ABOUT CURRENT CONNECT

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

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

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

Team KSG

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POLITY

Pardoning Power of Governor

News Excerpt

Supreme Court held that the Governor of a State can pardon prisoners, including death row ones, even before they have served a minimum 14 years of prison sentence.

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Pre-Connect

* The Governor can grant pardons, reprieves, respites and remissions of punishment or suspend, remit and commute the sentence of any person convicted of any offence against any law relating to a matter to which the executive power of the state extends.
* The President can grant pardon, reprieve, respite, suspension, remission or commutation in respect to punishment or sentence by a court-martial (military court). The Governor does not possess any such power.

Pardoning Power of The President

Article 72 of the Constitution empowers the President to grant pardonsto persons who have been tried and convicted of any offence in allcases where the:

1. Punishment or sentence is for an offence against a Union Law;
2. Punishment or sentence is by a court martial (military court); and
3. Sentence is a sentence of death.

The pardoning power of the President is independent of theJudiciary; it is an executive power. But the President while exercisingthis power, does not sit as a court of appeal. The object of conferringthis power on the President is two-fold:

i. To keep the door, open forcorrecting any judicial errors in the operation of law; and,
ii. To affordrelief from a sentence, which the President regards as unduly harsh.

The pardoning power of the President includes the following:

➢ **Pardon:**It removes both the sentence and the conviction and completelyabsolves the convict from all sentences, punishments anddisqualifications.
➢ **Commutation:**It denotes the substitution of one form of punishment for a lighter form.For example, a death sentence may be commuted to rigorousimprisonment, which in turn may be commuted to a simpleimprisonment.
➢ **Remission:**It implies reducing the period of sentence without changing itscharacter. For example, a sentence of rigorous imprisonment for twoyears may be remitted to rigorous imprisonment for one year.
➢ **Respite:**It denotes awarding a lesser sentence in place of one originallyawarded due to some special fact, such as the physical disability of aconvict or the pregnancy of a woman offender.
➢ **Reprieve:**It implies a stay of the execution of a sentence (especially that ofdeath) for a temporary period. Its purpose is to enable the convict tohave time to seek pardon or commutation from the President.

Pardoning Power of The Governor

Under Article 161 of the Constitution, the governor of a state alsopossesses the pardoning power. Hence, the governor can also grantpardons, reprieves, respites and remissions of punishment orsuspend, remit and commute the sentence of any person convicted ofany offence against a state law. But conventionally, the pardoning power of thegovernor differs from that of the President in following two respects:

1. The President can pardon sentences inflicted by court martial(military courts) while the governor cannot.
2. Conventionally, the President can pardon death sentence while governorcannot. Even if a state law prescribes death sentence, the powerto grant pardon lies with the President and not the governor.However, the governor can suspend, remit or commute a deathsentence. In other words, both the governor and the Presidenthave concurrent power in respect of suspension, remission andcommutation of death sentence.

Focus of the Supreme Court Judgement

✓ A Bench of Justices Hemant Gupta and A.S. Bopanna observed in a judgment, that advice of the appropriate government binds the Head of the State.

✓ The Supreme Court held that the Governor's power to pardon overrides a provision in the Code of Criminal Procedure — Section 433A —which mandates that a prisoner's sentence can be remitted only after 14 years of jail.

✓ The court observed that the section 433-A of the Code cannot and does not in any way affect the constitutional power conferred on the President/Governor to grant pardon under Articles 72 or 161 of the Constitution... If the prisoner has not undergone 14 years or more of actual imprisonment, the Governor has a power to grant pardon... de hors the restrictions imposed under Section 433-A... Such power is in exercise of the power of the sovereign, though the Governor is bound to act on the aid and advice of the State Government.

✓ In fact, the court noted that the sovereign power of a Governor to pardon a prisoner under Article 161 is actually exercised by the State government and not the Governor on his own.

> **Guidelines for the exercise of Pardoning Power**
>
> ❖ Neither the Constitution of India nor any other statute provides for the guidelines that shall be followed for the exercise of the constitutional Power to grant pardon. The quest for laying down the guidelines for the exercise of this power finds its roots in the wider interpretation of Articles 21 and 14 of the Constitution.
>
> ❖ The preamble of Constitution of India guarantees *'human dignity'* no statutory guidelines have been framed for the exercise of the power to grant pardon under the Constitution of India. Although the question of framing the guidelines came up for consideration before the Supreme Court so many times and it also said that the absence of guidelines may go against the Articles 14 and 21 but still neither the court framed the guidelines nor it asked the government to do so.

Constitutional Courtesy

The Court noted that the action of commutation and release can thus be pursuant to a governmental decision and the order may be issued even without the Governor's approval. However, under the Rules of Business and as a matter of constitutional courtesy, it may seek approval of the Governor, if such release is under Article 161 of the Constitution. The Bench was considering the feasibility of remission policies in Haryana.

Revocation of Pardon

▪ This is quite possible that the pardon granted by the executive may be revoked or withdrawn. The question of revocation may come up for the Consideration of the executive in two cases.

▪ The very first case where the Pardon can be revoked is one when the pardon itself is obtained by fraud, Misrepresentation or misinformation. In other words, a pardon procured by false and fraudulent representation or an intentional suppression of the Truth is void, even though the person pardoned had no part in perpetrating the fraud.

▪ The second one is in case of violation of the condition imposed by the executive on the person seeking pardon. As a matter of fact, a pardon can either be on the person seeking pardon. A pardon can either be free or conditional. The fulfilment of the condition is always necessary and the breach of the same can always put the person behind the bars once again.

Conclusion

🔶 The Constitution of India not only contains the power to grant pardon but also provides for the exercise of power to grant reprieves, respite, remission and commutation of a sentence. All these powers can be exercised by the President of India and the Governors of the concerned State. It is true that the nature manner etc. Of this pardoning power to be Exercised by both of them is

> **PEPPER WITH IT**
> Veto Power of the Governor, Ordinance-Making Power of the Governor, Pardoning Power of the President

similar but still there is no clash of power conferred upon these two distinct bodies.

+ The main reason behind this is that the area or extent of this power has already been defined specifically by the founding fathers of the Constitution of India. Moreover, it has also been taken care of that the power of the President to grant pardon shall not come in conflict with the power of the President to grant pardon shall not come in conflict with the power of the officers who enjoy the similar kind of powers under the Laws for the Armed forces.

+ The major loophole is that this constitutional power is required to be exercised only on the aid and advice of the council of ministers. Moreover, the Constitution does not provide for any specific procedure and guidelines to be followed for Presentation and disposal of the mercy petitions, thereby increasing the Possibility of misuse of the power. Therefore, the ruling party can easily Misuse or abuse this precious power.

Preventive Detention

News Excerpt

Supreme Court held that a liberal meaning cannot be given to the expression public order in the context of preventive detention statute.

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Pre-Connect

• Preventive detention means to detain a person so that to prevent that person from commenting on any possible crime or in other words preventive detention is an action taken by the administration on the grounds of the suspicion that some wrong actions may be done by the person concerned which will be prejudicial to the state.

• Fundamental rights in the Indian constitutions Article 22(3) provides that if the person who has been arrested or detained under preventive detention laws then the protection against arrest and detention provided under article22 (1) and22 (2) shall not be available to that person.

Does the constitution provide any safeguard against misuse of preventive detention?

> **What is called detention?**
> Detention is a word for confinement or imprisonment, usually for a short time. It's also a punishment where children must stay after school. If you're in detention, you probably did something wrong: you're being confined against your will. The police hold people in detention, and so do military forces.
>
> **Who is detention prisoner?**
> Detainees are individuals who are kept in jail even though they have not yet been convicted of a crime. A majority of detainees are individuals who are unable to obtain sufficient funds to post bail and therefore cannot be released from jail pending a trial on the criminal charges.
>
> **What are the types of detention?**
> Detention is of two types, namely, punitive and preventive.
>
> ❖ Preventive detention, means detention of a person without trial and conviction by a court.
> ❖ Punitive detention is to punish a person for an offence committed by him after trial and conviction in a court.

Article 22 of the Indian Constitution deals with certain rights that are provided in case of preventive detention:

> Clause 2 of Article 22 states that each individual who is arrested and detained shall be produced before the nearest judge within a timeframe of 24 hours of such capture barring the time vital for the journey from the spot of arrest to the court and no such individual will be confined in custody more than the said period without the authority of a magistrate.

> Clause 4 of Article 22 provides that no law for preventive detention authorizes any individual to be detained for more than three months unless an advisory panel claims a reasonable justification for such detainment. The members on the consultative panel will be as eligible as a high court jury. The report has to be presented before the expiration period of the said three months.

➤ Clause 5 of Article 22 specifies that the reason for detention shall be conveyed to the individual as quickly as possible by any official when detaining any individual under preventive detention. The reason for detention should have a rational connection to the object that the detenu is prevented from acquiring. The correspondence should include all the ground-related information, and it should not be a simple assertion of factual information.

➤ The authority who has detained the person is not under any obligation to provide the reasons for the detention to be held before his arrest but is recommended to do so as soon as possible, thus giving the detained person with an incentive to be represented.

➤ A person who is already in detention may be detained if reasonable and satisfactory reasons exist to do so. The main problem is that there is no way to verify if the reason for detention is just and reasonable in the context of preventive detention until it is provided to the advisory committee that is applicable only after a 3-months span.

➤ Clause 5 of Article 22 also says that the reasons for the detention should be conveyed as quickly as possible in order to enable the person to have the right to representation. The authority that provides the command for detention shall give the person the soonest chance to make a representation against the order.

> **e-PRISON:** The scope of this project is to computerize and integrate all the activities related to prison and prisoner management in the jail. This application suite provides vital information about the inmates, lodged in the prisons, in real time environment to the prison officials and other entities, involved in Criminal Justice System. It also facilitates online visit request and grievance redressal. e-Prisons application suite, developed by NIC, is cloud-based product designed with easy-to-use GUI and embedded with a comprehensive security feature. It can be easily adopted by any state prisons department with minimum customization efforts since all the possible customization features are parameterized and can be configured by the users.
>
> **Following are salient features of e-Prisons in India:**
>
> **e-Prisons MIS:** Management Information System used at the prisons for their day-to-day regular activities;
>
> **NPIP:** National Prisons Information Portal is a citizen-centric portal showing statistical data of various prisons in the country. Visitors can book their visit request to meet their ward inside the prison through this portal. Grievances with respect to their wards inside the prisons can also be submitted through the portal;
>
> **Kara Bazaar:** Portal for showcasing and selling the products manufactured in various prisons of the country by inmates.

