

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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KSG

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GS – I	Culture-Art Forms, Literature and Architecture from ancient to modern times.	Indian history significant events, personalities, issues and the Freedom	Post independence issues, National boundary and disputes	Indian society features, issues, globalization and diversity	Women - issues and developments	Urbanization – problems and remedies	Distribution of industries and resources – India and world	Geophysical phenomena such as earthquakes, Tsunami, Volcanic activity, cyclone etc			
GS – II	Indian constitution – Amendments, acts and bills.	Legislative, executive and judicial processes.	Constitutional, non-constitutional, judicial, quasi-judicial, administrative and other types of bodies.	Federal structure and local bodies. Their powers and functions.	Government policies and various governance issues like transparency, accountability and – governance	Committees and schemes.	Non-government issues, self-help groups and role of civil society	Vulnerable sections of our society and social sector issues and initiatives.	International Relation-India and other countries, various Indian and international agreements, effects of other countries on India and international institutions.		
GS – III	Various measures to boost Indian economy- planning, policies, management.	Government budgeting and issues related to budget.	Agriculture, animal husbandry and transport	Food security- measures to boost food security and food processing. Issues related to land- land reforms	Industries and infrastructure- their growth and investment model	Space and technology, IT space, robotics and computer	Disease, biotechnology and human welfare	Innovations, intellectual property, Awards, POI and other import ant aspects of S&T	Environment; government initiatives, various judgment, pollution, degradation and conservation efforts	Disaster & Disaster Management	Challenges to internal security, Various Security forces and agencies and their mandate. Cybersecurity; moneylaundering and its prevention
GS – IV	Ethical issues related to family society, education, Corruption etc.	Ethics in public and private administration	Issues	Related laws and rules	Governance/ Governance	Ethics in international issues	Person alities and their teachings	Other important topics			
Mis.											

POLITY

Women Right Issues: Section 498A

News Excerpt

Recently, Supreme Court has said that it becomes pertinent to mention that incorporation of Section 498A of IPC was aimed at preventing cruelty committed upon a woman by her husband and her in-laws by facilitating rapid state intervention.

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Pre-connect

- Section 498A was introduced in the year 1983 to protect a married woman from being subjected to cruelty. It claims to provide protection to women against dowry-related harassment and cruelty. On the other hand, it became an easy tool for women to misuse it and wreak revenge from their NRI husbands or to file a false case. Section 498A is one of the most controversial sections of the IPC.
- Section 498A of the Indian Penal Code (IPC) deals with the violence done on women after her marriage by her husband or her in-laws or any relative of the husband. It prescribes punishment for 3 years and a fine. It gave a new definition to cruelty. Cruelty can be defined as –
- If the act done is of such a nature that the woman is enticed to commit suicide or cause an injury to herself, which may prove fatal. This was added in the case of *Shobha Rani v. Medhukar Reddy*. It was held in the case that evidence is required to prove cruelty.
- If the act done is to harass women or any other person related to her to meet unlawful demands.

What Supreme Court Says?

- A bench of Justices S Abdul Nazeer and Krishna Murari said this while quashing an FIR against the in-laws of a woman who had accused them and her husband of cruelty and harassment for dowry.
- The judgment said that “upon a perusal of the contents of the FIR, it is revealed that general allegations are levelled” against the appellants. The complainant had alleged that the accused harassed her mentally and threatened her of terminating her pregnancy.
- Also, it becomes pertinent to mention that incorporation of Section 498A of IPC was aimed at preventing cruelty committed upon a woman by her husband and her in-laws by facilitating rapid state intervention.
- However, it is equally true, that in recent times, matrimonial litigation in the country has also increased significantly and there is a greater disaffection and friction surrounding the institution of marriage, now, more than ever.
- Decisions clearly demonstrate that this court has at numerous instances expressed concern over the misuse of Section 498A IPC and the increased tendency of implicating relatives of the husband in matrimonial disputes, without analysing the long-term ramifications of a trial on the complainant as well as the accused.

Analytica

Need for Section 498A

- ✓ 9 out of 10 cases are always related to dowry. So, there is dire need for these laws to prevent women from the cruelty.
- ✓ Women are continuously forced, tortured, threatened or abused for demand for something or the other. The Section 498A of the IPC helps the woman to approach the court of law and punish the wrongdoer.

- ✓ In many cases, the woman is also subject to mental cruelty. There is no law which can help the woman to ease the mental pain caused to her. Acts like these help women in every possible way.
- ✓ No matter if the laws are misused, they cannot be removed from the Indian Penal Code. As the laws can always be amended. There will be certain loopholes but always a provision can be added to rectify the problems.
- ✓ The Indian Constitution is using the section 498A to protect married women from cruelty at the matrimonial home.
- ✓ The section was added to IPC to protect women from any domestic violence. Though there is wide misuse by the women. This section is the most fiercely debated section of the IPC. The IPC crimes against women have increased over the years.
- ✓ Most numbers of cases are reported from Delhi, India. A major number of crimes are committed against women every year.

Section	Offence	Punishment	Cognizable or Non-Cognizable	Bailable or Non-Bailable	By what court triable
498A	Punishment for subjecting a married woman to cruelty	Fine and imprisonment for 3 years	Cognizable if the information relating to the commission of the offence is given to the officer.	Non bailable	Magistrate of the first class

Abuse of the process of the Law

- Supreme Court calls the Section 498A as 'Legal Terrorism'. The misuse or abuse of the law is mostly done by urban and educated women. Also, in most of the cases, the husband and two of his relatives are prosecuted.
- Women use it as a weapon than to shield themselves.
- There have been a number of cases when the male is not of India and he comes to India to marry the lady. Due to extortion and fear of jail, he is made to do acts which he otherwise would not have done. He is under the fear of Section 498A.
- Police visit the office premises of men and his reputation is harmed. Police can also pick up the relatives if the complaint is harmed. Also, it does not require any proof before arrest. Even no investigation is required. So, if there is a small dispute woman can use the section to seek revenge.
- Gifts are sometimes misunderstood as dowry. So, this can again pose a problem.

Grey areas under the Law

- ✚ Judiciary acts as an 'agents of wives'. There are cases in which wives side brutally hit husband and husband's relatives. The attacks are fatal in nature. But there are no laws on this. The wife has got a free licence to hit the husband and have an easy escape. Also, the judiciary accepts this behaviour as normal.
- ✚ Judges do not dismiss the case if the wife does not attend the case proceedings. Even if she does not attend the proceedings for years, the case continues to go on. Also, judges take

months and sometimes years to decide upon one bail petition. This makes the men neither free of charge nor lets him live a happy life.

- ✚ The Section 498A is non-bailable and a cognizable offence. The judiciary should change it to a bailable and non-cognizable offence. Bails should be granted to the husband so that if the case is filed on false grounds, there is a course of action left.

Conclusion

- > Section 498A can prove to be a weapon as well as a shield to a woman. It is necessary for the government to ensure that no false cases are filed and prove it to be a balanced act – both for husband and wife.
- > Women's emancipation is the need of the hour and every measure should be taken to stop harassment and dowry deaths.
- > Therefore, the section is much needed for the society though with certain amendments.

PEPPER IT WITH
National Commission for
Women, Gender Justice

Parliamentary Panel on Police reforms

News Excerpt

Recently, the Parliamentary standing committee on Home Affairs has asked the Centre to advise states and Union Territories to create a road map for ensuring 33% representation of women in police while expressing anguish over their underrepresentation.

Pre-connect

Various Committees/Commissions in the past have made a number of important recommendations regarding police reforms. Notable amongst these are those made by the National Police Commission (1978-82); the Padmanabhaiah Committee on restructuring of Police (2000); and the Malimath Committee on reforms in Criminal Justice System (2002-03). Yet another Committee, headed by Shri Ribeiro, was constituted in 1998, on the directions of the Supreme Court of India, to review action taken by the Central Government/State Governments/UT Administrations in this regard, and to suggest ways and means for implementing the pending recommendations of the above Commission.

What Parliamentary Standing Committee said in its report?

- The panel said the appointment of women in police may be done by creating additional posts rather than converting the vacant posts of men.
- It added ensuring higher women representation will also help in improving the police-population ratio.
- The report asked the Centre to advise the states and union territories to assign important challenging duties to women instead of those of inconsequence. It recommended at least one all-women police station in each district.
- The report cited the stress and pressure on police personnel and recommended offline and online modules to help them de-stress through yoga, exercises, counselling and treatment.
- It called for the separation of investigation from law and order to maintain accountability and increase police autonomy in probing crimes.
- The panel said it will lead to specialisation and professionalism, speed up the investigation and secure the convictions.
- The panel backed virtual trials, particularly those involving high-risk groups, via video conferencing. "It will help in dedicating less police force for escorting under-trial prisoners to courts and also save resources.
- The committee expressed disappointment over the poor housing satisfaction levels among police personnel and recommended an allocation of funds for housing.

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- The committee strongly believes that the policing system should be transparent, independent, accountable and people-friendly.
- The Committee opines that community policing involves a cooperative effort between police and the communities where both can work together to solve the crime and crime-related problems.

Analytica

Problem Faced by Police System of India

- The police forces, therefore, face problems and obstacles while carrying out their functions on a day-to-day basis. Some of the major problems faced by the Indian police system are discussed in the below-mentioned sections.
- **Overburdened force and vacancies:** There are several vacancies in state police forces and some central armed police units at the moment. The overall sanctioned strength of state police forces in India was 22,80,691 as of January 2016, with 24% vacancies (that is, 5,49,025 vacancies). A high percentage of vacancies in police departments exacerbates an already-existing problem of overworked officers.
- Given India's low police strength per lakh population in comparison to international standards, each police officer is also responsible for a huge group of people. India's sanctioned strength is 181 police per lakh people, compared to the UN's suggested standard of 222 police per lakh people.
- **Infrastructure:** Modern policing necessitates effective communication, cutting-edge or modern weapons, and a high level of mobility. On numerous of these fronts, the CAG (Comptroller and Auditor General of India) and the BPRD (Bureau of Police Research and Development) have found flaws. The weapons used by lower police forces are obsolete and cannot match modern weaponry used by anti-social elements.
- **Relationship between police and the public:** The police-public relations relationship, which is crucial to effective

Constitutional Limitations of the Central Government

- ❖ "Police" being a State subject in the seventh schedule to the Constitution of India, it is primarily the State Governments who have to implement the various police reforms measures. The Centre has been making consistent efforts to persuade the States from time to time to bring the requisite reforms in the Police administration to meet the expectations of the people.
- ❖ In this regard, the recommendations of the various Committees/Commissions were sent to the State Governments/UT Administrations for taking necessary action. Successive Union Home Ministers have been addressing the Chief Ministers/Administrators of States/UTs in this regard.

What is an FIR?

- ❖ The term first information report (FIR) is not defined in the Indian Penal Code (IPC), Code of Criminal Procedure (CrPC), 1973, or in any other law, but in police regulations or rules, information recorded under Section 154 of CrPC is known as First Information Report (FIR).
- ❖ Section 154 ("Information in cognizable cases") says that "every information relating to the commission of a cognizable offence, if given orally to an officer in charge of a police station, shall be reduced to writing by him or under his direction, and be read over to the informant; and every such information, whether given in writing or reduced to writing as aforesaid, shall be signed by the person giving it, and the substance thereof shall be entered in a book to be kept by such officer in such form as the State Government may prescribe".

policing, is troubled by a severe lack of confidence. To avoid crime and disturbance, police need the community's trust, collaboration, and assistance.

- Most people believe police to be abusive and also believe that police personnel misuse their power in order to bring order to society. This leads to an automatic problem of less coordination due to which the police find it improbable to perform their functions.
- **Police accountability:** Both the central and state police forces are under the supervision and control of political executives, according to the police statutes. Police priorities are constantly changed at the request of political leaders.

The Solution

- ✓ **Outsourcing and redistributing functions:** Some non-core police duties (such as traffic control, disaster rescue and relief, and the issuance of court summonses) could be outsourced or redistributed to government departments or private entities as a measure to relieve the strain on police forces. Other agencies may undertake these responsibilities because they do not necessitate any unique policing skills. This will also allow police departments to devote more time and resources to their primary policing responsibilities.
- ✓ **Community policing model:** Community policing entails cooperation between the police and the community in the prevention and detection of crime, the maintenance of public order, and the resolution of local issues, all to improve the quality of life and create a sense of security.
- ✓ **Specialised investigating units:** To ensure better functioning of the police when it comes to investigating, the Law Commission suggests the setting up of separate and specialised investigating units within the police force which are solely responsible for the investigation of crimes.

Conclusion

- ✚ The current state of affairs in the country places a great deal of responsibility on state police administrations. The established system is clearly unprepared to handle the pressures of the circumstance.
- ✚ The police system in a democracy like India plays a very important role in enforcing the laws in the country. Therefore, such an important limb of the Government needs to be concentrated on more and several reforms must be made in order to make sure the smooth functioning of the system.
- ✚ The solution depends on innovative thinking within state police administrations and on the part of police leadership to meet the challenge of the new political and administrative ideologies of democracy, socialism, secularism, and nationalism, as enshrined in the Constitution of India amendments.

PEPPER IT WITH
National Human Rights
Commission, Different
Committees of the
Parliament

Inter-Operable Criminal Justice System

News Excerpt

Recently, Centre has approved the implementation of Phase II of the Inter-Operable Criminal Justice System (ICJS) project by the Ministry of Home Affairs at a total cost of Rs 3,375 crore during the period from 2022-23 to 2025-26.

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Pre-connect

- ICJS is a national platform for enabling integration of the main IT system used for delivery of Criminal Justice in the country. It seeks to integrate the five pillars of the system viz Police (through Crime and Criminal Tracking and Network Systems), e-Forensics for Forensic Labs, e-Courts for Courts, e-Prosecution for Public Prosecutors and e-Prisons for Prisons.

- According to MHA, in Phase-I of the project, individual IT systems have been implemented and stabilized even as search of records have been enabled on these systems.

What is ICJS?

- The Inter-operable Criminal Justice System (ICJS) is an initiative of the e-Committee to enable seamless transfer of data and information among different pillars of the criminal justice system, like courts, police, jails and forensic science laboratories, from one platform.
- With the aid of the ICJS platform, the metadata of FIR and charge sheet can be accessed by all the High Courts and subordinate courts. Documents like FIR, case diary and charge sheet are uploaded by police in PDF format for utilization by the courts.
- The e-Committee is also actively working on, inter alia, the issues of standardization of data and metadata for information exchange, to lay down processes for data validation, acknowledgement, user identification/access, creation of technical infrastructure for storage and preservation of electronic records.
- To ensure effective implementation of ICJS in each State, High Courts have been requested to engage the services of an IPS officer, who will be instrumental for the integration of data on the ICJS platform.
- High Courts are also requested to appoint one Nodal Officer to ensure that apart from the police, other State functionaries like Provident Fund Organisation, Forest Department, Municipal Authorities, Labour Welfare Boards Town Planning Authorities and Food and Drug Administration are also part of ICJS.
- The ICJS platform is an effective tool for the case and court management, as all the relevant information of a case will be available in real-time for use by the courts. Compliance of judicial orders and summons can also be achieved expeditiously, ensuring effective time management. The ICJS is going to be a milestone to enhance the productivity of the criminal justice system both qualitatively and quantitatively.

National Crime Record Bureau

NCRB was set-up in 1986 to function as a repository of information on crime and criminals so as to assist the investigators in linking crime to the perpetrators based on the recommendations of the Tandon Committee, National Police Commission (1977-1981) and the MHA's Task force (1985).

National Information Centre

National Informatics Centre (NIC) under the Ministry of Electronics and Information Technology (MeitY) is the technology partner of the Government of India. NIC was established in the year 1976 with the objective to provide technology-driven solutions to Central and State Governments.

NIC Mandate

- Technology partner of the Government
- Design and Develop IT Systems for the Government
- Provide ICT Infrastructure to the Government
- Explore & Advise on use of Emerging Technologies

Phase-II of ICJS

- ✓ Under Phase-II, the system is being built on the principle of 'one data one entry' whereby data is entered only once in one pillar and the same is then available in all other pillars without the need to re-enter the data in each pillar.
- ✓ The ICJS system would be made available through a dedicated and secure cloud-based infrastructure with high-speed connectivity.
- ✓ National Crime Records Bureau (NCRB) will be responsible for the implementation of the project in association with National Informatics Centre (NIC). The project will be implemented in collaboration with the States and Union Territories.

PEPPPER IT WITH

Malimath Committee, Crime and Criminal Tracking Network and System, E- Courts Project

National Commission for women

News Excerpt

Recently, Prime Minister said that “In order the address the evolving needs of women in the country the National Commission for Women (NCW) must broaden its ambit.

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Pre-connect

National Women Commission

The National Commission for Women was set up as statutory body in January 1992 under the National Commission for Women Act, 1990 (Act No. 20 of 1990 of Govt. of India) to:

- review the Constitutional and Legal safeguards for women;
- recommend remedial legislative measures;
- facilitate redressal of grievances and
- advise the Government on all policy matters affecting women.

Importance of the Commission

- Women as a class neither belong to a minority group nor are they regarded as a backward class. India has traditionally been a patriarchal society and therefore women have always suffered from social handicaps and disabilities.
- It thus became necessary to take certain ameliorative steps in order to improve the condition of women in the traditionally male dominated society.
- The Constitution does not contain any provision specifically made to favor women as such. Though Art. 15 (3), Art. 21 and Art. 14 are in favor of women; they are more general in nature and provide for making any special provisions for women, while they are not in themselves such provisions.
- The Supreme Court through interpretive processes has tried to extend some safeguards to women. Through judgments in cases such as *Bodhisattwa Gautam v. Subra Chakraborty* (AIR 1996 SC 922), and the *Chairman Rly Board v. Chandrima Das* (AIR 2000 SC 988). case, where rape was declared a heinous crime, as well as the landmark judgment in *Visakha v. State of Rajasthan*, (AIR 1997 SC 3011). the courts have tried to improve the social conditions of Indian women. But these have hardly sufficed to improve the position of women in India.
- Thus, in light of these conditions, the Committee on the Status of Woman (India) as well as a number of NGOs, social workers and experts, who were consulted by the Government in 1990, recommended the establishment of an apex body for woman.

The functions of the National Commission for women are as follows:

- **Presentation of reports:** Table reports should be submitted to the Central Government every year. When the commission feels it's appropriate. The reports upon the functioning and working of the safeguards.
- **Investigation and Examination:** There should be proper investigation and examination made under the Constitution and other laws. This is related to the protection of the rights of women.
- **Review:** Constantly all laws are reviewed and scrutinised. And necessary amendments and alterations are made to meet the needs of the current world. This is to meet any break, incapacity or any inadequacies in the legislation.
- **Cases of Violation:** Ensure there is no violation against women and taking due care of such cases.
- **Suo Motu Notice:** It takes care of complaints and also suo motu matters about the deprivation of rights of women. Implementation of laws favouring the welfare of women.

- **Evaluation:** Assessing the development and the progress of the women community under the Center and State level.
- **Recommendation:** To suggest the wellbeing of women and their rights.
- **Special studies and investigation:** To understand the limitations in the system and curb it with strategic plans and mechanisms.
- **Research:** To make research and study to understand the needs of women, healthcare and such related components. This is to make a proper support system to help the women in need.
- **Participation in all spheres particularly in planning:** Take measure to facilitate economic and social development and improvement of women by recognising their rights.
- **Inspection:** Inspect the jail, remand home to ensure that the women staying here are not exploited as they are vulnerable.
- **Funding and Reporting:** Ensure there is a fund for litigation of matters relating to women rights. There should be periodical reports made under the difficulties faced by women daily.

Composition

- ✓ The commission consists of a chairperson, a member secretary and five other members. The chairperson of the NCW is nominated by the Central Government. The Central Government also nominates the member secretary.
- ✓ The member secretary should be an expert in the field of management. He or she is an officer or organisation who is a member. The five members nominated by the Central Government should be individuals with ability, standing and integrity.
- ✓ They should have experience in law, legislation, management, women voluntary organisation, economic social development and so on.

PEPPER IT WITH
Parliamentary Forums,
Election Commission,
Finance Commission

Conclusion

- The Commission must be granted the facility of choosing its members. The members should be chosen with no prejudice and will have a good knowledge of the law and understand society and human behaviour.
- There is a need for an increase of awareness and enlightenment especially required among uneducated women mainly in the rural areas that such a commission exists to address their rights. There should be a good network of individuals employed to reach out and help women who are vulnerable and prone to exploitation.
- The National Commission for women works efficiently in India because there is not full proof it still needs improvement. The framework is done by the implementation is questionable. Only through joint efforts all and creating awareness can we bridge this gap.

State laws on Gaming and Gambling

News Excerpt

Recently, High Court delivered a judgment striking down major portions of the Karnataka Police (Amendment) Act, 2021, a new law that was introduced by the State government to ban online gambling and skill-based gaming platforms like rummy, poker and fantasy sports that involved any wagering or risking of money on an uncertain event.

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Pre-connect

- The Karnataka Legislative Assembly has passed the Karnataka Police (Amendment) Bill, 2021 to amend Karnataka Police Act, 1963, banning all forms of gambling in the state, including online gambling.
- Key features of the Bill are:

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

- The bill seeks to make gambling a cognizable and non-bailable offence and “include the use of cyberspace including computer resources or any communication device as defined in the Information Technology Act, 2000 in the process of gaming to curb the menace of gaming through the internet, mobile apps”.
- The bill stipulates that “games mean and includes online games, involving all forms of wagering or betting, including in the form of tokens valued in terms of the money paid before or after the issue of it, or electronic means and virtual currency, electronic transfer of funds in connection with any game of chance.”
- The bill provides for a fine of Rs 10,000 and imprisonment of six months for first time offenders. For a second offence, violators would receive a jail term of one year and a fine of Rs 15,000.

Apart from Karnataka, a similar law introduced by the Tamil Nadu government was struck down by the Madras High Court in August 2021. In September 2021, the Kerala High Court had also quashed a notification issued by the State government specifically banning the game of online rummy when played for stakes.

What is online gaming in India?

- There are three types of online gaming. The first is e-sports. These are video games which, in the 1990s, were played privately or on consoles in video game shops but are now played online in an organised way between professional players, individually or as teams. The second is fantasy sports.
- These are games in which you choose a team of real sports players from different teams and win points according to how well the players perform in real life.
- Finally, there are online casual games which could be skill-based — where the outcome is predominantly influenced by mental or physical skill — or based on chance, where the result is strongly determined by some randomised activity, such as rolling a dice. A game of chance may be considered as gambling if players wager money or anything of monetary value.

Why are state resorting to banning online gaming?

- ✓ Many social activists, government officials and those in law enforcement believe that online games like rummy and poker are addictive in nature; and when played with monetary stakes leads to depression, mounting debts and suicides.
- ✓ Reportedly, there have been a few instances where youngsters, faced with mounting debts due to losses in online games have committed other crimes like theft and murder.
- ✓ Some experts also believe that online games are susceptible to manipulation by the websites operating such games and that there is a possibility that users are not playing such games against other players, but against automatic machines or ‘bots’, wherein there is no fair opportunity for an ordinary user to win the game.

On what grounds did the Karnataka High Court strike down the online gaming law?

- The Karnataka High Court struck down the amendments to the Karnataka Police Act on three major grounds: violation of fundamental rights of trade and commerce, liberty and privacy, speech and expression; the law being manifestly arbitrary and irrational insofar as it did not distinguish between two different categories of games, i.e. games of skill and chance; and lastly lack of legislative competence of State legislatures to enact laws on online skill-based games.
- The court held that games where substantial effort, knowledge and skill is required are different from games of mere luck or chance. Relying upon previous judgments of the Supreme Court which had held rummy, fantasy sports and betting on horse-racing to be games of skill, the High Court ruled that online games involving skill, regardless of whether money is staked on them or not enjoy protection of right to trade and commerce, unlike gambling or betting.

- The court also held that the State government provided no evidence or data on whether a sweeping ban was justified and neither constituted a committee of experts to study the issue.
- The court also held that playing online games could help in building the character of an individual and enjoying online gaming could also fall within the contours of freedom of expression and right to liberty and privacy guaranteed under the constitution.
- The judgment also noted that State governments have been granted powers under the constitution to make laws for 'gambling and betting' but interpreted the word 'betting' for this purpose to mean betting on gambling games, i.e. betting on games of chance and not games of skill.

Why online gaming in India needs regulation?

- ✚ The average time spent on online gaming has gone up almost 65 per cent from pre-Covid levels. More than 43 crore people have spent time on virtual gaming.

- ✚ From this definitional issue flows the legality of online gaming. Games based on skills are allowed in most parts of the country while games of chance are in the ambit of gambling, treated as immoral and prohibited in most parts of the country.

- ✚ As betting and gambling is a state subject, different states have their own legislation. Every state in India, except Goa, Sikkim, and the Union Territory of Daman explicitly prohibits any sort of gambling, betting or wagering on games of chance. Assam, Andhra Pradesh, Nagaland, Odisha, Tamil Nadu and Telangana have placed restrictions on games of skill as well.

Is regulation of online gaming a better solution?

- ❖ An outright ban may not entirely curtail the playing of such online games, with or without stakes. Telangana, which was the first State to ban online games for stakes in 2017 has seen a spurt of illegal or underground online gambling apps, most of which originate from China or other foreign countries, and except payments from players through dummy companies or hawala channels. Both the Enforcement Directorate (ED) and local cybercrime authorities have tried to crack down on such apps but with limited success.
- ❖ Shifting of users to grey or illegal offshore online gaming apps not only results in loss of tax revenue for the State and job opportunities for locals, but results in users being unable to avail remedies for any unfair behaviour or refusal to pay out winnings.
- ❖ Experts believe that instead of a complete ban, one could look at licensing and regulating the industry with various checks and balances such as diligent KYC and anti-money laundering processes, barring minors from accessing real money games, placing weekly or monthly limits on the money that can be staked or time that can be spent, counselling for addictive players and allowing self-exclusion of such players etc.

- ✚ Notwithstanding the legal position, a large number of people are developing a strong dependence on online gaming. This addiction is destroying lives and devastating families. Compulsive usage of technology was heading towards becoming an issue and the pandemic managed to catalyse the steady journey. It has caused a dramatic increase in our screen time.

- ✚ Parents across the country are struggling — without much success — to help their children set limits around technology usage and gaming. Young boys and girls are trapped in compulsive gaming, many spending as much as six to eight hours per day playing online games. This is affecting their performance in school and straining their social lives and relationships with family members.

- ✚ A well-regulated online gaming industry presents compelling advantages in terms of economic benefits too. This industry is expected to generate revenues in excess of Rs 29,000

crore in 2025 with over 65.7 crore users. It is estimated that more than 15,000 direct and indirect jobs will be created.

Conclusion

- > There is an urgent need to regulate this industry suitably. The government should ensure that KYC norms are strengthened. Each game should follow a well-established age-rating mechanism and minors should be allowed to proceed only with the consent of their parents — OTP verification on Aadhaar could potentially resolve this.
- > No in-game purchases should be allowed without adult consent and wherever possible, the in-game chat option should be disabled. Gaming companies should proactively educate users about potential risks and how to identify likely situations of cheating and abuse. They should remove the anonymity of participants and build a robust grievance handling mechanism.
- > A Gaming Authority at the central government should be created while various forms of self-regulation are encouraged for the industry. This authority could be made responsible for the online gaming industry, monitoring its operations, preventing societal issues, suitably classifying games of skill or chance, overseeing consumer protection, and combatting illegality and crime.

PEPPER IT WITH
Lodha Committee,
Chit Funds

Media accreditation guidelines

News Excerpt

Recently, Central government released the Central Media Accreditation Guidelines-2022.

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How this is different from the past?

For one, the guidelines prepared by the Ministry of Information and Broadcasting are more in the nature of proscriptions rather than prescriptions. In laying down the conditions for withdrawal of accreditation, they serve more as censorship rules rather than guidelines. Previous guidelines were more general in nature and did mention that accreditation would be withdrawn if found to be misused. In the new guidelines, there are 10 provisions under which accreditation to a journalist can be withdrawn.

What has changed?

- The new policy, prepared by the Ministry of Information and Broadcasting (I&B) and issued by the Press Information Bureau, lays down guidelines on how PIB accreditation will be granted to eligible journalists. At the moment there are 2,457 PIB-accredited journalists in the country.
- For the first time, it specifies conditions that can result in the journalist losing accreditation. If a journalist “acts in manner which is prejudicial to the sovereignty and integrity of India, the security of the state, friendly relations with foreign states, public order, decency or morality or in relation to contempt of court, defamation or incitement of an offence”, her accreditation can be cancelled.
- The previous policy, issued in 2013, had stated, under general terms of accreditation, that accreditation “shall be withdrawn as soon as the conditions on which it was given cease to exist. Accreditation is also liable to be withdrawn/suspended if it is found to have been misused”.
- The new policy has ten points that may result in the accreditation being cancelled, including if a journalist is charged with a “serious cognisable offence”.

How are they proposed to be implemented?

As per the guidelines, the Government of India shall constitute a committee called the Central Media Accreditation Committee chaired by the Principal DG, Press Information Bureau (PIB), and

comprising up to 25 members nominated by the Government to interpret the guidelines for withdrawal of accreditation.

What concerns does this raise?

- One of the core responsibilities of a journalist is to expose wrongdoing, whether by public officials, politicians, big businessmen, corporate groups, or other people in power. This could result, at times, in such powers trying to intimidate journalists or to block information from coming out.
- A common tool used by powerful people is filing of defamation cases against journalists and media platforms. Now, defamation has been made one of the provisions that can lead to cancellation of accreditation.
- Journalists often report on issues and policy decisions that the government may not like. The new policy's provision about acting "in manner which is prejudicial to the sovereignty and integrity of India, the security of the state, friendly relations with foreign states, public order, decency or morality" or "incitement of an offence" can be subjective. The policy is silent on who will decide if a journalist's conduct violates any of these conditions. Any investigative story on sensitive issues could be held to be in violation of any of these provisions.

How do journalists get accredited?

- ✓ A journalist with a minimum of five years as a full-time working journalist can apply for accreditation to the PIB, a process that is completed after a mandatory security check from the Ministry of Home Affairs. Any journalist working with a newspaper which has a daily circulation of 10,000; news agencies with at least 100 subscribers and digital news platforms with 10 lakh unique visitors can apply.
- ✓ Accreditation helps in access to government offices and to special events and functions organised by the Government of India. Some Ministries like Home and Defence and Finance allow access only to accredited journalists.

How does accreditation help?

- The policy mentions that the accreditation does not "confer any official or special status" on the journalists, but only recognises them as a "professional working journalist".

Have governments tried to put similar curbs earlier?

- ❖ Several governments have tried, but have had to usually withdraw.
- ❖ In 2018, during its first term, the NDA government introduced Fake News Guidelines, proposing that a journalist's accreditation can be suspended and even permanently cancelled, if media regulatory bodies adjudge that the journalist had propagated fake news. The order was withdrawn.
- ❖ In 2017, the Rajasthan government brought in a Bill to protect state officials from "scurrilous and non-substantiable charges". It entailed a jail term for a maximum of two years and a fine. The Bill was withdrawn.
- ❖ In 2012, during the UPA regime, Congress leader Meenakshi Natarajan wanted to introduce a Private Member's Bill in Lok Sabha, which proposed setting up a media regulatory authority with powers to ban or suspend coverage of an event or incident that "may pose a threat to national security from foreign or internal sources". Eventually Natarajan did not introduce the Bill, and her party too distanced itself from it.
- ❖ Former Prime Minister Rajiv Gandhi, whose government was rocked by corruption allegations, had proposed a defamation Bill in 1988, which would "make publication of imputations falsely alleging commission of offences by any person as an offence." The Bill, eventually withdrawn, proposed a jail term of up to five years for defamation.

- There are three advantages. One, in certain events where VVIPs or dignitaries such as the President, the Vice President or the Prime Minister are present, only accredited journalists are allowed to report from the premises. Second, accreditation ensures that a journalist is able to protect the identity of his or her sources. An accredited journalist does not have to disclose who he or she intends to meet when entering offices of union ministries, as the accreditation card is “valid for entry into buildings under MHA (Ministry of Home Affairs) security zone”.

PEPPER IT WITH

Press Council of India,
Editors Guild of India,
Salient features of the
Newspaper (Prices and

Criminalization of Politics

News Excerpt

According to data compiled by Amicus Curiae A TOTAL of 4,984 criminal cases involving legislators were pending in various courts across the country.

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Pre-connect

Legal Regime And Legislative Framework Of India

- Amicus Curiae Status in the India legal system, Supreme court has defined the term Amicus curiae under Supreme Court jurisdiction “If a petition is received from the jail or in any other criminal matter if the accused is unrepresented then an Advocate is appointed as amicus curiae by the Court to defend and argue the case of the accused. In civil matters also the Court can appoint an Advocate as amicus curiae if it thinks it necessary in case of an unrepresented party; the Court can also appoint amicus curiae in any matter of general public importance or in which the interest of the public at large is involved”, Legal status of amicus curiae is not wider as understand from above legal frame work & it does work under the limitation.
- The Hon’ble High court of Delhi also defined the term of Amicus Curiae “Translated from the Latin as ‘friend of the Court’. An advocate appears in this capacity when asked to help with the case by the Court or on volunteering services to the Court.”
- In innumerable cases in India, the courts have allowed, or, on its own motion, have asked various people to act as amicus curiae to the proceedings. There is a growing trend where practitioners have started turning towards the academia. Presently, there are academicians in India who have had practical experience in the past such as Anil Rai (former Luthra & Luthra Corporate Partner and presently visiting professor at National Law University, Delhi), and many others who have had practical exposure and possess the necessary skills to make such academic interventions. These instances indicate a healthy development which can facilitate transfer of knowledge from industry and academia and vice-versa, legal understanding. Apart from serving public interest, these amicus appearances can also gain for these academicians’ recognition and future employment or consultancy opportunities in the private sector.

More about the reports

- The report by Amicus Curiae Senior Advocate Vijay Hansaria, which is based on data provided by the various High Courts, said that “despite a series of directions by” the SC “and continuous monitoring, as many as 4,984 cases are pending out of which 1,899 cases are more than 5 years old.
- The report which was submitted to the top court by Advocate on Record Sneha Kalita pointed out that “the total number of cases pending as on December 2018 were 4,110; and as on October 2020 were 4,859”.
- Even after disposal of 2,775 cases after 04.12.2018, the cases against MPs/MLAs have increased from 4,122 to 4,984.

- This shows that more and more persons with criminal antecedents are occupying the seats in the Parliament and the State Legislative Assemblies.
- Status report filed by the High Courts also shows that Special Courts are constituted in some of the States whereas, in other states, the respective jurisdictions courts are conducting trials in terms of the directions passed from time to time.
- These jurisdictional Courts conduct the trial of the cases against MPs/MLAs along with discharging another roster allocated to them.
- In many of the states, the same learned judge is a Special Court under various statutes such as SC/ST Act, POCSO Act, etc.
- It urged the SC to direct that “Courts dealing with cases against MPs/MLAs will exclusively try these cases” and “other cases would be taken up only after trials of such cases are over”
- The bench is seized of a petition by Advocate Ashwini Kumar Upadhyay seeking fast-tracking of cases involving MPs and MLAs and ban on those convicted from fighting elections.
- Hearing it, the SC had in November 2017, ordered setting up of Special Courts in each state to try the pending criminal cases against legislators. Accordingly, 12 such courts were set up across the country.

PEPPER IT WITH

The Right to recall, The Right to Reject, The Whistle blowers Protection Act

SOCIAL ISSUES, GOVERNMENT SCHEMES, REPORTS & INDICES

Intensified Mission Indradhanush (IMI) 4.0

News Excerpt

Recently, Ministry of Health and Family Welfare virtually launches Intensified Mission Indradhanush (IMI) 4.0.

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Pre-connect

- Mission Indradhanush (MI) was launched by the Ministry of Health and Family Welfare (MOHFW) in 2014 with the aim of expanding immunization coverage to all children across India. Children across socio-economic, cultural and geographical spectrums in India, are being immunized under this program.
- The initiative's mammoth task is being fulfilled with the support of an integrated and committed task-force, ensuring full immunization coverage. Every MI activation is planned to the last detail; from planning where camps will be set up to which children need to get vaccinated and what vaccinations will be required for the camp.
- The Intensified Mission Indradhanush (IMI) has been launched by the Government of India to reach each and every child under two years of age and all those pregnant women who have been left uncovered under the routine immunization programme. The special drive focuses on improving immunization coverage in select districts and cities to ensure full immunization to more than 90% by December 2018.

About IMI 4.0

- Intensified Mission Indradhanush 4.0 will have three rounds and will be conducted in 416 districts (including 75 districts identified for Azadi ka Amrit Mahotsav) across 33 States/UTs in the country.
- In the first round (Feb-April 2022), 11 states will conduct IMI 4.0. These are Assam, Uttarakhand, Gujarat, Jammu & Kashmir, Meghalaya, Mizoram, Nagaland, Rajasthan, Sikkim, Tripura and Chhattisgarh.

Objective of Intensified Mission Indradhanush (IMI)

- ✓ The Mission Indradhanush aims to cover all those children who are either unvaccinated, or are partially vaccinated against vaccine preventable diseases. India's Universal Immunisation Programme (UIP) provide free vaccines against 12 life threatening diseases, to 26 million children annually.
- ✓ The Universal Immunization Programme provides life-saving vaccines to all children across the country free of cost to protect them against Tuberculosis, Diphtheria, Pertussis, Tetanus, Polio, Hepatitis B, Pneumonia and Meningitis due to Haemophiles Influenzae type b (Hib), Measles, Rubella, Japanese Encephalitis (JE) and Rotavirus diarrhea. (Rubella, JE and Rotavirus vaccine in select states and districts).

Universal Immunisation Programme

Immunization Programme in India was introduced in 1978 as 'Expanded Programme of Immunization' (EPI) by the Ministry of Health and Family Welfare, Government of India. In 1985, the programme was modified as 'Universal Immunization Programme' (UIP) to be implemented in phased manner to cover all districts in the country by 1989-90 with the one of largest health programme in the world. Ministry of Health and Family Welfare, Government of India provides several vaccines to infants, children and pregnant women through the Universal Immunisation Programme.

What is immunization?

Immunization is the process whereby a person is made immune or resistant to an infectious disease, typically by the administration of a vaccine. Vaccines are substances that stimulate the body's own immune system to protect the person against subsequent infection or disease.

How Mission performs till now?

- Till date, ten phases of Mission Indradhanush have been completed covering 701 districts across the country.
- During the various phases of Mission Indradhanush, a total of 3.86 crore children and 96.8 lakh pregnant women have been vaccinated.
- The first two phases of Mission Indradhanush resulted in 6.7% increase in full immunization coverage in a year.
- A survey (IMI- CES) carried out in 190 districts covered in Intensified Mission Indradhanush (5th phase of Mission Indradhanush) shows 18.5% points increase in full immunization coverage as compared to NFHS-4.

