describes the char areas as suffering from "communication deficits, lack of adequate schooling facilities beyond primary, girl child marriage, poverty and illiteracy".

Miscellaneous

Maharashtra-Karnataka Border Dispute

Origin of the dispute

- The erstwhile Bombay Presidency, a multilingual province, included the present-day Karnataka districts of Vijayapura, Belagavi, Dharwad and Uttara-Kannada.
- In 1948, the Belgaum municipality requested that the district, having a predominantly Marathi-speaking population, be incorporated into the proposed Maharashtra state.
- However, the States Reorganisation Act of 1956, which divided states on linguistic and administrative lines, made Belgaum and 10 talukas of Bombay State a part of the then Mysore State (which was renamed Karnataka in 1973).

The Mahajan Commission Report

- While demarcating borders, the Reorganisation of States Commission sought to include talukas with a Kannada-speaking population of more than 50 per cent in Mysore. Opponents of the region's inclusion in Mysore argued, and continue to argue, that Marathi-speakers outnumbered Kannadigas who lived there in 1956.
- In September 1957, the Bombay government echoed their demand and lodged a protest with the Centre, leading to the formation of the Mahajan Commission under former Chief Justice Mehr Chand Mahajan in October 1966.
- The Commission, which submitted its report in August 1967, recommended that 264 villages be transferred to Maharashtra (which formed in 1960) and that Belgaum and 247 villages remain with Karnataka.
- Maharashtra rejected the report, calling it biased and illogical, and demanded another review. Karnataka welcomed the report, and has ever since continued to press for implementation, although this has not been formally done by the Centre.

Present Status

- Maharashtra continues to claim over 814 villages along the border, as well as Belgaum city, which are currently part of Karnataka. Successive governments in Maharashtra have demanded their inclusion within the state– a claim that Karnataka contests.
- In 2004, the Maharashtra government moved the Supreme Court for a settlement of the border dispute under Article 131(b) of the Constitution, demanding 814 villages from Karnataka on the basis of the theory of village being the unit of calculation, contiguity and enumerating linguistic population in each village.
- The case is pending in the apex court.

Five Eyes

Recently, the U.S., U.K., Australia, Canada and New Zealand (Five eyes), in a joint statement, said that the new Hong Kong policy was a concerted campaign to silence all critical voices.

Five Eyes Alliance

- In 1946, an alliance was formed between five anglophone countries and their security agencies: the US (NSA), the UK (GCHQ), Australia (ASD), Canada (CSEC) and New Zealand (GCSB) comprising of a series of bilateral agreements on surveillance and intelligence-sharing.
- Though these arrangements are commonly referred to as the United Kingdom-United States Communication Intelligence Act (UKUSA) agreement, the documents underpinning the Five Eyes alliance are numerous, intricate, and secret.
- Pursuant to these arrangements, each of the Five Eyes states conducts interception, collection, acquisition, analysis and decryption activities, sharing all intelligence information obtained with the others by default. Intelligence-sharing agreements have now expanded beyond the Five Eyes to include other states:

9 Eyes: the Five Eyes, with the addition of Denmark, France, the Netherlands and Norway;
14 Eyes: the 9 Eyes, with the addition of Germany, Belgium, Italy, Spain and Sweden;
41 Eyes: all of the above, with the addition of the allied coalition in Afghanistan; Tier B countries with which the Five Eyes have "focused cooperation" on computer network exploitation, including Austria, Belgium, Czech Republic, Denmark, Germany, Greece, Hungry, Iceland, Italy, Japan, Luxembourg, Netherland, Norway, Poland, Portugal, South Korea, Spain, Sweden, Switzerland and Turkey;

Mount Ili

Mount Ili Lewotolok situated in Lembata island in eastern Indonesia erupted recently. A column of ash as high as 4,000 meters (13,120 feet) was sent into the sky and it prompted the evacuation of thousands of people. Mount Ili Lewotolok has been erupting on and off since October 2017. There are more than 120 active volcanoes in Indonesia prone to seismic upheaval due to its location on the Pacific "Ring of Fire," an arc of volcanoes and fault lines around the Pacific Ocean.