➤ These restrictions make sure that the detainee is adequately protected so that the state does not exceed its authority. These limitations ensure that the detainee is sufficiently secured so the state doesn't surpass its power. While human rights campaigners may whine that the hardship of Clauses 1 and 2 of Article 22 breaches fundamental rights but the detainee is conceded the right to know whether it will not harm the public interest and the detention is led out considering the interest of the residents.

Conclusion

✓ Protecting the limited resources alongside preserving peace and order is essential for a developing country.

✓ India has mostly been effective in preserving its independence, dignity, and autonomy through the use of these preventive detention methods and national security legislation.

✓ The preventive detention laws are not completely just fair and reasonable and need some changes or alterations to fit in well within the scope of the Right to life and liberty.

✓ A few critiques pit security against the concept of human rights as fundamental. India is a nation of immense scale and long borders and it comprises multiple identities due to which the surrounding nations show animosity towards it.

✓ Under these conditions, the responsibility of preserving India's independence, dignity, and

sovereignty falls on these security-related rules, actions, and provisions.

✓ As long as the law on preventive detention is made within the legislative entry and does not infringe any of the conditions or restrictions on that power, such law cannot be struck

down on the specious ground that it is circulated to interfere with people's freedoms.

✓ Under this respect, a moral assessment must be taken because, at one end of the spectrum, the lives and personal freedom of vast areas of society must be respected and, at the other end, the life and personal freedom of the person detained must be taken care of.

PESA Act

News Excerpt

The PESA Act is considered to be the backbone of tribal legislation in India.

Pre-Connect

PESA Act of 1996 (Extension Act)

- The provisions of Part IX of the constitution relating to the Panchayatsare not applicable to the Fifth Schedule areas. However, theParliament may extend these provisions to such areas, subject tosuch exceptions and modifications as it may specify. Under thisprovision, the Parliament

> **Powers of the Gram Sabha under the PESA Act**
> The PESA Act conferred the absolute powers to Gram Sabha, whereas state legislature has given an advisory role to ensure the proper functioning of Panchayats and Gram Sabhas. The power delegated to Gram Sabha's cannot be curtailed by a higher level, and there shall be independence throughout. Following powers and functions have been provided to the Gram Sabhas:
>
> ❖ Protection of traditional belief, the culture of the tribal communities
> ❖ Resolution of the local disputes
> ❖ Prevention of land alienation
> ❖ Management and protection of the common properties based on their traditions
> ❖ Management of village markets
> ❖ Right to control production, distillation, and prohibition of liquor
> ❖ Exercise of control over money-lending
> ❖ Any other rights involving the Scheduled Tribes.
>
> The PESA Act is considered to be the backbone of tribal legislation in India.

has enacted the "Provisions of thePanchayats (Extension to the Scheduled Areas) Act", 1996, popularlyknown as the PESA Act or the Extension Act.

- At present (2019), ten states have Fifth Schedule Areas. These are:Andhra Pradesh, Telangana, Chhatisgarh, Gujarat, Himachal Pradesh,Jharkhand, Madhya Pradesh, Maharashtra, Odisha and Rajasthan. Allthe ten states have enacted requisite compliance legislations byamending the respective Panchayati Raj Acts.

Features of the PESA Act of 1996

➢ A state legislation on the Panchayats in the Scheduled Areasshall be in consonance with the customary law, social andreligious practices and traditional management practices ofcommunity resources.

➢ A village shall ordinarily consist of a habitation or a group ofhabitations or a hamlet or a group of hamlets comprising acommunity and managing its affairs in accordance with traditionsand customs.

➢ Every village shall have a Gram Sabha consisting of personswhose names are included in the electoral rolls for thePanchayat at the village level.

➢ Every Gram Sabha shall be competent to safeguard andpreserve the traditions and customs of the people, their culturalidentity, community resources and the customary

mode ofdispute resolution.

➢ Every Gram Sabha shall–
  o approve of the plans, programmes and projects for social and economic development before they are taken up for implementation by the Panchayat at the village level; and
  o be responsible for the identification of beneficiaries underpoverty alleviation and other programmes.

➢ Every Panchayat at the village level shall be required to obtainfrom the Gram Sabha a certification of utilisation of funds for theabove plans, programmes and projects.

➢ The reservation of seats in the Scheduled Areas in everyPanchayat shall be in proportion to the population of thecommunities for whom reservation is sought to be given underPart IX of the Constitution. However, the reservation for the STs shall not be less than one-half of the totalnumber of seats. Further, all seats of Chairpersons ofPanchayats at all levels shall be reserved for the STs.

➢ The state government may nominate such STs which have no representation in the Panchayat at theintermediate level or the Panchayat at the district level. But suchnomination shall not exceed one-tenth of the total members tobe elected in that Panchayat.

➢ The Gram Sabha or the Panchayats at the appropriate levelshall be consulted before making the acquisition of land in theScheduled Areas for development projects and before resettlingor rehabilitating persons affected by such projects in theScheduled Areas. However, the actual planning andimplementation of the projects in the Scheduled Areas shall becoordinated at the state level.

> **Background**
> ❖ During most of the time in history, Adivasis (a lion's section of India's tribal communities) had their own federal governance system. These decision-making processes were considered people-centric and democratic, although women were mostly not allowed to participate in such processes.
> ❖ The administrative systems during the colonial period and elected parliamentary democracy after independence affected this Adivasi governance system to a great extent. As a result, the traditional system disappeared from most Adivasi areas in Jharkhand.
> ❖ The PESA Act, which was supposed to uphold the traditional decision-making process, has so far not been fully implemented in its true spirit.
>
> **Objectives of the PESA Act of 1996**
> 1. To extend the provisions of Part IX of the Constitution relating to the panchayats to the scheduled areas with certain modifications
> 2. To provide self-rule for the bulk of the tribal population
> 3. To have village governance with participatory democracy and to make the gram sabha a nucleus of all activities
> 4. To evolve a suitable administrative framework consistent with traditional practices
> 5. To safeguard and to preserve the traditions and customs of tribal communities
> 6. To empower panchayats at the appropriate levels with specific powers conducive to tribal requirements
> 7. To prevent panchayats at the higher level from assuming the powers and authority of panchayats at the lower level of the gram sabha.

Creation of Jharkhand

✓ Jharkhand was carved out as the 28th state of India from the Southern part of Bihar in 2000. This part was distinctively different from the northern part of Bihar in terms of geography and social composition. It has the highest population of Adivasi people from 32 different tribes, including the nine Particularly Vulnerable Tribal Groups (PVTG).

✓ Though all 32 tribes came under the identity of 'Adivasis of Jharkhand' and demonstrated a successful political movement towards the creation of the Jharkhand state, there are differences among these groups in terms of their traditional practices.They have their own customary systems and laws and social norms. They also had systems and processes to maintain and use common resources.

✓ The names of the village council are different in different tribes though. For example, 'Parha Raja System' in Munda and Oraon tribe dominated Chhotanagpur region; 'Munda Manki System' in Ho tribe dominated Kolhan region; and 'ManjhiParganait system' in Santhal tribe dominated Santhal Pargana region of Jharkhand.

Traditional Governance System

▪ The Adivasis were not a part of the caste society. They had their own system of governance, which was, unlike the caste system, non-hierarchical. Every tribal village had a village council as the basic unit for self-governance.

▪ The entire social system was organised into three functional levels in across major tribal communities in the state. The first one is at the village level; the second at the cluster of five-six village levels and the third at community levels.

▪ These forums used to act as the decision-making bodies for all matters related to administration, the Parliament and judiciary. The administrative matters were related to maintenance of village commons (such as lands, forests and water bodies), labour sharing, agriculture activities, religious events and festivals, etc.

> ### Gradual collapse of the system
> ❖ After the introduction of the Bihar Panchayat Raj System (BPRS) in 1947, these Adivasi traditional governance systems became weak. BPRS was formed keeping the non-Adivasi areas in view. As a result, due to the non-priority and neglect, the process of traditional governance system was affected.
> ❖ This was aggravated by industrialisation, displacement of Adivasis and urbanisation.
> ❖ These traditional systems of self-governance are now visible only in villages far from the urban areas. In those villages too, it got limited to the matters related to festivals and hunts. Traditionally, village councils used to meet once every week, often on Thursdays for that was the Halbandi Din (non-ploughing day of the week) at a designated place.
> ❖ Now in most of the villages, especially nearer to the towns and cities, these meetings have become rare.

▪ The parliamentary matters were related to upholding and interpreting norms and unwritten laws and traditional values; the judiciary matters were related to managing conflict, disciplinary actions, etc guided by unwritten norms and values.Consent from the whole village was considered to be the main component of this decentralised decision-making process.

▪ All three tires used to have regular meetings to discuss issues relevant to them. Though this traditional system of self-governance helped make the Adivasi communities decide for themselves, it had several loopholes too. The most cited one was the absence of women in this entire process of decision making.

▪ The chiefs of the traditional self-governance system of tribes in Jharkhand would be selected hereditarily, though one might get removed from the responsibilities for inefficiency. No woman was allowed to be the chief at any level.

▪ This system also denied women's right to own property. As a result, after two decades of the formation of Jharkhand, there is hardly any shift in the role played by women in the decision-making processes.

Conclusion

The partially implemented PESA has worsened self-governance in Adivasi areas in Jharkhand.Social audits have pointed out that in reality different developmental schemes were being approved on paper by Gram Sabha as a vetting entity without actually having any meeting for discussion and decision making. Hardly any regular meetings of Gram Sabha are conducted.

PESA recognises the traditional system of the decision-making process and stands for the peoples' self-governance. If it is implemented in letter and spirit, it will rejuvenate the dying self-governance system in the tribal

> **PEPPER WITH IT**
> Evolution of Panchayati Raj, 73rd Amendment Act of 1992, Finances of Panchayati Raj

areas. This will also give an opportunity to correct the loopholes in the traditional governance system and make it a more gender-inclusive and democratic space.

Continuation of the Scheme for Fast Track Special Courts

News Excerpt

The Union Cabinet has approved the continuation of 1023 Fast Track Special Court (FTSCs) including 389 exclusive POCSO Courts as a Centrally Sponsored Scheme (CSS). Central Share is to be funded from Nirbhaya Fund. The Scheme was launched on 2nd October 2019.

Pre-Connect

- The state judiciary consists of a High Court and a hierarchy of subordinate courts, also known as lower courts. The subordinate courts are so called because of their subordination to the state high court. They function below and under the High Court at district and lower levels.

- To bring more stringent provisions and expeditious trial and disposal of cases regarding crimes against women and children, the Central Government enacted "The Criminal Law (Amendment) Act, 2018" and made provisions of stringent punishment including death penalty for perpetrators of rape. This led to the establishment of FTSCs.