Way Forward

- ✚ Three rounds of IMI 4.0 have been planned to catch up on the gaps that might have emerged due to the COVID-19 pandemic.
- ✚ The activity will be conducted in 416 districts across 33 states/UTs. These districts have been identified based on vaccination coverage as per the latest National Family Health Survey-5 report, Health Management Information System (HMIS) data and burden of vaccine preventable diseases.
- ✚ Considering the recent upsurge of COVID-19 cases, states have been given the flexibility of carrying out the activity either from February 2022- April 2022 or from March to May 2022.

PEPPER IT WITH
National Family Health Survey, Health Management Information System

Neglected Tropical Diseases

News Excerpt

On the Neglected Tropical Diseases Day (January 30) India has made strides in its quest to beat NTDs.

Pre-Connect

- According to WHO, Neglected tropical diseases (NTDs) are a diverse group of 20 conditions that are mainly prevalent in tropical areas.
- NTDs are caused by a variety of pathogens including viruses, bacteria, parasites, fungi and toxins.
- These diseases cause devastating health, social and economic consequences to more than one billion people.
- NTDs are complex and often related to environmental conditions. Many of them are vector-borne, have animal reservoirs and are associated with complex life cycles.

Neglected Tropical Diseases (NTDs)

- NTDs are 'neglected' because they are almost absent from the global health agenda. Even today, when the focus is on Universal Health Coverage, NTDs have very limited resources and are almost ignored by global funding agencies.

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Category	Disease
Protozoan infections	1. Chagas disease 2. Human African trypanosomiasis 3. Leishmaniasis
Helminth infections	4. <i>Taenia solium</i> (neuro) cysticercosis/ Taeniosis 5. Dracunculiasis 6. Echinococcus 7. Foodborne trematodiasis 8. Lymphatic filariasis 9. Onchocerciasis 10. Schistosomiasis 11. Soil-transmitted helminthiasis (ascariasis, Hookworm diseases, trichuriasis, strongyloidiasis)
Bacterial infections	12. Buruli ulcer 13. Leprosy 14. Trachoma 15. Yaws
Viral infections	16. Dengue and chikungunya fevers 17. Rabies
Fungal Infections	18. Mycetoma, chromoblastomycosis, deep mycosis
Ectoparasitic infections	19. Scabies, Myiasis
Venom	20. Snakebite envenoming

- NTDs flourish mainly in rural areas. NTDs thrive in areas where access to clean water and sanitation is scarce and worsened by climate change.
- In addition to significant mortality and morbidity approximately 200,000 deaths and 19 million disability adjusted life years (DALYs) lost annually.
- NTDs cost developing communities a lot in terms of loss of productivity and reduced socioeconomic and educational attainment.

NTDs in India

- ✓ As per WHO, In 2020, over half of the population of India were affected by NTDs diseases like elephantiasis, blinding trachoma, intestinal worms.
- ✓ India is endemic for Blinding trachoma, Dengue and Chikungunya, Echinococcosis, Elephantiasis (lymphatic filariasis), Foodborne trematodiasis, Intestinal worms (soil-transmitted helminths), Leishmaniasis cutaneous, Leishmaniasis visceral, Leprosy, ycetoma, chromoblastomycosis and other deep mycoses, Rabies, Snakebite envenoming, Taeniasis/Cysticercosis.
- ✓ As per WHO, In 2020, just over half of the population of India were affected by NTDs (this is for 3 preventive chemotherapy (PC) diseases - elephantiasis, blinding trachoma, intestinal worms) India has the highest NTD burden in the world (for 3 PC diseases) with around 752 million people requiring preventive chemotherapy (PC) for at least one NTD in 2020.
- ✓ In 2020 India had the highest burden in the world for elephantiasis (lymphatic filariasis), with around 457 million people requiring PC. In 2020 India had the highest burden in the world for intestinal worms (soil-transmitted helminths) with around 436 million children requiring PC.

Analytica

- NTDs have the greatest relevance for SDG 3 (the health goal). Interventions against NTDs directly contribute to the achievement of the Sustainable Development Goal 3.3: “end the epidemics of neglected tropical diseases”, and are measured by SDG indicator 3.3.5: “number of people requiring interventions against neglected tropical diseases”.
- NTD activities also contribute indirectly to many others SDGs (1, 2, 4, 5, 8, 10 and 17), while progress towards some SDGs (6, 9, 11, 13) is critical to tackle NTDs.
- Although significant challenges remain to reduce the impacts of NTDs. Some of these can include consequences arising from climate change, conflict, emerging zoonotic and environmental health threats, as well as continued socio-economic inequalities that have a direct impact on access to healthcare services, adequate housing, safe water, and sanitation. Also, most recently, disruption to health services caused by the COVID-19 pandemic has added a further burden.

Way Forward

- ✚ There is dire need to ensure universal access to early diagnosis and improving surveillance and integrating passive surveillance into health-services.
- ✚ A concerted strategy is needed to assist the elimination efforts for Neglected Tropical Diseases. Defining healthsystem bottlenecks and addressing them at a country level, and engaging community support, are critical factors in some of the most successful control programs.
- ✚ Training of health workers in endemic and high-risk areas is the cornerstone to improve health workers’ skills and capacity in disease management.

PEPPER IT WITH

Vector Borne Diseases, Sickle Cell, Adaptation, Infectious diseases, Coalition for Disaster Resilient

NGOs in India

News Excerpt

Every year World NGO day is celebrated on February 27th. NGO's have significant contributions to society around the globe.

Pre-connect

Significance of World NGO Day

The aim of this initiative is to celebrate the success of the NGOs worldwide and encourage the small grassroot organisations. Also, the day strives to provide the much-needed recognition to the people associated with the noble cause.

Its significance lies in recognizing the NGO founders, employees, volunteers, members and supporters at all levels (local, national and international level).

NGO in India and their importance

- India has over three million non-governmental organisations (NGO) that work across a range of arenas and play important roles of facilitator, catalyst or partner in bringing social transformation.
- In the present scenario, when India is still combating COVID-19, non-profits have been on the ground, working tirelessly to directly supplement the government's efforts to bring relief and actively engage in vaccination drives to the most vulnerable communities.
- NGOs also look into accelerating activities like issues dealing with poverty alleviation, water, environment, women's rights and literacy.
- In the past decades, there has been significant growth in areas where NGOs have been active. They have been dynamic in almost all sectors: Health, education, livelihood in rural and urban areas to name a few.
- Another major achievement of NGOs includes influencing the Indian government to formulate various developmental laws and policies, which include Right to Information, Mahatma Gandhi National Rural Employment Guarantee Act (MNREGA), Juvenile Justice and Integrated Child Protection Scheme (ICPS). NGOs also partnered with the government to successfully implement major campaigns like Swachh Bharat Abhiyaan and Sarva Siksha Abhiyaan.
- During the pandemic, NGOs played a pivotal role and supported the government's COVID-19 response initiative full-fledged. Given their grassroots presence and solid community relations, local NGOs played a very important role in accelerating vaccination drives and encouraging communities to practice COVID-19 protocols.

Issues faces by NGO in India

Lack of Credibility:

- During the last few years, numerous organisations have mushroomed which claim to work for the cause of helping poor. Under the garb of being an NGO, these NGOs often mint money from donors.
- Any best NGO needs to showcase some serious work to establish its credibility. In order to generate the right quantities of funds to execute their projects, it is vital for NGOs to function like business entities.
- But NGOs should not become pure businesses either. This is because at the end of the day, NGOs are not-for-profit institutions. Many NGOs in India do not like to open about their finances and activities. This happens more so in the case of NGOs receiving foreign donations.

NGOs under Government's Scanner:

- With recent Government of India crackdown on Greenpeace and several other NGOs coming under the scanner of Indian government, it is important for NGOs to achieve and maintain a high degree of transparency in not just their work but also their financials.

- It is an extremely wrong notion that in order to their work, NGOs need to go against the government. The truth is that NGOs need to liaison well with government entities and be a partner wherever needed.

Get the right people on board

- There is no denying the fact that there is a massive crunch of qualified and experienced development sector professionals in India. This is one of the major issues which NGOs face in their work. The projects devised by NGOs are quite complicated at most of the times.
- They require them to go right amidst the most backward and marginalised communities, engage with them and work with them to craft solutions for their problems.

Getting people to support an NGO

- NGOs often struggle to market themselves. Owing to the challenges discussed above, it's a daunting task for the NGOs to come up with the right communication to connect with their potential donors. And it's not just about donations alone.
- NGOs also have a tough time in campaigning – that is spreading the word about their cause(s) effectively and striking a chord with the masses.

Conclusion

With every passing day, new NGOs are emerging on the scene. But only a few NGOs, are doing things right. What will keep NGOs going is their work and not the gimmicks. It is the seriousness of their intent (which will ultimately reflect in their work) which will take their credibility to new levels. It is vital for NGOs to register in the minds of their existing and potential donors that they are into doing some truly serious work for the cause they stand for.

PEPPER IT WITH

Not for Profit Organisations,
Trusts, Foreign Currency
Regulation Act (FCRA), 2010

Sustainable Cities India Programme

News Excerpt

The world Economic Forum and the National Institute of Urban Affairs (NIUA) recently signed a Memorandum of Understanding (MoU) to collaborate on a jointly designed 'Sustainable Cities India program.

The programme aims to create an enabling environment for cities to generate decarbonization solutions across the energy, transport, and the built environment sectors.

Pre-connect

- In 2021, India has promised to cut its emissions to net zero by 2070 - missing a key goal of the COP26 summit for countries to commit to reach that target by 2050.
- India is the world's fourth biggest emitter of carbon dioxide after China, the US and the EU.
- But its huge population means its emissions per capita are much lower than other major world economies. India emitted 1.9 tonnes of CO2 per head of population in 2019, compared with 15.5 tonnes for the US and 12.5 tonnes for Russia that year.
- They include a promise for India to get 50% of its energy from renewable resources by 2030, and by the same year to reduce total projected carbon emissions by one billion tonnes.

About NIUA

Established in 1976, the National Institute of Urban Affairs (NIUA) is India's leading national think tank on urban planning and development. As a hub for the generation and dissemination of cutting-edge research in the urban sector, NIUA seeks to provide innovative solutions to address the challenges of a fast-urbanizing India, and pave the way for more inclusive and sustainable cities of the future.

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- This Sustainable Cities initiative is particularly noteworthy as it comes after the Prime Minister stated India's commitment to turn net zero by 2070 as a climate mitigation response at COP26.

Need for such programme

- India is one of the most rapidly urbanizing developing nations. With the growth of urban population estimated to be 40% by 2030 from 28% in 2001, the number of million plus cities is set to rise to 68 by 2030 from the present 35.
- Economic growth is the driving force behind urbanization. But unfortunately, this growth is largely unplanned, creating a high risk of unsustainable sprawl.

About Net Zero Carbon Cities

The World Economic Forum's Net Zero Carbon Cities' mission is to create an enabling environment for clean electrification and circularity, resulting in urban decarbonization and resilience. The program aims to do this by fostering public-private collaboration to bridge the gap across the energy, built environment and transport sectors.

Significance of the programme

- ✓ The 'Sustainable Cities India program' intends to enable cities to decarbonize in a systematic and sustainable way that will reduce emissions and deliver resilient and equitable urban ecosystems.
- ✓ The Forum and NIUA will adapt the Forum's City Sprint process and Toolbox of Solutions for decarbonization in the context of five to seven Indian cities across two years.
- ✓ Sustainable Cities is the sustainable urban mobility initiative of WRI India. Sustainable Cities catalyzes sustainable solutions to the problems of urban mobility, actively working in four strategic areas – Integrated Urban Transport, Urban Development & Accessibility, Transport and Climate, and Health and Road Safety.
- ✓ It promotes high quality integrated public transport systems; equitable and accessible built environment emphasizing integrated transport and land-use planning to improve the quality of life in cities.

World Economic Forum's Global Risks Report 2022:

As per the World Economic Forum's Global Risks Report 2022, densely populated countries that are highly dependent on agriculture, such as India, are especially vulnerable to climate insecurity. Decarbonization in cities is a real opportunity to keep global warming well below 2°C and cities in India can make an enormous contribution in reaching this goal.

Way forward

- India is rapidly urbanizing; its scale and pace is unprecedented. It is imperative for institutions to prioritize and embed climate resilience in the urban development process. In this regard, cross-sector and inter-organizational partnerships are crucial to foster an exchange of knowledge and identify best practices which can be applied effectively in the Indian context.
- I see great value in NIUA's collaboration with WEF as it will not only build the capacities of urban practitioners in India through the City Sprint workshops, but also provide them access to a global Toolbox of Solutions and connect with other potential partners in our vision to make Indian cities future-ready.
- New models of public and private collaboration are needed to make progress towards net zero goals. The City Sprint workshops are designed to enable government and business leaders to work together to identify and implement solutions across energy, mobility and the built environment. We don't need to wait for the

PEPPER IT WITH

National Institute of Urban Affairs, World Economic Forum, Decarbonisation

next breakthrough idea – the technologies and business models already exist. Through this collaboration, the Toolbox of Solutions will continue to evolve and expand to provide ideas to urban centers in India, and around the world.

PM CARES for Children Scheme

News Excerpt

Recently, Ministry of Women and Child Development, has extended the PM cares for Children Scheme.

Pre-connect

- The PM CARES for Children Scheme was launched by government of India in May 2021 for the Children.
- It aims to support children who have lost both the Parents or legal Guardian or Adoptive Parents or Surviving Parent to COVID-19 pandemic.
- The objective of the Scheme is to ensure comprehensive care and protection of Children in a sustained manner, and enable their well-being through health insurance, empower them through education and equip them for self-sufficient existence with financial support on reaching 23 years of age.

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Nodal Agencies - National, State, and District:

Ministry of Women and Child Development shall be the nodal Ministry for execution of the scheme at the central level. Department of Women and Child Development or Department of Social Justice in the State/UT Government, dealing with the Child Protection Services scheme in the State/UT shall be the nodal agency at State level. The District Magistrates (DM) shall be the nodal authority at District level for execution of the scheme.

More about the Scheme

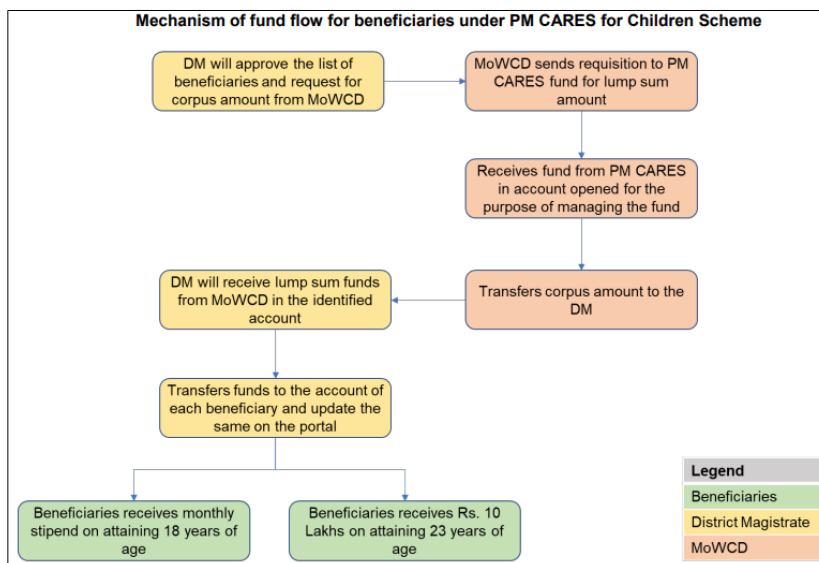
Eligibility:

All children who have lost

- Both parents or
- Surviving parent or
- legal guardian/adoptive parents/single adoptive parent due to COVID 19 pandemic, starting from 11.03.2020 the date on which WHO has declared and characterized COVID-19 as pandemic till 31.12.2021, shall be entitled to benefits under this scheme.
- Child should not have completed 18 years of age on the date of death of parents.

Entitlements

- Efforts will be made by the District Magistrate with the assistance of Child Welfare Committee (CWC) to explore the possibility of rehabilitating the child within her/his extended family, relatives, kith, or kin.
- **For children below 6 years of age:** Identified beneficiaries will receive support and assistance from the Anganwadi services for supplementary



nutrition, pre-school education/ ECCE, immunization, health referrals, and health check-up.

- **For children below 10 years of age:** i) Admission shall be provided in any nearest school as a day scholar i.e., Government/ Government aided School/ Kendriya Vidyalayas (KV)/ Private Schools. ii) In Government Schools, two sets of free uniform and textbooks shall be provided, under Samagra Shiksha Abhiyan, as per the scheme guidelines.
- **For children between 11-18 years of age:** i) If the child is living with the extended family, then admission in the nearest Government/ Government aided School/ Kendriya Vidyalayas (KV)/ Private Schools as a day scholar may be ensured by the DM.

Health Insurance

- All children will be enrolled as a beneficiary under Ayushman Bharat Scheme (PM-JAY) with a health insurance cover of Rs. 5 lakhs.
- It shall be ensured that the child identified under PM CARES for Children scheme receives benefits under PM JAY
- The benefits available to children under the scheme are at Annexure 2.

Financial Support:

- The lump sum amount will be transferred directly in the post office account of beneficiaries upon opening and validation of the account of the beneficiaries. A pro-rata amount will be credited upfront in the account of each identified beneficiary such that the corpus for each beneficiary becomes Rs. 10 lakhs at the time of attaining 18 years of age.
- Children will receive monthly stipend once they attain 18 years of age, by investing the corpus of Rs 10 lakhs. The beneficiary will receive stipend till they attain 23 years of age.
- They will receive an amount of Rs. 10 lakhs on attaining 23 years of age.

Operation AAHT

- ❖ Railway Protection Force has launched a nationwide operation to curb human trafficking. As part of "Operation AAHT", special teams will be deployed on all long-distance trains/routes with focus on rescuing victims, particularly women and children, from the clutches of traffickers.
- ❖ The RPF that rescued more than more than 2,000 women and children between 2017-21 from the clutches of traffickers intensified the crackdown on human trafficking with the increasing number of cases. The National Crime Records Bureau registers about 2,200 cases of Human Trafficking cases on an average each year.
- ❖ As part of "Operation AAHT", the infrastructure and intelligence network of the force could be utilised to collect, collate and analyse clues on victims, source, route, destination, popular trains used by suspects, identity of carriers/agents, kingpins etc and shared with other law-enforcing agencies. The RPF could act as a bridge cutting across States to assist the local police in the mission to curb the menace.

Conclusion

The ministry has also brought in important legislations, including the proposed Bill to raise the legal age of marriage for women in the country from 18 to 21 years. The significant legislations also include the Juvenile Justice Amendment Act, which empowers district magistrates to effectively coordinate and monitor agencies responsible for child care institutions as well as decide cases of adoption, cutting down the waiting period for adoptive parents.

PEPPER IT WITH

Prime Minister's National Relief Fund (PMNRF), Public Charitable Trust, Ayushman Bharat Scheme (PM-JAY)

Ayush Start-up Challenges

News Excerpt

The All-India Institute of Ayurveda (AIIA) in association with Startup India has launched the 'Ayush Start-up Challenge' to encourage start-ups and individuals working on innovations in the field of Ayurveda and alternative healing.

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Pre-connect

- The All India Institute of Ayurveda has been conceived as an Apex Institute for Ayurveda. It aims at bringing a synergy between Traditional Wisdom of Ayurveda and Modern tools and Technology.
- The institute would offer postgraduate and doctoral courses in various disciplines of Ayurveda and will focus on fundamental research of Ayurveda, drug development, standardization, quality control, safety evaluation and scientific validation of Ayurveda medicine.
- The hospital is equipped with state of the art modern diagnostic tools and techniques which are used in teaching, training and research. The patient care is done primarily through Ayurveda of tertiary level. This institute will also have an international collaborative centre for global promotion and research in Ayurveda.

About the Ayush Start-up Challenges

- The winners of 'Ayush Start-up Challenge' will receive both a cash prize and incubation support from the AIIA.
- Both early-stage start-ups as well as individuals as a group can participate in the 'Ayush Start-up Challenge'.
- There are three entry categories for participating start-ups – Ayush Food Innovations, Ayush Bio-instrumentation (Hardware solutions) and Ayush IT Solutions (Software solutions).
- The winner in each category will receive a cash prize of Rs 1 lakh and the runner-up will get Rs 50,000.

Analytica

Ayush Market in India

- ✓ The Ayurveda, Yoga, Naturopathy, Unani, Siddha, Sowa-Rigpa and Homoeopathy (Ayush) industry in the country has been seeing a good growth in the last few years and is expected to grow to a \$23.3 billion size in the year 2022.
- ✓ In a year-end report on its performance for the year 2021, the Ministry said that according to the Research and Information System for Developing Countries (RIS) report, the market size of Ayush has grown by 17 per cent in 2014-20 to reach \$18.1 billion.
- ✓ Despite the slump in economic activity in 2020 due to the pandemic, the industry is projected to reach \$20.6 billion in 2021 and \$23.3 billion in 2022.
- ✓ In terms of the global share, India has grown faster in the Ayush market as compared to the world and accounts for about 2.8 per cent of the market, which is likely to hold even though disruptions in production are not ruled out.

Factor supporting growth of glabal market of Ayurveda

- ✓ Ayurveda is one of the oldest systems of medicine which has gained people's trust over centuries of usage.
- ✓ Ayurveda and nutraceuticals are a perfect blend of ancient and modern approaches.
- ✓ India now has Well-developed systems of Education of AYUSH, regulation, medical services and manufacturing infrastructure. India also has a large population of skilled man power
- ✓ Ministry of AYUSH has Proactive International Cooperation policies set up including those with WHO. There has been a significant and growing adoption of Ayurveda in countries like USA, UAE, Russia, Japan and many more destinations ensuring stability internationally.

The problem and the solution

- ✓ Commerce and trade in the Ayush sector are needed to upscale rapidly to meet the ever-growing demands from India and abroad as well as AYUSH sector aims to work together to achieve price and quality competitiveness to boost AYUSH exports.
- ✓ Increase in the budget of AYUSH along with a focus on product and process standardization has strengthened this idea. Several companies have aligned products to AYUSH and their success has proved that medical practices in India is a tried and tested concept.
- ✓ India is the world's second largest exporter of Ayurveda and alternative medicine in the world and is continually promoting its export interests. India's strong ancient knowledge on AYUSH and well-developed supply chain network will help export market to grow due to an increase in demand from international markets.
- ✓ India's major AYUSH export partners include UAE, Russia, USA, Japan and more many more nations that are diversified across continents. India has a strong grip on Asia Pacific market which is expected to rise exponentially over the next 5 years.
- ✓ In addition to this, Latin American and African markets are expected to see significant growth which should be looked as areas of opportunity for both Indian AYUSH conglomerates and potential FDI (foreign direct investment) firms.

PEPPER IT WITH

National Ayush Mission, New Portals on Ayush Sector, AYUSH Entrepreneurship Programme, Ayush Wellness Centers, ACCR Portal and Ayush Sanjivani App

Conclusion

Unprecedented global emergencies such as the COVID-19 pandemic have long lasting effects on almost all sectors of the economy. There is a huge area of opportunity especially in a post-COVID world where people are exploring alternative home remedies that will prevent them from having to resort to allopathic care. Though waves of COVID 19 have made the world realise importance of immunity and healthcare through alternative medicines, COVID 19 is not the only factor to contribute to the growth of AYUSH products.

International Mother Language Day

News Excerpt

Recently, Ministry of Culture, Government of India in collaboration with Indira Gandhi National Centre for the Arts (IGNCA) and UNESCO New Delhi Cluster Office commenced a two-day event on the occasion of International Mother Language Day.

Pre-connect

- International Mother Language Day was proclaimed by the General Conference of the United Nations Educational, Scientific and Cultural Organization (UNESCO) in November 1999. The UN General Assembly welcomed the proclamation of the day in its resolution of 2002.
- International Mother Language Day is observed worldwide on 21st February every year to promote awareness of linguistic and cultural diversity and to promote multilingualism. Every year a unique theme is chosen by UNESCO to celebrate this special day.

Significance of International Mother Language Day

- International Mother Language Day recognizes that languages and multilingualism can

The idea to celebrate International Mother Language Day first came from Bangladesh. The general conference of the United Nations Educational, Scientific and Cultural Organization (UNESCO) decided to celebrate February 21 as International Mother Language Day in 2000. Every year a unique theme is chosen by UNESCO to celebrate this special day.

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- advance inclusion, and the Sustainable Development Goals' focus on leaving no one behind.
- UNESCO believes education, based on the first language or mother tongue, must begin from the early years as early childhood care and education is the foundation of learning.
 - The theme of the 2022 International Mother Language Day, "Using technology for multilingual learning: Challenges and opportunities," raises the potential role of technology to advance multilingual education and support the development of quality teaching and learning for all.
 - Technology has the potential to address some of the greatest challenges in education today.
 - It can accelerate efforts towards ensuring equitable and inclusive lifelong learning opportunities for all if it is guided by the core principles of inclusion and equity.

Analytica

Language in India

- ✓ India has 22 separate official languages, it is home to a total of 121 languages and 270 mother tongues. It's also home to the world's oldest language, Hindi.
- ✓ The Eighth Schedule of the Constitution consists of the following 22 languages –Assamese, Bengali, Gujarati, Hindi, Kannada, Kashmiri, Konkani, Malayalam, Manipuri, Marathi, Nepali, Oriya, Punjabi, Sanskrit, Sindhi, Tamil, Telugu, Urdu, Bodo, Santhali, Maithili and Dogri.

Article 343 of the Constitution of India, 1949

- ✓ Official language of the Union
- ✓ The official language of the Union shall be Hindi in Devanagari script The form of numerals to be used for the official purposes of the Union shall be the international form of Indian numerals.

Safeguarding Linguistic Diversity

- Languages, with their complex implications for identity, communication, social integration, education and development, are of strategic importance for people and planet.
- Yet, due to globalization processes, they are increasingly under threat, or disappearing altogether. When languages fade, so does the world's rich tapestry of cultural diversity. Opportunities, traditions, memory, unique modes of thinking and expression — valuable resources for ensuring a better future — are also lost.
- Every two weeks a language disappears taking with it an entire cultural and intellectual heritage. At least 43% of the estimated 6000 languages spoken in the world are endangered.
- Only a few hundred languages have genuinely been given a place in education systems and the public domain, and less than a hundred are used in the digital world.
- Multilingual and multicultural societies exist through their languages which transmit and preserve traditional knowledge and cultures in a sustainable way.
- International Mother Language Day is observed every year to promote linguistic and cultural diversity and multilingualism.

PEPPER IT WITH

Indo-European Languages,
Dravidian Languages, Mon-
Khmer Languages and Sino-
Tibetan Languages

TERI's Sustainable Development Summit

News Excerpt

Recently, Prime Minister said it wasn't the planet but people and their commitment to nature that was 'fragile,' in his inaugural address at The Energy and Resources Institute's (TERI) World Sustainable Development Summit.

Pre-connect

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- The World Sustainable Development Summit (WSDS) is the annual flagship Track II initiative of The Energy and Resources Institute (TERI). Instituted in 2001, the Summit series has marked 20 years in its journey of making 'sustainable development' a globally shared goal.
- Over the years, the Summit platform has brought together thought leaders, heads of state and government, scholars, corporates, youth groups, and civil society representatives from across the world.
- The Summit series has established itself as a responsible and an effective platform for mobilizing opinion-makers to identify and advance pioneering actions to address some of the most relevant issues concerning sustainable development.

About TERI

- TERI is an independent, multi-dimensional organization, with expertise in research, policy, consultancy and implementation. TERI is proud to have innovators and agents of change in the energy, environment, climate change and sustainability spheres, having pioneered conversations and action in these areas for over four decades
- The institution believes that resource efficiency and waste management are the keys to smart, sustainable, and inclusive development.

What happened at Summit?

- ✓ India had "walked the talk" by ensuring that equitable energy access to the poor remained a cornerstone of its environmental policy.
- ✓ These included initiatives such as 90 million households getting access to clean cooking fuel under the Ujjwala Yojana scheme and farmers being encouraged to set up solar panels under the PM-KUSUM scheme where farmers could use and sell surplus power to the grid, which would promote sustainability and equity.
- ✓ PM also discussed the LED bulbs distribution scheme that has been running for over seven years that had reportedly saved close to 220 billion units of electricity and prevented 180 billion tonnes of carbon dioxide emissions per year.
- ✓ The National Hydrogen Mission aims to tap into 'green hydrogen' and it was up to the academic and research institutes such as TERI to come up with scalable solutions.
- ✓ PM also mentioned international recognition for India's efforts by the International Union for Conservation of Nature (IUCN) and India now having 49 Ramsar sites (wetlands) spread over more than 1 million hectares.
- ✓ Restoring degraded land has been one of the main focus areas since 2015 and more than 11.5 million hectares have been restored.
- ✓ India is on track to achieve the national commitment of Land Degradation Neutrality under the Bonn Challenge. We firmly believe in fulfilling all our commitments made under the UNFCCC.

Analytica

Challenges for India in attaining SDG's

- **Defining Indicators:** Past record indicates that we have been not very successful in setting relevant indicators to measure outcomes. Quality education has not successfully been defined. India's myopic definition of "safe" drinking water (with hand pumps and tube wells considered as safe as piped water supply) means that official data suggests 86% of Indians have access to safe drinking water and, as a result, we are "on track" for the MDG goal on drinking water.
- **Financing SDGs:** A new study estimates that implementing SDGs in India by 2030 will cost around US\$14.4 billion. Given the recent cut in social sector schemes by the Union government, unless states devote a significant portion of their resources on the social sector,

India's rank has slipped by two places from last year to 117 on the 17 Sustainable Development Goals (SDGs) adopted as a part of the 2030 agenda by 193 United Nations member states in the year 2015.

there is likely to be a significant funding gap. High growth and redistribution itself are also not enough.

- **Monitoring and Ownership:** Relatedly, a third significant challenge is going to be with respect to ownership. Reports suggest that NITI Aayog will play a significant role in tracking progress. However, members at the Aayog have expressed reservations on being able to take on this mammoth task. Moreover, if states are expected to play a pivotal role (giving the devolution post 14th Finance Commission), it will require ownership not just nationally, but also at the state and local level.
- **Measuring Progress:** Lastly but most importantly is the question of measuring progress or achievement. By the government's own admission, non-availability of data (particularly in respect to sub-national levels), periodicity issues and incomplete coverage of administrative data, made accurate measuring progress of even MDGs virtually impossible.

Conclusion

- ✚ India is showing significant progress, it still needs to develop innovative strategies and policy formulation in certain aspect. One of the major targets should be bridging the north-south gap in development.
- ✚ The poor performance of the north-eastern state is a major paradox as they are rich in both resources and human capital.
- ✚ The fact that still there are several citizens who are not able to afford two meals in a day is a major factor to accelerate the antipoverty programmes to ensure the right to food to the citizens.
- ✚ On the other hand, the growing industrialization shall be supplemented with efforts to minimize pollution. Therefore, India still needs to travel a long way to ensure the achievement of sustainable development goals.

PEPPER IT WITH
Indian Initiatives Related to Sustainable Developments and Climate Change, Bonn Challenge, IUCN

New India Literacy Programme

News Excerpt

Recently, Government approved a new scheme "New India Literacy Programme for the period FYs 2022-2027 to cover all the aspects of Adult Education to align with National Education Policy 2020 and Budget Announcements 2021-22.

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Objective of the Scheme

- The objectives of the scheme are to impart not only foundational literacy and numeracy but also to cover other components which are necessary for a citizen of 21st century such as critical life skills.
- Including financial literacy, digital literacy, commercial skills, health care and awareness, child care and education, and family welfare, vocational skills development, basic education (including preparatory, middle, and secondary stage equivalency);
- The scheme will be implemented through volunteerism through online mode. The training, orientation, workshops of volunteers, may be organized through face-to-face mode.
- All material and resources shall be provided digitally for easy access to registered volunteers through easily accessible digital modes, viz, TV, radio, cell phone-based free/open-source Apps/portals, etc.

Salient Features of the scheme

- School will be Unit for implementation of the scheme.
- Schools to be used for conducting survey of beneficiaries and Voluntary Teachers (VTs).
- Different strategies are to be adopted for different age cohorts. Flexibility for States/UTs will be provided to undertake innovative activities.

- Foundational Literacy and Numeracy will be imparted through Critical Life Skills to all non-literates in the age group of 15 years and above.
- Use of Technologies to impart Adult Education for wider coverage of the scheme.
- Performance Grading Index (PGI) for State/UT and district level will show the performance of States and UTs to implement the scheme and achievements on yearly basis by weighing both the physical and financial progress through UDISE portal.
- CSR/Philanthropic Support may be received by hosting ICT support, providing volunteer support, opening facilitation centres for learners and for providing IT access to economically weak learners in the form of cell phones, etc
- Priority and Saturation in Literacy- The age cohort of 15-35 will be saturated first followed by ages 35 and above. Priority will be given in terms of categories to the Girls and women, SC/ST/OBC/Minorities, Persons with Special Needs (Divyangians), Marginalized/ Nomadic/ construction workers/ laborers/etc. who can substantially and immediately benefit from adult education. In terms of location/area, the focus shall be on all aspirational districts of NITI Aayog, districts with literacy rates less than the National/State average, districts with female literacy rates less than 60% as per the 2011 Census, Districts/ Blocks with large SC/ST/ Minority population, Educationally Backward Blocks, Left Wing Extremism Affected districts.

Analytica

What is adult education?

A person aged 21 or above is called Adult. Therefore, adult education means teaching adults over 21 years of age. Starting of adult education has been acknowledged that no person can be fully happy until he has any knowledge of elementary education. Education develops intellectualism.

Importance of Adult education in India

- ✓ The main objective of adult education is to make every person of India literate and provide practical knowledge of reading, writing and arithmetic. Such knowledge must be mandatory for a person living in any republican world.
- ✓ The purpose of adult education is to increase the literacy rate in India and to put those illiterate people further on the path of knowledge. Their rights and duties are expressed as citizens. They are expected to broadcast the knowledge gained in this way between their associates who have less knowledge than them.
- ✓ The whole work of adult education is done without any fees. It is done with the spirit of social service. Today everyone has accepted its importance. State Governments give financial assistance and instructions to Adult Schools. The Central Government has also provided adequate funds to the state government for large-scale adult education programs.

Adult Education In NEP 2020:

- A well-planned framework will be developed along with NCERT supported body that is core dedicated to adult education and the teaching and learning methods plus materials will be specially designed for the adults. The curriculum will include at least five programs.
- Foundation of literacy & numeracy
- Critical Life skills – will include financial & digital literacy, commercial skills, child care, health care & family welfare
- Vocational Skill development
- Basic Education – It includes preparatory, middle, and secondary education
- Continuing Education – courses in art, culture, sports, or others.

PEPPER IT WITH
National Education Policy
2020, National Skill
Development Corporation
(NSDC)

Conclusion

With Adult education implementation in the National Education Policy 2020, society will surely be a new world where they wish to be educated and support the family on a better path. One can enrol in such initiatives by the policy and can get benefitted plus a volunteer of education can always get in touch with local organizations and give support to the education system.

National Health Authority

News Excerpt

Recently, The Union Health Ministry said the National Health Authority (NHA) is working to integrate the database of Socio-Economic Caste Census (SECC) 2011 beneficiaries with the National Food Security Act (NFSA) portal so that beneficiaries can seek information regarding their entitlements under the AB PM-JAY using their ration card number.

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Pre-connect

- National Health Authority (NHA) is the apex body responsible for implementing India's flagship public health insurance/assurance scheme called "Ayushman Bharat Pradhan Mantri Jan Arogya Yojana" & has been entrusted with the role of designing strategy, building technological infrastructure and implementation of "National Digital Health Mission" to create a National Digital Health Eco-system.
- NHA has been set-up to implement PM-JAY, as it is popularly known, at the national level. An attached office of the Ministry of Health and Family Welfare with full functional autonomy.

More about News

- The NHA is mandated with the implementation of the Ayushman Bharat Pradhan Mantri-Jan Arogya Yojana (AB PM-JAY). The scheme provides health assurance of up to ₹5 Lakhs per family per year, for secondary and tertiary care-related hospitalizations.
- The NHA is also working on a proposal to use Fair Price Shops or ration shops for providing information related to the scheme and entitlement under the scheme to eligible beneficiaries.

Ayushman Bharat Pradhan Mantri-Jan Arogya Yojana (AB PM-JAY):

- ✓ Pradhan Mantri Jan Arogya Yojana (PMJAY) is a flagship National Health Protection Scheme funded by the Government of India.
- ✓ Ayushman Bharat Yojana subsumes the Senior Citizen Health Insurance Scheme (SCHIS) and Rashtriya Swasthya Bima Yojna (RSBY) and is also known as the AB-PMJAY scheme.
- ✓ Ayushman Bharat Yojana scheme caters not only the poor but rural families too, which is why it is economically beneficial to the poor and destitute households in rural and urban areas.
- ✓ The Scheme is one of the biggest healthcare schemes that is sponsored by the Government of India.
- ✓ Ayushman Bharat Yojana scheme includes nearly 1,400 exorbitant treatments like skull surgery, knee replacements, and the likewise. And the patients can also follow-up for the treatments to ensure full recovery.

Benefits of Scheme

- Ayushman Bharat Yojana scheme insures almost 40% of the vulnerable and needy families in India. The healthcare services and benefits that they can avail are listed below:
- The treatment and healthcare facilities under PMJAY is available across India and is free of cost
- The Ayushman Bharat Scheme offers 25 specialty categories and it covers a wide range of 1,354 medical and surgical packages such as neurosurgery, cardiology, etc.

- Ayushman Bharat Yojana scheme also covers post-hospitalization expenses
- In case of multiple surgeries, the cost shall be covered with the highest package. And for second and third surgery it should be covered 50% and 25% respectively
- The scheme also covers the treatment cost of oncology with chemotherapy for 50 different types of Cancer. However, both medical and surgical package cannot be availed at the same time.
- The beneficiaries under PMJAY scheme can also avail follow-up treatment coverage.

Functions of NHA under PM-JAY

- ❖ Formulation of various operational guidelines related to PM-JAY, model documents and contracts to ensure standardization and interoperability.
- ❖ Determine the central ceiling for premium (or maximum central contribution for trusts) per family per year to be provided to the States/UTs and review it from time to time, based on field evidence and actuarial analysis.
- ❖ Develop and enforce compliance with standards for treatment protocols, quality protocols, minimum documentation protocols, data sharing protocols, data privacy and security protocols, fraud prevention and control including penal provisions etc.
- ❖ Develop mechanisms for strategic purchasing of health care services through PM-JAY, so as to get best return on Government's investment. Create conducive conditions for strategic purchasing by preparing a list of packages and their rates and updating them from time to time using a transparent, predictable and evidence-based process.
- ❖ Set up effective and efficient mechanisms to pay to the health care providers.
- ❖ Set up systems and processes for convergence of PM-JAY with other health insurance/assurance schemes. This will include schemes being implemented by both State and Central Governments. National Health Authority will also develop a pathway to converge PM-JAY with schemes targeting workers from both, the formal and informal sectors.