India Mobile Congress

India Mobile Congress is the largest digital technology forum in South Asia. Organised by the Department of Telecommunications (DoT) and Cellular Operator Association of India (COAI), India Mobile Congress 2020 is scheduled for 8 December through 10 December 2020 & will be held virtually.IMC has established itself as a leading platform for bringing together the industry, Government, academia, and other ecosystem players, to discuss and display the latest in the technology world. Not only is India Mobile Congress the biggest technology event in South Asia, it is also the biggest networking event in India in the digital technology space. This year IMC's theme is going to be - "Inclusive Innovation - Smart I Secure I Sustainable". Objectives of the IMC platform:

- Promoting Local Manufacturing
- Fostering International Regional Cooperation
- Inspiring Inclusive & Sustainable Development
- Promoting Entrepreneurship & Innovation
- Driving Foreign & Local Investments
- Pushing for Greater Number of Technology Exports
- Facilitating Supportive Regulatory & Policy Frameworks
- Encouraging R&D in the Telecom & Technology Sectors

Statue of Peace- Rajasthan

Indian Prime Minister recently unveiled the 'Statue of Peace' in Rajasthan's Pali to mark the 151st Jayanti celebrations of Jainacharya Shree Vijay Vallabh Surishwer Ji Maharaj, via video conferencing. The 151-inch tall statue has been made from Ashtadhatu- 8 metals, with Copper

being the major constituent. The saint, Shree Vijay Vallabh Surishwer Ji Maharaj, lived during 1870-1954, and worked selflessly to spread the message of Lord Mahavira. It is common knowledge that the saint also worked tirelessly for the welfare of masses, abolition of social evils, and spread of education. He also actively supported the freedom and Swadeshi movement. As per the official statement, more than 50 educational institutions of eminence, including schools, colleges, and study centres have been built with his inspiration, and are operational across several states.

Global Innovation and Technology Alliance

Recently, Union Minister of Science & Technology has underlined how Global Innovation and Technology Alliance (GITA) served as a catalyst for nurturing innovation and industrial R&D by fostering bilateral academic industry and government collaborations.Global Innovation & Technology Alliance (GITA) is a "not–for–profit" Section-8 Public Private Partnership (PPP) company promoted jointly by the Technology Development Board (TDB), Department of Science & Technology (DST), Government of India and the Confederation of Indian Industry (CII). The Prime Minister's Council on Trade & Industry had, in 2010, recommended incorporation of a Government's arm's length entity under PPP mode to professionally manage the Government's funds for providing flexibility to industry for undertaking R&D along with global partners.

The GITA platform encourages industrial investments in innovative technology solutions by

- Mapping technology gaps,
- Undertaking expert evaluation of technologies available across the globe,
- Facilitating techno–strategic collaborative partnerships appropriate for Indian economy
- Connecting industrial and institutional partners for synergistic matchmaking and
- Providing soft funding for technology development / acquisition / deployment.

Urban Mobility India conference

The 13th Urban Mobility India (UMI) Conference was organized in a virtual mode by the Ministry of Housing and Urban Affairs on 9th November 2020. The main theme of this year's event was "Emerging Trends in Urban Mobility" with focus on innovative measures taken at national and international level to address the challenges posed by Covid-19 pandemic to provide accessible and convenient transport to the people. The annual Urban Mobility India (UMI) Conference and Expo is a flagship event held under the aegis of the Ministry of Housing and Urban Affairs, Government of India. The genesis of UMI is from the National Urban Transport Policy of the Government of India, 2006 (NUTP), which lays a very strong emphasis on building capabilities at the State and city level to address the problems associated with urban transport and undertake the task of developing sustainable urban transport systems. Awards are also presented by the Ministry of Housing and Urban Affairs to best urban transport projects / initiatives selected by an Award Selection Committee in various categories.

Kerala Police Act Amendment- 118A

Kerala Governor has recently signed the Kerala Police Act Amendment ordinance, envisaged by the state government to prevent cyber-attacks against women and children which the opposition had alleged would curtail freedom of expression.

Key provisions of the amendment

- Anyone creating or sending offensive message or that which is intended to offend or threaten another person, through any means of communication, is liable to face imprisonment of five years or fine of Rs 10,000 or both.
- Police can slap criminal charges on citizens by interpreting any kind of communication through any medium as defamatory.
- It finds even "injury to the mind" a reason for slapping criminal charges not just on the petition of the victim, but also anyone "in whom they have interest" or as a suo motu act by a police official.

Why is It Controversial?

- The amendment has stretched the law to such an extent that every communication or publication has been left to the subjective interpretation of the police to slap criminal charges against anyone.
- The move comes on the heels of failed efforts by the government to control the narrative in the media, especially social media, in the wake of discussions of ongoing investigations by central agencies in the state.