- Fast Track Special Courts are dedicated courts expected to ensure swift dispensation of justice. They have a better clearance rate as compared to the regular courts and hold speedy trials. Besides providing quick justice to the hapless victims, it strengthens the deterrence framework for sexual offenders.

Facts and Figures

➢ Since October 2019, the Department of Justice of the Ministry of Law and Justice has been implementing the Centrally sponsored scheme for expeditious trial and disposal of pending cases of rape and offences against children under the Protection of Children from Sexual Offences Act (POCSO), 2012.

➢ According to some government sources, there were around 1.67 lakh cases of rape and POCSO in 2019, but this number has increased to 2.34 lakh cases recently. According to them, a backlog of cases amid the pandemic has been one of the reasons for the jump.

At a snail's pace

Nirbhaya Fund
Emergency Response Support System (112)
Only 18 out of 36 States have utilised funds for activating this

Fund released
2014-15: No fund released
2015-16: No fund released
2016-17: ₹217.96 cr
2017-18: ₹45.69 cr
2018-19: ₹14.96 cr
Fund Utilised: ₹59.56 cr

Cyber Crime Prevention Against Women and Children
Total outlay : ₹223.198 cr
Fund released in 2017-18: ₹44.64 cr
Fund released in 2018-19: None
Status: Scheme never took off

Universalisation of Women Helpline (181)
15 out of 36 States have not utilised any fund released to them for this purpose since 2015-16

Children
In 2018-19, only **22 per cent** of entire fund released for Poshan Abhiyan was utilised by States, with Punjab utilising a mere **0.5 per cent** of the fund

➢ The scheme includes 389 FTSCs exclusively for POCSO cases.Each FTSC is expected to dispose of 41-42 cases in each quarter and at least 165 cases in a year.

➢ At the time the scheme was launched, the government had set a target of disposing of 1,66,882 cases of rape and POCSO Act cases pending trial in various courts.

➢ Earlier this year, a Parliamentary panel on Home Affairs had noted that only 597 fast track courts out of the total 1,023 had been set up in the country and expressed its concern at the delay in implementing the scheme.

Crux of the continuation of the Scheme

It is supporting the efforts of State/UT Governments for providing time bound justice to hapless victims of sexual offences in the country including the remote and far - flung areas. The expected outcomes of the scheme are as follows:

✓ Further the commitment of the Nation to

NIRBHAYA FUND
NIRBHAYA FUNDS PURPOSE
A) Emergency respond support system
B) Central victim Compensation Fund
C) Cybercrime prevention against women and Children
D) One-stop centre scheme
E) Mahila Police volunteers
F) Universalisation of WomenHelpline Scheme

champion the cause of safety and security of women and girl child.

✓ Reduce the number of pending cases of Rape & POCSO Act.

✓ Provide speedy access to justice to the victims of sexual crimes and act as a deterrent for sexual offenders.

✓ Fast racking of these cases will declog the judicial system of the burden of case pendency

Conclusion

The Government has always given paramount importance to the safety and security of women and children. Towards empowering the girl child, the Government has already launched several programmes like "Beti Bachao Beti Padhao" etc.

Incidents of rape of minor girls below the age of twelve years and women below the age of sixteen years have shaken the conscience of the entire nation. The occurrence of such incidents and prolonged trials of convicts had necessitated the creating of a dedicated court machinery which could expedite trial and provide immediate relief to the victims of sexual offences.

> **PEPPER WITH IT**
> National Legal Services Authority, Lok Adalats, Permanent Lok Adalats, Family Courts, Gram Nyayalayas

Report of Standing Committee on Water Resources
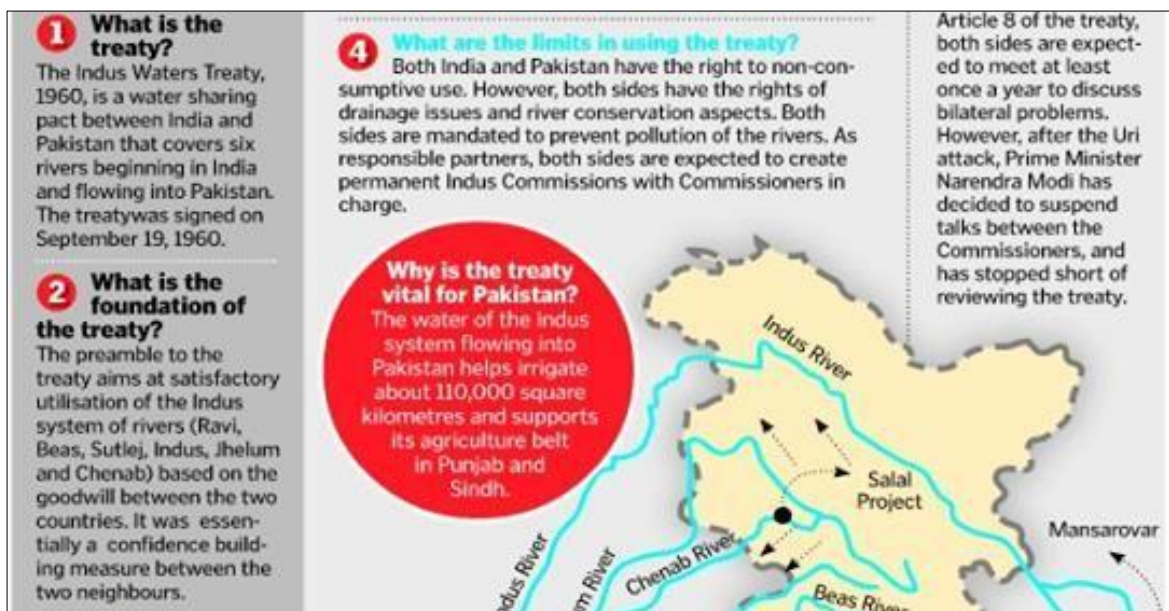
News Excerpt

A new parliamentary report has said that the 1960 Indus Water Treaty between India and Pakistan did not take present-day issues like climate change, scarcity of the potable water etc. into account.

Pre-Connect

• India accounts for about 2.45 per cent of world'ssurface area, 4 per cent of the world's waterresources and about 16 per cent of world'spopulation. The total water available fromprecipitation in the country in a year is about4,000 cubic km. The availability from surfacewater and replenishable groundwater are 1,869cubic km. Out of this only 60 per cent can beput to beneficial uses. Thus, the total utilisablewater resource in the country is only1,122cubic km.

• There are four major sources of surface water. These are rivers, lakes, ponds, and tanks. In the country, there are about 10,360 rivers and their tributaries longer than 1.6 km each.

The mean annual flow in all the river basins in India is estimated to be 1,869 cubic km.

• The functions of the Parliament arevaried, complex and voluminous. Moreover, it has neither theadequate time nor necessary expertise to make a detailedscrutiny of all legislative measures and other matters. Therefore, itis assisted by a number of committees in the discharge of itsduties.

• The Constitution of India makes a mention of Parliamentary Committeesat different places,

but without making any specific provisionsregarding their composition, tenure, functions, etc. All thesematters are dealt by the rules of two Houses. Accordingly, aparliamentary committee means a committee that:

1. Is appointed or elected by the House or nominated by theSpeaker / Chairman
2. Works under the direction of the Speaker / Chairman
3. Presents its report to the House or to the Speaker /Chairman
4. Has a secretariat provided by the Lok Sabha / Rajya Sabha

- The consultative committees, which also consist of members ofParliament, are not parliamentary committees as they do not fulfil above four conditions.

Highlights

❖ On August 5, 2021, the 12th report of the Standing Committee on Water Resources (2020-21) of the Ministry of Jal Shakti's Department of Water Resources, River Development and Ganga Rejuvenation, was presented to the Lok Sabha and laid on the table of the Rajya Sabha.

❖ Titled *'Flood Management in the country including International Water Treaties in the field of Water Resource Management with particular reference to Treaty/Agreement entered into with China, Pakistan and Bhutan'*, the report, apart from looking into domestic water issues, such as flood control measures, deals with India's water cooperation with Pakistan, China and Bhutan.

❖ Notably, in recent years, due to an increase in population, accelerating climate change and unsustainable water management practices, the demand-supply gap of waters in the Indus basin has further widened. On this issue, the standing committee report observes that the IWT has stood the test of time, but present-day issues such as climate change and global warming necessitate a re-visit.

❖ The committee urged the Government of India to "take the necessary diplomatic measures to renegotiate the Indus Water Treaty with Pakistan". Even the Pakistani senate passed a resolution in 2016 asking the then government to "revisit" the IWT to secure the larger water interests of Pakistan.

Government Signs US $ 250 Million Loan Agreement For Second Phase of Dam Rehabilitation & Improvement Project (DRIP)

❖ In order to enhance water security in the country and support sustainable development, the GoI signed a $250 million loan agreement with World Bankfor the Second Phase of Dam Rehabilitation and Improvement Project (DRIP Phase II) to make existing dams and communities safe and resilient across India.

❖ The Ministry of Jal Shakti, ten (10) States and the Central Water Commission attended the loan signing ceremony. The balanced US$250 million external funding from Asian Infrastructure Investment Bank (AIIB) is under consideration.

❖ This DRIP Phase II is the first phase of externally aided DRIP Phase II and Phase III, approved by GoI in October 2020. The Scheme has the participation of nineteen (19) States and three (3) Central Agencies.

❖ The Budget outlay for both Phases is Rs 10,211 Cr for an implementation period of ten (10) years. The Scheme will be implemented in two Phases, each of six years' duration, with two years' overlap.

Conclusion

Given the bilateral relationships between India and Pakistan, re-negotiation of the IWT is hardly possible. The IWT was signed under a unique set of historical factors that are unlikely to be repeated. Moreover, in recent years, water issues in India and Pakistan have become highly "securitised" and there is growing "water nationalism" in both countries that undermines any prospect of cooperation. Any thought to renegotiate the IWT first requires improvements in

PEPPER WITH IT
Committees to Inquire, Committees to Scrutinise and Control, Committees Relating to the Day-to-Day Business of theHouse,

the India-Pakistan relationship, which needs systematic engagement and negotiation.

Issue of Vacancies in Tribunal

News Excerpt
The Supreme Court had pulled up the central government for its failure in filling vacancies in tribunals across the country despite multiple orders from the Court to that effect.