COVID-19 Treatment Covered under Ayushman Bharat Yojana Scheme (PM-JAY)

- ✚ As per the IRDAI's regulation all the health insurance providers are covering COVID-19 hospitalization expenses. Even the Government backed Ayushman Bharat scheme also offers coverage against the Global pandemic COVID-19.
- ✚ The beneficiary can avail medical test facilities at any of the panel hospitals without any money being charged as per the NHA's announcement. Ayushman Bharat scheme also covers the isolation and quarantine expenses.
- ✚ All the empanelled hospitals under this policy are well-equipped to carry out Coronavirus testing, treatment, and quarantine facilities. It is great initiative to offer protection to the poor and needy families against the impact of the deadly COVID-19.

PEPPER IT WITH

National Digital Health Mission (NDHM), Health Facility Registry, Digi Doctor

Conclusion

As this policy is for people below the poverty line, those in the higher income groups who can pay premium on their own should also get adequate health cover. Considering the ongoing medical inflation, a health cover of minimum Rs. 10 lakhs is recommended that can go up to of Rs. 1 Crore & more as per your requirement. This is required to avail the best possible treatment for emergency medical treatment including life threatening diseases like cancer, organ transplant, heart surgeries, etc.

ECONOMY

Economic Survey

- The Economic Survey is the flagship annual document of the finance ministry.
- It reviews the economic development in India and provides:
 - Detailed statistical data of all the sectors-industrial, agricultural, manufacturing among others.
 - Besides, it analyses the whole macroeconomics of the country in the past year and provides an outline for the next financial year.

Constitutional mandates:

- The term Economic survey is nowhere mentioned in the Constitution.
- So, the economic survey is not binding on the government.
- Article 112 in the Constitution mentions about “annual financial statement”.
- The term budget is also nowhere used in the constitution.

**State of the economy****Gross Domestic Product (GDP):**

- The Survey estimates real GDP growth of 8-8.5% in 2022-23.
- In 2021-22, India's real GDP is estimated to grow by 9.2% after **contracting by 7.3%** in 2020-21.

Inflation:

- Consumer Price Index (CPI) based inflation was 6.2% in 2020-21. This was due to supply chain disruptions from COVID-19 restrictions.

- CPI inflation in 2021-22 (April-December) was 5.2% which is lower than inflation of 6.6% during the same period in 2020-21. This decline was led by easing of food inflation. Inflation in 2021-22 (April-December) was driven by international crude oil, petroleum product prices, and higher taxes.

Current account balance:

- During April-September 2021, India's **current account slipped into a deficit** of USD 3.1 billion as compared to a surplus of USD 34.3 billion in the corresponding period of 2020. This was because of an increase in merchandise trade deficit.

Fiscal deficit:

- **Fiscal deficit** for April-November 2021 was 46.2% of the budget estimate as compared to 135.1% in the same period in 2020.
- In April-November 2021, **revenue deficit** was 38.8% of the budget estimate.

Debt:

- Central government debt has increased from 49.1% of GDP in 2019-20 to 59.3% of GDP in 2020-21. This is due to increased borrowings on account of COVID-19. At the end of March 2021, central government's total outstanding liabilities were at Rs 117 lakh crore.
- Public debt accounted for 89.9% of total liabilities.

Agriculture and allied activities:

- The agriculture sector has witnessed **buoyant growth in the last two years.**
- In 2020-21 the sector grew **by 3.6%** and is expected to grow by 3.9% in 2021-22.
- Growth in allied sectors including livestock, dairying, and fisheries have driven the overall growth in the sector.
- The agriculture sector in total nominal gross value added (GVA) of the economy has a long-term trend of around 18%. This changed to 20.2% in 2020-21 and 18.8% in 2021-22.
- Crop diversification towards oilseeds, pulses, and horticulture needs to be given priority.

Industry and infrastructure:

- The industrial sector is estimated to grow by 11.8% in 2021-22 against a contraction of 7% in 2020-21.
- Over the last decade, manufacturing had an average share of 16.3% in nominal GVA. This declined to 14.4% in 2020-21 but is expected to improve to 15.3% in 2021-22. In 2021-22, the manufacturing sector is expected to register a growth of 12.5% after contracting by 7.2% in 2020-21.
- In 2020-21, **Index of Industrial Production (IIP)** contracted 8.4% reflecting the impact of the pandemic on the industrial sector. During April-November 2021-22, IIP grew at 17.4% as compared to a contraction of 15.3% in the corresponding period of 2020-21.

Services sector:

- Services sector contributed to **over 50% of India's GDP.** It **contracted by 8.4% in 2020-21** and is **estimated to grow by 8.2% in 2021-22.**
- The services sector has been the worst affected from the COVID-19 pandemic. Its share in India's GVA declined from 55% in 2019-20 to 53% in 2021-22.

Employment:

- The nationwide lockdown imposed in late March 2020 adversely impacted the urban labour market. In the first quarter (April-June) of 2020-21 unemployment rate for urban sector (measured by current weekly status) increased to 20.8%.
- With economic revival, unemployment rate declined to 9.3% in fourth quarter (January-March) of 2020-21.

Education:

- The Annual Status of Education Report (ASER) found that during the pandemic, children aged 6-14 years who are not currently enrolled in schools increased from 2.5% in 2018 to 4.6% in 2021.
- The enrolment decline was relatively large among the age group of 7-10 years.

According to ASER, during the pandemic, children in rural areas moved out of private to government schools. The possible reasons for these shifts are (i) shut down of low-cost private schools, (ii) financial distress of parents, (iii) free facilities in government schools, and (iv) families migrating back to villages.

Sustainable development and climate change:

- There is a greater thrust on climate action following India's announcement to achieve net zero emissions by 2070.
- India's overall score on the **NITI Aayog SDG India Index** and Dashboard improved from **60** in 2019-20 to **66** in 2020-21.
- India ranked third globally in increasing its forest area during 2010 to 2020. Forests covered 24% of India's geographical area. During 2011-2021, India's forest cover has increased by more than 3% **primarily due to increase in very dense forests** (by 20% during the same period).

Energy risks

- The survey calls for a "diversified mix of sources of energy of which fossil fuels are an important part", but simultaneously calls for focus on building storage for intermittent electricity generation from solar PV and wind farms to ensure on-demand energy supply.
- It asks the government to focus on the pace of the shift from conventional fossil fuel-based sources; and encourage R&D to ensure an effortless switch to renewable sources of energy.

Supply side reforms

- The Survey says the post-Covid economy will not merely be a "re-inflation" of the pre-Covid economy and, therefore, simply building it back with demand measures "is not a solution".
- It calls for emphasis on developing a **supply-side strategy** to deal with the long-term unpredictability of the post-Covid world, emanating mainly from factors such as changes in consumer behavior, technological developments, geopolitics, climate change, and their potentially unpredictable interactions.

Public spending

- After a slowdown in the first half of the ongoing financial year, capital expenditure by the Centre revived during October-December, the Survey notes.
- The first-half slowdown was mainly on account of Covid-19-led restrictions. During April-November 2021, capital expenditure grew by 13.5% (YoY), with focus in infrastructure-intensive sectors like roads and highways, railways, and housing and urban affairs.
- This increase, the Survey says, was particularly substantial given the high YoY growth in capital expenditure registered during the corresponding period of the previous year as well.

Way forward

On the basis the macro-economic stability indicators, the Survey believes that the Indian economy is "well placed" to take on the challenges of 2022-23. The government's strategy has been to not pre-commit to a "rigid response" while using safety nets for vulnerable sections, and responding iteratively based on **Bayesian-updating of information**.

The Survey proposes use of the **"Agile approach"** to policymaking with 80 high-frequency indicators in an environment of "extreme uncertainty". The approach, used in project management and technology development, assesses outcomes in short iterations while constantly making incremental adjustments. The suggestion is based on the availability of a "wealth of real-time data" to take feedback-based decisions, the Survey says.

Union Budget

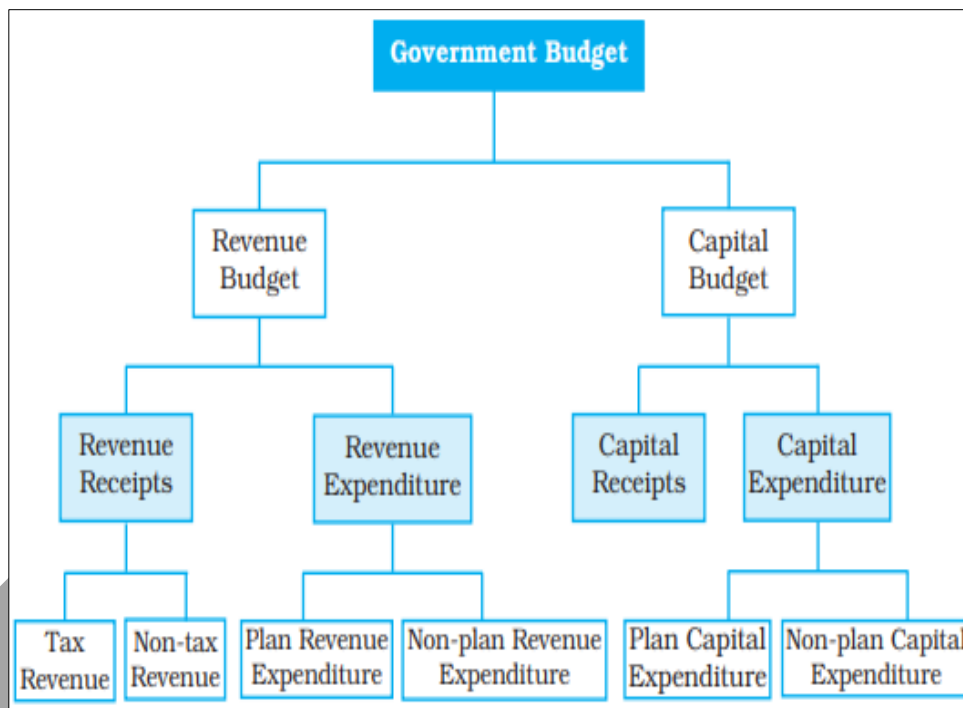
Introduction

Budget: Article 112 in the Constitution, talks about budget.

- The term budget is **nowhere** used. It is “annual financial statement”.
- **The President** shall in respect of every financial year cause to be laid before both the Houses of Parliament a statement of the estimated receipts and expenditure.

Objectives of Government Budget

- Allocation Function of Government Budget.
- Redistribution Function of Government Budget.
- Stabilization Function of Government Budget.



The key highlights of the budget are as follows:

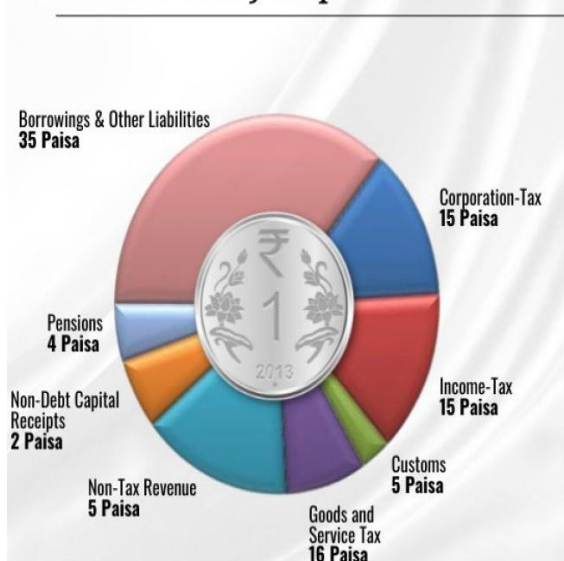
- India's economic growth estimated at 9.2% to be the highest among all large economies.

The list of Budget documents presented to the Parliament, besides the Finance Minister's Budget Speech, is given below:

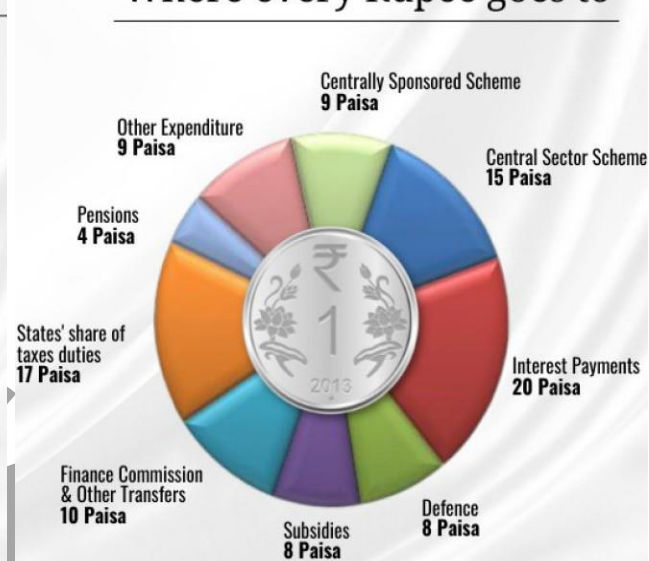
- Annual Financial Statement (AFS)
- Demands for Grants (DG)
- Finance Bill
- Fiscal Policy Statements mandated under FRBM Act:
 - Macro-Economic Framework Statement
 - Medium-Term Fiscal Policy cum Fiscal Policy Strategy Statement
- Expenditure Budget
- Receipt Budget
- Expenditure Profile
- Budget at a Glance
- Memorandum Explaining the Provisions in the Finance Bill
- Output Outcome Monitoring Framework
- Key Features of Budget 2022-23
- Implementation of Budget Announcements, 2021-2022.

Budget at a glance:

Where every Rupee comes from



Where every Rupee goes to



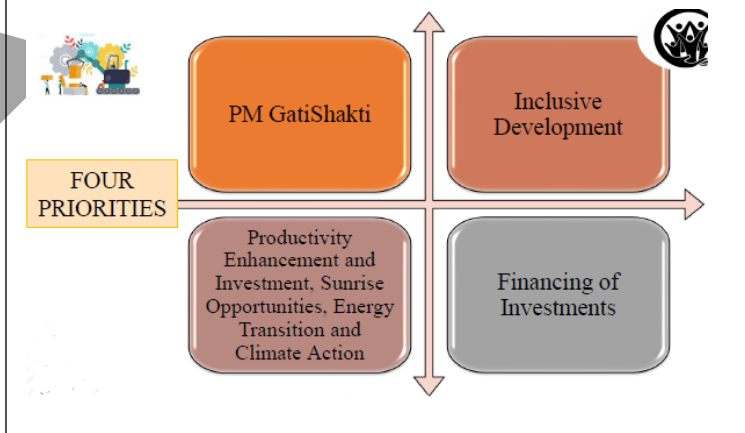
- 60 lakh new jobs to be created under the productivity linked incentive scheme in 14 sectors.
- PLI Schemes have the potential to create an additional production of Rs 30 lakh crore.

Entering Amrit Kaal, the 25 year long lead up to India @100, the budget provides impetus for growth along **four priorities**:

PM GATISHAKTI

- The seven engines that drive PM GatiShakti are Roads, Railways, Airports, Ports, Mass Transport, Waterways and Logistics Infrastructure.
- **PM GatiShakti National Master Plan:** - It will encompass the seven engines for economic transformation, seamless multimodal connectivity and logistics efficiency.

The Budget **aims to strengthen the infrastructure** with its focus on **four priorities**.



- The projects pertaining to these 7 engines in the **National Infrastructure Pipeline** will be aligned with PM GatiShakti framework.

Railways

- One Station One Product concept to help local businesses & supply chains.
- 2000 Km of railway network to be brought under **Kavach, the indigenous world class technology and capacity augmentation** in 2022-23.
- 400 new generation Vande Bharat Trains to be manufactured during the next three years.
- 100 PM GatiShakti Cargo terminals

Inclusive Development

Agriculture

- Chemical free Natural farming to be promoted throughout the county. Initial focus is on farmer's lands in 5 Km wide corridors along river Ganga.
- NABARD to facilitate fund with blended capital to finance startups for agriculture & rural enterprise.
- **'Kisan Drones'** for crop assessment, digitization of land records, spraying of insecticides and nutrients.

MSMEs

- Udyam, e-shram, NCS and ASEEM portals to be interlinked.
- 130 lakh MSMEs provided additional credit under **Emergency Credit Linked Guarantee Scheme (ECLGS)**
- Rs 2 lakh Crore additional credit for Micro and Small Enterprises to be facilitated under the **Credit Guarantee Trust for Micro and Small Enterprises (CGTMSE)**.
- Raising and Accelerating MSME performance (RAMP) programme

Skill Development

- Digital Ecosystem for Skilling and Livelihood (**DESH-Stack e-portal**) will be launched to empower citizens to skill, reskill or upskill through on-line training.
- Startups will be promoted to facilitate 'Drone Shakti' and for Drone-As-A-Service (DrAAS).

Education

- One class-One TV channel' programme of **PM eVIDYA** to be expanded to 200 TV channels.
- Virtual labs and skilling e-labs to be set up.
- High-quality **e-content** will be developed for delivery through **Digital Teachers**.
- Digital University for world-class quality universal education.

Health

- National Digital Health Ecosystem to be rolled out.
- 'National Tele Mental Health Programme'
- A network of 23 tele-mental health centres of excellence will be set up

Export Promotion

Special Economic Zones (SEZs) Act **to be replaced** with a new legislation to enable States to become partners in 'Development of Enterprise and Service Hubs'.

Atma Nirbharta in Defence:

- 68% of capital procurement budget earmarked for domestic industry in 2022-23, up from 58% in 2021-22.
- Defence R&D to be opened up for industry, startups and academia with 25% of defence R&D budget earmarked.
- Independent nodal umbrella body to be set up for meeting testing and certification requirements.
- Pharmaceuticals, Green Energy, and Clean Mobility Systems.

Energy Transition and Climate Action:

- Additional allocation of Rs. 19,500 crores for Production Linked Incentive for manufacture of high efficiency solar modules to meet the goal of 280 GW of installed solar power by 2030.
- Five to seven per cent biomass pellets to be co-fired in thermal power plants: CO2 savings of 38 MMT annually
- Extra income to farmers and job opportunities to locals,
- Help avoid stubble burning in agriculture fields.
- Four pilot projects to be set up for coal gasification and conversion of coal into chemicals for the industry
- Financial support to farmers belonging to Scheduled Castes and Scheduled Tribes, who want to take up agro-forestry.

Public Capital Investment:

- Public investment to continue to pump-prime private investment and demand in 2022-23.
- Outlay for capital expenditure stepped up sharply by 35.4% to Rs. 7.50 lakh crore in 2022-23 from Rs. 5.54 lakh crore in the current year.
- Outlay in 2022-23 to be 2.9% of GDP.
- **‘Effective Capital Expenditure’** of Central Government estimated at Rs. 10.68 lakh crore in 2022-23, which is about 4.1% of GDP.

GIFT-IFSC

- World-class foreign universities and institutions to be allowed in the GIFT City.
- An International Arbitration Centre to be set up for timely settlement of disputes under international jurisprudence.

Mobilizing Resources

- Data Centres and Energy Storage Systems to be given infrastructure status.
- Venture Capital and Private Equity invested more than Rs. 5.5 lakh crore last year facilitating one of the largest start-up and growth ecosystem. Measures to be taken to help scale up this investment.
- Blended funds to be promoted for sunrise sectors.
- Sovereign Green Bonds to be issued for mobilizing resources for green infrastructure.

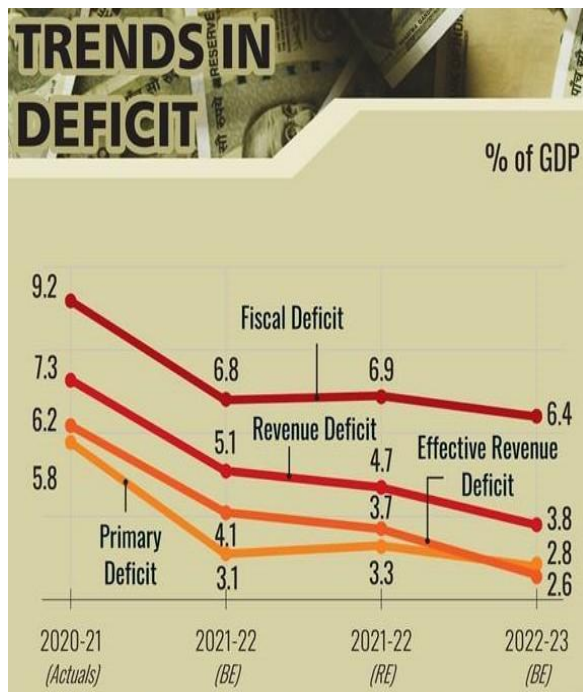
Digital Rupee

- Introduction of Digital Rupee by the Reserve Bank of India starting 2022-23.

Providing Greater Fiscal Space to States

- Enhanced outlay for Scheme for Financial Assistance to States for Capital Investment.
- From Rs. 10,000 crores in Budget Estimates to Rs. 15,000 crore in Revised Estimates for current year
- Allocation of Rs. 1 lakh crore in 2022-23 to assist the states in catalysing overall investments in the economy: fifty-year interest free loans, over and above normal borrowings
- In 2022-23, States will be allowed a **fiscal deficit** of 4% of GSDP, of which 0.5% will be tied to power sector reforms.

Fiscal Management



Budget 2022

Ministry-wise allocation (In rupees)

Defence	525.2K
Consumer Affairs, Food & Public Distribution	217.7K
Road Transport & Highways	199.1K
Home Affairs	185.8K
Railways	140.4K
Rural Development	138.2K
Agriculture	132.5K
Chemicals & Fertilisers	107.7K
Communications	105.4K

New CSR mandate to increase compliance

News Excerpt:

The government had mandated that Corporate India publish a comprehensive report on their specific corporate social responsibility (CSR) initiatives.

Pre-connect:

- Corporate social responsibility (CSR) In India: - On April 1, 2014, India became the **first country** to legally mandate corporate social responsibility.
- The rules in **Section 135 of India's Companies Act, 2013** make it mandatory for companies of a certain turnover and profitability to **spend 2% of their average net profit for the past three years on CSR.**
- CSR is the way through which a company achieves a balance of economic, environmental and social imperatives (**Triple Bottom Line Approach**), while at the same time addressing the expectations of shareholders and stakeholders.
- As per Section 135 of Companies Act 2013, every company having **net worth of Rs. 500 crore or more, or turnover of Rs. 1000 crore or more or a net profit of Rs. 5 crore or more during any financial year** shall constitute a Corporate Social Responsibility Committee and shall spend in every financial year, at least 2% of the average net profits of the company made during the three immediately preceding financial years.

The issue:

The Centre has now mandated corporate India to furnish a comprehensive report on their corporate social responsibility (CSR) activities, specifying an 11-page form (CSR-2) for this purpose.

While there is huge increase in the compliance burden, the exercise will enable the government to generate an extensive database of CSR activities in the country.

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Corporate Governance:

- **According to the Cadbury Committee**, corporate governance is the system by which companies are directed and controlled. More specifically it is the framework by which the various stakeholder interests are balanced.
- **The OECD Principles of Corporate Governance states:** “Corporate governance involves a set of relationships between a company’s management, its board, its shareholders and other stakeholders.

Corporate governance also provides the structure through which the objectives of the company are set, and the means of attaining those objectives and monitoring performance are determined.”

- Corporate governance is the structure of rules, practices, and processes used to direct and manage a company.
- A company's board of directors is the primary force influencing corporate governance.
- Bad corporate governance can cast doubt on a company's operations and its ultimate profitability.
- Corporate governance entails the areas of:
 - Environmental awareness,
 - Ethical behavior,
 - Corporate strategy,
 - Compensation, and
 - Risk management.
- The **basic principles** of corporate governance are accountability, transparency, fairness, and responsibility.

Violation of CSR

- Chitra Ramkrishna, the former Managing Director of the National Stock Exchange (NSE) from 2013-2016, was recently found to have violated corporate governance.
- **Earlier-** Violation of corporate governance was emerged within ICICI bank.



Evolution of Corporate Governance in India

Prior to Independence and Four Decades into Independence

- The Companies Act was enacted in 1866 and was amended in 1882, 1913 and 1932. Partnership Act was enacted in 1932.
- These enactments had a managing organisation model as a focus as people/business firms went into a legitimate contract with business entities to manage the latter.
- **This period was an era of misuse/abuse** of resources and shunning of obligations by managing specialists because of scattered and unprofessional proprietorship.

After independence: -

- The Tariff Commission and the Bureau of Industrial Costs and Prices were set up by the Government. Industries (Development and Regulation) Act and Companies Act were introduced into the legal system in 1950s.
- The period between 1970s to mid-1980s was a time of cost, volume and profit examination, as a vital piece of the cost accounting activities.
- The fundamental code for corporate administration was proposed by the Chamber of Indian Industries (CII) in 1998. The definition proposed by CII was—corporate governance manages laws, methods, practices and understood principles that decide an organisation’s capacity to take administrative choices—specifically its investors, banks, clients, the State and the representatives.

The First Phase of India's Corporate Governance Reforms: 1996-2008

- The primary or the first phase of India's corporate governance reforms were focussed at making Audit Committees and Boards more independent, focussed and powerful supervisor of management and also of aiding shareholders, including institutional and foreign shareholders/investors, in supervising management.
- In 1996, CII taking up the first institutional initiative in the Indian industry took a special step on corporate governance. The aim was to promote and develop a code for companies, be in the public sectors or private sectors, financial institutions or banks, all the corporate entities.
- Report of the Committee- Kumar Mangalam Birla
- Report of the Committee- Naresh Chandra
- SEBI Report on Corporate Governance- N.R. Narayan Murthy. Etc.

PEPPER IT WITH
Education Cess, Selection process of the Independent Directors

Second Stage of Corporate Governance- After Satyam Scam

- **The Companies Act, 2013:-** Consists of law provisions concerning the constitution of the board, board processes, board meetings, independent directors, audit committees, general meetings, party transactions, disclosure requirements in the financial statements and etc.
- **SEBI Guidelines:-** SEBI is a governing authority having jurisdiction and power over listed companies and which issues regulations, rules and guidelines to companies to ensure the protection of investors.
- **Standard Listing Agreement of Stock Exchanges:-** is for those companies whose shares are listed on the stock exchanges.
- **Accounting Standards Issued by the Institute of Chartered Accountants of India (ICAI):-** ICAI is an independent body, which issues accounting standards providing guidelines for disclosures of financial information. In the new Companies Act, 2013 Section 129 provides that the financial statements would give a fair view of the state of affairs of the companies, following the accounting standards given under Section 133 of the Companies Act, 2013. It is further given that the things contained in such financial statements should be in compliance with the accounting standards.

Committee setup to improve corporate governance in India

- Kumar Mangalam Birla Committee – 2000.
- Naresh Chandra Committee-2002
- Narayan Murthy Committee-2003
- Uday kotak Committee-2017
- Shri. Injeti Srinivas Committee-2018.

Issues in Corporate Governance in India

There exist many issues in the field of Corporate Governance in India. Some of them are:-

- ✓ **Board performance:** Evaluation is not performed from time to time and transparency is lost somewhere. The performance is not result oriented. The requirement of at least one-woman director is necessary, and also the balance of executive and non-executive directors is not maintained.
- ✓ **Independent Directors:** Independent directors are appointed for a reason which does not seem to be fulfilled in the current scenario.
- ✓ **Accountability to Stakeholders:** The accountability is not restricted to that of the shareholders or the company, it is for the society at large and also the environment. The directors are not to keep in mind their own interests but also the interests of the community.
- ✓ **Risk Management:** The risk management techniques are to be mandatorily be undertaken by the directors as per the Company Laws and they have to mention in their report to shareholders as well. This is not being done in the most sincere manners required for the job.
- ✓ **Privacy and Data Protection:** This is an important governance issue. Cyber security has evolved to be the most important aspect of modern governance. Good governance can only be

achieved once the directors and other leaders in the company are well known about the hazards in this field.

Corporate Social Responsibility (CSR): The companies seem to be reluctant towards making such investments.

Way forward

- There is a huge range of responsibilities upon the directors of the companies to comply with the standards and best practices given in different laws and guidelines.
- Apart from the laws and norms suggested by various institutions from time to time, the companies are also expected to act responsibly towards the society as a whole because the corporates are so big in today's time that they have some impact on each and every citizen of the country equally.
- It is also very important that all stakeholders also demonstrate their interest and active participation in the decision-making processes to make it a contributory job altogether.
- Government, banks, RBI, statutory authorities, independent directors—all need to come together to have a cohesive, foolproof system to eradicate the malaise of corporate misrule.
- The country's forensic auditing ecosystem has to be strengthened in order to effectively investigate and penalize violators. A forensic audit examines and analyses a company's or individual's financial records in order to provide evidence that may be utilized in court.
- Double taxation avoidance agreements should be revised on a regular basis.

Parvatmala- An efficient and safe alternate transport network

News Excerpt:

Union Finance Minister, while presenting Union Budget for 2022-23 announced National Ropeways Development Programme- **Parvatmala**.

Pre-Connect:

- The Ministry of Road Transport and Highways (MORTH) was responsible for development of Highways and regulating the road transport sector across the country. However, in February 2021, the Government of India (Allocation of Business) Rules 1961 was amended, which enables the Ministry to also look after the development of Ropeways and Alternate Mobility Solutions.
- The move will give a boost to the sector by setting up a regulatory regime.
- The Ministry will also have responsibility for development of ropeway and alternative mobility solutions technology, as well as construction, research, and policy in this area.
- Formulation of institutional, financial, and regulatory framework for the technology will also fall under the ambit of this allocation.

Need of Parvatmala:

- Developing an efficient transport network is a big challenge in hilly areas.

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Parvatmala: National Ropeways Development Programme

Contracts for 8 Ropeway Projects for Length of 60 Km to be awarded in 2022-23

Objective:

-  Sustainable Alternative to Conventional Roads
-  Improve Connectivity & Convenience for Commuters
-  Cover Congested Urban Areas
-  Promote Tourism

- The rail and air transport networks are limited in these areas, while the development of road network has technical challenges.
- In this backdrop, Ropeways have emerged as a convenient and safe alternate transport mode.

Parvatmala:

- ✓ It will be taken up on PPP mode, which will be a preferred ecologically sustainable alternative in place of conventional roads in difficult hilly areas.
- ✓ The idea is to improve connectivity and convenience for commuters, besides promoting tourism.
- ✓ This may also cover congested urban areas, where conventional mass transit system is not feasible.
- ✓ The Finance Minister announced that contracts for 8 ropeway projects for a length of 60 km would be awarded in 2022-23.
- ✓ The scheme is being presently started in regions like Uttarakhand, Himachal Pradesh, Manipur, Jammu & Kashmir and the other North Eastern states.

Ropeway services in Varanasi

- Varanasi (UP) will soon become the first Indian city to start ropeway service as a mode of public transport.
- World's third after Bolivian capital La Paz and Mexican capital Mexico City.

Major factors driving ropeway infrastructure:

- **Economical mode of transportation:** Given that ropeway projects are built in a straight line over a hilly terrain, it also results in lower land acquisition costs. Hence, despite having a higher cost of construction per km than roadways, ropeway projects' construction cost may happen to be economical than roadways.
- **Faster mode of transportation:** Owing to the aerial mode of transportation, ropeways have an advantage over roadway projects where ropeways can be built in a straight line, over a hilly terrain.
- **Environmentally friendly:** Low dust emissions. Material containers can be designed so as to rule out any soiling of the environment.
- **Last mile connectivity:** Ropeway projects adopting 3S (a kind of cable car system) or equivalent technologies can transport 6000-8000 passengers per hour.

Benefits of ropeways:

- ✚ **Ideal for difficult / challenging / sensitive terrain:**
 - Long rope spans: The system crosses obstacles like rivers, buildings, ravines, or roads without a problem.
 - Ropes guided over towers: Low space requirements on the ground, and no barrier for humans or animals.
 - This mode of transportation will enable mobility to people living in difficult areas and help them become part of the mainstream.
 - Villagers / farmers living in such areas will be able to sell their produces in other areas, which in turn will help them grow their income.
- ✚ **Economy:** Ropeway having multiple cars propelled by a single power-plant and drive mechanism. This reduces both construction and maintenance costs. The use of a single operator for an entire ropeway is a further saving, in labour cost. On level ground, the cost of ropeways is competitive with narrow-gauge railroads; in the mountains the ropeway is far superior.
- ✚ **Flexible:** Transport of different materials - A ropeway allows for the simultaneous transport of different types of material.

Steps taken to improve public transport in India

- **Bharatmala:** This has been envisaged as an umbrella program that will subsume unfinished parts of NHDP and also focus on the new initiatives like development of Border and International connectivity roads, Coastal & port connectivity roads, National Corridors Efficiency improvements, Economic corridors development and others.
- **SetuBharatam program:** For building bridges for safe and seamless travel on National Highways. The aim is to make National Highways free of railway level crossings by 2019 by building Railway Over Bridges/ Under Passes. 1500 old and worn down bridges to be improved by replacement/widening/strengthening.
- **National Infrastructure Pipeline Project:** The National Infrastructure Pipeline (NIP) is a group of social and economic infrastructure projects in India over a period of five years with an initial sanctioned amount of ₹102 lakh crore. The second highest allocation in this project is given to road infrastructure.
- **PM Gati Shakti - National Master Plan for Multi-modal Connectivity:** Essentially a digital platform to bring 16 Ministries including Railways and Roadways together for integrated planning and coordinated implementation of infrastructure connectivity projects. The multi-modal connectivity will provide integrated and seamless connectivity for movement of people, goods and services from one mode of transport to another. It will facilitate the last mile connectivity of infrastructure and also reduce travel time for people.
- **Green Highways Policy, 2015:** The aim of the policy is to promote greening of Highway corridors with participation of the community, farmers, private sector, NGOs, and government institutions.

- ✚ **Ability to handle large slopes:** Ropeways and cableways (cable cranes) can handle large slopes and large differences in elevation. Where a road or railroad needs switchbacks or tunnels, a ropeway travels straight up and down the fall line. The old cliff railways in England and ski resort ropeways in the mountains take advantage of this feature.

- ✚ **Low footprint:** The fact that only narrow-based vertical supports are needed at intervals, leaving the rest of the ground free, makes it possible for ropeways to be constructed in built-up areas and in places where there is intense competition for land use.

PEPPER IT WITH

Bharatmala Pariyojana,
Sagarmala Pariyojana,
Inland Waterways
Development Project

National Single Window System (NSWS)

News Excerpt:

Jammu & Kashmir became the first Union Territory to be on boarded the National Single Window System (NSWS). This marks a major leap in Ease of Doing Business (EoDB) in the Union Territory.

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National Single Window System (NSWS):

The NSWS, is a 2020 budgetary announcement of the Government of India. It is a digital platform that serves as a guide for investors to identify and apply for approvals as per their business requirements. The platform was soft launched in September 2021.

It is a “one-stop-shop” for approvals and clearances. It will enable obtaining approvals as well as clearances needed by investors, entrepreneurs, and businesses in India.

Benefits:

- NSWS will eliminate the need for investors to visit multiple platforms/offices to gather information and obtain clearances from different stakeholders.
- It will ease the registration processes for businesses.
- Currently, the portal hosts applications for approvals from 21 Central Departments and 14 State Governments.
- This is freedom from bureaucracy and from windows within windows.
- This is a big step towards ease of doing business and not only enable ease of doing business, but also ease of living.
- It will help and boost other schemes and projects like- Make in India, Startup India, Atmanirbhar Bharat, etc.



#SingleWindowToIndia

NATIONAL SINGLE WINDOW SYSTEM (SOFT-LAUNCH)

Single Platform to Enable Investors Identify & Obtain Approvals & Clearances

Online Services Available

- Know Your Approval Service
- Common Registration Form
- State Registration Form
- Applicant Dashboard
- Document Repository
- E-Communication module

Other steps taken to ease of doing (EoD) business in India:

- **SPICe+ (SPICe plus):-** The Ministry of Corporate Affairs has deployed a new Web Form replacing the earlier SPICe form.
 - SPICe+ offers 11 services by 3 Central Govt Ministries & Departments (Ministry of Corporate Affairs, Ministry of Labour & Department of Revenue in the Ministry of Finance) and 3 State Governments (Maharashtra, Karnataka, West Bengal) and NCT - Delhi, thereby saving as many procedures, time and cost for Starting a Business in India and is applicable for all new company incorporations w.e.f 7th June, 2021.
- Ministry of Corporate Affairs has provided **exemption to private companies through Companies (Amendment) Act, 2015**, wherein the requirement for minimum paid up capital was removed.

- **SWIFT initiative:** As a part of ease of doing business initiative, Central board of excise and Customs (CBEC), Government of India has taken up implementation of the Single Window Project to facilitate the Trading across Borders in India.

- The Single Window Interface for Trade (SWIFT), would reduce interface with Governmental agencies, dwell time and the cost of doing business.
- The objective of the SWIFT is along with 'Make in India', 'Digital India' initiatives.

- **National Investment and Infrastructure Fund (NIIF):** It is India's first infrastructure specific investment fund or a sovereign wealth fund that was set up by the Government of India in February 2015. The objective behind creating this fund was to maximize economic impact mainly through infrastructure investment in commercially viable projects, both greenfield and brownfield

- **The Insolvency and Bankruptcy Code, 2016:** It is expected to introduce new dimensions in Resolving Insolvency in India. This is India's first comprehensive legislation in the area of corporate insolvency.

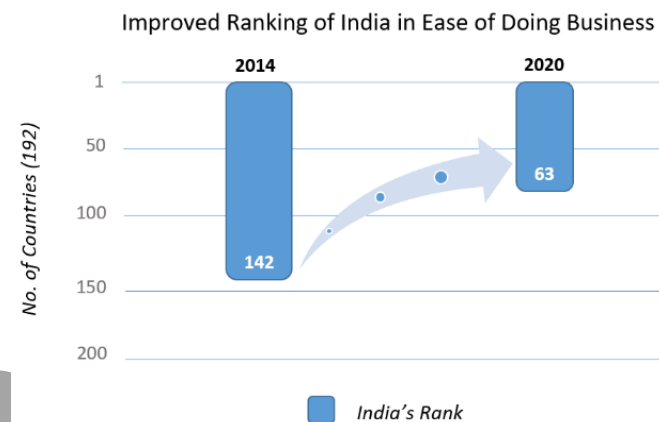
- **Goods & Services Tax (GST)**

- **Decriminalize provisions of:**

- The Companies Act to enhance ease of doing business in the country.
- Administrative offences such as delays in filing CSR reports, or failure to rectify the register of members in compliance with orders from the NCLT.

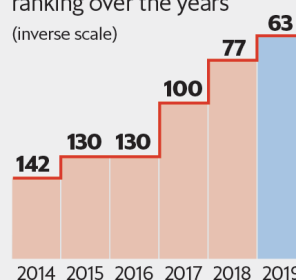
But there is a close gap between the promises and implementations. The business environment still needs to improve. Starting a business in India remains a herculean task.