Concept Clearing Assignment

1. Describe the Tigray Crisis in brief. Also, highlight its impact on the strategically important Horn of Africa region.
2. Discuss the functions required to be performed by the Finance Commission. List the major recommendations made by the 15th Finance Commission and issues related with it.
3. Describe the provisions mentioned in the Anti-Defection Law i.e. 10th Schedule of the Indian Constitution. Comment on the effectiveness of the law in avoiding the unlawful defections.
4. 'Fake News' is one of the major issues faced globally by all the governments in general. Critically analyse the steps taken by the Indian Government to tackle the menace and suggest measures to deal with the issue more effectively.
5. Critically analyse the steps taken by India to tackle the issue of Hunger and Malnutrition. To what extent the institutions of global governance have been successful in eliminating the evils of hunger and malnutrition?
6. Discuss the issue of 'Urban water scarcity' in India. What are the steps taken by India to promote the sustainable use of water? Suggest some additional measures to address the issue.
7. Critically analyse the steps taken by India to prevent the spread of Sexually Transmitted Diseases (STDs). Suggest measures to ensure complete eradication of the same.
8. Discuss the steps taken by India to achieve gender parity when it comes to equality of opportunity at workspace. Discuss to what extent you think we have been successful in achieving the Sustainable Development Goal- 5 for Gender Equality.
9. Discuss the mechanism of fixing the minimum support price (MSP). Comment on the need of reforms in Agricultural Produce Marketing Committees (APMCs) in order to make agriculture a profitable venture.
10. What are the negative yield bonds? Discuss the key factors responsible for their high demand.
11. What are the features of the Production Linked Incentive Scheme? In what way it will help Indian industries in boosting exports?
12. Describe the term 'Brown Carbon Tarballs' and what are the factors responsible for their formation. Discuss in what ways they impact the environment.

13. Discuss the changing dynamics of India-China relations. Suggest the steps to be taken by India to maintain peace and tranquillity in the bilateral relations.
14. Describe in brief, the recent developments in the supercomputing technology in India. Comment on the significance of supercomputers in the context of India.
15. Discuss the significance of the 'Battle of Saraighat' in the history of India.

P.T Oriented Questions

1. Consider the following statements with regard to the Finance Commission of India:
   1. It is a statutory body.
   2. It is constituted by the President of India every fifth year or at such earlier time as he considers necessary.

   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

2. Consider the following statements with regard to 'Anti-Defection Law':
   1. The presiding officer of the house is the deciding authority on the question of disqualification by anti-defection.
   2. Decision of the presiding officer is not subject to judicial review.
   3. The President is empowered to make rules to give effect to the provisions of the Tenth Schedule.

   Which of the statements given above is/are correct?
   (a) 1 only
   (b) 2 and 3 only
   (c) 1 and 3 only
   (d) 1 and 2 only

3. In context of compensatory jurisprudence, consider the following statements:
   1. Only Supreme Court of India is empowered to provide compensation to any victim.
   2. The National Human Rights Commission (NHRC) can recommend compensation to the victims of police brutality.

   Which of the statements given above is/are correct?
   (a) 1 only
   (b) 2 only
   (c) Both 1 and 2
   (d) Neither 1 nor 2

4. Which of the following statements best describes "bulk drug"?
   (a) These are drugs procured in quantities above a certain threshold weight.
   (b) These are drugs approved by the WHO which are used to fight global pandemics.
   (c) It is the key ingredient of a drug or medicine, which lends it the desired therapeutic effect.
   (d) None of the above

5. Consider the following statements with regard to extradition of a person:

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1. Requests for extradition on behalf of the Republic of India can only be made by the Ministry of Home Affairs.
2. The Indian Extradition Act, 1962 provides for the process of extradition with non-Treaty foreign States.

Which of the statements given above is/are correct?
(a) 1 only
(b) 2 only
(c) Both 1 and 2
(d) Neither 1 nor 2

6. Consider the following statements:
1. It got the status of a Project Tiger Reserve in 1981.
2. Recently it witnessed a remarkable turnaround in tiger population.
3. It is a UNESCO Biosphere Reserve.
4. Vultures of this reserve are to be radio-tagged.

The statements given above are referring to which of the following Tiger reserve?
(a) Kanha Tiger reserve
(b) Panna Tiger reserve
(c) Ranthambore Tiger reserve
(d) Nameri Tiger reserve

7. Consider the following statements with regard to the 'Blue tides':
1. Only bacteria show bioluminescence.
2. It produces light through chemical reactions in proteins.

Which of the statements given above is/are correct?
(a) 1 only
(b) 2 only
(c) Both 1 and 2
(d) Neither 1 nor 2

8. In context of 'Tarballs', consider the following statements:
1. Burning biomass or fossil fuels releases light-absorbing brown carbon tarballs.
2. Tarballs can be seen in both aquatic and glacial regions.