Pre-Connect
- The original Constitution did not contain provisions withrespect to tribunals. The 42nd Amendment Act of 1976added a new Part XIV-A to the Constitution. This part isentitled as 'Tribunals' and consists of only two Articles–Article 323A dealing with administrative tribunals and Article 323 B dealingwith tribunals for other matters.
- Under Article 323 B, the Parliament and the state legislatures are authorised to provide for the establishment of tribunals for the adjudication of disputes relating to the following matters:
    - Taxation
    - Foreign exchange, import and export
    - Industrial and labour
    - Land reforms
    - Ceiling on urban property
    - Elections to Parliament and state legislatures
    - Food stuffs
    - Rent and tenancy rights

> **Advantages for National Company Law Tribunal**
> - NCLT is a specialized court only for Corporates, i.e., companies registered in India.
> - This will be no more than a Tribunal for the Corporate Members.
> - NCLT will reduce the multiplicity of litigation before different forums and courts.
> - It has multiple branches and is able to provide justice at a close range.
> - NCLT consists of both judicial and technical members while deciding on matters.
> - The time taken to windup a company is reduced.
> - Speedy disposal of cases will help reduce the number of cases.
> - NCLT & NCLAT have exclusive jurisdiction.

National Company Law Tribunals (NCLTs)
➢ NCLT was setup by the Central Government in 2016 under Section 408 of the Companies Act, 2013 as a quasi-judicial body to govern the companies registered in India and is a successor to the Company Law Board.

➢ NCLT consolidates the corporate jurisdiction of the Company Law Board, Board for Industrial and Financial Reconstruction (BIFR), The Appellate Authority for Industrial and Financial Reconstruction (AAIFR) and the powers relating to winding up or restructuring and other provisions, vested in High Courts. Hence, the National Company Law Tribunal will consolidate all powers to govern the companies registered in India. With the establishment of the NCLT and NCLAT, the Company Law Board under the Companies Act, 1956 has now been dissolved.

National Consumer Disputes Redressal Commission
✓ The National Consumer Disputes Redressal Commission (NCDRC), India is a quasi-judicial commission in India which was set up in 1988 under the Consumer Protection Act of 1986. Its head office is in New Delhi. The commission is headed by a sitting or retired judge of the Supreme Court of India.

✓ Section 21 of Consumer Protection Act, 1986 posits that the NCDRC shall have jurisdiction to entertain a complaint valued more than one crore and also have Appellate and Revisional jurisdiction from the orders of State Commissions or the District fora as the case may be.

✓ Section 23 of Consumer Protection Act, 1986, provides that any person aggrieved by an order of NCDRC, may prefer an Appeal against such order to Supreme Court of India within a period of 30 days.

Analytica

KSG

- Lawyers practising before various tribunals across the country have opinion that the large number of vacancies have **"virtually defeated"** the very purpose of having such tribunals in the first place. Especially, tribunals such as Real Estate Regulatory Authority Tribunal, Debt Recovery Tribunal, and Central Administrative Tribunal are the worst affected.
- The problem of inadequate number of judicial officers at tribunals across India has not only irked the apex court but has also made litigation before such tribunals a herculean task.
- The litigants across the country believe that these vacancies have forced tribunals to function in a manner that defeats their intended purpose — speedy and efficient disposal of cases.
- The purpose of having multiple benches of the same tribunal is nullified. Due to rising vacancies, benches are sitting only once or twice a week which has resulted in piling up of pending cases. For instance, National Company Law Tribunal (NCLT) matters from Jaipur are being handled by a bench in Chandigarh, which already has cases from four states and one UT falling under its jurisdiction.
- "Technical members are generally retired government officers who are in a post-retirement job. The quality of judgements takes a beating and, therefore, most judgements are overturned in appeal."
- The situation has gone from bad to worse at the Central Administrative Tribunal (CAT) and Real Estate Regulatory Authority Tribunal (RERA).
- CAT is so overburdened that regular cases are getting adjourned with dates after 3-4 months! While in RERA Tribunals, benches often adjourn matters en masse (in bulk) as, due to the pending vacancies, adequate quorum is not met for hearing the case.
- Vacancies allow backlog to increase. The workload of many of the benches have doubled, which results in "mechanical" adjournment of cases due to paucity of time.
- Specialist lawyers can file new cases but after that they keep getting adjourned without any substantive movement in the cases. In most cases, one side usually profits by delay and takes advantage of the situation.
- The perspective of the lawyers appearing before the tribunal and that of the Supreme Court converge at one point — the process needs more streamlining.
- The processes to fill up vacancies begin only when a sitting member has demitted office. Ideally, this process should begin six months or a year before the date of retirement of a sitting member.
- Given the nature and number of vacancies, there is no reason why vacancies should not be routed through a public examination where rules of reservation (for equal representation qua gender, etc) can be applied.
- Consequence to access to justice is fairly obvious: lesser the members, lesser the number of cases that get decided. This is no different from the issue of vacancies in courts. The thing is, we are already in too deep with tribulalisation and over-fragmentation of the administration of justice.

Conclusion

- The real issue with focusing disproportionately on vacancies is that it eclipses deeper questions regarding the way the sanctioned strength has been calculated in the first place. It is assumed that a court working at full strength will be working productively. However, we currently do not have any way to measure the productivity of individual judges and the courts.
- Judge strength in India has been expanded in an ad hoc manner and there is little transparency regarding the parameters that are considered for these important calculations. We currently do not know if it is revised periodically or who is in charge of the revisions.

> **PEPPER WITH IT**
> Powers and Jurisdiction of NCLT, National Company Law Appellate Tribunal

- A well-functioning legal system depends on an accurate calculation of judge strength. A rational method based on strong empirical criteria such as litigation patterns of the state, the volume of pendency and the current disposal rates of judges amongst others should be devised and adopted by the judiciary for all the tiers.

Collegium and Judicial Appointments

News Excerpt

The Supreme Court Collegium, led by Chief Justice of India (CJI) N.V. Ramana has recommended to the government nine names for appointment as apex court judges, and in the process have also named Karnataka High Court judge B.V. Nagarathna, who may become India's first woman CJI.

Pre-Connect

- The judges of the Supreme Court are appointed by the president.The chief justice is appointed by the president after consultationwith such judges of the Supreme Court and high courts as hedeems necessary.
- The other judges are appointed by presidentafter consultation with the chief justice and such other judges ofthe Supreme Court and the high courts as he deems necessary.
- The consultation with the chief justice is obligatory in the case ofappointment of a judge other than Chief justice.

Controversy over Consultation

➢ The Supreme Court has given different interpretation of the word'consultation' in the matter of the appointment of judges. In the First Judges case1982), the Court held that consultation does not meanconcurrence and it only implies exchange of views.

➢ But, in theSecond Judges case (1993), the Court reversed its earlier rulingand changed the meaning of the word consultation toconcurrence. Hence, it ruled that the advice tendered by the ChiefJustice of India is binding on the President in the matters ofappointment of the judges of the Supreme Court.

➢ The ChiefJustice would tender his advice on the matter after consulting twoof his senior most colleagues. Similarly, in the Third Judges case(1998), the Court opined that the consultation process to beadopted by the Chief justice of India requires 'consultation ofplurality judges.

➢ The sole opinion of the chief justice of India doesnot constitute the consultation process. He should consult acollegium of four seniormost judges of the Supreme Court andeven if two judges give an adverse opinion, he should not sendthe recommendation to the government. The court held that therecommendation made by the chief justice of India withoutcomplying with the norms and requirements of the consultationprocess are not binding on the government.

➢ The 99th Constitutional Amendment Act of 2014 and theNational Judicial Appointments Commission Act of 2014 havereplaced the collegium system of appointing judges to theSupreme Court and High Courts with a new body called theNational Judicial Appointments Commission (NJAC). However, in2015, the Supreme Court has declared both the 99thConstitutional Amendment as well as the NJAC Act asunconstitutional and void. Consequently, the earlier collegiums system became operative again. This verdict was delivered by theSupreme Court in the Fourth Judges case (2015). The courtopined that the new system (i.e., NJAC) would affect theindependence of the judiciary.

3 women judges

✓ The Collegium has for the first time, in one single resolution, recommended three women judges. It has thus sent a strong signal in favour of representation of women in the highest judiciary.

✓ It has also continued the recent trend to recommend direct appointments from the Supreme Court Bar to the Bench of the court.

10 vacancies

▪ The top court currently has 10 vacancies. Judicial appointments to it have remained frozen since September 2019. The last batch of appointments in September 2019 were of Justices Krishna Murari, S. Ravindra Bhat, V. Ramasubramanian and Hrishikesh Roy. The oldest vacancy is that of Justice Ranjan Gogoi, who retired in November 2019.

▪ The tenure of Chief Justice S.A. Bobde did not see a single judicial appointment to the court though frequent discussions were held by the Collegium. Justice Bobde's tenure as CJI had to weather the breakout of an unprecedented crisis in the form of COVID-19.

Analytica

- Lord Denning said, "Every judge, in a sense, is on trial to see that he does his job honestly, and properly", and that "justice is rooted in confidence, and confidence is destroyed when right-minded people go away thinking that the judge is biased". It goes to the credit of our earlier judges, though appointed by the state, that they administered justice judicially, and with the requisite detachment within the rule of law.

- The situation, however, changed with Indira Gandhi assuming office. In the matter of appointment of judges, political philosophy, and the political leaning of a candidate became a major consideration. And then came the Emergency. Judges were put to test in the matter of ADM Jabalpur, and barring one brave exception, it is believed that the judges failed the Constitution, and thus the nation. They just forgot/ignored the great line "The constitution does not allow reasons of State to influence our judgments: God forbid it should! We must not regard political consequences; how formidable soever they might be: If rebellion was the certain consequence, we are bound to say *'fiat justitia, ruatcaelum'*, meaning, let justice be done though the heaven falls."

- Realising the gravity of the said situation, and with an ardent desire to stop the judiciary from becoming an organ of state power, it was felt that the role of the state in the appointment of judges in terms of Article 124 (2) and 217 needed to be reconsidered.

- But then, in 1982 in S P Gupta's case, the Supreme Court gave its approval to the primacy of the state in the matter of appointment of judges. Mercifully, that judgment of a bench of five judges was overturned subsequently by a bench of nine judges. It held that the provisions for consultation with the Chief Justice of India, and the Chief Justices of the high courts in Articles 124 (2) and 217 of the Constitution were introduced because of the realisation that the Chief Justice is best equipped to know and assess the worth of a candidate, and his/her suitability for appointment as a superior judge.

- It also held that the initiation of the proposal for appointment of a judge to the SC must be made by the CJI after wider consultation with senior judges, and likewise in the case of high courts. And no appointment of any judge to the SC or any high court can be made unless it conforms with the opinion of the CJI. Thus, what is known as the "collegium system" was born.