Ease of Doing Business (EoDB): by World Bank Group



A steady climb

India's Doing Business ranking over the years (inverse scale)



India ranking in categories

	2018	2019
THE GOOD		
Dealing with construction permits	52	27
Trading across borders	80	68
Resolving insolvency	108	52
THE BAD		
Protecting minority investors	7	13
Getting credit	22	25
Enforcing contracts	163	163

Source: World Bank

PEPPER IT WITH

India Industrial Land Bank, Make in India, Startup India, PLI scheme

Way forward:

- ✓ Nurture the existing enterprises and bring them under **formal status**.
- ✓ **Constitute a National Compliance Commission:** India's regulations need an urgent review. An empowered commission must be set up to reduce the compliance burden by at least 50%. It should focus on identifying duplication and redundancy among compliance requirements. The commission should remove ambiguity, standardise implementation and simplify record keeping.
- ✓ **Create UEN (Unique Enterprise Number):** Indian enterprises deal with multiple identities (PF, ESIC, PAN, CIN, TAN etc.) issued by different central and state departments.

- ✓ **Create enterprise document vault:** India needs to go paperless. Managing paper is inefficient, expensive and non-sustainable. The concept of electronic document vault DigiLocker should be extended to enterprises.
- ✓ **Strengthen commercial courts infrastructure:** India's commercial court system needs an overhaul. It takes 1,445 days to dispose of a commercial case as against 120 days in Singapore.
- ✓ **Digitise compliance management:** Compliances must go digital. An MSME deals with at least 400 compliances annually on an on-going basis. The process is manual, paper-based and requires physical contact with government officials leading to delays and opportunities for corruption.
- ✓ **Digitise regulatory updates:** With over 3,000 yearly regulatory changes that affect enterprises, India needs a centralised repository of all updates.
- ✓ **Digitise inspections:** An MSME in India can be inspected by as many as 20 inspectors at any time. The current inspection system is manual, paper-based and requires physical contact. The system is so dreaded that it is called 'inspector raj' in popular parlance.

Industrial growth fell to 10-month low

News Excerpt

Industrial output slumped to a 10-month low of 0.4 per cent year-on-year in December, dragged down by manufacturing, capital goods and consumer durables output along with an unfavourable base, as per official estimates by the National Statistical Office (NSO).

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Pre-Connect

Index of Industrial Production data (IIP):

- The IIP number **measures the industrial production** for the period under review, usually a month, as against the reference period.
- IIP is a key economic indicator of the manufacturing sector of the economy.
- There is a lag of six weeks in the publication of the IIP index data after the reference month ends.
- IIP index is currently calculated using **2011-2012 as the base year**.
- IIP data is compiled and published by Central Statistical Organisation (CSO) every month. CSO operates under the Ministry of Statistics and Programme Implementation (MoSPI).
- Electricity, crude oil, coal, cement, steel, refinery products, natural gas, and fertilisers are the **eight core industries that comprise about 40 percent** of the weight of items included in the Index of Industrial Production.
- Mining, manufacturing, and electricity are the three broad sectors in which IIP constituents fall.

Index of Eight Core Industries (ICI):

IIP vs. ASI

- While the IIP is a monthly indicator, the **Annual Survey of Industries (ASI)** is the prime source of long-term industrial statistics.
- The ASI is used to track the health of the industrial activity in the economy over a longer period.
- The index is compiled out of a much larger sample of industries compared to IIP.

- Index of Eight Core Industries (ICI) is a **production volume index**.
- The objective of the ICI is to provide an **advance indication** on production performance of industries of 'core' nature before the release of Index of Industrial Production.
- ICI measures collective and individual performance of production in **selected eight core industries**. They are:-

Coal, Crude Oil, Natural Gas, Petroleum Refinery Products, Fertilizers, Steel, Cement and Electricity.

- The Index is compiled and released by **Office of the Economic Adviser (OEA)**, Department of Industrial Policy & Promotion (DIPP), Ministry of Commerce & Industry, Government of India.

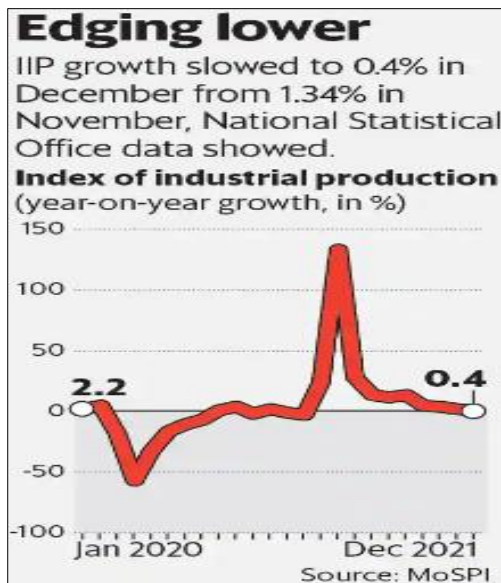
Analytica:

- ✓ Flailing factory output trends suggest the rebound in the economy is slow.
- ✓ Factory output is measured by the Index of Industrial Production (IIP), which fell for the fourth straight month in December 2021.
- ✓ The biggest drag for the industrial output in December came from the 0.1 per cent contraction in **manufacturing output**, which accounts for 77.6 per cent of the weight of the IIP. Manufacturing output had grown 0.8 per cent in the previous month and 2.7 per cent a year ago.
- ✓ **Capital goods**, an indicator of investment, contracted 4.6 per cent in December as against a contraction of 2.0 per cent a month ago and 2.2 per cent growth a year ago.
- ✓ **Mining output** grew 2.6 per cent in December as against a growth of 4.9 per cent a month ago and 3 per cent contraction a year ago.
- ✓ **Electricity output** recorded a growth of 2.8 per cent in December compared with 2.1 per cent a month ago and 5.1 per cent a year ago.
- ✓ **Consumer durables** output contracted 2.7 per cent in December as against 5.4 per cent contraction a month ago and 6.5 per cent growth a year ago, while **consumer non-durables output** contracted 0.6 per cent compared with 0.5 per cent growth a month ago and 1.9 per cent growth a year ago.

What do the numbers portend?

- ✓ Successive monthly data of industrial output is making it abundantly clear that consumption demand will need policy makers' attention much more than hitherto being given if recovery is to become a sustainable one.
- ✓ The continued weakness in capital goods does not augur well. Although there are indications that finally, private corporate investment is picking up, the same has yet to find a reflection in the IIP data.
- ✓ Capital goods contracted in YoY terms, as well as relative to the pre-Covid level, highlighting the tentativeness in the investment cycle.

Production	Weight
Coal	10.33 %
Crude Oil	8.98 %
Natural Gas	6.88%
Petroleum Refinery	28.04%
Fertilizers	2.63 %
steel	17.92%
Cement	5.37 %
Electricity Generation	19.85%



Way Forward:

- Lackluster IIP growth puts a question mark on the current recovery. It also indicates that policymakers may have to take more measures to support industrial recovery as high commodity prices have made most inputs, particularly fuel and materials, quite expensive.
- The central bank remains in growth-accommodative mode while the world is changing gears to tackle inflation, indicates its concern about the durability and quality of India's recovery.
- The government must urgently reboot its rose-tinted assessment of the economy and should focus on demand generation in the market while focusing on private investment.
- The Economic Survey 2021-2022 stated that a nascent private investment recovery is expected to accelerate as the private consumption improves and raise capacity utilization level.

PEPPER IT WITH

NCLT, NIIF, Ease of Doing Business Report-World Bank, IBC.

3D manufacturing policy: Target of 500 items by 2025

News Excerpt

The Ministry of Electronics and Information Technology (MeitY) aims to increase **India's share** in global additive manufacturing to **5 per cent within the next three years**, with hopes that **it could likely add \$ 1 billion** to the gross domestic product by that time.

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Pre-Connect

National Strategy for Additive Manufacturing (AM):

- Ministry of Electronics and Information Technology (MeitY), being a nodal agency for Digital Technology, has evolved a strategy to promote all the verticals of the AM sector, including machines, materials, software and designs to leverage the untapped business opportunities in this emerging technology that will unfold in the near future.
- India will **aim to achieve certain targets** such as:
 - **50** India specific technologies for material, machine and software,
 - **100** new startups for additive manufacturing,
 - **500** new products.
- In total, MeitY hopes that these new startups and opportunities will give jobs to at least 1 lakh new skilled workers over the next three years.
- This strategy document has been formulated **to promote all sub-sectors**, such as, machines, materials, software and design within the Additive Manufacturing.
- It will further accelerate the adoption of untapped potential business opportunities, and strengthen execution of recommendations laid in the **National Electronics Policy, 2019**.

Vision:

- The National Strategy for Additive Manufacturing aspires to postulate the tenets of 'Make in India' and 'AtmaNirbhar Bharat Abhiyan' that advocate self-reliance through technological transformation of the production paradigm.
- It aims to inspire maximum economic benefits from future growth opportunities, while minimizing risks and mitigating associated challenges.

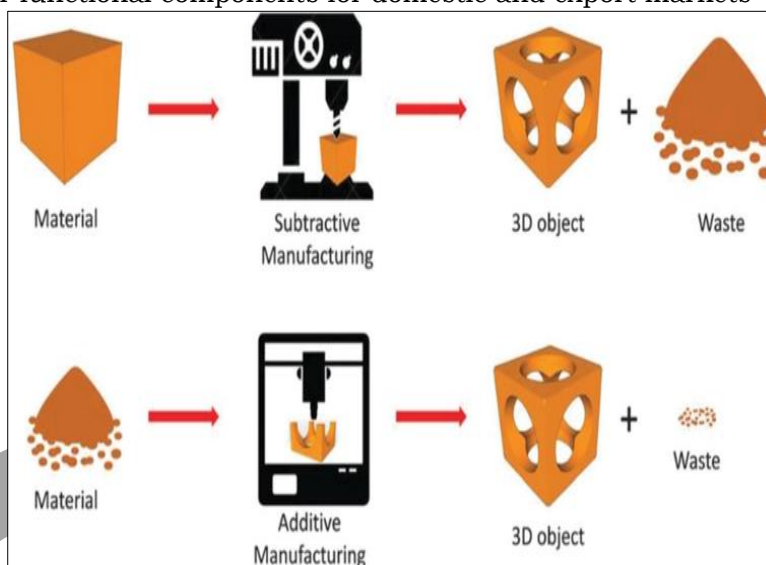
Mission:

- ✓ Ensure creation of a sustainable ecosystem for the AM industry to compete globally
- ✓ Encourage AM transformation and driving capabilities in the country for developing core competencies
- ✓ Position India as a global Innovation and Research hub for Additive Manufacturing

- ✓ Ensure AM manufactured end-user functional components for domestic and export markets
- ✓ Promote creation of Indian IPR
- ✓ Ensure adequate measures for the protection of AM technology

Additive Manufacturing (AM) /Three-dimensional (3D) printing:

- It is defined as the technology that **constructs a three-dimensional object** from a digital 3D model or a CAD model by **adding material layer by layer**.
- It uses **computer-aided designing (CAD)** to make prototypes or working models of objects by laying down successive layers of materials such as plastic, resin, thermoplastic, metal, fiber or ceramic.
- With the help of software, the model to be printed is first developed by the computer, which then gives instructions to the 3D printer.
- These are built layer by layer which is in contrast to traditional manufacturing that often requires machining or other techniques to remove surplus material.
- The addition of material can happen in multiple ways, namely power deposition, resin curing and filament fusing. The deposition and solidification are controlled by computer to create a three-dimensional object.



Industrial Applications and Advantages of AM Technologies

A transformational, cross-sectoral and, inter-disciplinary technology, AM is revolutionizing product design and on-location manufacturing globally, enabling radical product design and re-design, which further accelerate development of new material properties, and transformation of business capabilities through production of more sustainable designs realised at lower cost.

Applications:

- Aerospace & Defence
- Automotive
- Electronics
- Healthcare
- Consumer Goods

National Scenario:

The adoption of AM hasn't seen as much traction in India. However, it has generated considerable interest in the Indian manufacturing ecosystem, due to its potential to support tremendous socio-economic growth.

Strengths	Weakness
<ul style="list-style-type: none"> • Complex shapes and geometries • No tooling needed • Flexibility in changing design • Customized products • Reduce material waste compared to conventional methods • Increased supply chain proficiency 	<ul style="list-style-type: none"> • Relatively poor surface finish • post processing operations • Requires knowledge of CAD software • Not a wide range of materials available • Relatively high costs of machinery and materials. • Significantly slow fabrication speeds. • Not fit for mass production • Lack of repeatability • The lack of multi-material deposition
Opportunities	Threats
<ul style="list-style-type: none"> • 3D printing of organs • AM of intelligent material • Nano-printing • Developing new materials • Extending applications to print spare parts directly in-situ. • Improving Process sustainability 	<ul style="list-style-type: none"> • The lack of in process monitoring. • Reliability and standardization. • Hype and unrealistic expectations. • Ethical constraints (gun printing) • Cybersecurity risks (CAD drawing piracy) • Intellectual property/privacy issues

Some initiatives undertaken by various stakeholders to develop a domestic AM ecosystem in India.

Government led efforts:

- Establishment of 30 printing Manufacturing Lab at National Institute of Electronics & Information Technology, Aurangabad. The Institute also offers a certificate course in 3D printing.
- Atal Innovation Mission.
- Andhra Pradesh MedTech Zone collaborated with University of Wollongong to set up a 3D Bioprinting Lab.

PEPPER IT WITH

Virtual Reality vs. Augmented Reality, 4th Industrial Revolution, Atal Innovation Mission.

Private Sector Initiatives

- INTECH Additive Solutions, Bengaluru is pioneering in metal 3D printing in India and has the largest commercial set up available.
- Wipro has launched 'Addwize' - An additive technology Adoption & Acceleration programme.

Collaborative Efforts

- Department of Heavy Industries' COE at IISc Bengaluru (Additive Manufacturing for High Performance Metallic Alloys) collaborated with Wipro to build India's first industrial grade 3D printer.
- HP Inc has signed a MoU with the Government of AP to build a Centre of Excellence for 3D printing.

Way forward:

- The government believes Additive Manufacturing (AM) has immense potential to revolutionize India's manufacturing and industrial production landscape through digital processes, communication, imaging, architecture and engineering.
- With the release of the Strategy by Ministry of Electronics & Information Technology, Innovation and R&D ecosystem will be encouraged in PPP mode to transform existing research knowledgebase to develop Additive Manufacturing grade materials, 3D printer machines and printed indigenous products for vast domestic and international market in various sectors including electronics, photonics, medical device, agro and food processing etc.
- There is a need to start academic and industrial collaboration in this field. Research and Development of the technology should be the priority. It can also be promoted in engineering institute.
- The Government should make a "dedicated fund" towards the strategy to fund the R&D in the sector.

Society for Worldwide Interbank Financial Telecommunication (SWIFT) system

News Excerpt:

The US and European Union (EU) have decided to cut off a number of Russian banks from the main international payment gateway, SWIFT.

Pre-Connect:

The Society for Worldwide Interbank Financial Telecommunication (SWIFT):-

- It is the world's leading provider of secure financial messaging services.
- It facilitates trillions of dollars of cross-border payments between 11,000 financial institutions in more than 200 countries.
- Each member has its own SWIFT code.
- Headquartered in Belgium**, SWIFT is a global member-owned cooperative that was founded in 1973 by 239 banks from 15 countries.

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- It went live with its messaging services in 1977, **replacing the Telex technology** that was then widely used by banks to communicate instructions related to cross-border transfers.
- Through SWIFT, banks, custodians, investment institutions, central banks, market infrastructures and corporate clients can **connect with one another to exchange structured electronic messages** for common business processes like making payments or settling trades.
- SWIFT is **overseen by the central banks of G-10 countries, as well as the European Central Bank**, with the National Bank of Belgium as the lead overseer.
- It is important to note that **SWIFT is only a messaging service provider**. It has no control over the underlying financial transactions that are mentioned by its financial institutional customers in their messages.

Alternatives:

- In 2014, Russia developed its own alternative to SWIFT. It is called the **System for Transfer of Financial Messages (SPFS)**. But this system has struggled to establish itself in international transactions.
- Similarly, China launched the **Cross-Border Interbank Payment System (CIPS)** in 2015 to internationalise the use of the **yuan**. It allows global banks to clear cross-border yuan transactions directly onshore. CIPS still largely relies on SWIFT for cross-border financial messaging, but it has the potential to have and independently operate its own direct communication line among financial organisations.
- Although there are other message services like Fedwire, Ripple, and Clearing House Interbank Payments System (CHIPS), SWIFT continues to retain its dominant position in the market. Its success may be attributed to how it continually adds new message codes to transmit different financial transactions and to the security of its platform.

Analytica:

Impact of the ban on Russia

- ✓ It may cut off a number of Russian banks from the main international payment gateway, SWIFT.
- ✓ Cutting off a country from SWIFT in the financial world is equivalent to restricting Internet access of a nation.
- ✓ The assets of Russia's central bank are also expected to be frozen, constraining Moscow's ability to access its overseas reserves.
- ✓ The intention of the moves is to further isolate Russia from the international financial system.
- ✓ It is expected to hit the country's economy hard and in the words of the White House, it will make the country rely on the telephone or a fax machine to make payments.

PEPPER IT WITH

Currency Swap, G10, European Union, fixed-for-fixed currency swaps and fixed-for-floating currency swaps.

Impacts of these bans on India

- The exclusion of Russian banks from the SWIFT payment system as well as sanctions imposed on Russia will hurt the Indian oil companies' ability to repatriate dividends from Russian oilfields as well as investments.
- A depreciation of Russian currency, "Rouble", is also going to reduce dividends in US dollars for Indian oil firms.

Trade relation between India-Russia

- Bilateral trade between India and Russia stood at \$9.4 billion so far, this fiscal year, against \$8.1 billion in 2020-21.
- India majorly imports crude oil, petroleum products, coal, fertilisers, gold, precious stones, and precious metals.
- India ships out capital goods, pharmaceutical products, organic chemicals and auto parts to Moscow.
- Besides, Russia is also India's biggest arms supplier. Almost 60-70% of its military supplies are from Russia.
- India has a trade deficit with Russia (it was as much as \$4.34 billion until December this fiscal).

- India might face interruption and delay in arms import.
- Sanctions on Russia could jeopardize India's recent \$375 million BrahMos cruise missile export contract with the Philippines.
- India may witness some cancellations of supply orders by the Russians; domestic exporters, too, may choose to cancel some.
- Payments will get delayed and ultimately hit trade.

However, there is some relief for the country as India and Russia bilateral payments are made in Indian Rupee and sometimes in other currencies like Euro for both imports and exports. So, sanctions on Russia may not have an impact on the payments.

Way forward:

- ✚ Indian government should put in place a mechanism to ensure the payments are not stuck even if more sanctions are imposed on Moscow. The mechanism can be modelled on the rupee-rial architecture that was used to clear payments to domestic firms when the US had slapped sanctions on Iran.
- ✚ A barter system can also be activated easily.
- ✚ During sanctions on Iran- Under the rupee-rial mechanism, Indian refiners used to import crude oil from Iran and make payments to the designated rupee-account at Uco Bank and IDBI Bank. This money was, in turn, used to pay Indian exporters. This continued until crude oil was in the exempted list of US sanctions.

The Animation, Visual Effects, Gaming, and Comics (AVGC) sector

News Excerpt

In the budget 2022 speech, the decision was taken to set up a promotion task force on the Animation, Visual Effects, Gaming and Comic (AVGC) sector.

Pre-Connect

- As per the Confederation of Indian Industry (CII)-The Boston Consulting Group (BCG), India has less than **10% of the global market share in VFX and animation** and has the **potential to reach 20-25% by 2027**.
- The Ministry of Information and Broadcasting (MIB) in 2020 announced that it will establish AVGC Centre of Excellence (CoE) on the back of the belief that gamification and animation will become a major export for the country and a wealth generator.
- Following this promise, the first AVGC CoE was launched in Bengaluru. This year, MIB has been allocated a total of Rs 3,980.77 crore by the government.

Analytica

- The animation, visual effects, gaming and comics (AVGC) industry has witnessed unprecedented growth rates in recent times.
- It has seen the entry of many global majors who have tapped into India's talent pool for offshore delivery of services.

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The Metaverse:

- ❖ A metaverse is a network of 3D virtual worlds focused on social connections.
- ❖ In futurism and science fiction, it is often described as a hypothetical iteration of the Internet as a single, universal virtual world that is facilitated by the use of virtual and augmented reality headsets
- ❖ If the contemporary internet experience is two-dimensional—meaning you browse and scroll through it on a screen—the metaverse is 3D. You'll be "walking" through it via connected headsets or glasses.
- ❖ The metaverse is an immersive next-generation version of the internet, likely rendered by virtual or augmented reality technology.

- Meanwhile, the Indian media and entertainment sector is expected to grow at a nine to eleven percent compound annual growth rate (CAGR) to reach \$55-70 billion by 2030. The growth is estimated to be driven by over-the-top (OTT) platforms, gaming, animation, and VFX.
- The AVGC are critical skills for the growth of **the Metaverse** and this will position India to take advantage of the ecosystem.
- 5G can further promote the latest innovations and mass adoption of technologies like cloud gaming in the country. There is a huge scope of employment for the youth in the gaming industry, Esports/Video Games is a versatile industry and there is a huge scope for professional gamers as well as other jobs.

Advantages of the sector

- ✓ There is a huge scope of employment for the youth in the gaming industry, Esports/Video Games is a versatile industry and there is a huge scope for professional gamers as well as other jobs.
- ✓ In the last one year, we have seen a 30-35% growth in this industry in terms of job opportunities that are being created.
- ✓ India is now the second largest base of online gamers in the world after China.
- ✓ Online casual gaming, which forms a large chunk of the total gaming revenue, is projected to grow at a CAGR of about 29% over the next four years to reach revenues of Rs 169 billion by FY25.
- ✓ The Indian gaming industry is generating \$1.5 billion in revenue and is expected to triple this to over \$5 billion by 2025, according to BCG-Sequoia India report 2021.

Conclusion:

- The startup ecosystem has been given a great boost along with acknowledging the employment potential that creative domains such as AVGC sector hold for the youth. We can wait now for the recommendations that the AVGC promotion task force will be setting-up.
- However, the task force should look into aspects such as how do you build capacities, how do you embed this into your education systems to build more future capabilities. So how do you formalise some of the education in this sphere, so that you will have animators, designers and people who can conceptualise, code and create those games and environments from India.
- The government's move to tie-up with several institutes like IITs and so on is a positive one as it will help with reskilling and up-killing programme specific to this industry.

Concerns

- ❖ The need is to closely monitor the distinction that the government makes in terms of formalising the distinction between eSports and Gaming, which he regarded as two separate spheres.
- ❖ Regulatory clarity continues to be a bug bear for the space as various State governments have dragged these companies to court over allegedly being **akin to gambling**. This is something that these companies have vehemently denied saying they are not **games of chance but rather games of skill**.
- ❖ Regulatory clarity on whether it is in terms of taxation or the Centre-State disconnect that currently exists because States are going on to ban games.
- ❖ You need to have an enabling environment otherwise; you will not be able to create companies and employment in the space.

PEPPER IT WITH

Augmented Reality (AR), Virtual Reality (VR), and blockchain

India bans import of drones

News Excerpt:

The government has banned the import of drones with immediate effect, except for research and development, defence and security purposes. Also, PM has flagged off 100 'kisan drones' in different parts of the country for spraying pesticides and other farm materials.

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Pre-Connect:

- Union Budget 2022 announced the "Drone Shakti" project **to promote startups** in the country.
- The announcement of 'Drone Shakti' in the Budget came months after the Centre liberalized **the Drone Rules in 2021**.
- The rules aim to reduce the compliance burden in operating a drone.
- The 'Drone Shakti' project is expected to boost the domestic drone industry.
- Reportedly, the drone market in India is expected to grow at a CAGR of 20.9% during 2020-2026.

Aim:

- The Drone Shakti initiative aims to promote and facilitate drones as a service through startups.
- This initiative, along with the government's Production-Linked Incentive (PLI) scheme for drones, is expected **to increase domestic manufacturing and create employment**.
- As the government is opening up the drone sector for private players, more companies and startups are expected to shoot up their investment in this sector.
- Kisan Drones for crop assessment, land records, and spraying of insecticides to drive a wave of technology in agricultural sector.

Analytica:

- ✓ The **Directorate General of Foreign Trade (DGFT)** of the Ministry of Commerce and Industry notified the Indian Trade Classification (Harmonised System), 2022 effecting the prohibition of drones for import.

Highlights of the Drone Rules, 2021

- The Drone Rules apply to drones with an all-up-weight (weight of drone and payload together) of 500 kg, an upgrade from the previous limit of 300 kg.
- The weight categories for classifying drones as **Nano, micro, small, medium and large** have been retained from **the UAS Rules**.
- Online registration of all drones will take place on **the Digital Sky platform**, an online platform that will be used to regulate registration and operation of drones. This will be a single-window registration mechanism and no separate clearances are required to be sought from other departments.
- Manufacturers of drones will need to obtain **Type Certificates** through the Digital Sky platform for each new model of a drone.
- Type Certificates need to be issued within 75 days of the application being submitted. The interactive map will be uploaded within 30 days of the rules being notified.
- **No Type certificates required** for a model remotely piloted aircraft system or for a nano unmanned aircraft system.
- The Type Certificate number will be given by the manufacturer to users, which they can use to obtain a Unique Identification Number through the Digital Sky platform for each individual drone.
- **Import of drones will be regulated only by the Directorate General of Foreign Trade (DGFT).**
- The government will set up an interactive map with **3 kinds of zones- green, yellow and red**. Prior permission is required to fly only in the red and yellow zones.
- All drone operators except those operating nano drones or micro drones for noncommercial purposes need to obtain a drone pilot license.
- An Unmanned Aircraft System Promotion Council will be set up that shall facilitate progress for the industry. Etc.

- ✓ While exceptions were provided for R&D, defence and security, importing drones for these purposes will require “due clearances”.
- ✓ However, import of drone components will not require any approvals.
- ✓ A new culture of drone start-ups is getting ready in India. Their numbers will soon be in thousands from over 200 now, leading to the generation of employment opportunities on a massive scale.

Uses/Application of Drones:

- Drones have diverse usages; they have been used in the 'Swamitva Yojana' aimed at creating a record of land ownership in villages and transporting medicines and vaccines.
- 'Kisan drones' are the beginning of a new revolution. Farmers can use high-capacity drones in the coming times to transport their produce like fruits, vegetables and flowers to markets in a minimal time, boosting their income.
- Unmanned aerial vehicles (UAVs) for surveillance, situational analysis, crime control, VVIP security, disaster management, etc.
- Deployment of drones for combat, communication in remote areas, counter-drone solutions, etc.
- To undertake, incidence response, inspection/maintenance works and project monitoring.
- Drones can be used for real-time surveillance of assets and transmission lines, theft prevention, visual inspection/maintenance, construction planning and management, etc.
- Anti-poaching actions, monitoring of forests and wildlife, pollution assessment, and evidence gathering.
- High-quality videography of events and difficult-to-reach-places at a fraction of the cost and approvals required. This move would also facilitate low altitude shooting without noise, and prevent dust pollution and risk of accidents.

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Svamitva Yojana, PLI Scheme, Unmanned Aerial Vehicles, Directorate General of Foreign Trade (DGFT)

Conclusion:

The entire start-up ecosystem is evolving and the drone space is bubbled by start-ups in India. There exist many opportunities for students in the drone industry as drones are increasingly being used in medical delivery, agriculture, land revenue and mining survey which are easily done in India as compared to any other country. Courses on drone usage in agriculture, mining, medical delivery, drone maintenance and repair should be introduced as there is a need to introduce a lot of sector-based courses related to medical delivery, disaster response and surveillance as these are the areas that we lag behind. This would definitely bring the country at par with that of abroad as far as drone education is concerned.

Maharashtra's sugarcane fair and remunerative price (FRP) changes

News Excerpt

The Maharashtra government has issued a government resolution which will allow sugar mills to pay the basic fair and remunerative price (FRP) in two tranches. While the sugar industry has welcomed the move, farmers have opposed it.

Pre-Connect

Fair and Remunerative Price (FRP):

- With the amendment of the Sugarcane (Control) Order, 1966 on 22.10.2009, the concept of Statutory Minimum Price (SMP) of sugarcane was replaced with the 'Fair and Remunerative Price (FRP)' of sugarcane for 2009-10 and subsequent sugar seasons.
- The cane price announced by the Central Government is decided on the basis of the recommendations of **the Commission for Agricultural Costs and Prices (CACP) in**

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consultation with the State Governments and after taking feedback from associations of sugar industry.

- **The amended provisions of the Sugarcane (Control) Order, 1966 provides for fixation of FRP of sugarcane with regard to the following factors:**
 - Cost of production of sugarcane;
 - Return to the growers from alternative crops and the general trend of prices of agricultural commodities;
 - Availability of sugar to consumers at a fair price;
 - Price at which sugar produced from sugarcane is sold by sugar producers;
 - Recovery of sugar from sugarcane;
 - The realization made from sale of by-products viz. molasses, bagasse and press mud or their imputed value;
 - Reasonable margins for the growers of sugarcane on account of risk and profits.
- Under the FRP system, the **farmers are not required to wait till the end of the season or for any announcement** of the profits by sugar mills or the Government.
- The FRP system also assures margins on account of profit and risk to farmers, irrespective of the fact whether sugar mills generate profit or not and is not dependent on the performance of any individual sugar mill.
- The payment is required to be done **within 14 days of the date of delivery of the cane**. Mills have the option of signing an agreement with farmers, which would allow them to pay the FRP in installments.

What is the State Advised Price?

- State Advised Price (SAP) is the price announced by the state government, over and above the FRP.
- Since sugar pricing comes under the concurrent list, the Supreme Court has held that both the Center and the state have the power to fix sugarcane prices while the Center's price is the minimum price, states can set an SAP that will always be higher than the Center's FRP.

The Government initially fixed Minimum Selling Price (MSP) of white/refined sugar for sale by sugar mills at the factory gate for domestic consumption.

MSP of sugar has been fixed after taking into account the Fair & Remunerative Price (FRP) of sugarcane and minimum conversion cost of the most efficient mills.

Sugar pricing policy

- Price of sugar are **market driven & depends on demand & supply of sugar**. However, with a view to protect the interests of farmers, concept of **Minimum Selling Price (MSP)** of sugar has been introduced w.e.f. 07.06.2018 so that industry may get at least the minimum cost of production of sugar, so as to enable them to clear cane price dues of farmers.
- In exercise of the powers conferred under **the Essential Commodities Act, 1955**, Government has notified Sugar Price (Control) Order, 2018.

Analytica:

- ✓ Since the beginning, sugar mills have paid farmers **on the basis of the sugar recovery** of the previous season. Thus, mills in the present season (2021-22) would pay as per the recovery of the 2020-21 season.
- ✓ Mills raise money by 'pledging' their sugar stock, and use the realizations from sales to clear their debts. Thus, in a difficult year when sales are lean, or in a year of bumper production, mills face severe liquidity crises, and fail to pay both their creditors as well as the farmers. This ultimately leads them to financial insolvency, which can end with the mill being sold off or rented out.
- ✓ Payment of the basic FRP in installments has been one of the long-standing demands of the industry. It has been argued that it would ease the liquidity burden on them.

Sugar recovery is the ratio between sugar produced versus cane crushed, expressed as a percentage. The higher the recovery, the higher is the FRP, and higher is the sugar produced.

- ✓ Government resolution makes the payment system more systematic. The mills will now have to pay the FRP in two installments — and instead of relying on the recovery of the last season, they would have to pay as per the recovery of the current season.

PEPPER IT WITH
Minimum Support Price,
Commission for Agricultural
Costs & Prices, Essential
Commodities Act.

Why are the farmers protesting?

- According to farmers, what this order essentially says is that they would be paid as per the average recovery band of their district within 14 days of cane delivery, and the final payment would happen after the final recovery is calculated after the season.
- Farmers argue that this method would impact their incomes. They point out that while FRP will be paid in installments, and will depend on an unknown variable, their bank loans and other expenses are expected to be paid for as usual.

Conclusion

Many have questioned the state government's authority to tinker with the payment schedule of FRP, arguing that is the prerogative of the central government. The state government has taken advantage of the 2016 circular of the central government which allows states to declare FRP. What they have conveniently overlooked is that the circular allows them to sign and declare mill-wise recovery, but does not allow them to come out with a notification to pay FRP in installments.

INTERNATIONAL RELATIONS

Joint Comprehensive Plan of Action (JCPOA)

News Excerpt

America restored sanctions waivers to Iran to allow international nuclear cooperation projects, as indirect American-Iranian talks on reviving the 2015 international nuclear deal with Tehran.

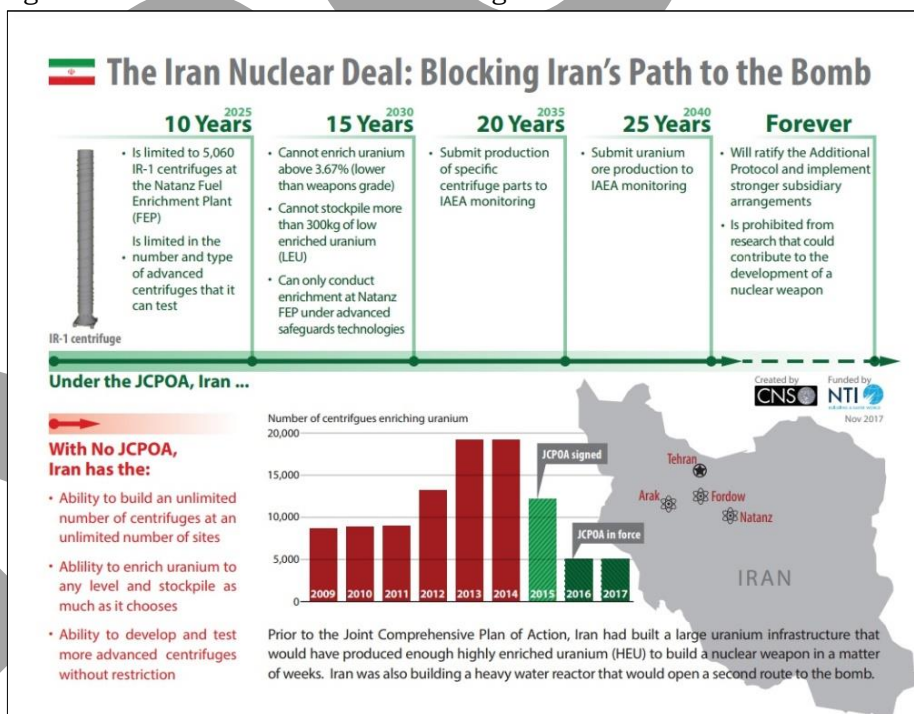
Pre-Connect

- The Iran nuclear deal, formally known as Joint Comprehensive Plan of Action (JCPOA), is a landmark accord signed between Iran and a coalition of world powers including the US, the UK, China, Russia, France, and Germany (collectively known as P5+1).
- JCPOA was the result of prolonged negotiations from 2013 and 2015 between Iran and P5+1. Former U.S. President Barack Obama described the JCPOA as his greatest diplomatic success.
- The relatively moderate regime of President Hassan Rouhani agreed to dismantle much of Iran's nuclear programme, and open its facilities to greater international monitoring. In return, the world powers agreed to lift many of the sanctions imposed on the country, opening its economy to billions of dollars of lost revenue.

- The world powers wanted to restrict Iran's nuclear capabilities to the point that it would take Tehran at least a year to build a weapon, giving them adequate time to prepare and respond. Before the agreement, analysts estimated that Iran had reached a point from where it could build a weapon in approximately three months.

- Iran was then estimated to be months away from accumulating enough highly enriched uranium to produce one nuclear device. The JCPOA obliged Iran to accept constraints on its enrichment programme verified by an intrusive inspection regime in return for a partial lifting of economic sanctions.
- Faced with a hostile Republican Senate, Mr. Obama was unable to get the nuclear deal ratified but implemented it on the basis of periodic Executive Orders to keep sanction waivers going.
- Mr. Trump had never hidden his dislike for the JCPOA calling it a "horrible, one-sided deal that should have never, ever been made". After ranting about it for a year, he finally pulled the plug on it in May 2018 and embarked on a policy of 'maximum pressure' to coerce Iran back to the negotiating table.

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- The Trump's decision was criticised by all other parties to the JCPOA (including the European allies) because Iran was in compliance with its obligations, as certified by the International Atomic Energy Agency (IAEA).
- For the first year after the U.S. withdrawal, Iran's response was muted as the E-3 (France, Germany, the U.K.) and the EU promised to find ways to mitigate the U.S. decision. But by May 2019, Tehran's 'strategic patience' was wearing out as the anticipated economic relief from the E-3/EU failed to materialise. As the sanctions began to hurt, Tehran shifted to a strategy of 'maximum resistance'.

Unravelling of the JCPOA

- On the nuclear front, beginning in May 2019, Iran began to move away from JCPOA's constraints incrementally through:
 - exceeding the ceilings of 300kg on low-enriched uranium and 130 MT on heavy-water
 - raising enrichment levels from 3.67% to 4.5%
 - stepping up research and development on advanced centrifuges
 - resuming enrichment at Fordow and
 - violating limits on the number of centrifuges in use.
- Finally, in January 2020, following the drone strike on Islamic Revolutionary Guard Corps Commander General, Tehran announced that it would no longer observe the JCPOA's restraints, though its cooperation with the IAEA would continue.
- Tensions rose as the U.S. pushed ahead with its unilateral sanctions by widening their scope to cover nearly all Iranian banks connected to the global financial system, industries related to metallurgy, energy and shipping, individuals related to the defence, intelligence and nuclear establishments and even senior political leaders including the Supreme Leader and Foreign Minister Javad Zarif.
- By end-2020, the U.S. had imposed nearly 80 rounds of sanctions targeting close to 1,500 individuals and entities.

Times in the Iran

- ✓ This came on top of COVID-19 that affected Iran badly, which had over 1.6 million infections and more than 60,000 deaths. The Iranian economy contracted by 7% in 2019 and another 6% in 2020.
- ✓ In mid-2020, Iran was shaken by a series of unexplained fires and blasts at a number of sensitive sites including one at the Natanz nuclear facility and another at Khojir, a missile fuel fabrication unit. The damage at Natanz, described as 'sabotage', was significant, leading Tehran to announce that it would be replaced by a new underground facility.
- ✓ Last November, a senior nuclear scientist and head of the Research and Innovation Organisation in the Iranian Defence Ministry was killed outside Tehran in a terrorist attack amid rumours of external intelligence agencies' involvement.
- ✓ Days later, Iranian Parliament, dominated by the conservatives, passed a bill seeking enrichment to be raised to 20%, acceleration of deploying new cascades and suspending implementation of some of the special inspection provisions with the IAEA within two months, if sanctions relief was not forthcoming.