Which of the statements given above is/are correct?
(a) 1 only
(b) 2 only
(c) Both 1 and 2
(d) Neither 1 nor 2

9. Which of the following conditions can lead to North-east monsoon deficiency?
1. Abnormal cooling of surface waters
2. Position of the Inter Tropical Convergence Zone (ITCZ).
3. Westerly winds associated with a passing western disturbance.

Select the correct answer using the code given below:
(a) 1 only
(b) 3 only
(c) 1 and 2 only
(d) 2 and 3 only

10. Consider the following statements:
1. India's renewable energy capacity has increased by more than twice in the past decade.
2. RE-INVEST is an international forum for investment promotion in renewable energy.
3. PM-KUSUM is a scheme for solarisation of agriculture launched by the Ministry of Agriculture.

Which of the statements given above is/are correct?
(a) 1 and 2 only
(b) 2 and 3 only
(c) 1 and 3 only
(d) 1, 2 and 3

11. Consider the following statements with regard to Asiatic Lion:
1. It is endemic to Gir landscape of Gujarat.
2. It is listed in Schedule-I of Wildlife (Protection) Act, 1972.
3. It is registered in CITES' Appendix I and its IUCN Red List status is Endangered.

Which of the statements given above is/are correct?
(a) 1 and 2 only
(b) 2 and 3 only
(c) 1 and 3 only
(d) 1, 2 and 3

12. In context of the 'deemed forest', consider the following statements:
1. It covers all statutorily recognised forests, whether designated as reserved, protected or otherwise for the purpose of the Forest Conservation Act.
2. The concept of deemed forest is defined in the Forest Conservation Act of 1980.

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Which of the statements given above is/are correct?
(a) 1 only
(b) 2 only
(c) Both 1 and 2
(d) Neither 1 nor 2

13. Consider the following pairs in context of the space missions:

1.	Sentinel-6 Satellite	Designed to monitor oceans
2.	Chang's- 5 probe	First probe to land on and explore the far side of the moon.
3.	Hayabusa- 2	Brought back samples from asteroid Bennu

Which of the pair given above is/are correct?
(a) 1 only
(b) 3 only
(c) 1 and 2 only
(d) 2 and 3 only

14. Consider the following statements:
1. Planets that lie outside of the Solar System and orbit around stars other than the Sun are called exoplanets.
2. Ariel Space Mission is the first mission dedicated to measuring the chemical composition and thermal structures of hundreds of transiting exoplanets.
3. Exoplanets are not easy to detect and it is difficult to see them directly using telescopes.
Which of the statements given above is/are correct?
(a) 1 and 2 only
(b) 2 and 3 only
(c) 1 and 3 only
(d) 1, 2 and 3

15. The Chaparehaemorrhagic fever (CHHF) which is recently in news is caused by the same arenavirus family of?
(a) SARS virus
(b) Ebola Virus
(c) Nipah Virus
(d) ZIka virus

16. Consider the following statements regarding the Pneumonia and Diarrhoea Progress Report:
1. According this report, between 2018 to 2019 India's coverage of rotavirus vaccine decreased.
2. Worldwide, Pneumonia is the single largest infectious cause of death in children under the age of five years.
Which of the statements given above is/are correct?
(a) 1 only
(b) 2 only
(c) Both 1 and 2
(d) Neither 1 nor 2

17. Recently, first All India Time use Survey has been conducted by the National Statistical Office (NSO). Consider the following statements in this regard:
1. Time Use Survey (TUS) provides a framework for measuring time dispositions by the population on different activities.
2. According to the Survey the percentage of females in Employment and related activities is more in urban areas than rural areas.
3. A relatively higher percentage of men in most of North-Eastern States participated in household chores.
Which of the statements given above is/are correct?
(a) 1 only
(b) 1 and 2 only
(c) 1 and 3 only
(d) 1, 2 and 3

18. Consider the following statements regarding the Negative Yield Bonds:
1. Negative yield bonds attract investments during times of stress and uncertainty as investors look to protect their capital.
2. The demand of these bonds increases when there is a lack of liquidity in the market.
Which of the statements given above is/are correct?
(a) 1 only
(b) 2 only
(c) Both 1 and 2
(d) Neither 1 nor 2

19. Recently, RBI changed the definition of Personal Loans. Which of the following are included in the new definition of Personal loan?
    1. Consumer credit
    2. Education loan
    3. Loans given for creation of immovable assets
    4. Loans given for investment in financial assets
    Select the correct answer using the code given below:
    (a) 1, 2 and 3 only
    (b) 2 and 3 only
    (c) 2, 3 and 4 only
    (d) 1, 2, 3 and 4