> **PEPPER WITH IT**
> Acting, Adhoc and Retired Judges, Independence of Supreme Court, Jurisdiction and Powers of Supreme Court, Supreme Court Advocates, Tenure and Removalof Supreme Court Judges

Conclusion

Governments, irrespective of which party is in power, have from time to time expressed their reservations about the courts taking upon themselves the power to appoint judges.

The collegium system is still the best, but it needs to weed out what is wrong in its actual working. It is hoped that the system will make course corrections in deserving cases.

Social Issues

Concern over Food Fortification

News Excerpt

In a pushback against the Centre's plan to mandatorily fortify rice and edible oils with vitamins and minerals, a group of scientists and activists have written to the Food Safety and Standard Authority of India (FSSAI), warning of the adverse impacts on health and livelihood.

Pre-Connect

What is fortification of Food?

Fortification is the addition of key vitamins and minerals such as iron, iodine, zinc, Vitamin A & D to staple foods such as rice, milk and salt to improve their nutritional content. These nutrients may or may not have been originally present in the food before processing.

Why do we need Fortification of Food?

- 70% of people in India do not consume enough micronutrients such as vitamins and minerals. About 70 percent of pre-school children suffer from anaemia caused by Iron Deficiency and 57 percent of preschool children have sub–clinical Vitamin A deficiency.

- Neural Tube Defects (NTDs) are the most common congenital malformation with an incidence that varies between 0.5-8/1000 births. It is estimated that 50-70% of these birth defects are preventable. One of the major causes is deficiency of Folic Acid.

What are the benefits of Fortification?

- ❖ Since the nutrients are added to staple foods that are widely consumed, this is an excellent method to improve the health of a large section of the population, all at once.
- ❖ Fortification is a safe method of improving nutrition among people. The addition of micronutrients to food does not pose a health risk to people. The quantity added is so small and so well regulated as per prescribed standards that likelihood of an overdose of nutrients is unlikely.
- ❖ It does not require any changes in food habits and patterns of people. It is a socio-culturally acceptable way to deliver nutrients to people.
- ❖ It does not alter the characteristics of the food—the taste, the feel, the look.
- ❖ It can be implemented quickly as well as show results in improvement of health in a relatively short period of time.
- ❖ This method is cost-effective especially if advantage is taken of the existing technology and delivery platforms.
- ❖ The **Copenhagen Consensus** estimates that every 1 Rupee spent on fortification results in 9 Rupees in benefits to the economy. It requires an initial investment to purchase both the equipment and the vitamin and mineral premix, but overall costs of fortification are extremely low. Even when all program costs are passed on to consumers, the price increase is approximately 1-2%, less than normal price variation. Thus it has a high benefit-to-cost ratio.

- Thus, deficiency of micronutrients or micronutrient malnutrition, also known as "hidden hunger", is a serious health risk. Unfortunately, those who are economically disadvantaged do not have access to safe and nutritious food.

- Others either do not consume a balanced diet or lack variety in the diet because of which they do not get adequate micronutrients. Often, there is considerable loss of nutrients during the processing of food.

- One of the strategies to address this problem is fortification of food. This method complements other ways to improve nutrition such as diversification of diet and supplementation of food.

Key findings of the Study

➢ They cited multiple studies to show that dietary diversity and higher protein consumption are key to solving undernutrition in India, rather than adding a few synthetic micronutrients which could harm the health of consumers.

➢ The Study warned that "evidence supporting fortification is inconclusive and certainly not

adequate before major national policies are rolled out."

➢ The letter points to recent studies published in the medical journal Lancet and in the American Journal of Clinical Nutrition which shows that both Anaemia and Vitamin, A deficiencies are overdiagnosed, meaning that mandatory fortification could lead to hypervitaminosis.

➢ It also notes that many of the studies which FSSAI relies on to promote fortification are sponsored by food companies who would benefit from it, leading to conflicts of interest.

➢ The letter explains that one major problem with chemical fortification of foods is that nutrients don't work in isolation but need each other for optimal absorption.

➢ Undernourishment in India is caused by monotonous cereal-based diets with low consumption of vegetables and animal protein.

➢ Adding one or two synthetic chemical vitamins and minerals will not solve the larger problem, and in undernourished populations can lead to toxicity.

➢ Citing a 2010 study that showed iron fortification causing gut inflammation and pathogenic gut microbiota profile in undernourished children.

PEPPER IT WITH
IMR, MMR, Malnutrition, Poshan Abhiyan

Other Concerns

✓ The letter also argued that mandatory fortification would harm the vast informal economy of Indian farmers and food processors including local oil and rice mills, and instead benefit a small group of multinational corporations who will have sway over a ₹3,000 crore market.

✓ Just five corporations have derived most of the benefits of global fortification trends and these companies have historically engaged in cartelising behaviour leading to price hikes.

What is the solution?

▪ Dietary diversity is a healthier and more cost-effective way to fight malnutrition.

▪ Once iron-fortified rice is sold as the remedy to anaemia, the value and the choice of naturally iron-rich foods like millets, varieties of green leafy vegetables, flesh foods, liver, to name a few, will have been suppressed by a policy silence.

▪ Government should stop promoting polished rice, which has lost a lot of its nutrition on the one hand, and talks about chemical fortification on the other hand.

Conclusion

Food is the fundamental right of every citizen. Food habits in our country are so diverse and it is important to keep our health and the health of the agro ecosystem intact and also to build the local economy.

PM-DAKSH

News Excerpt

Ministry of Social Justice and Empowerment launched 'PM-DAKSH' Portal and 'PM-DAKSH' mobile app, developed by the Ministry of Social Justice and Empowerment in collaboration with NeGD.

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Pre-Connect

The Pradhan Mantri Dakshta Aur Kushalta Sampann Hitgrahi (PM-DAKSH) Yojana is being implemented by the Ministry of Social Justice and Empowerment from the year 2020-21. Under this Yojana, eligible target group are being provided skill development training programmes on (i) Up-skilling/Re-skilling (ii) Short Term Training Programme (iii) Long Term Training Programme and (iv) Entrepreneurship Development Program (EDP). These training programs are being implemented through Government Training Institutes, Sector Skill Councils constituted by the Ministry of Skill Development and Entrepreneurship and other credible institutions.

About PM-DAKSH portal

Using the portal now any person can get all the information related to skill development training at one place by visiting the 'PM-DAKSH' Portal.

Also, with just one click, one can get information about skill development trainings happening near him/her and he/she can easily register himself/herself for skill training.

Some of the features of this portal are as follows

- Availability of all information related to skill development at one place for Scheduled Castes, Backward Classes and Safai Karamcharis.
- Facility to register for the training institute and program of their interest.
- Facility to upload desired documents related to personal information.
- Facility to register the attendance of the trainees through face and eye scanning during the training period.
- Monitoring facility through photo and video clip during training etc.

> **PEPPER IT WITH**
> SBM, National Skill Development Council, Aatamnirbhar Bharat

Under Ministry of Social Justice and Empowerment, three Apex Corporations - National Scheduled Castes Finance and Development Corporation, National Backward Classes Finance and Development Corporation and National Safai Karamcharis Finance and Development Corporation- are functioning. These Corporations are providing loans at concessional interest rates to the target groups of backward classes, scheduled castes and Safai Karamcharis for self-employment. Besides, they are also providing free training for skill development of the target groups.

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e-SHRAM

Minister of Labour and Employment recently launched the e-Shram portal and handed it over to the states/UTs for registration of unorganised workers across the country.

The government aims to register 38 crore unorganised workers such as construction labourers, migrant workforce, street vendors, and domestic workers, among others.

More about the Portal:

❖ It has been developed to register 38 crore unorganised workers. It will not only register them but would also be helpful in delivering various social security schemes being implemented by the Central and state governments.
❖ The workers will be issued an e-Shram card containing a 12-digit unique number, which going ahead will help in inclusion of these workers in social security scheme.
❖ The registration under e-SHRAM is totally free and the workers do not have to pay anything for his or her registration at Common Service Centres (CSCs) or anywhere.
❖ A worker can register on the portal using his/her Aadhaar card number and bank account details, apart from filling other necessary details like date of birth, home town, mobile number, and social category.

National Commission of Protection of Child Rights (NCPCR) survey of School

News Excerpt

Recently, a nationwide assessment of minority schools was done and NCPCR has recommended to the government to bring all such schools, including madrasas, under the purview of Right to Education and Sarva Siksha Abhiyan campaign.

Pre-Connect

The National Commission for Protection of Child Rights (NCPCR) emphasises the principle of universality and inviolability of child rights and recognises the tone of urgency in all the child related policies of the country.

For the Commission, protection of all children in the 0 to 18 years age group is of equal importance. Thus, policies define priority actions for the most vulnerable children. This includes focus on regions that are backward or on communities or children under certain circumstances, and so on.

> **The Right to Education Act** 2009, also known as the RTE Act 2009, was enacted by the Parliament of India on in 2009. It describes modalities of the importance of free and compulsory education for children aged between 6-14 years in India under Article 21 (A) of the Constitution of India.

About NCPCR Report

- The Report titled "Impact of Exemption under Article 15 (5) with regards to Article 21A of the Constitution of India on Education of Minority Communities" states that it was found that the largest of out-of-school children-at 1.1 crore- belonged to the Muslim Community.
- The aim of the study was to assess how the 93rd Amendment Act, which exempts minority institutions from the otherwise mandatory provisions of Right to Education, has affected children belonging to minority communities and whether there has been a gap.

What NCPCR reports says?

- According to the NCPCR survey report, 74 per cent of students in Christian missionary schools belonged to non-minority communities. Overall, 62.50 per cent of students in such schools belonged to non-minority communities.

- Many schools, have registered as minority institutions, simply because they don't have to implement RTE.

- According to the NCPCR report, only 8.76 per cent of the students in minority schools belong to socially and economically disadvantaged background.

- Since minority schools are outside the purview of the RTE Act, there is no compulsion to admit students from disadvantaged backgrounds.

> **Article 15(5)** empowers the country to make reservations with regard to admissions into educational institutions both privately run and those that are aided or not aided by the government. From this rule only the minority run institutions such as the Madrasas are exempted.
>
> **Article 21(A):**
> This article says state shall provide free and compulsory education to all children of the age of six to fourteen years.

- Giving a religion-wise breakup of the schools, the report says that while Christians comprise 11.54 per cent of India's minority population, they run 71.96 per cent schools, and Muslims with 69.18 per cent minority population run 22.75 per cent of the schools. Sikhs comprise 9.78 per cent of the minority population and run 1.54 per cent schools; Buddhists with 3.83 per cent minority population run 0.48 per cent schools; and Jains with 1.9 per cent minority population run 1.56 per cent of schools.

- According to the NCPCR, the Sachar Committee report, which says 4 per cent of Muslim children (15.3 lakh) attend madrasas, has only taken into account the registered madrasas.