Analytica: No appetite for talks

- Trump administration have provided comfort to Israel's leader Benjamin Netanyahu and Saudi Crown Prince Mohammed bin Salman, but it failed to bring Iran back to the negotiating table and only strengthened the hardliners.
- Iran has suffered and there is no appetite for more negotiations. The E-3's promised relief Instrument in Support of Trade Exchanges (INSTEX), created in 2019 to facilitate limited trade with Iran has been a disappointment, its first transaction only took place in March 2020. EU-Iran trade fell from €18 billion in 2018 to less than a third in 2019 and dropped further last year.

- A recent IAEA report has confirmed that 20% enrichment had begun as had production of uranium metal at Isfahan. However, a recent visit by IAEA Director-General Rafael Grossi to Tehran enabled a 'technical understanding' to postpone Iran's withdrawal from the Additional Protocol (that it had voluntarily accepted in 2015) by three months.
- Iranian elections are due in June and it is likely that President Hassan Rouhani's successor may not be from the 'moderate' camp. Though the nuclear dossier is controlled by the Supreme Leader Ayatollah Ali Khamenei.
- The Biden administration has made a good start by appointing Robert Malley as the U.S. Special Envoy for Iran but he will need help. Positive steps along multiple tracks are necessary for creating a conducive atmosphere. Release of European and American nationals currently in custody in Iran would help. Clearing Iran's applications to the International Monetary Fund for COVID-19 relief and for supply of vaccines under the international COVAX facility can be done relatively easily.

Conclusion

The IAEA and the E-3/EU should work on a parallel reversal of steps taken by Iran to ensure full compliance with the JCPOA. Brussels has long wanted to be taken seriously as an independent foreign policy actor; it now has the opportunity to take a lead role. If the U.S. waits for Iran to return to full compliance before lifting sanctions or Iran waits for the U.S. to restore sanctions relief before returning to full compliance, it can only lead to one outcome — the collapse of the JCPOA with Iran going nuclear like North Korea; an outcome that would create major reverberations in the region and beyond. Only good intentions will not be enough to overcome this impasse.

PEPPER IT WITH

International Atomic Energy Agency, U.S. Presidential Elections

China-Russia-Pakistan Troika

News Excerpt

The two-day visit to Moscow by Pakistan's Prime Minister Imran Khan comes at a time when President Vladimir Putin is the bad boy of the world for his actions against Ukraine.

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Pre-Connect

- Imran Khan has become the first foreign leader to visit Russia after Putin recognised two breakaway regions of Ukraine as independent republics, and the first Prime Minister of Pakistan to travel to that country since the landmark visit by Nawaz Sharif in 1999.
- Imran Khan has visited Russia on the Kremlin's invitation, and Pakistani officials have said the visit was scheduled well ahead of current developments and the visit would focus on Pakistan's relations with Russia.

History of the Pakistan-Russia bilateral ties

- Pakistan's relations with Russia have come a long way since the time it was a willing ally and treaty partner of the US bloc against the Soviet Union. It had helped the US repair its relations with China, which sent Beijing and Moscow further apart. In response, India and USSR solidified their ties with a defence pact, and increased economic and people-to-people exchanges.
- Pakistan saw itself as a frontline state against the spread of communism, and actively aided and assisted in the defeat of the Red Army in the first Afghan war, with the US and Saudi Arabia using the Pak Army to funnel funds and weapons to the mujahideen.
- The collapse of the Soviet Union led to major shifts in international relations. From their vantage points, Pakistan and Russia watched the US and post-economic-reforms India draw closer. Towards the end of the presidency of Boris Yeltsin, Nawaz Sharif became the first Pakistani leader to visit Moscow.

- It was only in the next decade that Putin's Russia, looking for new markets for its military hardware, as well as new international partners, began building ties with Pakistan. By then, serious rifts had emerged between the Obama Administration and Pakistan, with the killing of Osama bin Laden in a stealth raid by US marines in Pakistan's Abbottabad being the turning point.

Background: Russia-Pakistan-China

- ✓ In 2011, to New Delhi's shock, Russia lifted its four-decade-old arms embargo on Pakistan, and within four years, would sell Pakistan its first MiG attack helicopters.
- ✓ As a US defeat in Afghanistan began to look certain, both countries made common cause on Afghanistan, again to India's dismay.
- ✓ In 2014, after Russian annexation of Crimea, Russia found a friend in China, the long-time friend of Pakistan, triangulating the relationship.
- ✓ In September 2016, after the Jaish-e-Mohammed attack in Uri, Russia went ahead with a joint military exercise with Pakistan, ignoring New Delhi's appeal against it.
- ✓ In 2017, with Indo-Pak relations at their lowest, Russia sold more helicopters to Pakistan.
- ✓ Both Pakistan and Russia are participants in China's Belt and Road Initiative.
- ✓ After the Taliban takeover in Afghanistan, the world has seen the three take common positions and in tacit acknowledgment of each other's interests in that country.

Analytica

- However, Russia is hardly starry-eyed about its relations with Pakistan. As its support for the designation of Pakistan-based terrorist groups, including those targeting India such as the Jaish and its leader, and the Lashkar-e-Taiba, have shown, Russia has clear views against Pakistan's patronage of terrorists.
- Even while it is supportive of the Taliban regime, Russia is concerned about Islamist extremism emanating from Afghanistan appearing in the Central Asian republics and on the margins of its own territory.
- Also, even though the Russia-India relationship is not what it used to be in the Soviet days, both sides recognise its continued mutual benefits.
- Russia remains India's biggest arms supplier, and India took the risk of being sanctioned by the US when it bought the Russian S 400 missile defence system.
- New Delhi has not yet allowed its close ties with the US to tilt its delicate balance on the Ukraine issue.

Conclusion

While Imran's visit reflects the greatly improved ties between Pakistan and Russia, their mutual partnership with China that has grown in recent years signals the undeniable development of a new axis in South Asia and Central Asia. The relations of each of these countries with the United States have worsened over the last two years. This and their overlapping stakes and interests in Afghanistan and Central Asia, and the Belt and Road Initiative, have seen these three countries take the lead in projecting the Taliban as the rightful claimants to power in Kabul.

PEPPER IT WITH
Bilateral ties between Russia and China, and China and Pakistan

India-Sri Lanka Bilateral ties

News Excerpt

India has agreed to provide a grant to Sri Lanka to implement a 'Unitary Digital Identity framework', apparently modelled on the Aadhaar card.

Pre-Connect

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- Sri Lanka have two challenges. One is the foreign exchange challenge, which is showing at the moment. The other is the fiscal challenge, a legacy inherited since Independence because Sri Lanka have lived beyond its means. The pandemic has brought it to the top. India has stepped into stabilise the situation.
- India- Sri Lanka agreed on the “four pillars of co-operation” for the short term.
 - a. The first column was to do with emergency support for food and medicine, and that is a \$1-billion credit line.
 - b. The second was to help with our petroleum supply, where the idea was, on one side, a line of credit of \$500 million and the other was also to collaborate with India on the Trincomalee tank farm and look at how both the countries could work together for energy security and storage.
 - c. The third was how India could support Sri Lanka’s foreign exchange reserves and that was in two stages — the first was India supported Lanka by giving a deferral of two months on dues to the Asian Clearing Union, and that was \$500 million, and the other was a \$400-million swap.
 - d. The last pillar is investment, and it would add tourism to that, as India is the largest tourism market — 20-25 per cent of Lanka’s tourists came from India before the pandemic.
- Earlier in 2015, the Sri-Lankan government mooted a similar Electronic-National Identity Card (E-NIC) that privacy advocates opposed on grounds that the state would have full access to citizens’ personal data in a central database. The former Mahinda Rajapaksa government also tried initiating the project as early as 2011. Neither project was implemented.

Highlights of the proposed Unitary Digital Identity Framework

- The Rajapaksa government will “prioritise” the implementation of the framework as a national level programme.
- Under the initiative, it is expected to introduce a personal identity verification device based on biometric data, a digital tool that can represent the identities of individuals in cyberspace, and the identification of individual identities that can be accurately verified in digital and physical environments by combining the two devices.
- The initiative comes amid substantive economic assistance from India, totaling \$ 1.4 billion since the beginning of this year, to Sri Lanka, to help the island nation cope with its dollar crunch, and import food, medicines and fuel amid frequent shortages.
- While India has confirmed support for Sri Lanka’s effort to transition to a digital identity system, there is no official information yet on the value of the grant, and whether it would include technological support or training.

Analytica

- ✓ In keeping with its policy since the turn of the century of supplying non-lethal military hardware, also under discussion is a proposal for Sri Lanka’s procurement of two Dornier aircraft, which will likely be deployed for maritime surveillance.
- ✓ India had earlier given offshore patrol vessels to the Sri Lankan coast guard. It will also help Sri Lanka launch a digital identity project along the lines of Aadhaar.
- ✓ What remains troubling, however, is the continued reluctance of President Gotabaya Rajapaksa to engage with the Sri Lankan Tamil polity. He has not met Tamil parliamentarians even once since he was voted to office in November 2019.
- ✓ On the other hand, the government says a new draft Constitution written by a “committee of experts” could be submitted to Parliament soon. There is understandable concern in the Tamil political leadership about its contents given recent centralising tendencies, and voices demanding the abolition of the only provision that speaks of devolution of political power, namely the 13th amendment, introduced during the Indian intervention in 1987.

- ✓ The Sri Lankan foreign minister has said that the rivalry between Indian and Sri Lankan fishermen in the Palk Strait was the only “flashpoint” in India-Sri Lanka ties, Colombo’s foot dragging on a political settlement of the Tamil question has its own impact.
- ✓ A letter from Tamil parliamentarians to Prime Minister Narendra Modi seeking his intervention in the implementation of the 13th amendment, but also highlighting that provision was insufficient by the standards of “co-operative federalism” that he spoke about during his visit to Colombo, captures some of the anxiety. The upcoming United Nations Human Rights Council session may shed some light on the view from Delhi.

Conclusion

Sri-Lanka-India relations have reached a “high point”. It is true that the tensions of the past do seem to have dissipated to a great extent. Colombo appears more welcoming of collaborations with India than it has been seen to in the past, especially during Rajapaksa governments. Its economic crisis, which has led to dire shortages of essential commodities, fuel and medicines may have been a turning point in this respect. Colombo had appealed to several friendly countries for help, including India. In doing so, it also finally delivered on the Trincomalee storage tanks deal that had been held up for nearly two decades. Delhi’s financial assistance was timely. So great is the bonhomie that Sri Lanka is now talking about a closer integration of the Indian and Sri Lankan economies with more Indian investment in several sectors including ports, power, energy and tourism.

PEPPER IT WITH
Chinese investments in the Sri Lankan Territory, Belt and Road Initiative, Trincomalee Oil Tank Farm

Quad Meet

News Excerpt

The latest meeting of Quad leaders has clearly exposed differences in the grouping over Ukraine. The US, Japan and Australia have been forthright in their condemnation of the Russian invasion and are applying sanctions on Moscow. However, India continues to take a relatively neutral position on the issue and has been abstaining in votes on UN resolutions condemning Russia’s actions in Ukraine. This has created an odd situation within the Quad.

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Pre-Connect

- Known as the 'Quadrilateral Security Dialogue' (QSD), the Quad is an informal strategic forum comprising four nations, namely United States of America (USA), India, Australia and Japan. One of the primary objectives of the Quad is to work for a free, open, prosperous and inclusive Indo-Pacific region.
- The group met for the first time in 2007 on the sidelines of the Association of Southeast Asian Nations (ASEAN). It is considered an alliance of maritime democracies, and the forum is maintained by meetings, semi-regular summits, information exchanges and military drills of all the member countries.

Formation of QUAD

- Since its establishment in 2007, the representatives for the four-member nations have met periodically. Japanese Prime Minister Shinzo Abe was the first to pitch the idea for the formation of Quad in 2007.
- In fact, its origins can be traced back to the evolution of Exercise Malabar and the 2004 Tsunami when India conducted relief and rescue operations for itself and neighbouring countries and was later joined by the US, Japan and Australia. Therefore, China issued formal diplomatic protests to the members of the Quad.

Australia's withdrawal

- ✓ However, Australia withdrew from the forum due to the political pressure from the Chinese government and in the wake of the growing conflict between the US and China in the Asia-Pacific region. In 2010, enhanced military cooperation between the US and Australia was resumed, leading to Australia's comeback to the Quad's naval exercises.
- ✓ In 2012, the Japanese PM emphasised the idea of Asia's 'Democratic Security Diamond' comprising the US, Japan, India and Australia. It was in 2017 when the first official talks under the Quad took place in the Philippines.



Highlights

- Calling for justice for the 26/11 terror attacks in Mumbai (2008) and the Pathankot airbase attack (2016) for the first time since the group was formed, foreign ministers of the Australia-India-Japan said that the Quad is already cooperating on sharing intelligence on threats in the Indo-Pacific region.
- The group of ministers, who held their fourth Quad ministerial meeting in Melbourne resolved to speed up delivery of more than a billion Covid vaccines to be manufactured in India, to hold a special meet on climate change this year, and step efforts to ensure maritime security in the region. They announced plans for a Quad summit including PM Modi, U.S. President Biden and Australian PM Morrison to be hosted by Japan's PM Kishida in Tokyo in the "first half of 2022".
- A joint statement issued at the end of talks between the foreign ministers said that the Quad call on all countries to ensure that territory under their control is not used to launch terror attacks and to expeditiously bring to justice the perpetrators of such attacks. The Quad reiterate condemnation of terrorist attacks in India, including 26/11 Mumbai and Pathankot attacks.

Principles of Quad

- The motive behind the Quad is to keep the strategic sea routes in the Indo-Pacific free of any military or political influence. It is basically seen as a strategic grouping to reduce Chinese domination. The core objective of the Quad is to secure a rules-based global order, freedom of navigation and a liberal trading system. The coalition also aims to offer alternative debt financing for nations in the Indo-Pacific region.
- The Quad leaders exchange views on contemporary global issues such as critical and emerging technologies, connectivity and infrastructure, cyber security, maritime security, humanitarian assistance, disaster relief, climate change, pandemic and education.

Significance of Quad for India

- It is believed that the forum strategically counters China's economic and military rise. Interestingly, if Chinese hostilities rise on the borders, India can take the support of the other Quad nations to counter the communist nation. In addition, India can even take the help of its naval front and conduct strategic explorations in the Indo-Pacific region.

- The statement also made a veiled reference to China's actions in the South and East China seas, reaffirming a commitment to a free and open Indo-Pacific, in which states strive to protect the interests of their people, free from coercion.
- While the grouping committed to stronger cooperation on Indo-Pacific initiatives, divisions appeared in their stand on global developments like Russia-NATO tensions over Ukraine and sanctions against Myanmar's military.
- The joint statement called for a return to democracy in Myanmar, and also condemned North Korea's recent ballistic missile tests.

Quad Vaccines initiative

- ✚ The joint statement issued included a renewed commitment to the "flagship" Quad Vaccine initiative to deliver at least one billion vaccines produced at Hyderabad's Biological E facility by the end of 2022 to Indo-Pacific countries, and to a pledge to donate 1.3 billion vaccine doses globally.

Conclusion

At a joint media briefing after the talks, the Quad foreign ministers reaffirmed their support to principles of openness, protection of national sovereignty and observance of rules and fair play, in remarks seen as a message to China. India said the interactions made it evident that robust bilateral relations between the Quad countries, their strategic convergences and shared democratic values have all combined to make the Quad a vibrant and substantial framework.

PEPPER IT WITH
Malabar Exercise, European Union, SEATO, CENTO, NATO, Myanmar Crisis

Humanitarian crisis of Afghanistan

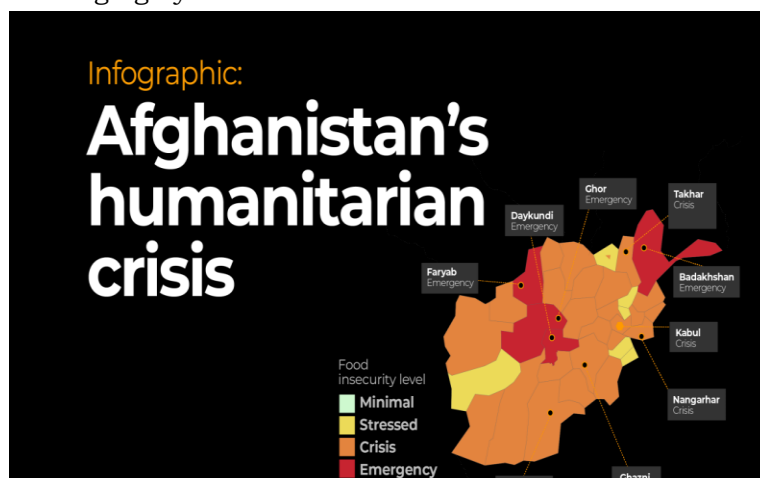
News Excerpt

The Ukraine conflict dominates this year's Munich Security Conference, as world leaders pay less attention to the Afghan crisis. Two decades ago, a similar negligence unleashed catastrophic consequences for global peace.

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Pre-Connect

- Afghanistan has been unstable and insecure for decades, but the Taliban's capture of power last August has had the entire region hanging by a thread.
- The war-ravaged country is facing an unprecedented humanitarian crisis, which could turn into another violent conflict.
- Afghans are suffering the consequences of the "rushed" US withdrawal from Afghanistan — the most pressing being poverty and unemployment.
- Three-quarters of the country's public spending had been funded by foreign aid. When the United States withdrew and the Taliban seized control in August 2021, that aid was cut. Now, nearly nine million people face emergency-level food insecurity, according to the World Food Programme.



- More than one million children under the age of five eat so little that they are acutely malnourished, and one out of three adolescent girls suffer from anaemia, according to UNICEF. More than half the population—24 million Afghans—is in need of vital humanitarian assistance, according to the United Nations' High Commissioner for Refugees.

Humanitarian catastrophe

- Few in the West see an immediate security threat emanating from Afghanistan. The Taliban, seeking to gain international recognition and financial aid, are more inclined toward a "diplomatic" approach than employing violent tactics. But this superficial calm may not last for long.
- If the humanitarian crisis aggravates in Afghanistan, even the Taliban won't be able to manage the situation, as evidenced by violent "Islamic State" (IS) attacks.
- International aid organizations have left the country. The Taliban are unable to pay the wages to government employees. The public health care sector is in a disarray.
- Apart from the suffering of the rural population, even Afghans based in cities are finding it impossible to make ends meet.
- Many Afghans had put their savings in bank accounts, now, they cannot access them. Afghan businessmen, cannot make international transfers, which has resulted in high commodity prices in the country.
- Afghanistan could face a bigger catastrophe if the Taliban are unable to improve the economic situation, adding that they will find it difficult to govern and a civil war could erupt.
- History tells us that humanitarian crises could lead to violent conflicts. It is easier for terrorist groups to operate in a country that is facing economic turmoil. Afghanistan is no exception.

Analytica

- ✓ An insecure Afghanistan has not only dangerous implications for the region but also the whole world. The 9/11 attacks proved it. Life has become "extremely difficult" for most Afghans.
- ✓ The humanitarian crisis in Afghanistan cannot be resolved through humanitarian aid alone. Afghanistan's economy needs to be improved so that Afghans can be brought out of poverty. But to lift Afghanistan's economy, the international community needs to engage with the Taliban.

Global consequences

- A possible violent conflict in Afghanistan could spill over to other countries in the region. If that happens, regional powers will start supporting proxies to keep the violence within Afghanistan's boundaries. But it will only be a short-term solution to the Afghan conflict.
- The more the Taliban stay in power, the more difficult will it get to maintain stability in the region. Some observers say the current situation in Afghanistan is disturbingly similar to the geopolitical scenario in the late 1990s. The Taliban seized power in 1996, but the international community did not fully grasp the potential consequences of the new paradigm. Away from the global spotlight — and amid a lack of interest in Afghan affairs — the country became a hub of local and international militant groups.
- The Taliban have ties with international terrorists. Their return to power has emboldened jihadi organizations in the region. As they consolidate themselves, their tactical and strategic ties with terrorism financiers and sponsors will grow and will eventually jeopardize peace and security in the region and beyond.

PEPPER IT WITH

Belarus- Poland Border Crisis, BRICS, ASEAN, SAARC, United Nations' High Commissioner for Refugees, World Food Programme

Conclusion

The West needs a balanced approach in dealing with the Taliban. The Taliban is a reality that no one can ignore. Terrorism will not be contained within Afghanistan's borders if the humanitarian situation in the country does not improve. It shouldn't be about the international community are either not going to talk to Taliban or if the global community talk to it, they should recognize it. Whatever the leaders choose to do, it is important that they should help common Afghans, especially women and children. Humanitarian aid must reach the people in need.

Indo-Pacific strategy of the United States

News Excerpt

The Biden administration announced its long-awaited Indo-Pacific strategy. The document focuses on building collective capacity to deal with challenges in the region — China's assertiveness, the pandemic and climate change, among others.

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Pre-Connect

- Indo-Pacific region has been a dedicated policy focus of various US Presidents like President Obama's 'Pivot to Asia' or 'Rebalance' strategy and the Trump era's own 'Strategic Framework for the Indo-Pacific', therefore, Biden's Indo-Pacific policy depicts a sustained interest in and priority of the region.
- The document potentially coming out at a critical stage in European security restructuring, requiring considerable US' focus and resources on another flank to deter a Russian threat to Ukraine, underscores the indispensability of a sustained regional strategy in the Indo-Pacific region.
- The objective to drive prosperity in the Indo-Pacific rests on two main goals: Framing and strengthening an Indo-Pacific economic framework and closing the infrastructure gap in the region with the help of the G7 partners through the Build Back Better World initiative (B3W).



Highlights

- The policies set out in the document have continuity with previous administrations' strategies. These include a focus on challenges from China, advancing the U.S. relationship, a 'Major Defense Partnership' with India and supporting its role as a net security provider in the region.
- There is an emphasis on working with other countries not just from the region, but also from beyond.
- India's role in the Quad was an important element of the U.S.-India relationship, and a means to "speak frankly about issues in the region," and to deliver together on public goods. The Quad is rolling out a plan to deliver over a billion COVID-19 vaccines to the region by the end of this year.
- China's action along the Line of Actual Control (i.e., its border conflict with India) has had a "galvanizing impact" on India, which is behind India's enthusiasm for greater alignment with the U.S.
- The strategy document says the U.S. will "continue to support India's rise and regional leadership," working with India bilaterally and through groups on a range of issues. It refers to India as a "like-minded partner" and "driving force" in the Quad.
- The overall increasing focus of the U.S. on the region is due to its increasing challenges, especially from China, according to the strategy document.

- To advance its prosperity goal for the region, the U.S.'s strategy includes seeking higher labour and environmental standards, helping to establish secure supply chains and investing in clean energy.
- On Taiwan, it will work with partners inside and outside the region to maintain "peace and stability in the Taiwan Strait." There are references to maintaining existing policies towards both Taipei and Beijing.

Analytica

- ✓ Washington will 'continue to support India's rise and regional leadership.
- ✓ The People's Republic of China coercion and aggression spans the globe, but it is most acute in the Indo-Pacific Region.
- ✓ From the economic coercion of Australia to the conflict along the Line of Actual Control with India to the growing pressure on Taiwan and bullying of neighbours in the East and South China Seas, our allies and partners in the region bear much of the cost of the PRC's harmful behaviour.
- ✓ United States recognise the limitations in our ability to change China, and therefore, seek to shape the strategic environment around China.
- ✓ More broadly, the U.S. will seek an Indo-Pacific that is free and open, connected, prosperous, secure and resilient. On the "free" aspect, one of the strategic actions outlined is investing in civil society, a free press and democratic institutions.
- ✓ On the topic of "connections" within and beyond the region, the U.S. is working "in flexible groupings" to tackle major issues, "particularly through the Quad."
- ✓ It will also deepen its (five) regional treaty alliances and work with groups such as ASEAN, the European Union (EU) and NATO.
- ✓ Integrated deterrence will form the cornerstone of the U.S.'s security plan for the region and it will drive initiatives that reinforce deterrence and counter coercion, such as opposing efforts to alter territorial boundaries or undermine the rights of sovereign nations at sea. The reference to territorial boundaries is, in part at least, presumably, about the actions of China along the Line of Actual Control.
- ✓ The U.S. also seeks to foster ties between countries in the region and beyond, such as via AUKUS, a recently launched security alliance between Australia, the U.K. and the U.S.

Conclusion

The Biden presidency brought out its Indo-Pacific strategy a day after the Quad Foreign Ministers Meeting in Melbourne, Australia. This is clearly reflective that the Quad is considered the most potential platform for furthering of the US objectives and strategy in the Indo-Pacific. The document's assertion that the US 'will focus on every corner of the region-from Northeast Asia and Southeast Asia, to South Asia and Oceania, including the Pacific Islands' seems intended towards cementing back the eroded assurance of the US support to its allies during the Trump presidency, as well as to insinuate that US' focus on one flank of this vast region will not be at the cost of ignoring the other. A regional balance of influence along with like-minded partners and allies in the Indo-Pacific, broadening spectrum of maneuverability for other Indo-Pacific partners.

PEPPPER IT WITH
QUAD, AUKUS, Munich Security Conference, Indian Ocean Rim Association

India signs MoU with World Food Programme

News Excerpt

India signed an agreement with the United Nation's World Food Programme (WFP) for the distribution of 50,000 MT of wheat that it has committed to sending

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Afghanistan as part of a humanitarian assistance, with diplomatic efforts under way to begin sending truck convoys through Pakistan by road.

Pre-Connect

- The World Food Programme (WFP) is the world's largest humanitarian organization, saving lives in emergencies and using food assistance to build a pathway to peace, stability and prosperity for people recovering from conflict, disasters and the impact of climate change.
- WFP works in over 80 countries to bring life-saving food to people displaced by conflict and made destitute by disasters, and help individuals and communities find life-changing solutions to the multiple challenges they face in building better futures.
- WFP work to enhance nutrition in women and children, support smallholder farmers in improving productivity and reducing losses, help countries and communities prepare for and cope with climate-related shocks, and boost human capital through school feeding programmes.
- In conflict situations, WFP bring relief to exhausted populations and use food assistance to build pathways to peace and stability – work for which WFP was awarded the Nobel Peace Prize in the year 2020.



Highlights

- The agreement was announced by the Indian Embassy in Rome, where Indian Ambassador handed over the MoU for WFP to take charge of the wheat convoys when they reach Afghanistan, and to distribute them to those Afghans who are facing a humanitarian crisis.
- According to the MoU, the wheat will be taken through Pakistan to the Afghan border crossing and handed over to WFP officials in Kandahar.
- The wheat will eventually be divided into five batches of 10,000 MT, to be distributed across the country on approximately 200 trucks that are run by WFP.
- The WFP runs its own logistics network inside Afghanistan, partnering with civil society groups, and has launched a global campaign for enough food and aid for the population facing malnutrition — estimated to be half the population or 22 million Afghans.
- Pakistan had cleared an Indian proposal to use the land route in November 2021 and the Taliban regime had welcomed the offer. Pakistani government had held up the process by insisting that Indian trucks would not be allowed to ply and eventually only cleared Afghan trucks to carry the wheat.
- ***Among other issues to be worked out was whether the Taliban government, which no country recognises, could commandeer the stocks of food aid. However, WFP operates in Afghanistan, as it does in other countries, under the condition that it is able to provide the humanitarian aid “directly into the hands” of those that need it without any interference from the Taliban.***
- Iran has also offered to facilitate wheat through Chabahar port. However, it is unclear whether India will use the Chabahar route, which it had employed from 2017-2020 to transport about one million tonnes of wheat, before the Taliban took control of Kabul for now.

Conclusion

The task before the World Food Programme is enormous, and every bit counts. India's commitment for 50,000 MT is extremely important, especially in times of the pandemic. The route via Pakistan, which has been closed for all exports from India since 2019, and opened only as an exception, is likely to require several weeks for the transport of the current consignment, as infrastructure and

labour required to load and reload the wheat has to be organised. Pakistan had shut down all trade with India to protest the government's changes in Jammu and Kashmir and Article 370 in August 2019. Subsequently, Pakistan had allowed Afghan exports to India to pass through the Wagah border, making an exception also for medicines from India during the pandemic. India has also flown several consignments of medicines and medical equipment to hospitals in Afghanistan on board flights.

PEPPER IT WITH

Antyodaya Anna Yojana, National Food Security Act, Public Distribution System, Food Corporation of India

UN Resolution on Russia

News Excerpt

India's abstention from the vote on the draft resolution with text "deploring in the strongest terms" Russia for its operations inside Ukraine was no surprise, given the fine balance Delhi has sought to strike between crucial partnerships with both Moscow and Western allies.

Pre-Connect

- The UN Security Council voted on the draft resolution presented by the US and Albania, and co-sponsored by several other nations, including Australia, Estonia, Finland, Georgia, Germany, Italy, Liechtenstein, Lithuania, Luxembourg, New Zealand, Norway, Poland, Romania and the United Kingdom.
- The Council's resolution reaffirmed its commitment to the sovereignty, independence, unity and territorial integrity of Ukraine within its internationally recognised borders.
- The resolution "deplores in the strongest terms Russia's aggression against Ukraine" and decides that Russia "shall immediately cease its use of force against Ukraine and shall refrain from any further unlawful threat or use of force against any UN member state".
- The resolution added that Russia "shall immediately, completely, and unconditionally withdraw all of its military forces from the territory of Ukraine within its internationally recognised borders". It also asked Moscow to "immediately and unconditionally reverse the decision related to the status of certain areas of Donetsk and Luhansk regions of Ukraine".

Indians' evacuation from Ukraine: Operation Ganga

After Russia attacked Ukraine and launched a military operation on February 26, India has doubled its efforts to bring back the citizens stranded there. Since Ukraine is one of the favoured destinations for medical education, many Indian students are studying there.

After Ukraine closed its airspace, India started evacuating its citizens by launching Operation Ganga, via Romania and Hungary.

Why did India abstain?

- India did not endorse the harsh language used in the resolution condemning Russia's actions. It wants to maintain a balance between the Western bloc led by the US, and Russia, since it has strategic partners on both sides.
- India's past record has been maintaining balance between the West and Russia. On January 31, India abstained on a procedural vote on whether to discuss the issue of Ukraine. New Delhi had then articulated its position on "legitimate security interests" that echoed with a nuanced tilt towards the Russian position, and had abstained along with Kenya and Gabon.

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What was the fate of this resolution?

- ✓ While Russia, which chaired the meeting of the UNSC since it holds the presidency for the month of February, vetoed the resolution. China, too, abstained along with the United Arab Emirates. Despite the remaining 11 members of UNSC, including US, UK, France, voting in favour of the resolution, it did not pass since Russia vetoed it. China's abstention is a surprise since it had opposed the vote on January 31, and was seen echoing Russia's position. An earlier draft of the resolution had proposed moving the resolution under Chapter VII of the UN Charter, which provides the framework within which the Security Council may take enforcement action. However, this was dropped in the final version that was put to vote.

Opportunity to Export More Wheat

- ❖ The Russia-Ukraine crisis might give India an opportunity to export more wheat in the global markets and domestic exporters should tap this opportunity. More than a quarter of world's wheat exports comes from Russia, Ukraine
- ❖ India's central pool stood at 24.2 million tonnes, twice more than the buffer and strategic needs.
- ❖ Egypt is the world's biggest importer of wheat. It spends more than \$4 billion annually to feed its population of more than 100 million. Russia and Ukraine cover more than 70% of Egypt's imported wheat demand.

How did India explain its vote?

India laid out five key points to explain the abstention.

- India said that it is "deeply disturbed", but did not name Russia at all. "India is deeply disturbed by the recent turn of developments in Ukraine."
- India reiterated its appeal for "cessation of violence". India urges that all efforts are made for the immediate cessation of violence and hostilities. This was conveyed by Prime Minister Narendra Modi to Russian President Vladimir Putin as well during the phone call. No solution can ever be arrived at the cost of human lives.
- India flagged its core concern about Indian nationals in Ukraine — about 16,000 are still stuck, most of whom are students. We are also deeply concerned about the welfare and security of the Indian community, including a large number of Indian students, in Ukraine.
- India touched upon "territorial integrity and sovereignty", which was a new theme. The contemporary global order has been built on the UN Charter, international law, and respect for the sovereignty and territorial integrity of states. All member states need to honour these principles in finding a constructive way forward.
- India advocated diplomacy. "Dialogue is the only answer to settling differences and disputes, however daunting that may appear at this moment." It is a matter of regret that the path of diplomacy was given up. We must return to it. For all these reasons, India has chosen to abstain on this Resolution.

Was India under diplomatic pressure?

- ✚ Before the United Nations Security Council took up the draft resolution condemning the Russian invasion, India was caught in a diplomatic bind between the Western powers and Russia. External Affairs Minister S Jaishankar had telephonic conversations with his Russian counterpart Sergey Lavrov and US Secretary of State Antony Blinken, insisting that dialogue and diplomacy are the best way forward to defuse the Ukraine crisis. As Russian troops reached the gates of Kyiv, Ukrainian Foreign Minister Dmytro Kuleba called Jaishankar and shared his "assessment" of the situation.

PEPPER IT WITH

United Nations Security Council,
General Assembly, Secretary
General of the United Nations

Ambassadors of European countries in India got together in New Delhi and expressed solidarity with their Ukrainian counterpart and strongly condemned Russia's "unprovoked and unjustified" military attack on Ukraine.

British and EU Foreign ministers had also called up Jaishankar, while ambassadors of G-7 countries had expressed support for the Ukrainian ambassador.

Falklands Sovereignty

- Britain firmly rejected a statement from China that affirmed Beijing's support for Argentina's claim to the Falkland Islands, as relations between London and Asia's leading power remain strained.
- United Kingdom "completely" rejected "any questions over sovereignty of the Falklands."
- The Falklands are part of the British family and the UK will defend their right to self-determination. China must respect the Falklands' sovereignty.
- Argentina believes the Falklands were illegally taken from it in 1833 and invaded the British colony in 1982.
- The United Kingdom sent troops and Argentina lost the two-month war for the South Atlantic archipelago in a conflict that claimed the lives of 649 Argentines and 255 British soldiers.
- Argentina still claims the islands. London says the Falklands are a self-governing entity under its protection. Relations with China have already been strained on multiple fronts, including Britain's joining a US-led diplomatic boycott of the Beijing Winter Olympics to protest China's human rights record.

Conclusion

Sources said that India maintained its "consistent, steadfast and balanced position on the matter". India has been in touch with all sides, urging the parties concerned to return to the negotiating table. By abstaining, India retained the option of reaching out to relevant sides in an effort to bridge the gap and find a middle ground with an aim to foster dialogue and diplomacy.

ENVIRONMENT

Carbon Capture & Utilisation Technologies

News Excerpt

According to a new study by Radboud University, it is being cited that carbon capture and utilisation (CCU) technologies might fail to help the world to reach towards Net Zero emissions by 2050.

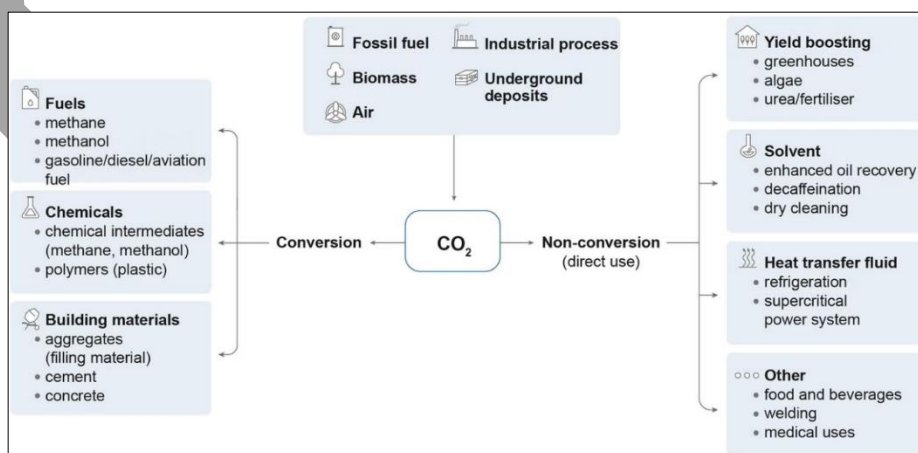
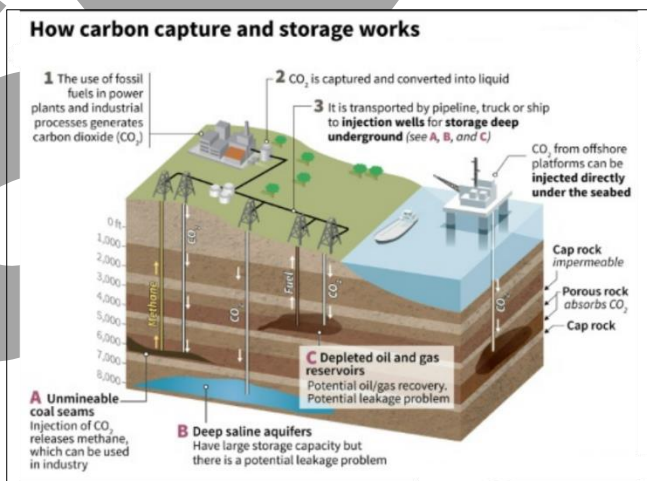
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- CCU is considered an important tool to help countries halve their emissions by 2030 and reach net-zero by 2050.
- These goals are crucial to meet the Paris Agreement targets for restricting global warming to 2 degrees Celsius (°C), and preferable to 1.5°C, over pre-industrial levels.
- To halt global warming removal of carbon is an important aspect. In this context CCU might help.

About CCU

- Carbon capture and utilisation (CCU) technologies suck carbon dioxide (CO₂) from the atmosphere and convert it into fuel or other valuable products.
- CCU encompasses methods and technologies to remove CO₂ from the flue gas and from the atmosphere, followed by recycling the CO₂ for utilization and determining safe and permanent storage options.
- CO₂ captured using CCU technologies are converted into fuel (methane and methanol), refrigerants and building materials. The captured gas is used directly in fire extinguishers, pharma, food and beverage industries as well as the agricultural sector.
- The captured CO₂ can also be captured directly from the



atmosphere. If not being used on-site, the captured CO₂ is compressed and transported by pipeline, ship, rail or truck to be used in a range of applications, or injected into deep geological formations (including depleted oil and gas reservoirs or saline formations) which trap the CO₂ for permanent storage.

- CO2 capture is an integral part of several industrial processes and, accordingly, technologies to separate or capture CO2 from flue gas streams have been commercially available for many decades.
- Using CO2 to improve crop yields in agricultural greenhouses and enhanced oil recovery are two examples of mature CCU technologies.