20. Recently, which of the following messaging services have been allowed by The National Payment Corporation of India (NPCI) to go live on Unified Payment Interface (UPI) in the multi-bank model?
    (a) Facebook Messenger
    (b) Instagram
    (c) Snapchat
    (d) WhatsApp

21. Consider the following statements regarding the Asia Pacific Economic Cooperation (APEC):
    1. Indian labour could be a big beneficiary of India joining the APEC.
    2. It provides India a constructive forum to get insight from other Asian countries.
    3. It has no treaty obligations.
    Which of the statements given above is/are correct?
    (a) 1 only
    (b) 1 and 2 only
    (c) 1 and 3 only
    (d) 1, 2 and 3

22. With reference to the Commission for Agriculture Costs and Prices (CACP), Consider the following statements:
    1. For the calculation of production cost, CACP itself do field-based cost estimates.
    2. CACP takes into account the supply and demand situation for the commodity while recommending the MSP.
    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. Which of the following statement is/are correct regarding the Horn of Africa?
    1. It is situated in an excellent strategic location south-west of the Red Sea and the Gulf of Aden.
    2. Ethiopia, Eritrea, Somalia and Djibouti are among the countries included in "Horn of Africa".
    Which of the statements given above is/are correct?
    (a) 1 only
    (b) 2 only
    (c) Both 1 and 2
    (d) Neither 1 nor 2

24. Consider the following statements regarding the Regional Comprehensive Economic Partnership (RCEP):
    1. If India joins RCEP then agriculture and dairy sector in India can grow even faster.
    2. RCEP lacked clear assurance over market access issues in countries such as China and non-tariff barriers on Indian companies.
    Which of the statements given above is/are correct?
    (a) 1 only
    (b) 2 only
    (c) Both 1 and 2
    (d) Neither 1 nor 2

25. Which of the following sectors are included in Production Linked Incentive (PLI) scheme recently launched by the Government?
    1. Automobiles
    2. Pharmaceutical drugs
    3. Gems and Jeweler
    4. Textile products
    Select the correct answer using the code given below:
    (a) 1, 2 and 3 only
    (b) 1, 2 and 4 only
    (c) 2, 3 and 4 only
    (d) 1, 2, 3 and 4

26. With reference to 'Global Climate Change Alliance', which of the following statements is/are correct? [UPSC 2017]
    1. It is an initiative of the European Union.
    2. It provides technical and financial support to targeted developing countries to integrate climate

change into their development policies and budgets.

3. It is coordinated by World Resources Institute (WRI) and World Business Council for Sustainable Development (WBCSD).

Select the correct answer using the code given below:
(a) 1 and 2 only
(b) 3 only
(c) 2 and 3 only
(d) 1, 2 and 3

27. With reference to an initiative called "The Economics of Ecosystems and Biodiversity (TEEB)", which of the following statements is/are correct?(UPSC2016)
1. It is an initiative hosted by UNEP,IMF and World Economic Forum.
2. It is a global initiative that focuses on drawing attention to the economic benefits of biodiversity.
3. It presents an approach that can help decision-makers recognize, demonstrate and capture the value of ecosystems and biodiversity.

Select the correct answer using the codes given below:
(a) 1 and 2 only
(b) 3 only
(c) 2 and 3 only
(d) 1, 2 and 3

28. Consider the following countries: (UPSC 2018)

1. Australia
2. Canada
3. China
4. India
5. Japan
6. USA

Which of the above are among the free trade partners of ASEAN?
(a) 1, 2, 4 and 5
(b) 3, 4, 5 and 6
(c) 1, 3, 4 and 5
(d) 2, 3, 4 and 6

29. In India, extended producer responsibility was introduced as an important feature in which of the following? (UPSC 2019)
(a) The Bio -medical Waste (Management and Handling) Rules,1998
(b) The Recycled Plastic (Manufacturing and Usage) Rules,1999
(c) The e -Waste (Management and Handling) Rules, 2011
(d) The Food Safety and Standard Regulations, 2011

30. With reference to Asian Infrastructure Investment Bank (AIIB), consider the following statements: (UPSC 2019)
1. AIIB has more than 80 member nations.
2. India is the largest shareholder in AIIB.
3. AIIB does not have any members from outside Asia.

Which of the statements given above is/are correct?
(a) 1 only
(b) 2 and 3 only
(c) 1 and 3 only
(d) 1, 2 and 3

ANSWER KEY

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