- The NCPCR report says that the syllabi of madrasas, that has evolved over centuries, are not uniform. It also says that madrasas do not have any teachers training programmes.

- There was a surge in the number of schools securing Minority Status Certificate after the 93rd Amendment Act in 2006, with more than "85% schools of the total schools securing the certificate in the years 2005-2009".

> **Sarva Shiksha Abhiyan (SSA)**
> Sarva Shiksha Abhiyan (SSA) is Government of India's flagship programme for achievement of Universalization of Elementary Education (UEE) in a time bound manner, as mandated by 86th amendment to the Constitution of India making free and compulsory Education to the Children of 6-14 years age group, a Fundamental Right.
>
> The programme seeks to open new schools in those habitations which do not have schooling facilities and strengthen existing school infrastructure through provision of additional class rooms, toilets, drinking water, maintenance grant and school improvement grants.

- A second surge was seen in 2010-14, after the 2012 Society judgment that made Sections 12(1)(c) and 18(3) of the RTE Act, 2009 inapplicable to the unaided minority schools. In 2014, the Pramati judgment made the whole of RTE Act inapplicable to minority schools.

- The report also gives examples of disproportionate numbers. "For instance, in West Bengal, 92.47% of the minority population is of Muslims and 2.47% are Christians.

- On the contrary, there are 114 Christian minority schools and only two schools with Muslim minority status.

> Similarly, in Uttar Pradesh, though the Christian population is less than 1% there are 197 Christian minority schools in the state. This disproportionate number takes away the core objective of establishing minority educational institutions.

Analytica

What is the status of Educational Development of Minorities?

According to 'Sachar Committee Report' "one-fourth of Muslim children in the age group of 6-14 years have either never attended school or are drop-outs. For children above the age of 17 years, the educational attainment of Muslims at matriculation is 17%, as against national average at 26%. Only 50% of Muslims who complete middle school are likely to complete secondary education, compared to 62% at national level.

What constitution Says?

✓ Article 46 of the Constitution states that, "The State shall promote, with special care, the education and economic interests of the weaker sections of the people, and, in particular of the Scheduled Castes and Scheduled Tribes, and shall protect them from social injustice and all forms of social exploitation."

✓ Articles 330, 332, 335, 338 to 342 and the entire Fifth and Sixth Schedules of the Constitution deal with special provisions for implementation of the objectives set forth in Article 46. Similarly, Articles 30 (1) provides for the rights of the Minorities to establish and administer educational institutions of their choice. These provisions need to be fully utilized for the benefit of these weaker sections in our society.

Suggestions given in the report

▪ Based on the findings, it has suggested mapping of all unrecognised institutions during the survey to identify out-of-school children and specific guidelines regarding the nature and number of minority institutes in a state.

▪ The body has also recommended notification of guidelines regarding composition in minority institutes.

▪ As per the National Commission for Minority Educational Institutions, the state government can

PEPPER IT WITH
Digital Divide, Gender Divide, National Education Policy

TAPAS

Ministryof Social Justice and Empowerment recently launched an online portal TAPAS (Training for Augmenting Productivity and Services), developed by the National Institute of Social Defence.

About the TAPAS

❖ The idea of TAPAS was conceptualised at a time when exploring the online medium for work and education had become imperative due to the outbreak of Covid 19 pandemic.

❖ TAPAS is the initiative of National Institute of Social Defence (NISD), Ministry of Social Justice and Empowerment, to provide access to lectures by subject experts, study material and more, but in a manner that it supplements the physical classroom without compromising on the quality of teaching.

❖ The main objective of introducing the course modules is to impart training and enhance the knowledge and skills for the capacity building of the participants.

❖ It can be taken up by anyone who wishes to enhance his or her knowledge on the topics and there is no fee for joining. The five basic courses are on Drug (Substance) Abuse Prevention, Geriatric/Elderly Care, Care and Management of Dementia, Transgender Issues and on comprehensive course on Social Defence Issues.

prescribe percentage of the minority community to be admitted in a minority educational institution taking into account the population and educational needs of the area in which the institution is located.

▪ There is a need to lay down specific guidelines regarding the minimum percentage of students from the minority community to be admitted to the institution.

Conclusion

Despite the large presence of minority students in school-going age groups, minority schools are catering to less than 8% of the minority children population. Hence, there is a need to lay down specific guidelines regarding the minimum percentage of students from the minority community to be admitted to the institution.

Ujjwala Yojana phase-II

News Except

Recently, Prime Minister launched the second phase of the Ujjwala gas connection scheme for the poor and said it would provide the biggest relief to lakhs of migrant worker families in the country.

Pre-Connect

In May 2016, Ministry of Petroleum and Natural Gas (MOPNG), introduced the 'Pradhan Mantri Ujjwala Yojana' (PMUY) as a flagship scheme with an objective to make clean cooking fuel such as LPG available to the rural and deprived households which were otherwise using traditional cooking fuels such as firewood, coal, cow-dung cakes etc. Usage of traditional cooking fuels had detrimental impacts on the health of rural women as well as on the environment.

About the Ujjwala Yojana Phase-II

- Under Ujjwala 2.0, the Union government will distribute about 10 million gas connections this financial year to the poor along with a free refill and a stove.

Provide free LPG cylinders to all BPL households

Provide women with clean fuel for the purpose of cooking and free them from the hazard of collecting wood

Address the concerns related to health due to the use of firewood

Ensure that every household is smoke-free

Benefit 5 crore women under the scheme

Be a comprehensive direct intervention initiative for women

Aim of Pradhan Mantri Ujjwala Yojana

- Earlier under Ujjwala 1.0, only a deposit free LPG connection was provided to the beneficiary amounting to a financial assistance of ₹1,600, where beneficiaries also had an option to take loan at zero interest rate from the public sector oil marketing companies for the hot plate (stove) and the first refill.
- Besides free first refill and a stove along with a deposit-free gas connection, the scheme in its new form will have a provision for online application. A migrant family can also get separate gas connections.
- Preference would be given to poor families belonging to the scheduled castes (SCs) and scheduled tribes (STs) and also for families residing in areas with lower LPG [liquefied petroleum gas] penetration than the national or state average.

How Ujjwala Yojana Phase-I performed?

- Ujjwala 1.0, also known as the Pradhan Mantri Ujjwala Yojana (PMUY), was launched in 2016 to provide only deposit-free LPG connections to the women of poor households.
- Initially, the target was set to provide 50 million LPG connections with the budgetary

provision of ₹8,000 crore over a period of three years starting from FY 2016-17.

➢ The target beneficiaries were initially selected from the Socio-Economic Caste Census of 2011 (SECC Data) and the scope was later expanded to more categories to include deprived women in poor households.

➢ The target to distribute 8 crore [80 million] LPG connections under the scheme was successfully accomplished in September 2019, seven months ahead of the target date. Implementation of PMUY has resulted in increase in national LPG coverage from 61.9% to 99.99 % as on July 1, 2021.

Analytica

Need of such Scheme

✓ In India, the poor have limited access to cooking gas (LPG). The spread of LPG cylinders has been predominantly in the urban and semi-urban areas with the coverage mostly in middle class and affluent households. But there are serious health hazards associated with cooking based on fossil fuels.

✓ According to WHO estimates, about 5 lakh deaths in India are alone due to unclean cooking fuels. Most of these premature deaths were due to non-communicable diseases such as heart disease, stroke, chronic obstructive pulmonary disease and lung cancer.

> **PEPPER IT WITH**
> SBM, Nationally Determined Contribution, Indoor Pollution

✓ Indoor air pollution is also responsible for a significant number of acute respiratory illnesses in young children. According to experts, having an open fire in the kitchen is like burning 400 cigarettes an hour.

Conclusion

Providing LPG connections to BPL households will ensure universal coverage of cooking gas in the country. This measure will empower women and protect their health. It will reduce drudgery and the time spent on cooking. It will also provide employment for rural youth in the supply chain of cooking gas.

Quality of Life for Elderly Index

News Excerpt

Recently, Quality of Life for Elderly Index was released by Chairman, Economic Advisory Council to the Prime Minister (EAC-PM).

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Pre-Connect

• The Index has been created by the Institute for Competitiveness at the request of EAC-PM and it sheds light on an issue often not mentioned- problems faced by the elderly.

• The report identifies the regional patterns of ageing across Indian States and assesses the overall ageing situation in India.

• The report presents deeper insight into how well India is doing to support the well-being of its ageing population.

• The Index framework includes four pillars: Financial Well-being, Social Well-being, Health System and Income Security, and eight sub-pillars: Economic Empowerment, Educational Attainment & Employment, Social Status, Physical Security, Basic Health, Psychological Wellbeing, Social Security and Enabling Environment.

Relatively Aged States		
States	Scores	Overall Ranking
Himachal Pradesh	61.04	1
Uttarakhand	59.47	2
Haryana	58.16	3
Odisha	53.95	4
Jharkhand	53.40	5

About the Index

➢ This index broadens the way we understand the needs and opportunities of the elderly population in India. It goes far beyond the adequacy of pensions and other forms of income support, which, though critical, often narrows policy thinking and debate about the needs of this age group.

➢ The index highlights that the best way to improve the lives of the current and future generations of older people is by investing in health, education and employment for young people today.

➢ Without a proper diagnostic tool to understand the implications of its ageing population, planning for the elderly can become a challenge for policymakers.

➢ The Quality of Life for Elderly Index has been released to broaden the way we understand the needs and the opportunities of the elderly population in India.

➢ This index measures the core domains of Economic, health, and social well-being of older people and provides the in-depth situation of elderly people in India.

Aged States		
States	**Scores**	**Overall Ranking**
Rajasthan	54.61	1
Maharashtra	53.31	2
Bihar	51.82	3
Tamil Nadu	47.93	4
Madhya Pradesh	47.11	5

➢ The index can thus help the nation identify areas that need improvement and grab the current opportunity to start putting positive changes in motion for the next decades.

➢ The index also promotes healthy competition among States through fair rankings and highlights the pillars and indicators they can improve.

➢ Using this index as a tool, the State governments and the stakeholders can identify the areas they need to work upon to provide their older generation with a comfortable life.

Key finding of the Report

✓ The Health System pillar observes the highest national average, 66.97 at an all-India level, followed by 62.34 in Social Well-being. Financial Well-being observes a score of 44.7, which is lowered by the low performance of 21 States across the Education Attainment & Employment pillar, which showcases scope for improvement.

North-Eastern States		
States	**Scores**	**Overall Ranking**
Mizoram	59.79	1
Meghalaya	56.00	2
Manipur	55.71	3
Assam	53.13	4
Sikkim	50.82	5

✓ States have performed particularly worse in the Income Security pillar because over half of the States have a score below the national average, i.e., 33.03 in Income Security, which is the lowest across all pillars.