Analytica

CCU, Net Zero and Issues

- ✓ These carbon capturing systems are energy intensive and the resultant product can also release CO2 into the atmosphere. CCU may not be enough to capture the carbon. CCU systems will also consume electricity and either emission at generation stage or mining of metals (in case of renewable) will cause pollution.
- ✓ Replacing a conventional fuel with a synthetic fuel like methanol produced via CCU is likely to be a successful mitigation strategy only if clean energy is used to capture CO2 and convert it into synthetic fuel.
- ✓ CCU technologies might divert attention from more effective emission reduction options like carbon capture and permanent storage and reducing consumption.
- ✓ Finances and pledges to net zero can be affected if the CCU give sub-optimal results.
- ✓ CCU promotes the culture of 'first pollute' and then 'clean'. This practice may cause irreversible damages to the Ecosystems.

Advantages of CCU

- Carbon capture and utilisation (CCU) technologies can be retrofitted to existing power and industrial plants. In the Sustainable Development Scenario an initial focus of CCU is on retrofitting fossil fuel-based power and industrial plants could capture more than half of the CO2 captured is from retrofitted existing assets.
- CCU can support a rapid scaling up of low-carbon hydrogen production to meet current and future demand from new applications in transport, industry and buildings. CCU is one of the two main ways to produce low-carbon hydrogen.
- CCU could provide deep emissions reductions from cement production. It is also the most cost-effective approach in many regions to curb emissions in iron and steel and chemicals manufacturing. Captured CO2 is a critical part of the supply chain for synthetic fuels from CO2 and hydrogen – one of a limited number of low-carbon options for long-distance transport, particularly aviation.
- For emissions that cannot be avoided or reduced directly, CCU underpins an important technological approach for removing carbon and delivering a net-zero energy system.

Challenges for India

- ✚ Despite the significance of CCU in achieving global temperature reduction targets and urgency with which climate change has to be addressed, the investment and development of the CCUS project pipeline are not as fast as it should be.
- ✚ Most carbon capture & utilisation technologies may be counterproductive. CCU techs might divert attention from more effective emission reduction options.

PEPPER IT WITH

Carbon Capturing, Carbon Morder Mechanism, Net Zero Emission, Carbon sequestration

Way forward

There is a need to develop and evolve an ecosystem supporting CCU facilities in the Indian market. Success of CCU is not only impeded by technology which will be advancing in coming years but also by the lack of a policy ecosystem. The ecosystem should be built and strengthened around the essential pillars, namely, R&D, policy, finance, and governance

UNEP's Frontiers Report 2022

News Excerpt

The United Nations Environment Programme (UNEP) released its annual Frontiers report 2022. The report cited that extreme events are likely to be increased.

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Pre-Connect

- In 1972, the United Nations Environment Programme (UNEP) was begun. Now, UNEP is the global body that sets the environmental agenda, promotes the coherent implementation of the environmental dimension of sustainable development.
- UNEP's mission is to provide leadership and encourage partnership in caring for the environment.
- UNEP works closely with its 193 Member States and representatives from civil society and business groups.

Key insights of the report

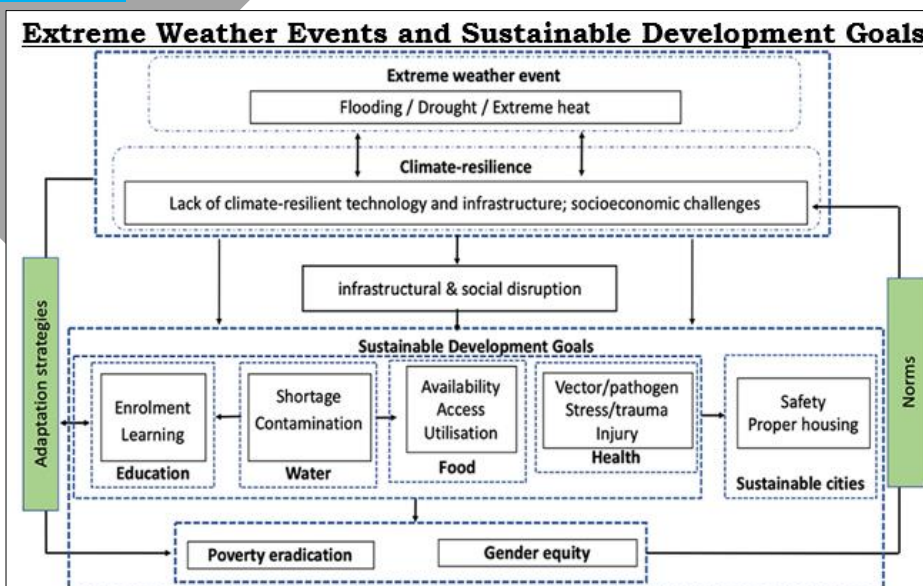
- The report identified and explored the areas of emerging or ongoing environmental concern.
- The 2022 edition delves into three issues-**noise pollutions in cities, the growing threat of wildfires and shifts in seasonal events** like flowering, migration and hibernation, an area of study known as phenology.
- The report highlighted the impact of growing environmental issues like-

Issue	Impacts
Noise pollution	<ul style="list-style-type: none"> ❖ The adverse effects of noise pollution on public health are manifold and are a growing global concern. ❖ Noise pollution can cause temporary distress to severe and chronic physical impairment. ❖ Night-time noise disturbs sleep and affects well-being the following day. The elderly, pregnant woman and shift workers are among those at risk of noise-induced sleep disturbance. ❖ Noise-induced awakenings can trigger a range of physiological and psychological stress responses because sleep is necessary for hormonal regulation and cardiovascular functioning. ❖ Traffic noise exposure is a risk factor for the development of cardiovascular and metabolic disorders such as elevated blood pressure, arterial hypertension, coronary heart disease and diabetes.
Wildfires	<ul style="list-style-type: none"> ❖ Smoke and particulate matter from wildfires deliver significant consequences for human health in downwind settlements. ❖ Wildfire exposure can cause respiratory diseases in most vulnerable sections of society like women, children, elderly, disabled and the poor, consequently increase in mortality. ❖ Wildfires are a natural feature of the Earth system, necessary for the functioning of many ecosystems. Interactions between vegetation and climate over extended periods establish a particular pattern of wildfire recurrence in a defined ecosystem, known as its fire regime.

	<h3>Changing fire regimes in selected biomes</h3> <table> <tr> <th>Biome</th> <th>Tropical rainforest</th> <th>Tropical savannah</th> <th>Mid-latitude desert</th> <th>Mid-latitude North American seasonally dry forests</th> <th>Boreal forest</th> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>Pre-industrial fire regime</td> <td>Very infrequent low-intensity surface fires with negligible long-term effects on biodiversity</td> <td>Frequent fires in dry season causing spatial heterogeneity in tree density</td> <td>Infrequent fires following wet periods that enable fuel build-up</td> <td>Frequent low-intensity surface fires limiting recruitment of trees</td> <td>Infrequent high-intensity crown fires causing replacement of entire forest stands</td> </tr> <tr> <td>Post-industrial fire regime</td> <td>Frequent surface fires associated with forest clearance causing a switch to flammable grassland or agricultural fields</td> <td>Reduced fire due to heavy grazing causing increased woody species recruitment</td> <td>Frequent fires due to the introduction of alien flammable grasses</td> <td>Fire suppression causing high densities of juveniles and infrequent high-intensity crown fires</td> <td>Increased high-intensity wildfires associated with global warming causing loss of soil carbon and switch to treeless vegetation</td> </tr> </table>	Biome	Tropical rainforest	Tropical savannah	Mid-latitude desert	Mid-latitude North American seasonally dry forests	Boreal forest							Pre-industrial fire regime	Very infrequent low-intensity surface fires with negligible long-term effects on biodiversity	Frequent fires in dry season causing spatial heterogeneity in tree density	Infrequent fires following wet periods that enable fuel build-up	Frequent low-intensity surface fires limiting recruitment of trees	Infrequent high-intensity crown fires causing replacement of entire forest stands	Post-industrial fire regime	Frequent surface fires associated with forest clearance causing a switch to flammable grassland or agricultural fields	Reduced fire due to heavy grazing causing increased woody species recruitment	Frequent fires due to the introduction of alien flammable grasses	Fire suppression causing high densities of juveniles and infrequent high-intensity crown fires	Increased high-intensity wildfires associated with global warming causing loss of soil carbon and switch to treeless vegetation
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Seasonal Shift	<ul style="list-style-type: none"> ❖ Shifts in phenology (Study of the timing of recurring biological events) due to climate change can affect species at a variety of stages like reproduction, flowering, leaf-out, the onset of larval development, moult, hibernation, migration pattern and others. ❖ Phenological responses differ throughout marine ecosystems and seasonal cycles, leading to mismatches between species and among groups in the food web. ❖ Differences in the rates of phenological responses to warming across terrestrial, freshwater and marine ecosystems could ultimately affect species that depend on different ecosystems to host phenological transitions to the next life-cycle stage. ❖ Phenological shifts and mismatches, attributed to climate change, have been affecting agricultural ecosystem services for decades. 																								

Ways to respond to the issues

- ✓ To reduce noise pollution electrified transport system should be included in city planning. The creation of green patches could also be helpful to absorb noise.
- ✓ Rehabilitating habitats, building wildlife corridors to enhance habitat connectivity, shifting



Conclusion

This report helps to understand learning from ecosystems and how to live within them in harmony are objectives that we all need to adopt. The increased frequency and intensity of natural disasters are posing a greater challenge to existing approaches to disaster risk reduction. New tools, refinements in modelling and observations data, including from remote sensing capabilities – satellites, ground-based radar, lightning detection, and data processing – facilitate have to be improved. There is no healthy society without a healthy environment.

Plastic Waste Management Rules 2022

News Excerpt

The Ministry of Environment, Forests and Climate Change announced the Plastic Waste Management (Amendment) Rules 2022.

Pre-Connect

- In the 4th United Nations Environment Assembly held in 2019, India had piloted a resolution on addressing single-use plastic products pollution, recognizing the urgent need for the global community to focus on this very important issue.
- Directions under Section 5 of Environment (Protection) Act, 1986, have been issued to all States/Union Territories for setting up for institutional mechanism for strengthening enforcement of Plastic Waste Management (PWM) Rules, 2016.

Key Points of the rules

- The new rules classify plastics **into four categories**-
 - Category 1 will include rigid plastic packaging;
 - Category 2 will include flexible plastic packaging of single layer or multilayer (more than one layer with different types of plastic), plastic sheets and covers made of plastic sheet, carry bags, plastic sachet or pouches.
 - Multi-layered plastic packaging (at least one layer of plastic and at least one layer of material other than plastic) will come under category 3.
 - Plastic sheet or like used for packaging as well as carry bags made of compostable plastics fall under category 4.
- **Recycling:** According to the new rules, the producers, importers and brand-owners shall have to provide the details of recycling certificates only from registered recyclers.
- For the first time the rules have proposed reuse and recycling obligations on plastic producers. The targets range from 10% to 85% to be achieved over the decade.
- **Latest rules** address a gamut of unresolved issues surrounding post-consumer plastic waste and help streamline stakeholder obligations under India's extended producer responsibility (EPR) regime. EPR is a mechanism (EPR is the 'polluters pay' principle) in which producers are responsible for the end-of-life collection, recycling or disposal of products that they manufactured.
- **Minimum recycled content:** The idea of "minimum recycled content" has also been introduced in the new amendment. This requires brand owners to incrementally incorporate a minimum quantity of recycled resins into their packaging between 2025 and 2029.
- **EPR certificates:** The most contentious aspects of the amendment could be the surplus EPR certificate offsets and the environmental compensation system. Offset systems are extremely complex and rely on a robust reporting and monitoring system. The unfulfilled EPR obligations for a particular year will be carried forward to the next year for a period of three years.
- **Environmental compensation:** It shall be levied based upon polluter pays principle, with respect to non-fulfilment of EPR targets by producers, importers and brand owners for abating environment pollution.

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- ✓ The guidelines not only provide a framework to strengthen the circular economy of plastic packaging waste, but also promote development of new alternatives to plastics. They provide a roadmap for businesses to move towards sustainable plastic packaging.
- ✓ Latest rules hold manufacturers and producers of ecologically unsustainable plastic items financially and socially accountable for the pollution these materials cause.

Challenges

- The biggest challenge to the latest rules will be to implement highly ambitious recycling and reuse targets in a scenario where the various existing rules on waste management (e-waste 2016, municipal waste 2016, plastic waste 2016 and construction and demolition waste 2016) have not been implemented.
- The complete lack of an independent oversight mechanism to scrutinise and monitor the annual reports by producers is the biggest red flag. The 'polluter pays' principle at the heart of the amendment could easily be reduced to a "pay to pollute" arrangement between the government and plastic producers.
- The rules also seem to be in conflict with the aspirations in informal sector inclusion envisaged in the Plastic Waste Management Rules 2016.
- The EPR system of certification has been tied to a formal recycling system where only registered recyclers and processors are allowed to issue certificates. This abandons the entire downstream labour force which is the backbone of the recycling industry in the country.

PEPPER IT WITH
Pollutor Pay, Basel
Convention, SDGs

Way Forward

- ✚ Management of plastic waste often starts at the household and individual levels, and effective strategies to educate and motivate citizens can dramatically change behavior.
- ✚ Given the magnitude and urgency of the plastic crisis, the governance around plastic waste management will have to be bolder.
- ✚ There is an urgent need to seek policy solutions that reflect the social, cultural and political realities of the country.

One Ocean Summit

News Excerpt

Recently, Prime Minister addressed the high-level segment of the One Ocean Summit and said India is committed to eliminating single-use plastic.

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Pre-connect

- The summit was addressed by various other Heads of State and Governments from countries like Germany, the United Kingdom, South Korea, Japan, Canada among others.
- The summit is being organised in France from February 9 to 11. The three-day summit is focused on efforts to improve governance of the high seas and coordination of international scientific research.

More about the summit

- The objective of the summit is to mobilise the international community to take tangible action towards preserving and supporting healthy and sustainable ocean ecosystems.
- The United Nations has declared the decade between 2021 and 2030 as the 'Decade of Ocean Science for Sustainable Development' to raise awareness and restore declining marine life.

- The goal of the One Ocean Summit is to raise the collective level of ambition of the international community on marine issues and to translate our shared responsibility to the ocean into tangible commitments.

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Plastics in the Ocean – sources, fate, distribution and impacts

- ✓ Scientists have found that 414 million plastic waste items, weighing 238 tonnes, are polluting Cocos Keeling Islands, a remote archipelago in the Indian Ocean.
- ✓ Of the 414 million pieces of plastic pollutants, an estimated 384 million waste was found buried up to 10 centimetres under the surface. About 60 per cent of this comprised of micro-debris that were 2–5 millimetre in size, and could pose significant challenges to wildlife and biodiversity.
- ✓ Besides single-use plastics, the team also found an estimated 373,000 toothbrushes and 977,000 shoes, equivalent to what the island community would produce as waste in about 4,000 years.
- ✓ Every year, over eight million tonnes of plastic ends up in the oceans, accounting for up to 80 per cent of all litter in the oceans. Studies have shown that this is estimated to rise by 2025, wreaking havoc on marine ecosystems and tourism.

The problem of marine plastic pollution can — and must — be tackled from a range of perspectives. Some of the solutions are as follows:

- Designing a product: Identifying plastic items that can be replaced with non-plastic, recyclable, or biodegradable materials is the first step. Find alternatives to single-use plastics and reusable design goods by working with product designers. Countries must embrace circular and sustainable economic practices throughout the plastics value chain to accomplish this.
- Pricing: Plastics are inexpensive because they are made with substantially subsidised oil and may be produced at a lower cost, with fewer economic incentives to employ recycled plastics. Price structures that reflect the adverse impacts of plastic consumption and promote alternative materials or reused and recycled plastics are necessary.
- Technologies and Innovation: Developing tools and technology to assist governments and organisations in measuring and monitoring plastic garbage in cities. 'Closing the loop' project of the United Nations Economic and Social Commission for Asia and the Pacific assists cities in developing more inventive policy solutions to tackle the problem. A similar approach can be adopted in India.
- Promoting a plastic-free workplace: All catering operations should be prohibited from using single-use plastics. To encourage workers and clients to improve their habits, all single-use goods can be replaced with reusable items or more sustainable single-use alternatives. By reconsidering how we operate, this initiative can save tonnes of plastic waste each year.

UNESCO and the ocean

The United Nations Educational, Scientific and Cultural Organization is the UN agency in charge of ocean sciences. Founded in 1960, UNESCO's Intergovernmental Oceanographic Commission (IOC), brings together 150 countries, coordinates global programmes such as ocean mapping, ocean health monitoring and tsunami risk prevention, as well as numerous scientific research projects. The agency is also the custodian of unique ocean places, through 232 marine biosphere reserves and 50 marine World Heritage sites of outstanding universal value. UNESCO is leading the United Nations Decade of Ocean Sciences for Sustainable Development (2021 to 2030), which this year will see the organization of several major international summits that will help to amplify the collective mobilization in this field.

- **Producer responsibility:** Extended responsibility can be applied in the retail (packaging) sector, where producers are responsible for collecting and recycling products that they launch into the market.
- **Municipal and community actions:** Beach and river clean-ups, public awareness campaigns explaining how people's actions contribute to marine plastic pollution (or how they may solve it) and disposable plastic bag bans and levies.
- **Multi-stakeholder collaboration:** Government ministries at the national and local levels must collaborate in the development, implementation and oversight of policies, which includes participation from industrial firms, non-governmental organisations and volunteer organisations. Instead of acting in silos, all these stakeholders must collaborate and synchronise with one another.

Conclusion

- ✚ Solving the problem of marine plastic involves a change in production and consumption habits, which would help meet the Sustainable Development Goals (SDGs). The central UN SDGs that deal with marine plastics are SDG 12 and SDG 14.
- ✚ Apart from the solutions mentioned above, the government can take several steps to combat plastic pollution. Identifying hotspots for plastic leakage can assist governments in developing effective policies that address the plastic problem directly.

PEPPER IT WITH
Environmental Pollution & Degradation, World Ocean Day, Decade of Ocean, Initiatives to Protect the Ocean

Green Hydrogen/Green Ammonia Policy

News Excerpt

Ministry of Power notifies Green Hydrogen/ Green Ammonia Policy.

Pre-Connect

- National Hydrogen Mission was launched on India's 75th Independence Day.
- The Mission aims to aid the government in meeting its climate targets and making India a green hydrogen hub.
- Hydrogen and Ammonia are envisaged to be the future fuels to replace fossil fuels.
- Green hydrogen is hydrogen gas produced through electrolysis of water — an energy intensive process for splitting water into hydrogen and oxygen— using renewable power to achieve this.

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About New Green Hydrogen/Green Ammonia Policy

- ✓ Green Hydrogen / Ammonia manufacturers may purchase renewable power from the power exchange or set up renewable energy capacity themselves or through any other, developer, anywhere.
- ✓ The Green Hydrogen / Ammonia manufacturer can bank its unconsumed renewable power, up to 30 days, with distribution company and take it back when required.
- ✓ Distribution licensees can also procure and supply Renewable Energy to the manufacturers of Green Hydrogen / Green Ammonia in their States at concessional prices which will only include the cost of procurement, wheeling charges and a small margin as determined by the State Commission.
- ✓ Waiver of inter-state transmission charges for a period of 25 years will be allowed to the manufacturers of Green Hydrogen and Green Ammonia for the projects commissioned before 30th June 2025.

- ✓ The manufacturers of Green Hydrogen / Ammonia and the renewable energy plant shall be given connectivity to the grid on priority basis to avoid any procedural delays.
- ✓ The benefit of Renewable Purchase Obligation (RPO) will be granted incentive to the hydrogen/Ammonia manufacturer and the Distribution licensee for consumption of renewable power.
- ✓ To ensure ease of doing business a single portal for carrying out all the activities including statutory clearances in a time bound manner will be set up by MNRE.
- ✓ Connectivity, at the generation end and the Green Hydrogen / Green Ammonia manufacturing end, to the ISTS for Renewable Energy capacity set up for the purpose of manufacturing Green Hydrogen / Green Ammonia shall be granted on priority.
- ✓ Manufacturers of Green Hydrogen / Green Ammonia shall be allowed to set up bunkers near Ports for storage of Green Ammonia for export / use by shipping. The land for the storage for this purpose shall be provided by the respective Port Authorities at applicable charges.

What are the facilities to boost export of green hydrogen and ammonia?

Under the policy port authorities will also provide land at applicable charges to green hydrogen and green ammonia producers to set up bunkers near ports for storage prior to export. Power minister RK Singh has previously noted that Germany and Japan could be key markets for green hydrogen produced in India.

PEPPER IT WITH

Green Hydrogen, Blue Hydrogen, Hydrogen Fuel Cell, Green Energy Corridor

Way forward

- Green hydrogen/ammonia manufacturers will be allowed to purchase renewable power from the power exchange or set up renewable energy capacity themselves or through any other developer
- Renewable energy plants should be given connectivity to the grid on a priority basis to avoid any procedural delays

Tectonic evolution of Greater Maldiv Ridge

News Excerpt

Indian researcher traced the tectonic evolution and the nature of the Greater Maldiv Ridge (GMR). The GMR's origin has been the centre of many a scientific debate.

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Pre-Connect

- Plate tectonics is a scientific theory that explains how major landforms are created as a result of Earth's subterranean movements.
- In plate tectonics, Earth's outermost layer, or lithosphere is made up of the crust and upper mantle is broken into large rocky plates.
- A tectonic plate may be a continental plate or an oceanic plate. The Pacific plate is largely an oceanic plate whereas the Eurasian plate is a continental plate.

About Maldiv Ridge

- It is an aseismic ridge that is not associated with earthquake activities. This ridge, located in the western Indian Ocean, southwest of India.
- It extends from the western shore of the Indian Peninsula to the Arabian-Indian (or Carlsberg) Ridge.
- The peaks of the Maldiv Ridge rise above the water, forming coral islands (atolls)—the Laccadive Islands, Maldiv Islands, and Chagos Archipelago.

Key Findings of Study

- ✓ The study can help reconstruct the original Gondwanaland break up and dispersal that led to present-day configuration of continents, continental fragments, and formation of ocean basins in the Indian Ocean.
- ✓ The researchers postulated that the GMR may be underlain by an oceanic crust. The results from their study can provide additional constraints in understanding the plate-tectonic evolution of the Indian Ocean, better.
- ✓ Satellite-derived gravity anomalies are very helpful in deciphering the crustal architecture where traditional shipborne geophysical data are either not available or scanty.
- ✓ Study provides the crustal architecture and the state of gravitational equilibrium between Earth's crust and mantle (isostasy) of the Greater Maldiv Ridge segment of the larger Chagos-Laccadive Ridge (CLR) system.
- ✓ The depth to the boundary between the earth's crust and the mantle or the Mohorovicic discontinuity (Moho) over the GMR was systematically mapped along with the finer variation of effective elastic thickness at the place.
- ✓ The study found that Moho is deeper over the MR segment and shallows southwards in the Deep Sea Channel region (DSC).
- ✓ Maldiv Ridge and Deep Sea Channel region may probably be oceanic in nature with the presence of underplated materials associated with the Reunion hotspot volcanism. The research suggests that Maldiv Ridge might have formed in the close vicinity of the Mid-Oceanic Ridge (where creation of a new ocean floor occurs due to divergent motion of lithospheric plates or spreading centre).

PEPPER IT WITH
Plate tectonics, Continental Drift

Analytica

The study can help reconstruct the original Gondwanaland break up and dispersal that led to present-day configuration of continents, continental fragments, and formation of ocean basins in the Indian Ocean.

Conclusion

The study provides new insights into the crustal architecture, isostatic compensation mechanism, and the tectonic evolution of the Greater Maldiv Ridge.

Reserved Forest Tag

News Excerpt

Delhi government has notified forest land in villages of South Delhi as 'reserved forest' under Section 20 of the Indian Forest Act.

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Pre-Connect

- Protected Areas in India comprise National Parks, Sanctuaries, Conservation / Community Reserves and Tiger Reserves. It does not include Reserved Forests.
- Protected Area (PA) has been defined in the Wildlife (Protection) Act, 1972.
- Section 2 of WPA Stated about "Protected Area" means a National Park, Sanctuary, Conservation / Community Reserve.
- Following are terms defined in the Indian State of the Forest Report (ISFR)-
 - The term 'Forest Cover' includes "all lands more than one hectare in area with a tree canopy of more than 10%, irrespective of land use, ownership and legal status".
 - 'Recorded Forest Area' is defined as those areas which are legally notified forests.

- 'Green Wash Area' is defined as those areas shown by green color on Survey of India toposheets or maps. They represent forested areas at the time of survey. However, this data may not reveal the actual status of forests on-the-ground.

About Reserve Forest

- Reserved Forests (RFs) are areas notified under the Indian Forest Act, 1927 by the state government. There is another category called as State Forests (SFs) which are areas notified under State Forest Acts. Both these categories have the same legal status.
- Reserve forests are the most restricted forests and are constituted by the State Government on any forest land. In reserved forests, the entry of local people is prohibited. However, with the permission of competent authority entry is allowed.
- Reserve Forests support a range of biodiversity and local communities.

Warming in high altitude Himalayas

News Excerpt

A recent study has shown that water vapour exhibits a positive radiative effect at the top of the atmosphere (TOA), suggesting an increase in overall warming in the High Altitude Himalayas due to it.

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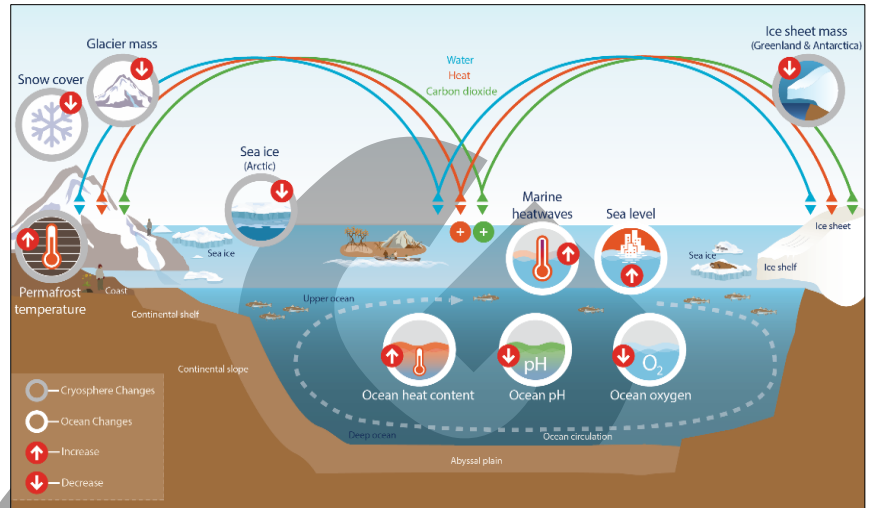
Key Points of the study

- The study shows the atmospheric radiative effect due to Precipitable Water Vapour (PWV) is about 3-4 times higher compared to aerosols, resulting in atmospheric heating.
- The researchers evaluated the mixture of aerosols and water vapour radiative effects over the Himalayan range that is precisely important for regional climate.
- Radiative forcing or effect is the change in energy flux in the atmosphere caused by natural or anthropogenic factors of climate change as measured by watts/metre².
- It is a scientific concept used to quantify and compare the external drivers of change to Earth's energy balance.
- The results highlight the importance of PWV and aerosol radiative effects in the climate-sensitive Himalayan region. The study will provide a comprehensive investigation of the combined impact of aerosols and water vapour on the radiation budget. The Earth radiation budget (ERB) is a combination of the broadband fluxes of solar radiation reflected by Earth and the fluxes of longwave radiation absorbed and emitted by Earth and its atmosphere.
- This study highlighted the importance of water vapour as a key greenhouse gas and climate forcing agent over the Himalayan region.

Cryosphere, Climate Change and its impact

- ✓ The cryosphere plays a significant role in the Earth climate system, being a sensitive and informative indicator of climate change.
- ✓ The Intergovernmental Panel on Climate Change (IPCC) Special Report on the Ocean and Cryosphere in a Changing Climate (SROCC) states that-
 - over the last decades, global warming has led to wide spread shrinking of the cryosphere, with mass loss from ice sheets and glaciers, reduction in snow cover, and Arctic sea ice extent and thickness, and increased permafrost temperatures.
- ✓ Links between the cryosphere and climate change are numerous. Major factors are the high albedo/reflectivity of snow and ice surfaces, the insulating effects of snow cover, and the latent heat associated with the phase changes between ice and liquid water.

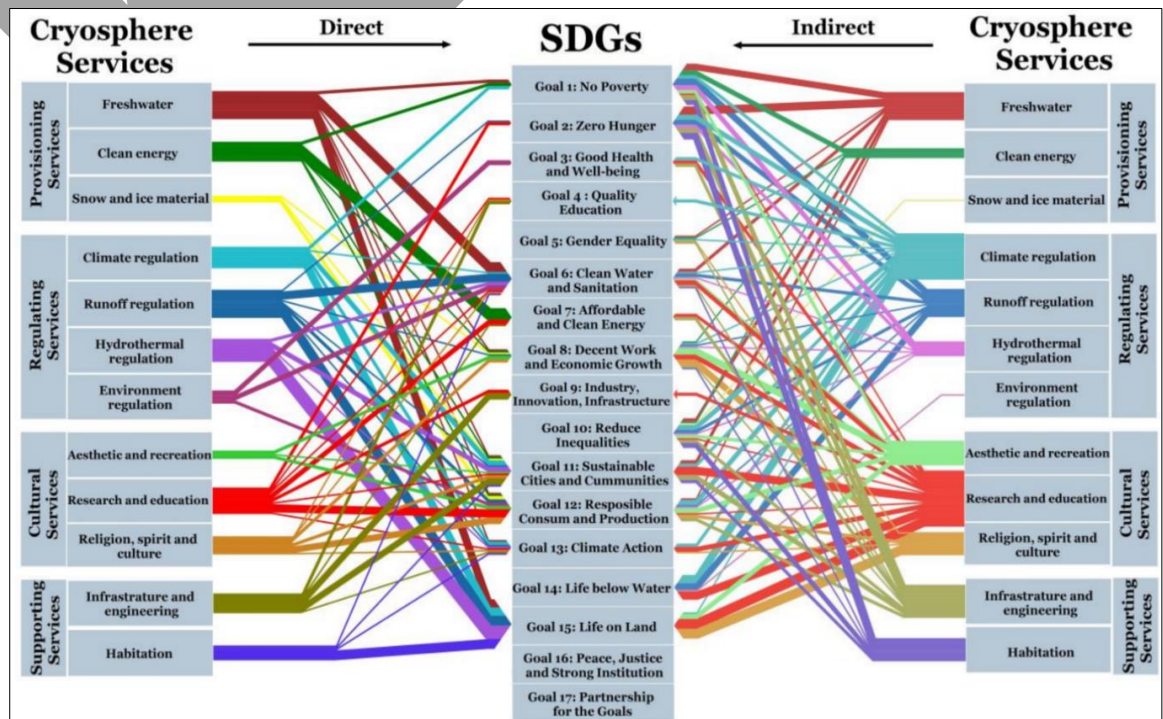
- ✓ The delaying effects of seasonal snow and ice cover on annual energy and water cycles, the freshwater stored in ice sheets and glaciers, and the greenhouse gases locked up in permafrost are also very important.
- ✓ Through these factors and associated feedback processes, the cryosphere plays a significant role in global climate.
- ✓ Albedo changes from the loss of sea ice and snow cover, along with accelerating methane emissions from thawing permafrost, are heating the planet at a rate equivalent to approximately 3 billion metric tons of CO₂, compared to about 42% of global warming emissions.
- ✓ The emission of GHGs and changes in albedo from a melting Arctic are projected to more than double the Arctic's contribution to global warming by 2100.
- ✓ Permafrost is potentially a major source of methane and carbon dioxide.



Analytica

Link between Cryosphere and Sustainable development Goals

- ✓ Ocean and cryosphere change affect our ability to meet the United Nations Sustainable Development Goals (SDGs).



- ✓ Progress on the SDGs support climate action that will reduce Future Ocean and cryosphere change, and as well as the adaptation responses to unavoidable changes.
- ✓ There are also trade-offs between SDGs and measures that help communities to adjust to their changing environment, but limiting greenhouse gas emissions opens more options for effective adaptation and sustainable development.

Way Forward

- ✓ The cryosphere is changing fast as a result of climate change and if warming continues unabated, the risks to human societies and sensitive ecosystems rise dramatically. A continued warming in the cryosphere could cause a rise in sea levels that would affect more than 100 million people globally in terms of water and food security and along with varying magnitude of disaster. Therefore, there is dire need to reduce pollutants such as methane and black carbon to halt warming in critical snow and ice-covered regions while benefitting human welfare.

Marine heatwaves

- ❖ Marine heatwaves are periods of extremely high temperatures in the ocean.
- ❖ These events are linked to coral bleaching, seagrass destruction, and loss of kelp forests, affecting the fisheries sector adversely.
- ❖ An underwater survey showed that 85% of the corals in the Gulf of Mannar near the Tamil Nadu coast got bleached after the marine heatwave in May 2020.
- ❖ Emerging studies have reported their occurrence and impacts in the global oceans, but are little understood in the tropical Indian Ocean.
- ❖ The Western Indian Ocean region experienced the largest increase in marine heatwaves at a rate of about 1.5 events per decade, followed by the north Bay of Bengal at a rate of 0.5 events per decade.
- ❖ The marine heatwaves in the Western Indian Ocean and the Bay of Bengal increased drying conditions over the central Indian subcontinent. Correspondingly, there is a significant increase in the rainfall over south peninsular India in response to the heatwaves in the north Bay of Bengal.

Coastal vulnerability assessment

News Excerpt

Indian National Centre for Ocean Information Services (INCOIS) has carried out coastal vulnerability assessment for the entire Indian coast.

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Pre-Connect

- INCOIS is an autonomous organisation under the Ministry of Earth Sciences (MoES).
- It is located in Hyderabad & was established in 1999. It is a unit of the Earth System Science Organisation (ESSO), New Delhi.
- The ESSO operates as an executive arm of the Ministry of Earth Sciences (MoES) for its policies and programmes.
- It is mandated to provide the best possible ocean information and advisory services to society, industry, government agencies and the scientific community through sustained ocean observations and constant improvement through systematic and focused research.

About Coastal Vulnerability Index (CVI)

- Coastal vulnerability is a spatial concept that identifies people and places that are susceptible to disturbances resulting from coastal hazards.
- Hazards in the coastal environment, such as coastal storms, sea level rise and erosion, pose significant threats to coastal physical, economic, and social systems.

- The CVI uses the relative risk that physical changes will occur as sea-level rises are quantified based on parameters like- Tidal range, Wave height, Coastal slope, Coastal elevation, Shoreline change rate, Geomorphology. The historical rate of relative sea-level change.
- These parameters were synthesised to derive the compound hazard zones that can be inundated along with the coastal low-lying areas due to extreme flooding events.
- A coastal Multi-Hazard Vulnerability Mapping (MHVM) was also carried out using above mentioned parameters.

Analytica

Coastal vulnerability assessments can be useful information for coastal disaster management and building resilient coastal communities

Climate driver	Main physical and ecosystem effects on coastal systems
CO ₂ concentration	Increased CO ₂ fertilisation; decreased seawater pH (or "ocean acidification") negatively impacting coral reefs and other pH sensitive organisms
Sea surface temperature (SST)	Increased stratification/changed circulation; reduced incidence of sea ice at higher latitudes; increased coral bleaching and mortality; poleward species migration; increased algal blooms
Sea level	Inundation, flood and storm damage; erosion; saltwater intrusion; rising water tables/impeded drainage; Wetland loss (and change)
Storm	
Intensity	Increased extreme water levels and wave heights; increased episodic erosion, storm damage, risk of flooding and defence failure
Frequency	Altered surges and storm waves and hence risk of storm damage and flooding
Track	
Wave climate	Altered wave conditions, including swell; altered patterns of erosion and accretion; re-orientation of beach platform
Run-off	Altered flood risk in coastal lowlands; altered water quality/salinity; altered fluvial sediment supply; altered circulation and nutrient supply

National Wetland Decadal Change Atlas

News Excerpt

On the eve of World Wetland Day the National Wetland Decadal Change Atlas has released. Khijadia Wildlife Sanctuary in Gujarat and Bakhira Wildlife Sanctuary in UP are designated as Ramsar Sites and as of now, India has a network of 49 Ramsar sites.

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- The Ramsar Convention, an intergovernmental treaty on wetlands, defines these ecosystems as 'Areas of marsh, fen, peatland or water, whether natural or artificial, permanent or temporary, with water that is static or flowing, fresh, brackish or salt, including areas of marine water the depth of which at low tides does not exceed six meters'.

- As per the National Wetlands Atlas, India has 15.26 million ha under wetlands, accounting for nearly 4.6 % of her geographical area. India is home to a wide variety and a myriad number of wetlands, accounting around 4.7% of the total geographical area of the country.
- Wetlands receive protection from a number of central enacted rules and regulation. Provisions of the Indian Forest Act, 1927, the Forest (Conservation) Act, 1980 and the Indian Wildlife (Protection) Act, 1972 define the regulatory framework for wetlands located within forests and designated protected areas.
- Similarly, in 2017, the Ministry notified the Wetlands (Conservation and Management) Rules under The Environment (Protection) Act, 1986 (EP Act).
- As per the provisions of these Rules, State Wetlands Authorities have been constituted as the main policy and regulatory bodies within states.

About Wetland

Wetlands are important societal assets and referred to as 'cradles of human civilization,' and 'kidneys of landscape.' Some of the major societal benefits (ecosystem services) and biodiversity values are as follows:



Serve as a principal source of fresh water such as drinking and water for irrigation.



Purify water by locking up pollutants, heavy metals in their sediments and vegetation.



Have deep connections with our culture and traditions, providing avenues for recreation and tourism



Act as a 'natural storage reservoirs' enabling excess water to spread out over a wide area and reducing its impact its depth and speed, thus acting as buffers for floods and droughts.



Provide a range of plants, animal and minerals for human use. Rice and fish are some of the key wetland products that sustain humanity.



Serve as habitats for over 1200 plant and 18000 animal species, including several of high conservation value locally, nationally and globally



Mangroves, coral reefs and sea grass beds help mitigate the impacts of tropical cyclones and tsunami, as well as stabilize shorelines



Mangroves and salt marshes acts as natural carbon sinks by storing atmospheric greenhouse gases and help in mitigating climate changes impacts

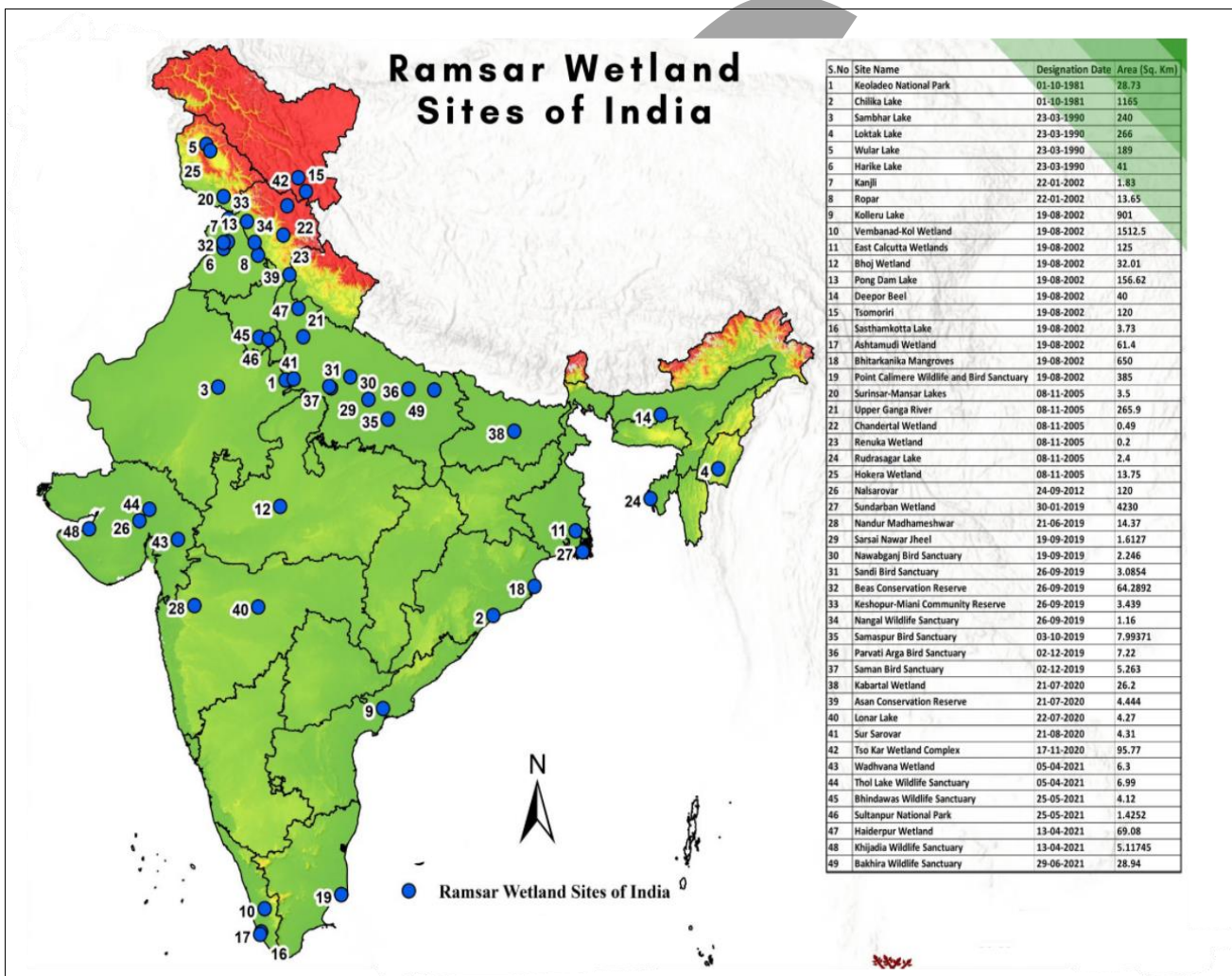


Provide stopovers for thousands of migratory bird species for resting, feeding and breeding during their journey of miles to avoid harsh winters of the temperate region.

Threats to wetlands

- Floodplain development often directly impacts wetlands by removing vegetation (increasing bank erosion), and filling or draining wetlands for building sites. Floodplain development sometimes indirectly impacts riparian wetlands through the installation of the artificial stream.
- Most river valleys have roads or railroads. These structures squeeze rivers and streams by narrowing the floodplain. The roads and railroads also affect drainage from uplands onto the floodplains, and many are built on top of areas that once were wetlands.

- Overgrazing harms wetlands through soil compaction, removal of vegetation, and stream bank destabilization. Wetlands offer some of the best forage for livestock as well as a water source and cover, so livestock tends to spend a disproportionately large time in wetlands.
- Wetlands often have fairly flat areas of rich organic soil that is highly productive agricultural land if drained. For this reason many wetlands have been drained and converted to agricultural lands.

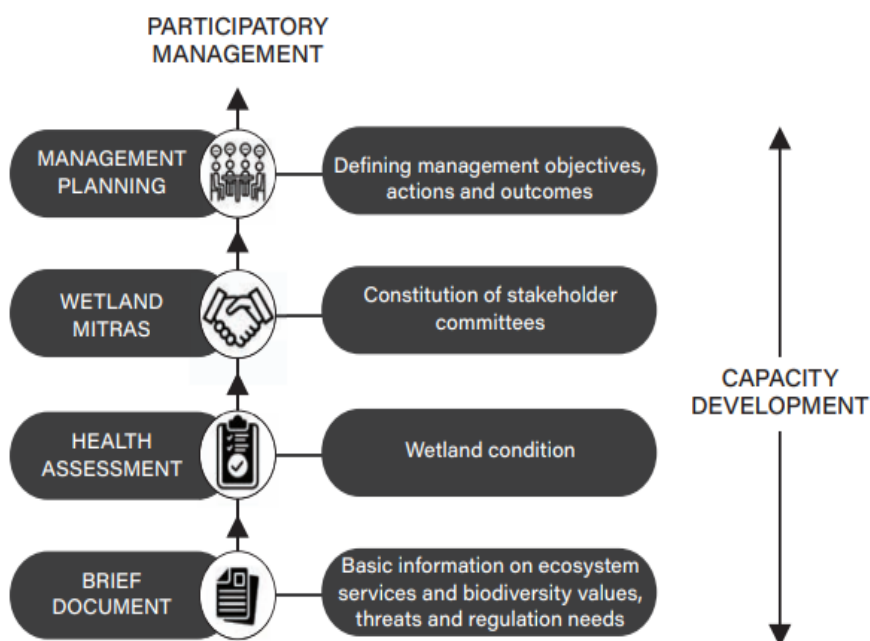


Way Forward

WETLANDS REJUVENATION – FOUR PRONGED APPROACH

Under the framework of 169 transformative ideas of the Government of India, a four four-pronged approach for the rejuvenation of wetlands has been developed, with an objective of: "initiating work on restoration and rejuvenation of at least 100 major wetlands across the country". Systematic restoration and rejuvenation of 130 wetlands have been initiated using the four-pronged approach, which includes:

- Developing baseline information in the form of 'Wetland Brief Documents'
- Rapid assessment of wetlands condition using a simple 'Wetland Health Card'
- Stakeholder platforms to enable collaborative and participatory management in the form of 'Wetlands Mitra' networks for each wetland.
- Management planning addressing wetlands' biodiversity and ecosystem services, values and threats.



SCIENCE AND TECHNOLOGY

The EOS-04

News Excerpt

ISRO successfully launches EOS-04 (earth observation satellite) along with two other satellites.

Pre-Connect

- Earth observation (EO) satellites or Earth remote sensing satellites are used for non-military uses such as environmental monitoring, meteorology, cartography, and others.
- EO satellites can be divided into two types based on how they capture imagery: passive and active.
 - Passive satellites detect radiation reflected off the Earth's surface, such as visible light and infrared. In general, passive satellites are not able to work through clouds.
 - Active satellites transmit energy towards the Earth and measure the returned signal which provides information about the Earth's surface. In general, active satellites can see through the cloud.
- Currently, ISRO's thirteen operational satellites are in sun-synchronous orbit and four in Geostationary orbit. The data from these satellites are used for several applications covering agriculture, water resources, urban planning, rural development, mineral prospecting, environment, forestry, ocean resources and disaster management.

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About EOS-04

- India's Polar Satellite Launch Vehicle PSLV-C52 injected Earth Observation Satellite EOS-04, into an intended sun synchronous polar orbit.
- EOS-04 is a Radar Imaging Satellite designed to provide high quality images under all weather conditions for applications such as Agriculture, Forestry & Plantations, Soil Moisture & Hydrology and Flood mapping.
- ISRO launched three satellites into orbit that include an Earth Observation Satellite (EOS-04), student satellite INSPIRESat-1, and a technology demonstrator satellite named INS-2TD.
- Student satellite (INSPIRESat-1) is from Indian Institute of Space Science & Technology (IIST) in association with Laboratory of Atmospheric & Space Physics at University of Colorado is launched, Boulder and a technology demonstrator satellite (INS-2TD) from ISRO, which is a precursor to India-Bhutan Joint Satellite (INS-2B) was also launched.
- The spacecraft will collect observation data in C-Band completing the observations done by Resourcesat, Cartosat, and RISat-2B series.
- INSPIRESat-1 is aimed at improving our understanding of the ionosphere dynamics and the sun's coronal heating process. Its operational lifetime is set for a year.



Analytica

- ✓ Earth Observation (EO) satellites help us to monitor and protect our environment, manage our resources, respond to global humanitarian disasters and enable sustainable development. They provide essential information on a vast number of areas, including; ocean salinity, ice thickness, crop health, and air quality.
- ✓ Earth Observation satellites provide precious information on various geophysical variables regularly, reliably and for every part of the Earth.
- ✓ Earth-observing satellites provide regular and accurate data that can support evidence-based decisions and public policies in a wide range of domains, potentially bringing huge socio-economic benefits.

How earth observational satellites collect data

- Earth Observational Satellites travel on a range of different orbits, offering varying perspectives of the Earth.
- Most satellites do not continuously collect data due to limitations in power and memory. Some offer regular and reliable data acquisition while others collect in small quantities over a period of time.
- Data is stored on-board the satellite until it is in sight of a ground station to downlink the data. The time between an image being taken and being available to download can range between a month to a few minutes and is getting faster as technology progresses.

PEPPER IT WITH
AstroSAT, Chandrayan-3,
PSLV, GSLV, RISAT

Lassa fever disease

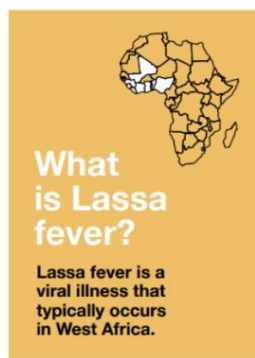
News Excerpt

Recently, One death out of the three confirmed cases of the viral Lassa fever in the United Kingdom has sparked concerns about the spread of the disease.

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About Lassa Fever

- The World Health Organisation defines Lassa fever as an animal-borne acute viral haemorrhagic fever caused by multimammate rats.
- Cases of the disease are mostly reported from Benin, Ghana, Guinea, Liberia, Mali, Sierra Leone, Togo and Nigeria in West Africa and the disease is largely endemic to the region. Thousands of cases of Lassa fever are reported from West Africa each year.
- Eight cases of Lassa fever have been reported in the U.K. since 1980.
- The last two cases until now were reported in 2009.
- In the U.S., only six cases of Lassa fever have been reported so far, and all of them were associated with travel to countries where the disease is endemic.



- In India, the International Health Division under the Ministry of Health and Family Welfare lists Lassa fever as a disease of international significance.
- The country has not reported any cases of the disease so far.
- Lassa fever has exhibited a low case-fatality rate so far, killing 1% of the infected patients.
- The disease is particularly severe in late pregnancy and results in maternal death and/or loss of the foetus in over 80% of the cases. However, most reported cases of the disease are mild.

Causes

- The primary cause of Lassa fever is exposure to the infected multimammate rats. Exposure of food and household items to the virus is also considered a leading cause for the spread of the disease.
- The Mastomys rats are known for living in human settlements, thus increasing chances of exposure to the virus through food.
- The rodents also serve as a source of food themselves. The virus can also infect humans if air contaminated by the excretion of infected rats is inhaled.
- Chances of human transmission increase in healthcare settings in the absence of adequate control measures.

Diagnose and treatment

- ✓ Clinical diagnosis of Lassa fever is challenging because of the similarity in symptoms with other diseases like Ebola, malaria, and typhoid fever.
- ✓ The most common method used to detect Lassa fever is enzyme-linked immunosorbent serologic assays (ELISA).
- ✓ Reverse transcription-polymerase chain reaction (RT-PCR), the most efficient test used to diagnose Covid-19, can also be used to detect infection by Lassa virus.
- ✓ Antiviral drug ribavirin is often used to treat Lassa fever although the usage is not a licensed treatment.
- ✓ Other procedures used are supportive care including hydration, oxygenation, and treatment of specific complications arising due to the disease.
- ✓ Preventive vaccines are currently under research and development.

PEPPER IT WITH

Neglected Tropical Diseases,
Vector borne diseases

Way Forward

The best way to prevent contracting Lassa virus is to keep foods safe from rats in areas where the disease is prevalent.

Setting up mouse traps, keeping homes free of rodents, and not consuming them as a food source can drastically reduce the possibility of coming in contact with the virus.

National Supercomputing Mission: Param Pravega

News Excerpt

Under the National Supercomputing Mission (NSM), the Indian Institute of Science (IISc), Bengaluru, has installed and commissioned 'Param Pravega'- the most powerful supercomputers in the country and the largest in an Indian academic institution.

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Pre-Connect

- The National Supercomputing Mission aims at achieving the goals of attaining self-reliance in supercomputing.
- The NSM is steered jointly by the Department of Science and Technology (DST) and Ministry of Electronics and Information Technology (MeitY), and implemented by the C-DAC and the IISc.

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BENGALURU: KORMANGALA 7619166663 & **CHANDRA LAYOUT** 7619136662 | **BHOPAL:** 7509975361
PATNA: 7463950774 | **INDORE:** 7314977441 | **RANCHI:** 9939982007 | **www.ksgindia.com**

- The mission envisages creating a national infrastructure of supercomputing systems and facilities of different size and scale distributed across the country but seamlessly integrated over National Knowledge Commission Network.
- The NSM has so far established 10 supercomputer systems across India with a cumulative computing power of 17 petaflops.
- PETAFLUP is a measure of a Supercomputer's processing speed and can be expressed as a thousand trillion floating point operations per second.
- The mission has supported the deployment of 10 supercomputer systems so far at IISc, Indian Institute of Technologies (IIT), Indian Institute of Science Education and Research (IISER) Pune, Jawaharlal Nehru Centre for Advanced Scientific Research (JNCASR), National Agri-Food Biotechnology Institute (NABI)-Mohali and C-DAC

About Param Pravega Supercomputer

- It has been designed by the Centre for Development of Advanced Computing (C-DAC).
- A majority of the components used to build this system have been manufactured and assembled within the country, along with an indigenous software stack developed by C-DAC, in line with the Make in India initiative.
- The Param Pravega system at IISc is a mix of heterogeneous nodes.
- The machine, called Param Pravega, has an Rpeak – or total supercomputing capacity – of 3.3 petaFLOPS.

Importance of Param Pravega Supercomputer

Researchers have also used the facility to simulate turbulent flows for green energy technologies, study climate change and associated impacts, analyse aircraft engines and hypersonic flight vehicles, and many other research activities. These efforts are expected to ramp up significantly with Param Pravega.

Quantum Key Distribution (QKD)

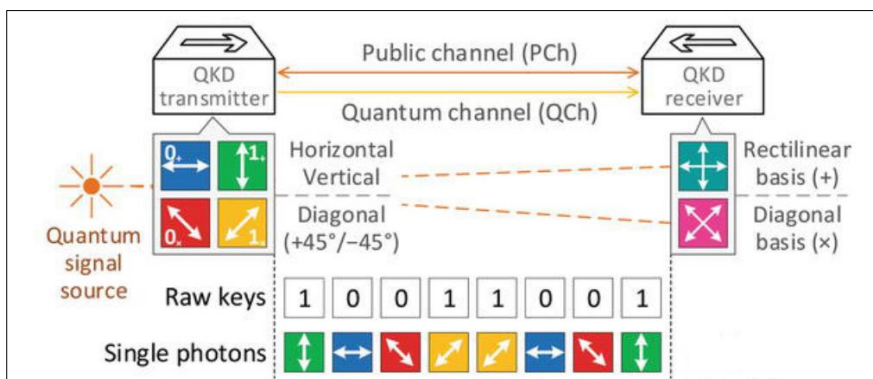
News Excerpt

Recently, The Defence Research and Development Organisation (DRDO) and Indian Institute of Technology (IIT) Delhi demonstrated Quantum Key Distribution (QKD) link for a distance of over 100 kilometres.

Pre-Connect

- QKD is primarily a mechanism to undertake secure communication, which utilises a cryptographic protocol involving various components of quantum mechanics.
- The communication method uses properties found in quantum physics to exchange cryptographic keys in such a way that is provable and guarantees security.
- QKD works by transmitting many light particles, or photons, over fiber optic cables between parties. Each photon has a random quantum state, and collectively, the photons sent make up a stream of ones and zeros.

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- This stream of quantum states that make up ones and zeros are called qubits -- the equivalent of bits in a binary system.

QKD in India

- The Ministry of Defence (MoD) stated that this demonstration of Quantum Key Distribution (QKD) link successfully carried out for a distance of over 100 km between Prayagraj and Vindhyachal in Uttar Pradesh.
- The technological breakthrough was achieved over the commercial-grade optical fibre already available in the field.
- With this success, the country has demonstrated indigenous technology of secure key transfer for bootstrapping military-grade communication security key hierarchy.
- This technology will enable security agencies to plan a suitable quantum communication network with indigenous technology backbone.
- The demonstration performance parameters were closely monitored and were found to be repetitively within the reported international standards.

Challenges of QKD

- ✓ Primarily, there are three prevailing challenges to QKD: the integration of QKD systems into current infrastructure, the distance in which photons can travel and the use of QKD in the first place. QKD is perfectly secure in theory, but in practice, imperfections in tools like single photon detectors create many security vulnerabilities. It is important to keep security analysis in mind.
- ✓ Range: Modern fiber optic cables are typically limited in how far they can carry a photon. Commonly, this range is seen to be upward of 100 km.
- ✓ Sharing of keys over the air or wired links requires encryption, which in turn requires encryption keys to be pre-shared. This may pose limited communication between two devices.

Significance

- Secure communications are vital not just for the defence and strategic agencies across the globe but also for various civilian applications. The distribution of encryption keys is the crucial factor for this.
- Quantum-based communication offers a robust solution to sharing the keys securely. DRDO has undertaken multiple projects for the development of this technology.

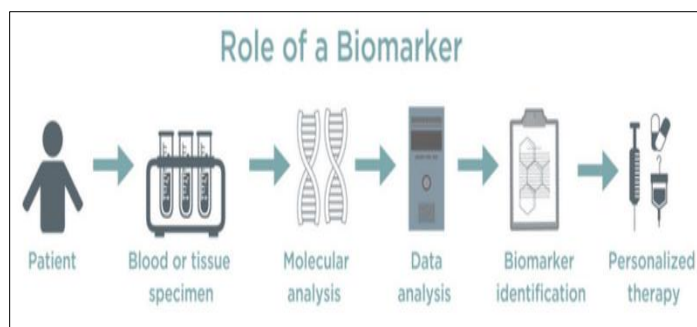
Biomarker for Japanese Encephalitis Virus

News Excerpt

National Institute of Animal Biotechnology (NIAB), Hyderabad have developed electrochemical-based immunosensor that can detect the Non-Structural 1 (NS1) secretory protein, which is a suitable biomarker for JEV found circulating in the blood and has been reported to elicit an immune response.

Pre-connect

- Japanese Encephalitis Virus (JEV) is the leading cause of mosquito-borne encephalitis in South-East Asia and Western Pacific and is often misdiagnosed as Dengue.
- JEV belongs to the family *Flaviviridae* and genus *Flavivirus* and exists in a zoonotic cycle. Since there is no cure available for JEV, early detection is essential to mitigate a breakout.



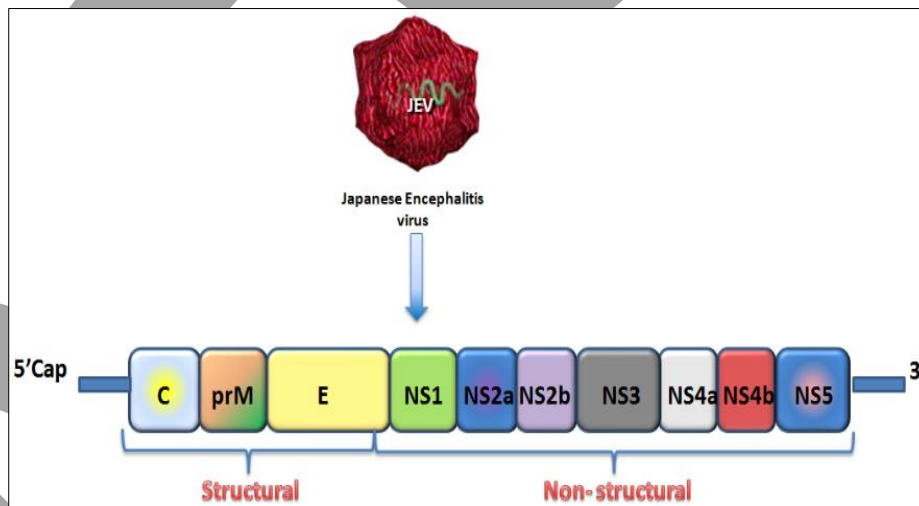
- The term biomarker, or biological marker, refers to a broad range of measures which capture what is happening in a cell or organism.
- Biomarkers that tell how the body's doing, and they're measurable. Examples of biomarkers include everything from pulse and blood pressure through basic chemistries to more complex laboratory tests of blood and other tissues.

Genome of the Virus

- Japanese encephalitis virus belongs to the Flaviviridae family, it is an RNA virus measuring ~ 40-50 nm in diameter and structurally it is a spheroid having cubical symmetry. It is an enveloped virus having single stranded RNA as a genome which is infectious.
- The genomic RNA contains a single open reading frame (ORF) and codes for a polyprotein of ~3400 amino acids. This polyprotein is cleaved by viral and host proteases into 10 proteins.
- Structural genes are three in number and are involved in antigenicity since they are expressed on the virus coded by capsid protein and involved in capsid formation: core (C), pre membrane (prM) and envelope (E).
- Among all three the E gene is the most important and is the most studied one. There are seven non-structural genes: NS1, NS2a, NS2b, NS3, NS4a, NS4b, NS5 and these are involved in virus replication.

More about the new method of detection

- ✓ Since the conventional methods for JEV diagnosis are expensive, more hazardous and time-consuming diagnostic techniques and requires an elaborate laboratory set up and trained expertise, the developed biosensor may be able to overcome these limitations.
- ✓ Detection of the NS1 instead of antibody has an added advantage since the antigen is present from day 1 of the infection and hence facilitates early detection. On the other hand, antibodies appear only after Day 4/5 of the infection. Docking studies were used to identify the specificity of the epitopes for different flaviviral NS1 with JEV NS1 antibody paratopes, followed by JEV NS1 sequence amplification, cloning and transformation.
- ✓ The NS1 protein was expressed in E. coli, characterised, and immunized in rabbits to raise the polyclonal antibodies. The NS1 Antibodies were purified from serum, characterized, and used as the bioreceptor to fabricate the electrode with reduced graphene oxide as a conductivity enhancing nanomaterial for the detection of JEV NS1 antigen (Ag).
- ✓ This detection range is more sensitive than other sensors developed for JEV and can detect the minimal infective dose of circulating NS1 ranging anywhere from 7-284 ng/ml in clinical samples as tested in other flaviviral infections. The fabricated immunosensor was also specific towards JEV NS1Ag as compared to other flaviviral NS1Ag.
- ✓ Therefore, the proposed immunosensor could be a promising candidate for the development of an accurate, and rapid, diagnosis for specific and sensitive detection of JEV from clinical samples.



Key facts

- Japanese encephalitis virus (JEV) is a flavivirus related to dengue, yellow fever and West Nile viruses, and is spread by mosquitoes.
- JEV is the main cause of viral encephalitis in many countries of Asia with an estimated 68 000 clinical cases every year.
- Although symptomatic Japanese encephalitis (JE) is rare, the case-fatality rate among those with encephalitis can be as high as 30%. Permanent neurologic or psychiatric sequelae can occur in 30%–50% of those with encephalitis.
- 24 countries in the WHO South-East Asia and Western Pacific regions have endemic JEV transmission, exposing more than 3 billion people to risks of infection.
- There is no cure for the disease. Treatment is focused on relieving severe clinical signs and supporting the patient to overcome the infection.
- Safe and effective vaccines are available to prevent JE. WHO recommends that JE vaccination be integrated into national immunization schedules in all areas where JE disease is recognized as a public health issue.

Creating Energy From Nuclear Fusion

News Excerpt

Recently, Scientists in the United Kingdom have achieved a new milestone in producing nuclear fusion energy, or imitating the way energy is produced in the Sun.

Pre-connect

In simple terms nuclear fusion is a process in which one or more light nuclei fuse together to generate a relatively heavier nucleus in which there is some mass deficiency that is released as energy, and the quantity of energy released follows Einstein's formula: $E = mc^2$, in which E is the energy in joules, m is the mass difference in kilograms, and c is the speed of light (approximately 300,000,000 or 3×10^8 m per second).

More about the achievement

- A team at the Joint European Torus (JET) facility near Oxford in central England generated 59 megajoules of sustained energy during an experiment in December, more than doubling a 1997 record, the UK Atomic Energy Authority.
- A kg of fusion fuel contains about 10 million times as much energy as a kg of coal, oil or gas.
- The energy was produced in a machine called a tokamak, a doughnut-shaped apparatus, and the JET site is the largest operational one of its kind in the world.
- Deuterium and tritium, which are isotopes of hydrogen, are heated to temperatures 10 times hotter than the centre of the sun to create plasma.
- This is held in place using superconductor electromagnets as it spins around, fuses and releases tremendous energy as heat.
- The record and scientific data from these crucial experiments are a major boost for ITER, the larger and more advanced version of the JET.
- ITER is a fusion research mega-project supported by seven members – China, the European Union, India, Japan, South Korea, Russia and the USA – based in the south of France, to further demonstrate the scientific and technological feasibility of fusion energy.

The fusion reaction

- Fusion reactions constitute the fundamental energy source of stars, including the Sun.
- The evolution of stars can be viewed as a passage through various stages as thermonuclear reactions and nucleosynthesis cause compositional changes over long time spans.

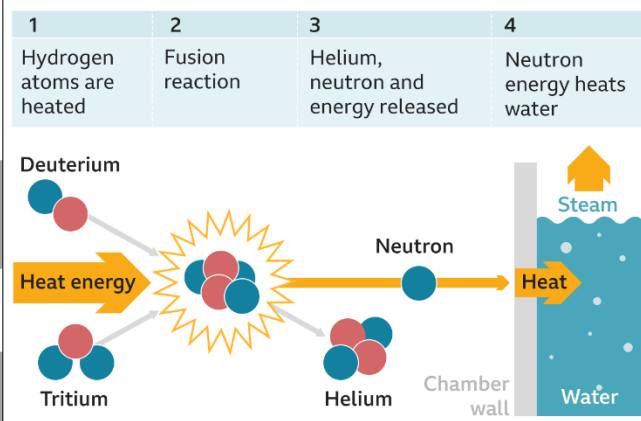
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- Hydrogen (H) “burning” initiates the fusion energy source of stars and leads to the formation of helium (He).
- Generation of fusion energy for practical use also relies on fusion reactions between the lightest elements that burn to form helium. In fact, the heavy isotopes of hydrogen—deuterium (D) and tritium (T)—react more efficiently with each other, and, when they do undergo fusion, they yield more energy per reaction than do two hydrogen nuclei.

Advantage of nuclear fusion energy

- The potential advantages of nuclear fusion energy are manifold, as it represents a long-term, sustainable, economic and safe energy source for electricity generation.
- Fuel is inexpensive and abundant in nature, while the amount of long-lived radioactive waste and greenhouse gases produced through fusion are minimal.
- While research on nuclear fusion continues, many spin-offs relating to plasma physics and fusion technology are already benefiting society. These include improvements in materials research, such as ceramic, metals and coatings, and industrial processes such as welding and waste removal.
- Fusion doesn't emit harmful toxins like carbon dioxide or other greenhouse gases into the atmosphere. Its major by-product is helium: an inert, non-toxic gas.
- No long-lived radioactive waste: Nuclear fusion reactors produce no high activity, long-lived nuclear waste. The activation of components in a fusion reactor is low enough for the materials to be recycled or reused within 100 years.

How nuclear fusion works



Conclusion

- These landmark results have taken us a huge step closer to conquering one of the biggest scientific and engineering challenges of them all.
- The achievement.
- make significant changes to address the effects of climate change, and fusion offers so much potential.
- More focus must be given to building the knowledge and developing the new technology required to deliver a low carbon, sustainable source of baseload energy that helps protect the planet for future generations.

Geomagnetic Storm

News Excerpt

Recently, Elon Musk's Starlink has lost dozens of satellites that were caught in a geomagnetic storm a day after they were launched.

Pre-connect

- A geomagnetic storm is a major disturbance of Earth's magnetosphere that occurs when there is a very efficient exchange of energy from the solar wind into the space environment surrounding Earth. These storms result from variations in the solar wind that produces major changes in the currents, plasmas, and fields in Earth's magnetosphere.

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- The solar wind conditions that are effective for creating geomagnetic storms are sustained (for several to many hours) periods of high-speed solar wind, and most importantly, a southward directed solar wind magnetic field (opposite the direction of Earth's field) at the dayside of the magnetosphere. This condition is effective for transferring energy from the solar wind into Earth's magnetosphere.

Caused of Geomagnetic Storm

Magnetic storms have two basic causes:

- The Sun sometimes emits a strong surge of solar wind called a coronal mass ejection. This gust of solar wind disturbs the outer part of the Earth's magnetic field, which undergoes a complex oscillation. This generates associated electric currents in the near-Earth space environment, which in turn generates additional magnetic field variations -- all of which constitute a "magnetic storm."
- Occasionally, the Sun's magnetic field directly links with that of the Earth. This direct magnetic connection is not the normal state of affairs. When it occurs, charged particles traveling along magnetic field lines can easily enter the magnetosphere, generate currents, and cause the magnetic field to undergo time dependent variation.
- Sometimes the Sun emits a coronal mass ejection at a time when the magnetic field lines of the Earth and Sun are directly connected. When these events occur, we can experience a truly large magnetic storm.

Effect on earth

- ✓ Not all solar flares reach Earth, but solar flares/storms, solar energetic particles (SEPs), high-speed solar winds, and coronal mass ejections (CMEs) that come close can impact space weather in near-Earth space and the upper atmosphere.
- ✓ Solar storms can hit operations of space-dependent services like global positioning systems (GPS), radio, and satellite communications. Geomagnetic storms interfere with high-frequency radio communications and GPS navigation systems. Aircraft flights, power grids, and space exploration programmes are vulnerable.
- ✓ CMEs, with ejectiles loaded with matter travelling at millions of miles an hour, can potentially create disturbances in the magnetosphere, the protective shield surrounding the Earth. Astronauts on spacewalks face health risks from possible exposure to solar radiation outside the Earth's protective atmosphere.

How Solar Storm predicted

- Solar physicists and other scientists use computer models to predict solar storms and solar activities in general.
- Current models are capable of predicting a storm's time of arrival and its speed. But the storm's structure or orientation still cannot be predicted.
- Certain orientations of the magnetic field can produce a more intense response from the magnetosphere, and trigger more intense magnetic storms.
- With the increasing global dependence on satellites for almost every activity, there is a need for better space weather forecasts and more effective ways to protect satellites.

What happens when Geomagnetic storm hits the earth?

- ✚ Earth's atmosphere protects all living beings from these particles. But the particles can interact with the Earth's magnetic field and induce strong electric fields on the surface, which can severely affect the performance of space-borne and ground-based technological systems.
- ✚ These solar events can illuminate the sky with astonishing aurora but they also do considerable harm to electronics, electrical grids, and satellite and radio communications.

How solar storms impact human health?

- > Solar storms emit radiations, exposure to which is harmful to humans and can cause organ damage, radiation sickness and cancer.
- > Most experts state that there's no significant risk to humans on the ground from solar flare. This is due to the fact that the Earth's atmosphere acts as a protective shield for living beings, absorbing most of the radiation.

SECURITY

SeHAT Initiative

News Excerpt

Home Delivery of medicines to begin under SERVICES e-HEALTH ASSISTANCE AND TELECONSULTATION (SeHAT).

Pre-connect

- Services e-Health Assistance and Teleconsultation (SeHAT) is the tri-services teleconsultation service of the MoD designed for all entitled personnel and their families. As part of the Government's commitment to Digital India and e-Governance, SeHAT has been launched on 27 May 2021.
- It has been a great example of innovation, especially at a time when the nation is fighting the COVID-19.

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Analytica

- SeHAT stay home OPD is a patient-to-doctor system where the patient can consult a doctor remotely through the internet using his Smartphone, laptop, Desktop or Tablet.
- The consultation occurs through video, audio and chat at the same time. It aims to provide quality healthcare services to patients from the comfort of their homes.
- Safe and structured video-based clinical consultations between a doctor in a hospital, and a patient within the confines of his or her home anywhere in the country, have been enabled.
- It is designed to be extremely simple and easy to use, which requires minimal effort from the users.
- The user does not need to pay anything to seek teleconsultation & can simply access the services by visiting <https://sehatopd.gov.in>, or by using the SeHAT apps available on the Play store & App Stores.
- Since its launch, there have been more than 10,000 successful teleconsultations on SeHAT, with a strong team of 2000 plus doctors onboard. The feedback from the environment has been extremely heart-warming.
- Furthermore, taking the healthcare delivery right to the patient's doorsteps, the novel initiative of providing Home Delivery or Self Pickup of Medicines to patients seeking consultation on SeHAT. Individuals desirous of their home delivery of self-pick-up may indicate their preference while logged in.
- To start with, this project of Home Delivery will be started with Base Hospital Delhi and would be extended to more and more stations in coming times.

Border Infrastructure & Management (BIM)

News excerpt

The Central Government has approved the continuation of the Central Sector Umbrella Scheme of "Border Infrastructure and Management" (BIM).

Pre-connect:

- The Government has approved the continuation of the Central Sector Umbrella Scheme of "Border Infrastructure and Management" (BIM) over the 15th Finance Commission Cycle from 2021-22 to 2025-26, at a cost of Rs.13,020 crore.
- Ministry of Home Affairs is committed to improving border infrastructure and management.
- This decision will strengthen the border infrastructure for improving border management, policing and guarding the borders.

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The BIM scheme will help in the creation of infrastructure such as-

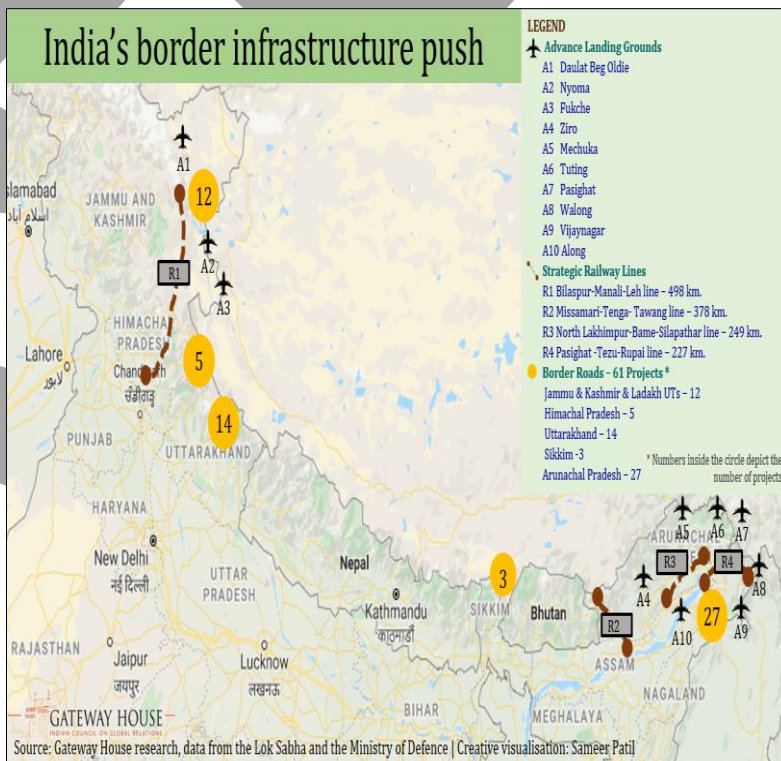
- Construction of border fence,

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PATNA: 7463950774 | **INDORE:** 7314977441 | **RANCHI:** 9939982007 | www.ksgindia.com

- Border flood lights,
- Technological solutions,
- Border roads and Border Outposts (BOPs)/Company Operating Bases (COBs) to secure-
- The Indo-Pakistan,
- Indo-Bangladesh,
- Indo-China,
- Indo-Nepal,
- Indo-Bhutan and
- Indo-Myanmar borders.

Analytica

- To ensure swift movement of troops at borders with China and Pakistan, Border Roads Organisation (BRO) has constructed 24 bridges and three roads, including one at the height of over 19,000 feet in Ladakh, in four states and two Union Territories.
- The highlight was the inauguration of India's first indigenous class 70-140-feet Double-Lane Modular Bridge-built at the height of 11,000 feet at Flag Hill Dokala, Sikkim and Chisumle-Demchok road at Umling La Pass at over 19,000 feet in Ladakh which also holds the Guinness World Record of world's highest motorable road.
- The 33 kilometers Flag Hill-Dokla road will reduce the travel time for Indian troops to reach Dokla area near the Doklam plateau where a 73-day standoff took place between Indian and Chinese armies in 2017. It is an alternate route to the border areas near the India-Tibet-Bhutan tri-junction where China has been aggressively ramping up military infrastructure.
- The 52 km long road connecting Chisumale to Demchok cutting through the Umling La (Pass) at 19,300 feet provides an alternate route from Leh to the strategically important Demchok.
- Two rounds of military dialogue between India and China to end the Ladakh stand-off have brought into sharp focus their apprehensions on road construction along the unsettled frontiers.



Infrastructure as a mode of retaliation

- ✓ China has already established a sophisticated road and rail network in its two strategic regions — Xinjiang and Tibet — that border India, and extended it in the direction of LAC. India has, therefore, only responded to the per-existing “facts on the ground”.