✓ These pillar-wise analyses help States assess the state of the elderly population and identify existing gaps that obstruct their growth.

✓ Rajasthan and Himachal Pradesh are top-scoring regions in Aged and Relatively Aged States, respectively. Chandigarh and Mizoram are top-scoring regions in Union Territory and North-East States category.

✓ The Aged States refer to States with an elderly population of more than 5 million, whereas Relatively Aged States refer to States with an Elderly population of less than 5 million.

Conclusion

It is important to understand the social aspects concerning aged in the country as they go through the process of ageing. Increased life expectancy, rapid urbanization and lifestyle changes have led to an emergence of varied problems for the elderly in India. It must be remembered that comprehensive care to the elderly is possible only with the involvement and collaboration of family, community and the Government. India should prepare to meet the growing challenge of caring for its elderly population. All social service institutions in the country need to address the social challenges to elderly care in order to improve their quality of life. There is a need to initiate requisite and more appropriate social welfare

PEPPER IT WITH
National Health Policy, Elderly abuse, Impact of Globalisation on elderly

programmes to ensure life with dignity for the elderly. In addition, there is also a need to develop an integrated and responsive system to meet the care needs and challenges of elderly in India.

SAMVAD Initiative: 2nd Phase

News Excerpt
Recently, Ministry of Women and Child Development on the eve of Independence Day, launched 2nd phase of SAMVAD.

Pre-Connect
SAMVAD - Support, Advocacy & Mental health interventions for children in Vulnerable circumstances And Distress. SAMVAD is a National Initiative and Integrated Resource that works in child protection, mental health and psychosocial care.

About SAMVAD Initiative
SAMVAD's new initiatives with regards to mental health and psychosocial care of children in difficult circumstances encompasses a specialized training curriculum on childhood trauma, interventions for children in conflict with the law, forensics in child and adolescent psychiatry and mental health, education and mental health support to children with special needs, protection and care in the context of adoption and foster care and integration of child protection and mental health in the Panchayati Raj systems.

Analytica

What is Mental Health?
Mental health includes our emotional, psychological, and social well-being. It affects how we think, feel, and act. It also helps determine how we handle stress, relate to others, and make choices. Mental health is important at every stage of life, from childhood and adolescence through adulthood.

Mental Health and India
- A study revealed that in the same year, 14% of India's population suffered from mental health ailments, including 45.7 million suffering from depressive disorders and 49 million from anxiety disorders.
- The Covid-19 pandemic has further accentuated this mental health crisis, with reports from across the world suggesting that the Virus and associated lockdowns were having a significant impact on the population – particularly younger individuals.
- A study by the India State-Level Disease Burden Initiative showed that the disease burden in India due to mental disorders increased from 2.5% in 1990 to 4.7% in 2017 in terms of DALYs (disability-adjusted life years), and was the leading contributor to YLDs (years lived with disability) contributing to 14.5% of all YLDs in the country (India State-Level Disease Burden Initiative, 2017).
- The National Mental Health Survey (NMHS), 2015-16 found that nearly 80% of those suffering from mental disorders did not receive treatment for over a year.
- This survey also identified large treatment gaps in mental healthcare, ranging from 28% to 83% across different mental disorders (National Institute of Mental Health and Neuro-Sciences (NIMHANS), 2016).

Economic burden of Mental disorders
- WHO estimates the economic loss to India on account of mental health disorders to be US$ 1.03 trillion.
- The NMHS also found that mental health disorders disproportionately affect households with lower income, less education, and lower employment.
- These vulnerable groups are faced with financial limitations due to their socioeconomic conditions, made worse by the limited resources available for treatment.
- Lack of State services and insurance coverage results in most expenses on treatment – when sought – being out-of-pocket expenses, thus worsening the economic strain on the poor and vulnerable.

Initiatives taken by Indian Government
- The Mental Healthcare Act, 2017 makes several provisions to improve the state of mental

Page 27

health in India. This Act rescinds the Mental Healthcare Act, 1987 which was criticised for failing to recognise the rights and agency of those with mental illness.

- This includes stating access to mental healthcare as a 'right'; and instituting Central and State Mental Health Authorities (SMHA), which would focus on building robust infrastructure including registration of mental health practitioners and implementing service-delivery norms. Although the Act required states to set up an SMHA in nine months of the Act being passed, as of 2019, only 19 out of 28 states had constituted an SMHA.

- The National Mental Health Programme (NMHP) was introduced in 1982, in keeping with the WHO's recommendations, to provide mental health services as part of the general healthcare system. Although the programme has been successful in improving mental healthcare access at the community level, resource constraints and insufficient infrastructure have limited its impact.

COVID-19 and Mental Health

- A survey by the Indian Psychiatry Society indicated that 20% more people suffered from poor mental health since the beginning of the Covid-19 pandemic.

- Emerging evidence indicates that during the Covid-19 pandemic, women exhibit relatively higher levels of psychological stress among the urban poor and households with migrant workers in rural areas – who were acutely affected by the lockdown restrictions – show higher incidence of mental health issues relative to those without migrants.

> **PEPPER IT WITH**
> National Health Policy,
> Suicides in India, lockdown
> induced depression

- Students were also severely affected by the lockdowns as it required adapting to a new learning medium and environment, as well as increased concerns about future prospects.

Where India is Lacking?

Developed countries allocate 5-18% of their annual healthcare budget on mental health, while India allocates roughly 0.05%.

Conclusion

Acknowledging the extent of the issue would be the first step towards addressing the mental health crisis in the country. The next and most pertinent step – given the socioeconomic groups largely affected by the crisis – would be to take initiative towards making mental healthcare more accessible, with targeted interventions for vulnerable groups.

Van Dhan Producers Companies

News Excerpt

200 Van Dhan producer companies are planned to be set up in 27 States during 2020-21 to 2025-26 with priority in Aspirational Districts under Van Dhan programme of TRIFED.

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Pre-Connect

- Situated in the Tiruvannamalai district of Tamil Nadu, Jawadhu hills is an extension of the Eastern Ghats. The Malayali tribal people constitute 92.60% of the total population in this block and their mainstay is through the non-timber forest produce and a variety of trees grown on this patta land such as tamarind, jackfruit, coconut, lemon and plantain and gooseberry.

- To help these tribals empower themselves and gain better opportunities and market access, the Jawadhu Hills Tribal Farmer Producer Company was formed in 2020.

- It falls under theState Balanced Growth Fund for Value Addition of Non-Timber forest Product and Agricultural Products of Jawadhu hills, Tiruvannamalai District (SPV).

- It consists of members of farmers interest groups, producer groups and self-help groups that have been formed at community level. The entire team of directors and key managerial persons of the FPO are tribals.

- In less than a year, four manufacturing units have already been set up for the processing and packaging of tamarind, minor millet, and honey and pepper. The units, which are being run by the tribals, have started production in November 2020.

About the Van Dhan Yojana

➢ The Van Dhan Yojana, a programme that has been embarked upon by TRIFED, benefits about one million forest dwelling tribal households.

➢ The programme envisages setting up of about 45,000 Self Help Groups (SHGs) in villages aggregating into 3,000 VanDhan Vikas Kendras (VDVKs) at block/district level (each of approx. 300 tribal members).

➢ These tribal families will gather or cultivate Non-Timber Forest Produces (NTFP)and MFP, bring them to common premises/locations allocated to them by Panchayats, do the necessary sorting, grading and value addition to realise higher prices for their produce.

➢ The groups will also identify local/district level/state level buyers and market the produces through appropriate branding and attractive packaging.

➢ The Van Dhan tribal start-ups, a component of the same scheme, is a programme for value addition, branding & marketing of Minor Forest Produces by establishing Van Dhan Kendras to facilitate creation of sustainable livelihoods for the forest-based tribes. It has emerged as a source of employment generation for tribal gatherers and forest dwellers and the home-bound tribal artisans.

> ### About TRIFED
> ❖ TRIFED was established in August 1987 under the Multi-State Cooperative Societies Act, 1984 by the Government of India as a National level Cooperative body under the administrative control of the then Ministry of Welfare of India, with the basic mandate of bringing about socio-economic development of tribals of the country by institutionalizing the trade of Minor Forest Produce (MFP) & Surplus Agricultural Produce (SAP) collected/ cultivated by them.
>
> ❖ As a market developer and service provider, the objective of TRIFED is socio-economic development of tribal people in the country by way of marketing development of the tribal products on which the lives of tribals depends heavily as they spend most of their time and derive major portion of their income.
>
> ❖ The philosophy behind this approach is to empower tribal people with knowledge, tools and pool of information so that they can undertake their operations in a more systematic and scientific manner.
>
> ❖ The approach involves capacity building of the tribal people through sensitization, formation of Self Help Groups (SHGs) and imparting training to them for undertaking a particular activity, exploring marketing possibilities in national as well as international markets, creating opportunities for marketing tribal products on a sustainable basis and creating a brand.

➢ In less than two years, 37,904 Van Dhan Self Help Group (VDSHGs), subsumed into 2275 Van Dhan Vikas Kendra Clusters (VDVKCs) of 300 forest dwellers each, have been sanctioned by TRIFED as of date.

➢ TRIFED is also expanding the Skills Development and Micro entrepreneurship programme, together with the Tribal Livelihoods program. Convergences with various Ministries and Departments such as Ministry of Rural Development (MoRD), Ministry of Small and Medium Enterprises (MSME), Ministry of Food Processing Industries (MoFPI), Ministry of AYUSH have been initiated by

> **PEPPER IT WITH**
> Minor Forest Produce, Forest Right Act, Community Reserves, Nagoya Protocol

TRIFED all with the aim of improving sustainable livelihoods and income opportunities for these tribals.

YUKTDHARA

News Excerpt

The government recently launched a new geospatial planning portal, "Yuktdhara", which will help in facilitating new MGNREGA assets using remote sensing and geographic information system-based data.

Pre-Connect

- The "Yuktdhara" portal has been launched by the Minister of Rural Development and Panchayati Raj.
- The name given is very apt as the word "Yukt" is derived from "Yojanam" (planning) and "Dhara" indicates flow.
- It is a joint effort of the Indian Space Research Organisation and the Ministry of Rural development made towards realizing a G2G service for rural planning in support of decentralised decision making.

> **PEPPER IT WITH**
> Water Reservoirs, Right to work, Doubling Farmers income

About the new portal

➤ The new portal under Bhuvan "Yuktdhara", will facilitate planning of new MGNREGA assets using remote sensing and GIS (geographic information system)-based information.