- ✓ After launching its Belt and Road Initiative (BRI), China's primary focus has been essentially geo-economic — to build connectivity for trade and investment on a Eurasian scale — rather than geopolitical.
- ✓ To ramp up infrastructure along the China border, the Ministry of Home Affairs (MHA) has decided to spend 10% funds of a centrally sponsored scheme only on border projects in Ladakh, Arunachal Pradesh, Himachal Pradesh, Uttarakhand and Sikkim.
- ✓ Construction of roads, bridges, culverts, primary schools, health infrastructure, playfields, irrigation works, mini-stadiums, indoor courts for basketball, badminton and table tennis can be undertaken within 10 km of the border from the BADP funds.
- ✓ On the contrary, India's long overdue road construction, including the arterial links to the Darbuk- Shyok- Daulat Beg Oldie (DSDBO) road, which China has vigorously opposed by deploying troops and heavy armour, has focused essentially on the security dimension, branding the new connectivity as a belated equaliser to militarily counter China.
- ✓ Prior to the construction of the DSDBO road, a motorable road from Leh, Ladakh's capital, entered the Nubra valley through the 18,600 feet Khardungla pass and headed to the base of Saser Kangri — a mountain complex of six peaks in the Karakoram range. Thereafter, a track headed to Murgo — linking up with the DSDBO route through Burtso, Qazilangar, Depsang pass to Daulat Beg Oldie, the gateway to the Karakoram Pass.
- ✓ Besides, new roads in Ladakh can also help revive the "Tibet route", which passes through Demchok and heads in the direction, 300 km away, of Kailash Mansarovar — an area with a powerful emotional connect with Indian pilgrims.
- ✓ China is further ramping up its border infrastructure along the LAC in Ladakh with a new bridge across the Pangong Tso as well as additional troop shelters, gun positions, helipads and jetties in the area between Finger-8 and its military bases at Sirijap-I and II. India for decades had adopted the naive strategy that inaccessibility on our side would actually deter the Chinese from intruding across borders.

Extra attention

The government has decided to boost infrastructure along the 3,488 km border with China

₹78.4 CRORE FUNDING: The amount will be spent on projects in villages in Ladakh, Arunachal Pradesh, Himachal Pradesh, Uttarakhand and Sikkim



PROJECTS THAT CAN BE FUNDED:

Roads, bridges, culverts, mini stadiums, community health centres, primary schools and hostels, apart from supply of medical equipment to hospitals

WHO WILL CHOOSE THE PROJECT?

The border guarding forces will play a key role in choosing the project

Government Initiatives

- However, India still has a lot of catching up to do. In May 2020, the government implemented the Shekatkar Committee recommendations regarding border infrastructure that enhanced the Border Roads Organisation's procurement powers from Rs 7.5 crore to Rs 100 crore. This has allowed BRO to acquire critical equipment for speedier laying of border roads and other construction.
- The Vibrant Villages Programme, announced by Finance Minister in Budget speech, shows that India is firmly in the catch-up mode in order to counter China's no-holds-barred infrastructure push along the Line of Actual Control (LAC).
- The scheme will cater to underdeveloped villages with sparse population and limited connectivity, located along the border with China.
- The capital budget of the Border Roads Organisation (BRO) has been hiked to Rs 3,500 crore from Rs 2,500 crore. More funds at its disposal should help the BRO expedite work on

strategically important projects. Among them is the Sela tunnel being built in Arunachal's Tawang, a district bordering China.

- Infrastructure development in remote areas is a vital confidence-building measure to gain the trust of local residents, who can act as the eyes and ears of the troops.
- Even as 'Make in India' remains a work in progress in the defence sector, the government has announced that 68 per cent of the capital defence procurement outlay will be earmarked for the domestic industry. This step is expected to reduce India's heavy dependence on imports for defence equipment, though quality control will be a major challenge.

North Atlantic Treaty Organisation (NATO)

News excerpt

Ukraine Crisis: NATO members are deploying elements of the NATO Response Force on land, at sea and in the air.

Pre-connect

- NATO's purpose is to guarantee the freedom and security of its members through political and military means.
- NATO promotes democratic values and enables members to consult and cooperate on defence and security-related issues to solve problems, build trust and, in the long run, prevent conflict.
- NATO is committed to the peaceful resolution of disputes. If diplomatic efforts fail, it has the military power to undertake crisis-management operations. These are carried out under the collective defence clause of NATO's founding treaty - Article 5 of the Washington Treaty or under a United Nations mandate, alone or in cooperation with other countries and international organisations.
- A "NATO decision" is the expression of the collective will of all 30 member countries since all decisions are taken by consensus.

Significance

- The self-declared mission of NATO when it emerged on April 4, 1949, had three prongs: "deterring Soviet expansionism, forbidding the revival of nationalist militarism in Europe through a strong North American presence on the continent, and encouraging European political integration."
- Even as the Soviet Union was dissolved into Russia and former Soviet republics, NATO, emboldened by circumstances and optimism that the global balance of power was tipping in its favour, embarked on a path of expansion.
- NATO began, in successive rounds of negotiation and expansion, to pull former Warsaw Pact states into its membership.
- After reunification, while Germany retained membership of NATO, the Czech Republic, Hungary, and Poland joined the alliance in 1999. But it did not end there — in 2004, Bulgaria, Estonia, Latvia, Lithuania, Romania, Slovakia, Slovenia joined the treaty organisation. In 2009 Albania and Croatia signed on, in 2017 Montenegro entered the bloc and in 2020 it was North Macedonia's turn.

Analytica- NATO expansion

- ✓ In 2008, in the week leading up to NATO's Bucharest Conference, "NATO Allies welcomed Ukraine's and Georgia's Euro-Atlantic aspirations for membership and agreed that these countries will become members of NATO." They went on to announce a period of intensive engagement with both countries at a high political level to address the questions still outstanding regarding their Membership Action Plan applications.

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- ✓ This set off alarm bells in the Kremlin, because even the very concept of Ukraine, a nation considered to hold strong historic ties first to the Soviet Union and then Russia, was anathema.
- ✓ This was only among the more recent of a long list of actions by NATO leaders that Russia considers a political betrayal. However, it is not necessarily the case that Russia is right to believe that — and to understand this, it is important to grapple with the history of NATO expansion and its consequences.
- ✓ In 2008, following NATO announcement of its intent to admit Georgia and Ukraine into its alliance, Russia invaded Georgia and took control of several of its territorial regions; and in 2014, with Ukraine drifting closer towards an economic alliance with the European Union, Russia marched into Ukraine and seized Crimea.



Indigenous Aircraft Carrier Vikrant

News Excerpt

Indigenous Aircraft Carrier Vikrant heads out for next round of sea trials.

Pre-connect

- Indigenous Aircraft Carrier Vikrant now sails to undertake complex manoeuvres to establish specific readings of how the ship performs in various conditions
- The maiden sea trials were to establish propulsion, navigational suite and basic operations, while the second sea trial saw the ship being put through various machinery trials and flight trials. Here, the ship was out for 10 days, proving its sustenance in the very second sortie. Various seamanship evolutions were also successfully cleared during the second sortie.
- The IAC now sails to undertake complex manoeuvres to establish specific readings of how the ship performs in various conditions.
- Various sensor suites of the ship too would be tested. Scientists from the DRDO laboratory would embark the vessel during the trials.
- The ship was able to carry out basic flying operations from its very first sortie itself is a landmark in Indian warship construction history. Despite surging COVID cases in the country and the resultant challenges, the combined teams from multiple organisations associated with the project, are upbeat and committed to meet the timelines.
- On successful completion of a series of progressive sea trials, the ship is scheduled to be commissioned as INS Vikrant later this year, as the nation commemorates 'Azadi ka Amrit Mahotsav'.
- The ship would operate a mix of MiG-29K fighter aircraft and various helicopters, ranging from the Kamov-31 Air Early Warning helicopters, the soon-to-be inducted MH-60R multi-role helicopters and the indigenously developed Advanced Light Helicopter Mk III.

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Defence Exercises

MILAN-2022

News Excerpt

The latest edition of Indian Navy's multilateral exercise MILAN 2022 is scheduled to commence from 25 Feb 22 in the 'City of Destiny', Visakhapatnam.

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Pre-connect

- The theme of the MILAN 2022 exercise is 'Camaraderie – Cohesion – Collaboration' which aims to project India as a responsible maritime power to the world at large.
- The aim of the exercise is to hone operational skills, imbibe best practices and procedures, and enable doctrinal learning in the maritime domain, through professional interaction between friendly navies.
- MILAN is a biennial multilateral naval exercise incepted by Indian Navy in 1995 at Andaman and Nicobar Command. Since its inception, the event has been held biennially except for 2001, 2005, 2016 and 2020.
- Starting with the participation of only four countries, viz Indonesia, Singapore, Sri Lanka and Thailand, in the 1995 edition, the exercise has since transitioned leaps and bounds in terms of number of participants and complexity of exercises.
- Originally conceived in consonance with India's 'Look East Policy', MILAN expanded in ensuing years with the GOI's 'Act East policy' and Security And Growth for All in the Region (SAGAR) initiative, to include participation from island nations in the Western IOR as also IOR littorals.

Eastern Bridge-VI

News Excerpt

Indian, Omani air forces begin joint exercises in Jodhpur.

Pre-connect

- Oman is one of India's strongest defence partners in the Gulf region, and all three services have bilateral exchanges and exercises with Oman's services.
- Additionally, Oman also provides operational support to the Indian Navy in the Arabian Sea, and India has access to the Duqm port, which has strengthened India's capability and maritime strategy in the Indian Ocean Region, especially against China's aggressive advance in the region.
- The bilateral exercise named Eastern Bridge – VI will be held at Air Force Station Jodhpur. "This would be the sixth edition of the exercise. It will provide an opportunity to enhance operational capability and interoperability between the two Air Forces.
- The participation by both the air forces in the exercise will promote professional interaction, exchange of experiences and enhancement of operational knowledge, besides strengthening bilateral relations between the two countries.

Ex Cobra Warrior 22

News Excerpt

Indian Air Force will participate in a multi nation air exercise named 'Ex Cobra Warrior 22' at Waddington, UK.

Pre-connect

- IAF Light Combat Aircraft (LCA) Tejas will participate in the exercise along with fighter aircraft of UK and other leading Air Forces.
- The exercise is aimed at providing operational exposure and share best practices amongst the participating Air Forces, thereby enhancing combat capability and forging bonds of friendship. This will be a platform for LCA Tejas to demonstrate its manoeuvrability and operational capability.
- Five Tejas aircraft will fly to the United Kingdom. IAF C-17 aircraft will provide the necessary transport support for induction and de-induction.

Art and Culture

Statue of Equality

News Excerpt

Eleventh century reformer and Vaishnavite saint Ramanujacharyulu's statue unveiled.

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Pre-Connect

- It is a 216-feet tall 'Statue of Equality' commemorating Sri Ramanujacharya. The 'Statue of Equality', as it is called, was being installed to mark the 1,000th birth anniversary of Ramanujacharyulu.
- It was built of Panchaloha, a combination of gold, silver, copper, brass and zinc, by Aerospun Corporation in China and shipped to India.
- It was the second largest in the world in sitting position of the saint.
- The monument will be surrounded by 108 'Divya Desams' of Sri Vaishnavism tradition (model temples) like Tirumala, Srirangam, Kanchi, Ahobhila, Bhadrinath, Mukthinath, Ayodhya, Brindavan, Kumbhakonam and others.
- The idols of deities and structures were constructed in the shape at the existing temples. The idols were also painted.
- The base building, which is 16.5 mts tall, has a meditation hall where a 54 inch statue of Ramanujacharyulu made of 120 kg gold, represents the years he lived and the inner sanctorum deity is meant for daily worship by people.
- The Statue is made of 'panchaloha', It is mounted on a 54-ft high base building, named 'Bhadra Veda', has floors devoted for a Vedic digital library and research centre, ancient Indian texts, a theatre, an educational gallery detailing many works of Sri Ramanujacharya.

Historical Importance

- Ramanuja, is also called Ramanujacharya, or Ilaiya Perumal (Tamil: Ageless Perumal [God]). South Indian Brahman theologian and philosopher, the single most influential thinker of devotional Hinduism.
- After a long pilgrimage, Ramanuja settled in Shrirangam, where he organized temple worship and founded centres to disseminate his doctrine of devotion to the god Vishnu and his consort Shri (Lakshmi).
- He provided an intellectual basis for the practice of bhakti (devotional worship) in three major commentaries:
 - The Vedartha-samgraha (on the Vedas, the earliest scriptures of Hinduism).
 - The Shri-bhashya (on the Brahma-sutras), and
 - The Bhagavadgita-bhashya (on the Bhagavadgita).
- Bhakti Saint Sri Ramanujacharya, promoted the idea of equality in all aspects of living including faith, caste and creed.
- On the one hand he is a saint of rich 'Sanyaas' tradition, he presents the importance of action in Gita Bhashya, on the other.
- Like other adherents of the Vedanta system, Ramanuja accepted that any Vedanta system must base itself on the three "points of departure," namely, the Upanishads, the Brahma-sutras (brief exposition of the major tenets of the Upanishads), and the Bhagavad Gita, the colloquy of the deity Krishna and his friend Arjuna.
- He wrote no commentary on any single Upanishad but explained in detail the method of understanding the Upanishads in his first major work, the Vedartha-samgraha ("Summary of the Meaning of the Veda"). Much of this was incorporated in his commentary on the

Brahma-sutras, the Shri-bhashya, which presents his fully developed views. His commentary on the Bhagavadgita, the Bhagavadgita-bhashya, dates from a later age.

- By allowing the urge for devotional worship (bhakti) into his doctrine of salvation, he aligned the popular religion with the pursuits of philosophy and gave bhakti an intellectual basis.

PRASHAD Scheme

News excerpt

Union Tourism Minister virtually inaugurates PRASHAD projects at Govardhan, Mathura in Uttar Pradesh.

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Pre-connect

- The 'National Mission on Pilgrimage Rejuvenation and Spiritual Heritage Augmentation Drive' (PRASHAD) is a Central Sector Scheme with complete financial assistance by the Government of India.
- The scheme has been launched by the Ministry of Tourism in the year 2014-15 with the vision of focused infrastructure development to harness pilgrimage and heritage tourism destinations for its direct and multiplier effect upon employment generation and economic development.
- The scheme aims at infrastructure development to envisage world class infrastructural development of the sites with special emphasis on Tourist Facilities including Tourist Facilitation Centres, way-side amenities Parking, Public convenience, Illumination and Sound and Light Shows.
- In addition to the project at Govardhan, 5 recently sanctioned projects include Development of Mathura Vrindavan as Mega Tourist Destination, Construction of Tourist Facilitation Center at Mathura, Development of Varanasi and Development of Cruise Tourism in River Ganga. Majority of components implemented under these projects have already been completed and dedicated to nation.
- The PRASHAD scheme is being implemented to improve the Tourism infrastructure like facilitation centers for tourists such as Information and Interpretation Centers, ATM and Money exchange facilities, Eco-friendly buses, lighting, parking, toilets, cloak rooms, first aid centers, rain shelters and internet connectivity at the Tourist locations.

Objectives

- Rejuvenation and spiritual augmentation of important national/ global pilgrimage destinations;
- Enhance tourism attractiveness of identified pilgrimage destinations and heritage cities under integrated tourism development of heritage city in planned, prioritized and sustainable manner by providing world class tourism projects in them;
- Position pilgrimage and heritage tourism as a major engine for its direct and multiplier effects of economic growth and employment generation;
- Follow community-based development through 'Pro-Poor' tourism concept and 'responsible tourism' initiatives.
- Assure active involvement of local communities through employment generation
- Creating awareness among the local communities about the importance of tourism for them in terms of increase in sources of income, improved living standards and overall development of the area.
- Promote heritage in the form heritage structures especially under integrated tourism development of heritage city, local arts, culture, handicrafts, cuisine, etc., to generate livelihood in the identified places.

- Strengthen the mechanism for bridging the infrastructural gaps at identified pilgrimage destinations and throughout heritage cities as identified under integrated city heritage Page 3 of 24 tourism development within the core tourism footprint;
- Develop a monitoring mechanism for timely implementation of the projects in collaboration with the States/UTs and other stakeholders;
- Strengthen the measures for safety and security of pilgrims and tourists and, improve the quality of tourism services
- Enable convergence of state and central government schemes as well as private sector developments for integrated site/ destination development

Devayatanam

News Excerpt

The conference on Indian Temple Architecture titled "DEVAYATANAM – An Odyssey of Indian Temple Architecture.

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Pre-connect:

- In a celebration under Azadi Ka Amrit Mahotsav, Archaeological Survey of India (ASI) of Ministry of Culture, a two-day international conference 'Devayatanam – An odyssey of Indian temple architecture was held at Hampi, Karnataka.
- The conference provides a platform to discuss, deliberate and disseminate to the world the grandeur of Indian temples, art and architecture.
- This conference is in line with the overall vision of the Prime Minister who inspires with 5 V's, i. e. Vikas (development), Virasat (heritage), Vishwas (trust), Vignan (knowledge) will leads the nation to becoming a vishwaguru so that India shows the world the way.
- Temples have been centres of Indian art, knowledge, culture, spirituality, innovation and education. There have been three major styles of setting up temples in India known as Nagara, Dravidian and Vesara.
- Dashavatar temple in Devgarh is of Nagara style which is prevalent between the Himalayas and the Vindhya mountains.
- The Kailasanathar temple in Kanchi is Dravidian style temple, developed on the land of Krishna and Kaveri River and Vesara is a hybrid form Nagara and Dravidian style, Papanatha temple is one of the examples of Vesara style.
- Temples of Hampi are already featured in the World Heritage List of the UNESCO for their sheer brilliance, scale of imagination, and scintillating architecture. Approximately 10 of India's 40 UNESCO World Heritage Inscriptions are hindu temples in different architectural styles, patterns and symmetry.
- The Union Government has proposed Hoysala temples of Belur and Somnathpur to the UNESCO World Heritage List, apart from this India is rebuilding many grand temples

Significance of the Conference

- Hindu temple is a combination of art and science which includes Shilpa sastra, vasthu sastra, geometry and symmetry. The temples promote unity, integrity, and civilization. It was during the freedom struggle that all the freedom struggles were resolved before temple fire to fight for freedom of the country.
- Devayatnam, the house of god is not only a place to worship and perform rituals but also a centre for education, fine arts, music, science & technology, rituals & traditions or every activity shaping the society.
- Construction of temples started with the beginning of human settlements and evolved through ages.

- Architecturally in India there are three main styles Nagara, Vesara and Dravida but several regional styles have been developed in different parts of the country during different period. The beautifully carved ancient temples are testimony to Indian glorious history, art, tradition, science & technology and various aspects and their study helps us in connecting the present with the past.
- Temples are the symbol of India's culture and way of life and country's rich tangible and intangible cultural heritage needs to be celebrated and protected.
- The conference deliberated upon the philosophical, religious, social, economic, technical, scientific, art and architectural aspects of temple. The aim of the conference is to create interest among scholars and students alike, to learn and respect our heritage.

Medaram Jathara

News Excerpt

Ministry of Tribal Affairs helps rekindle Telangana's State Festival of Medaram Jathara with added vigour.

Pre-connect

- Medaram Jathara is the second-largest fair of India, after the Kumbh Mela, celebrated by the second-largest Tribal Community of Telangana- the Koya tribe for four days.
- At present, the Jathara festival is biennially celebrated and organized by the Koyas in collaboration with the Tribal Welfare Department, Government of Telangana.
- Considering the footfall of the festival and its auspicious significance, the Jathara was declared a State Festival in 1996.
- Under the AzadiKa Amrit Mahotsav, the Government of India has announced that tribal culture and heritage will be the cynosure of 2022.
- Medaram Jathara is conducted in honour of the Goddesses Sammakka and Saralamma. It is celebrated once in two years in the month of "Magha" (February) on the full moon day.
- Several Scheduled Tribes of different villages assemble there, and lakhs of pilgrims visit the Mulugu District to celebrate the festival with full gusto.
- At present, the Jathara festival is biennially celebrated and organized by the Koyas in collaboration with the Tribal Welfare Department, Government of Telangana.
- The four days' Medaram Jathara is the most auspicious event for the lakhs of devotees who wait for two long years to behold such a rare occasion.
- The Ministry of Tribal Affairs' continuous support of this festival aims to generate awareness and a harmonious bond between the visitors and the Tribal communities of Telangana. Moreover, it assists the tribals to preserve their unique Tribal Traditions, Culture and Heritage and promote their tribal History on a global scale.
- It is also an embodiment of the spirit of Ek Bharat Shreshtha Bharat.

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Bhasha Certificate Selfie campaign

News Excerpt

Ministry of Education launches Bhasha Certificate Selfie campaign.

Pre-connect

- Ministry of Education launched a campaign 'Bhasha Certificate Selfie to encourage cultural diversity and promote multilingualism and to foster the spirit of Ek Bharat Shreshtha Bharat.

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- Bhasha Certificate Selfie initiative aims to promote Bhasha Sangam mobile app, developed by Ministry of Education and MyGov India. Using the app, people can learn 100+ sentences of daily use in as many as 22 scheduled Indian languages. The initiative, under the aegis of Ek Bharat Shreshtha Bharat will aim to ensure that people acquire basic conversational skills in Indian languages. To achieve this, a target of 75 lakh people acquiring basic conversational skills has been set.
- The 'Bhasha Certificate Selfie' initiative is encouraging people to upload their selfie with the certificate from their social media accounts using the hashtag #BhashaCertificateSelfie.
- To receive a certificate authorized by Ministry of Education, a user needs to download the mobile app, available in both Android and iOS versions, select any language from 22 scheduled Indian languages, finish all the levels, give a test and earn a certificate.
- The National Education Policy 2020 outlines the vision to lay emphasis on the promotion of Indian languages. Going forward, language learning will be promoted as a skill with a formal credit-earning system.
- Bhasha Sangam mobile app was launched by Minister of Education and Skill Development while commemorating Rashtriya Ekta Diwas which is celebrated on October 31 every year to mark the birth anniversary of Sardar Vallabhbhai Patel.

Miscellaneous

Veer Savarkar

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- Vinayak Damodar Savarkar, was an Indian nationalist and leading figure in the Hindu Mahasabha ("Great Society of Hindus"), a Hindu nationalist organization and political party.
- While a student of law in London, Savarkar helped to instruct a group of Indian revolutionaries in methods of sabotage and assassination that associates of his had apparently learned from expatriate Russian revolutionaries in Paris.
- During this period, he wrote The Indian War of Independence, 1857 (1909), in which he took the view that the Indian Mutiny of 1857 was the first expression of Indian mass rebellion against British colonial rule.
- In March 1910 Savarkar was arrested on various charges relating to subversion and incitement to war and was sent to India for trial and convicted.
- In a second trial, he was convicted of his alleged complicity in the assassination of a British district magistrate in India, and, after sentencing, he was transported to the Andaman Islands for detention "for life."
- He was brought back to India in 1921 and released from detention in 1924. While imprisoned he wrote Hinditva: Who Is a Hindu? (1923), coining the term Hindutva ("Hinduness"), which sought to define Indian culture as a manifestation of Hindu values; this concept grew to become a major tenet of Hindu nationalist ideology.
- Savarkar resided in Ratnagiri until 1937, when he joined the Hindu Mahasabha, which militantly defended the Hindus' claims of religious and cultural supremacy over Indian Muslims.
- He served as president of the Mahasabha for seven years. In 1943 he retired to Bombay. When Mohandas K. Gandhi was assassinated in 1948 by a former member of the Mahasabha, Savarkar was implicated, but he was acquitted in his subsequent trial because of insufficient evidence.

Maharishi Dayanand Saraswati Jayanti

- Maharishi Dayanand Saraswati Jayanti is celebrated as the birth anniversary of Swami Dayanand Saraswati.
- Maharshi Dayanand Saraswati was an India philosopher, social leader and founder of the Arya Samaj, a reform movement of Vedic dharma.
- He was the first to give the call for Swaraj as "India for Indian" in 1876.
- He was born on February 12th, 1824 in Tankara, Gujarat in a Brahmin family. His parents, Lalji Tiwari and Yashodhabai were orthodox Brahmin.
- Swami Dayanand Saraswati was a self-taught man and a great leader of India leaving a significant impact on the Indian society. During his life, he made a prominent name for himself and was known among a wide array of Princes and the public.
- The first Arya Samaj unit was formally set up by him at Mumbai (then Bombay) in 1875 and later the headquarters of the Samaj were established at Lahore. Swami Dayanand Saraswati was more than a religious leader; he was a reformer who left a deep impression on India.
- He introduces a complete overhaul of the education system and is often considered as one of the visionaries of modern India. The DAV (Dayanand Anglo Vedic) schools came into existence in 1886 to realize the vision of Swami Dayanand Saraswati.
- The first DAV School was established at Lahore with Mahatma Hansaraj as the headmaster.

Maharaja Surajmal

- Maharaja Surajmal was born in 1707 in the erstwhile kingdom of Bharatpur. After the death of Churamal in 1721, his nephew Badan Singh became the ruler of Bharatpur. Surajmal was his most able son.
- He united various factions of Hindus and Muslims and kept them together. He was a secular king.
- He took care of the historical monuments built by the kings of other religions and employed people according to their abilities in higher posts, irrespective of their races. He was a farsighted man, a good observant and vigilant listener. He was a man of versatile personality.
- He visualized "India as one nation" and devoted his life in forging national integration. Maharaja Surajmal nurtured intellectual vigour that reflects a fusion of our heritage and contemporary insights.
- Maharaja Surajmal considered farmers as the most important section of the society and had a lot of respect for them.
- He personally identified the problems of the farmers and introduced reforms to rectify them.
- He expanded his kingdom from Bharatpur to include Agra, Aligarh, Ballabgarh, Hodal, Bulandshahar, Dholpur, Etah, Hathras, Meerut, Mathura, Rohtak, gurgaon, Farukh Nagar, Mewar and Rewari.
- Throughout his life, he kept on fighting against social injustice, racial discrimination, superstitions and factitious groups and sacrificed his life on 25th Dec.1763 in Shahdara, Delhi.

5th National Award for Innovations and Good Practices in Educational Administration

- The National Institute of Educational Planning and Administration (NIEPA) has instituted National Award for Innovations and Good Practices in Educational Administration for District and Block Level Education Officers.
- The National Award or Certificate of Appreciation were presented to the selected District and Block level education officers from 29 states/ UTs of the country. This year, more than hundred officers received Award or Certificate of Appreciation.
- The Scheme National Award for Innovation in Educational Administration for District and Block Level Education Officers was launched by NIEPA in 2014 with an aim to encourage innovations and good practices in educational administration at grassroot level for improving the functioning of the public system of education.
- The main objective of this programme is to recognise innovative ideas and practices adopted by the district and block level education officers for effective management of the educational administrative system at the district and block levels and ensuring institutional development and performance at the school level.
- Some of the major areas wherein the officers have initiated many interventions include - the use of ICT to the extent of digital class rooms, use of Facebook and WhatsApp; mobilisation of physical, human and financial resources; improving infrastructure facilities within the schools, community mobilisation and support; skill building, especially language skills; capacity building of the teachers and interventions related to enhancement in the quality of the overall function of the schools.

Chauri Chaura Incident

- The historical Chauri Chaura incident occurred in 1922 at Gorakhpur (Uttar Pradesh). The incident occurred in Chauri Chaura town of Gorakhpur district of the United Province (Uttar Pradesh) in British India on 4th February 1922.

- A large group of protesters, participating in the Non-cooperation Movement, clashed with police, who opened fire.
- In retaliation the demonstrators attacked and set fire to a police station, killing all of its occupants. The incident led to the deaths of three civilians and 23 policemen.
- Mahatma Gandhi, who was strictly against violence, halted the Non - cooperation Movement on the national level on 12 February 1922, as a direct result of this incident.
- Prime Minister had inaugurated Chauri Chaura Centenary Celebrations on 4th February last year and also released a postal stamp on this occasion.

Warsaw Pact

- Formally known as the Treaty of Friendship, Co-operation and Mutual Assistance, the Warsaw Pact was created on 14 May 1955, immediately after the accession of West Germany to the Alliance. It complemented the Council for Mutual Economic Assistance, which was the regional economic organisation set up by the Soviet Union in January 1949 for the communist states of Central and Eastern Europe.
- The Warsaw Pact embodied what was referred to as the Eastern bloc, while NATO and its member countries represented the Western bloc.
- NATO and the Warsaw Pact were ideologically opposed and, over time, built up their own defences starting an arms race that lasted throughout the Cold War.
- The Warsaw Pact was declared at an end on 25 February 1991 and the Czechoslovak President, formally declared an end to it on 1 July 1991.
- Gorbachev's policy of openness (Glasnost) and restructuring (Perestroika), together with other initiatives, opened the way for popular uprisings.
- The Berlin Wall fell in November 1989 and communist governments in Poland, Hungary, Czechoslovakia, East Germany, Romania and Bulgaria started to fall.
- The break-up of the Warsaw Pact was shortly followed by the dissolution of the Soviet Union in December 1991.

Concept Clearing Assignment

1. What is intensified mission Indardhanush4.0? How it is different from previous version?
2. India's abstention from the vote on the draft resolution condemning Russia's actions was no surprise, given the fine balance Delhi has sought to strike between crucial partnerships with both Moscow and Western allies. Discuss.
3. What is agile approach? briefly discuss its significance with reference to Indian economy?
4. Discuss the contribution of NGO in Indian society and economy? Highlight issues face by NGO in India.
5. Discuss significance of international mother language day. How would be it impact on linguistic diversity of India?
6. Highlight the historical importance of contributions made Saint Ramanuja.
7. How will 'Ayush Start-up Challenge' facilitate progress in the field of Ayurveda and alternative healing?
8. Discuss the need of Police reform in India? Highlight steps taken by government in this direction.
9. Recent Ukraine crisis has its root in reminiscence of cold war. Critically analyses
10. Discuss the salient features of Indian temple architecture? Highlight the significance of recent conference of temple architecture, Devayatanam.
11. What are the objectives of "New India Literacy Programme"? How does it support the objectives of National education policy 2020?
12. What do you understand by the Sustainable Cities India Program? Discuss its significance. What is the Net Zero Carbon Cities?
13. What is the SeHAT Initiative? Discuss its key features with illustration.
14. What do you know about "Salvaging the Joint Comprehensive Plan of Action"? How it is proven useful to maintain the world peace and tranquility?
15. The Economic Survey is the flagship annual document of the finance ministry. Explain.

PT Oriented Questions

1. Consider the following statements regarding the SeHAT Initiative:
 1. It stands for social e-Health Assistance and Teleconsultation.
 2. It is the tri-services teleconsultation service of the Ministry of Defence.
 3. It has been an example of innovation at the times of Swine flu.
 Which of the statements given above is/are correct?
 - (a) 1 and 2 only
 - (b) 2 only
 - (c) 2 and 3 only
 - (d) 1, 2 and 3
2. With reference to the Border Infrastructure & Management (BIM), which of the following statements is/are correct?
 1. It is the Central Sector Umbrella Scheme.
 2. Ministry of External Affairs is committed to improving it.
 Select the correct answer using the codes given below:
 - (a) 1 only
 - (b) 2 only
 - (c) Both 1 and 2
 - (d) Neither 1 nor 2
3. With reference to the North Atlantic Treaty Organisation, consider the following statements:
 1. Its objective is to guarantee the freedom and security of the European Union.
 2. It promotes democratic values and enables members to consult and prevent conflict.
 3. It uses political methods only to secure its goals.
 Which of the statements given above is/are not correct?
 - (a) 1 only
 - (b) 1 and 3 only
 - (c) 2 only
 - (d) 1, 2 and 3
4. Consider the following statements regarding the Saint Ramanuja:
 1. He is also known as the Ilaiya Perumal.
 2. He was the south Indian Brahman theologian and philosopher.
 3. He was the single most influential thinker of devotional Hinduism.
 Which of the statements given above is/are correct?
 - (a) 1 and 2 only
 - (b) 1 only
 - (c) 2 and 3 only
 - (d) 1, 2 and 3
5. Which one of the following best describes the term "MILAN-2022" sometimes seen in news?
 - (a) A software developed by C-DAC
 - (b) A new edition of the torpedo developed by Defence Research and Development Organisation.
 - (c) Indian Navy's multilateral exercise
 - (d) None of the Above
6. Which of the following are the areas for the creation of infrastructure under the Border Infrastructure & Management?
 1. Construction of border fence
 2. Border flood lights
 3. Technological solutions,
 4. Border roads and Border Outposts (BOPs)/Company Operating Bases (COBs) to secure Indo-Pak border only.
 Select the correct answer using the codes given below:
 - (a) 1, 2 and 3 only
 - (b) 4 only
 - (c) 2 and 4 only
 - (d) 1, 2, 3 and 4
7. Which of the following is/are the mandate of the National Information Centre?
 1. Technology partner of the Government.
 2. Design and Develop IT Systems for the Government.
 3. Explore & advise on use of Emerging Technologies.
 Select the correct answer using the codes given below:
 - (a) 1 and 2 only
 - (b) 1 only
 - (c) 2 and 3 only
 - (d) 1, 2 and 3

8. Consider the following statements regarding the PRASHAD Scheme:
1. It stands for National Mission on Pilgrimage Rejuvenation and Spiritual Heritage Augmentation Drive.
 2. It is a Central Sector Scheme with partial financial assistance by the Government of India.
 3. The scheme has been launched by the Ministry of Tourism.
- Which of the statements given above is/are correct?
- (a) 1 and 3 only
 - (b) 1 only
 - (c) 2 and 3 only
 - (d) 1, 2 and 3
9. With reference to the Intensified Mission Indradhanush (IMI) 4.0, which of the following statements is/are correct?
1. Mission Indradhanush (MI) was launched by the Ministry of Social Justice and Empowerment in the year 2014.
 2. It aims to cover all those children who are either unvaccinated, or are partially vaccinated against vaccine preventable diseases.
- Select the correct answer using the codes given below:
- (a) 1 only
 - (b) 2 only
 - (c) Both 1 and 2
 - (d) Neither 1 nor 2
10. With reference to the Section 498A of Indian Penal Code, consider the following statements:
1. It prescribes punishment for 3 years and a fine.
 2. Its objective is to protect elderly people from being subjected to cruelty.
 3. It was introduced in the year 1983.
- Which of the statements given above is/are not correct?
- (a) 1 only
 - (b) 2 only
 - (c) 2 and 3 only
 - (d) 1, 2 and 3

11. Consider the following statements regarding the First Information Report (FIR):

1. It is defined in the Indian Penal Code and the Code of Criminal Procedure (CrPC), 1973.
2. Information recorded under Section 154 of CrPC is known as First Information Report (FIR).
3. It is every information relating to the commission of a cognizable offence.

Which of the statements given above is/are correct?

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

12. Which one of the following best describes the term "Immunization" sometimes seen in news?

- (a) It is the process whereby a person is made immune to an infectious disease.
- (b) In it the resistance is created against a fatal disease.
- (c) It is created typically by the administration of a vaccine.
- (d) All of the Above

13. Which of the following is/are the functions of the National Commission for Women?

1. Presentation of the reports
2. Investigation and Examination
3. Participation in all spheres particularly in planning

Select the correct answer using the codes given below:

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

14. Which of the following is/are the grounds of the restrictions on the freedom of religion?

1. Health
2. Environment
3. Individual satisfaction
4. Social peace and tranquility

- Select the correct answer using the codes given below:
- 1, 2 and 4 only
 - 1 only
 - 2 and 3 only
 - 1, 2, 3 and 4
15. Consider the following statements regarding the online gaming:
- There are three types of online gaming.
 - E-sports, fantasy sports and the online casual games are the examples of the online gaming in India.
 - These are video games which are played online in an organised way between professional players only.
- Which of the statements given above is/are correct?
- 1 and 2 only
 - 1 only
 - 2 and 3 only
 - 1, 2 and 3
16. With reference to the PM CARES for Children Scheme, which of the following statements is/are not correct?
- The PM CARES for Children Scheme was launched by government of India in May 2021.
 - It aims to support children who have lost both the Parents or legal Guardian or Adoptive Parents or Surviving Parent to COVID-19 pandemic.
 - Only the children who have not completed 21 years of age on the date of death of parents are eligible to avail benefits under the PM CARES for Children Scheme.
- Select the correct answer using the codes given below:
- 1 and 2 only
 - 3 only
 - 2 and 3 only
 - 1, 2 and 3
17. With reference to the Ayush Start-up Challenges, consider the following statements:
- The winner in each category will receive a cash prize of Rs 10 lakh and the runner-up will get Rs 5,00,000 only.
 - Both early-stage start-ups as well as individuals as a group can participate in the 'Ayush Start-up Challenge'.
 - The winners of 'Ayush Start-up Challenge' will receive both a cash prize and incubation support from the AIIA.
- Which of the statements given above is/are correct?
- 1 and 2 only
 - 1 only
 - 2 and 3 only
 - 1, 2 and 3
18. Consider the following statements regarding the Statue of Equality:
- It is a 216-feet tall statue commemorating Shankracharya.
 - It was the second largest in the world in sitting position of the saint.
 - It was built by Aerospun Corporation in China and shipped to India.
- Which of the statements given above is/are correct?
- 1 and 2 only
 - 1 only
 - 2 and 3 only
 - 1, 2 and 3
19. Which one of the following best describes the term "Eastern Bridge-VI" sometimes seen in news?
- The longest bridge built in the Ladakh by Border Roads Organisation.
 - A joint exercise between the Air forces of Indian and the Oman in Jodhpur.
 - The highest skyway built by the Indian Air Force over the Brahmaputra River.
 - None of the Above
20. Which of the following Articles of the Constitution of India have the provisions relating to the Freedom of Religion?
- Article 21
 - Article 25
 - Article 19
 - Article 28

Select the correct answer using the codes given below:

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

21. Which of the following is/are the features of the Inter-operable Criminal Justice System (ICJS)?

1. It is an initiative of the e-Committee to enable seamless transfer of data and information among different pillars of the criminal justice system.
2. Documents like FIR, case diary and charge sheet are uploaded by police in the format of the word file for utilization by the courts.
3. The metadata of FIR and charge sheet can be accessed by all the High Courts and subordinate courts.

Select the correct answer using the codes given below:

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

22. Consider the following statements regarding the Joint Comprehensive Plan of Action (JCPOA):

1. It is a landmark accord signed between Iran and a coalition of world powers (P5+1).
2. P5+1 includes the US, the UK, India, Russia, France, and Germany.
3. It was the result of prolonged negotiations from 2013 and 2015 between Iran and P5+1.

Which of the statements given above is/are not correct?

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

23. Consider the following statements regarding the Economic survey:

1. The term Economic survey is mentioned in the Constitution.
2. It reviews the economic development in India and provides detailed statistical data of the

Industrial and the manufacturing sectors only.

3. It analyses the whole macroeconomics of the country in the past year and provides an outline for the next financial year.

Which of the statements given above is/are correct?

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

24. Which one of the following best describes the term "Revenue Deficit" sometimes seen in news?

- (a) It is the difference between revenue deficit and grants for creation of capital assets.
(b) It is the gap between the revenue expenditure and revenue receipts.
(c) It is the difference between the capital disbursements and capital receipts.
(d) It is the excess of total expenditure over total receipts excluding borrowings.

25. Which of the following is/are the objectives of Government Budget?

1. Allocation Function of Government Budget.
2. Redistribution Function of Government Budget.
3. Stabilization Function of Government Budget.

Select the correct answer using the codes given below:

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

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

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

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

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

Select the correct answer using the code given below:

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

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

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

Which of the statements given above is/are correct?

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

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

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

Select the correct answer using the code given below:

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

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

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

Select the correct answer using the code given below:

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

ANSWERS

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

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

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