➤ The portal integrates wide variety of thematic layers, multi-temporal high resolution earth observation data with analysis tools.

➤ Planners will analyse previous assets under various schemes and facilitates identification of new works using online tools. Plans prepared will be evaluated by appropriate authorities under State Departments.

➤ Thus, Yuktdhara based plans will be prepared by grassroot functionary and verified by appropriate authorities for relevance and resource allocation. This would ensure quality of plan and enable a long-term monitoring of the assets created over the years.

➤ Open-source technologies have enabled customized visualization and spatial analysis of decision layers online in Yuktdhara.

➤ Wide-ranging national level legacy spatial datasets prepared by NRSC, such as Land Use Land Cover (LULC), Roads, and Streams at 1:10,000 scale along with Groundwater prospecting, Geomorphology, Wastelands, Land degradation at 1:50,000 scale, strengthen the planning approach Extant boundaries of Gram Panchayats as well as related administrative units facilitate specific area analyses.

About Bhuvan portal

Bhuvan, is the national Geo-portal developed and hosted by ISRO comprising of Geo Spatial Data, Services and Tools for Analysis. It has many versatile features, e.g., (1) Visualization of Satellite Imagery and Maps (2) Analysis (3) Free Data Download and (4) Download Reports to name a few.

The Satellite Imageries are of Multi-sensor, Multi-platform and Multi-temporal in nature can be visualized in 2D and 3D. Varieties of thematic maps are also hosted for analysis of various natural resources themes. Bhuvan platform supports many applications that address Governance and other Geo Spatial applications that are being used by the Central and State Governments Departments, Academia and Industry.

Economics

e-RUPI

News Excerpt

Taking the first step towards having a digital currency in the country, Prime Minister recently launched an electronic voucher based digital payment system "e-RUPI". The platform, which has been developed by the National Payments Corporation of India (NPCI), Department of Financial Services, Ministry of Health and Family Welfare and the National Health Authority, will be a person-specific and purpose-specific payments system.

Highlights

- e-RUPI is a cashless and contactless digital payment medium, which will be delivered to mobile phones of beneficiaries in form of an SMS-string or a QR code.
- This will essentially be like a prepaid gift-voucher that will be redeemable at specific accepting centres without any credit or debit card, a mobile app or internet banking.
- e-RUPI will connect the sponsors of the services with the beneficiaries and service providers in a digital manner without any physical interface.
- The system has been built by NPCI on its UPI platform, and has onboarded banks that will be the issuing entities.
- Any corporate or government agency will have to approach the partner banks, which are both private and public-sector lenders, with the details of specific persons and the purpose for which payments have to be made.
- The beneficiaries will be identified using their mobile number and a voucher allocated by a bank to the service provider in the name of a given person would only be delivered to that person.

The Use Cases of e-RUPI

- According to the government, e-RUPI is expected to ensure a leak-proof delivery of welfare services.
- It can also be used for delivering services under schemes meant for providing drugs and nutritional support under Mother and Child welfare schemes, TB eradication programmes, drugs & diagnostics under schemes like Ayushman Bharat Pradhan Mantri Jan Arogya Yojana, fertiliser subsidies etc.
- The government also said that even the private sector can leverage these digital vouchers as

National Payments Corporation of India (NPCI)

- ❖ It is an umbrella organisation for operating retail payments and settlement systems in India, is an initiative of Reserve Bank of India (RBI) and Indian Banks' Association (IBA) under the provisions of the Payment and Settlement Systems Act, 2007, for creating a robust Payment & Settlement Infrastructure in India.
- ❖ Considering the utility nature of the objects of NPCI, it has been incorporated as a "Not for Profit" Company under the provisions of Section 25 of Companies Act 1956 (now Section 8 of Companies Act 2013), with an intention to provide infrastructure to the entire Banking system in India for physical as well as electronic payment and settlement systems.
- ❖ The Company is focused on bringing innovations in the retail payment systems through the use of technology for achieving greater efficiency in operations and widening the reach of payment systems.

Global Examples of Voucher Based Welfare System

- ❖ In the US, there is the system of education vouchers or school vouchers, which is a certificate of government funding for students selected for state-funded education to create a targeted delivery system.
- ❖ These are essentially subsidies given directly to parents of students for the specific purpose of educating their children.
- ❖ In addition to the US, the school voucher system has been used in several other countriessuch as Colombia, Chile, Sweden, Hong Kong, etc.

part of their employee welfare and corporate social responsibility programmes.

Significance of e-RUPI

✓ The government is already working on developing a central bank digital currency and the launch of e-RUPI could potentially highlight the gaps in digital payments infrastructure that will be necessary for the success of the future digital currency.

✓ In effect, e-RUPI is still backed by the existing Indian rupee as the underlying asset and specificity of its purpose makes it different to a virtual currency and puts it closer to a voucher-based payment system.

✓ Also, the ubiquitousness of e-RUPI in the future will depend on the end-use cases.

Analytica

▪ The Reserve Bank of India had recently said that it has been working towards a phased implementation strategy for central bank digital currency or CBDC — digital currencies issued by a central bank that generally take on a digital form of the nation's existing fiat currency such as the rupee.

▪ RBI deputy governor T Rabi Sankar said that CBDCs are desirable not just for the benefits they create in payments systems, but also might be necessary to protect the general public in an environment of volatile private VCs.

▪ Although CBDCs are conceptually similar to currency notes, the introduction of CBDC would involve changes to the enabling legal framework since the current provisions are primarily synced for currency in paper form.

▪ According to the RBI, there are at least four reasons why digital currencies are expected to do well in India:

  o One, there is increasing penetration of digital payments in the country that exists alongside sustained interest in cash usage, especially for small value transactions.

  o Two, India's high currency to GDP ratio, according to the RBI, "holds out another benefit of CBDCs".

  o Three, the spread of private virtual currencies such as Bitcoin and Ethereum may be yet another reason why CBDCs become important from the point of view of the central bank. As Christine Lagarde, President of the ECB has mentioned in the BIS Annual Report "Central banks have a duty to safeguard people's trust in our money. Central banks must complement their domestic efforts with close cooperation to guide the exploration of central bank digital currencies to identify reliable principles and encourage innovation."

  o Four, CBDCs might also cushion the general public in an environment of volatile private VCs.

> **PEPPER IT WITH**
> NPCI, RuPay Card, Small Finance Bank

Retrospective Tax Policy

News Excerpt

In a move to bury the controversial policy of retrospective taxation, the government on recently proposed amendments to the Income-tax Act and Finance Act, 2012 to effectively state that no tax demand shall be raised for any indirect transfer of Indian assets if the transaction was undertaken before May 28, 2012.

Pre-Connect

• The retrospective tax provision was introduced by the United Progressive Alliance (UPA) government in 2012. It was an amendment to the Income Tax Act, 1961, which received the President's assent in May 2012, allowing the government to ask companies to pay taxes on mergers and acquisitions (M&As) that happened before that date.

• This goes back to the time when UK-based telecom giant Vodafone bought a 67% stake in Hong Kong-based Hutchison Whampoa for $11 billion to which the Indian government raised a demand of Rs 7,990 crore in capital gains saying the company should have deducted the tax at source before making a payment to Hutchison. The company took the matter to the Supreme Court which eventually turned in favour of Vodafone.

• One such indirect transfer was also made against the 2006 internal corporate restructuring

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

carried out by UK-based Cairn Energy.

- In September 2007, the Income tax department slapped Vodafone International BV with a tax demand of $2 billion. Five years later, SC set aside the I-T department's claim, saying transactions carried out in India cannot be taxed.

- Then Finance Minister Pranab Mukherjee brought in a bill, which was eventually passed by the Parliament, that would force companies like Cairn and Vodafone to be liable to pay taxes based on retrospective changes to the law. I-T department slapped Rs 3,100 crore tax notice on Vodafone India.

- In May this year, Cairn initiated the process to seize Indian assets to enforce the $1.2-billion arbitration award it won against the Indian government in its longstanding tax dispute.

- In September last year, the Permanent Court of Arbitration at The Hague had ruled that India's retrospective demand of Rs 22,100 crore as capital gains and withholding tax imposed on Vodafone for a 2007 deal was "in breach of the guarantee of fair and equitable treatment" that the company was entitled to in respect of its investments made in mobile telephone business in India.

What is Retrospective Taxation?

➢ A retrospective tax is one that is charged for transactions in the long past. It can be a new or additional charge on transactions done in the past.

➢ Ideally, retrospective tax is to make adjustments when policies in the past and the present are so vastly different that tax paid before under the old policy could be said to have been less. Retrospective tax could correct that situation by charging tax under the existing policy.

➢ Retrospective taxation allows a nation to implement a rule to impose a tax on certain products, goods or services and deals and charge companies from a time before the date on which the law is passed.

➢ Countries use this form of taxation to rectify any deviations in the taxation policies that, in the past, allowed firms to take benefit from any loophole. Retrospective tax affects companies that had unknowingly or knowingly used the tax rules differently.

➢ Not only India, but many other countries like the US, UK, Australia, Netherlands, Belgium, Canada, and Italy have retrospectively taxed firms.

Analytica

✓ The Taxation Laws (Amendment) Bill introduced by Finance Minister in Lok Sabha proposes to amend the Income-Tax Act, 1961 so as to provide that no tax demand shall be raised in future on the basis of the said retrospective amendment for any indirect transfer of Indian assets if the transaction was undertaken before 28th May, 2012.

✓ It has also been proposed to provide that the demand raised for indirect transfer of Indian assets made before 28th May, 2012 shall be nullified on fulfilment of specified conditions such as withdrawal or furnishing of undertaking for withdrawal of pending litigation and furnishing of an undertaking to the effect that no claim for cost, damages, interest, etc., shall be filed.

✓ It is also proposed to refund the amount paid in these cases without any interest thereon.

✓ Senior government officials said that the country will continue to retain its sovereign right to taxation, and that this move will boost the country's image for investors.

✓ This position on retrospective taxation has been the stated position of the government since 2014. These were termed as legacy issues by then Finance Minister Arun Jaitley in 2014. Retrospective taxation was still being seen as a sour point by investors. Government believes that this move will now boost the image and confidence of investors looking to invest in India.

| **PEPPER IT WITH** |
| Progressive Tax System, Proportional Tax System, Regressive Tax System |

SAMRIDH Scheme

News Excerpt

Start-up Accelerators of MeitY for product Innovation, Development and growth (SAMRIDH)" programme was recently launched by Ministry of Electronics & Information Technology (MeitY) so as to create a conducive platform to Indian Software Product star-ups to enhance their products and securing investments for scaling their business. The programme is being implemented by MeitY Start-up Hub (MSH).
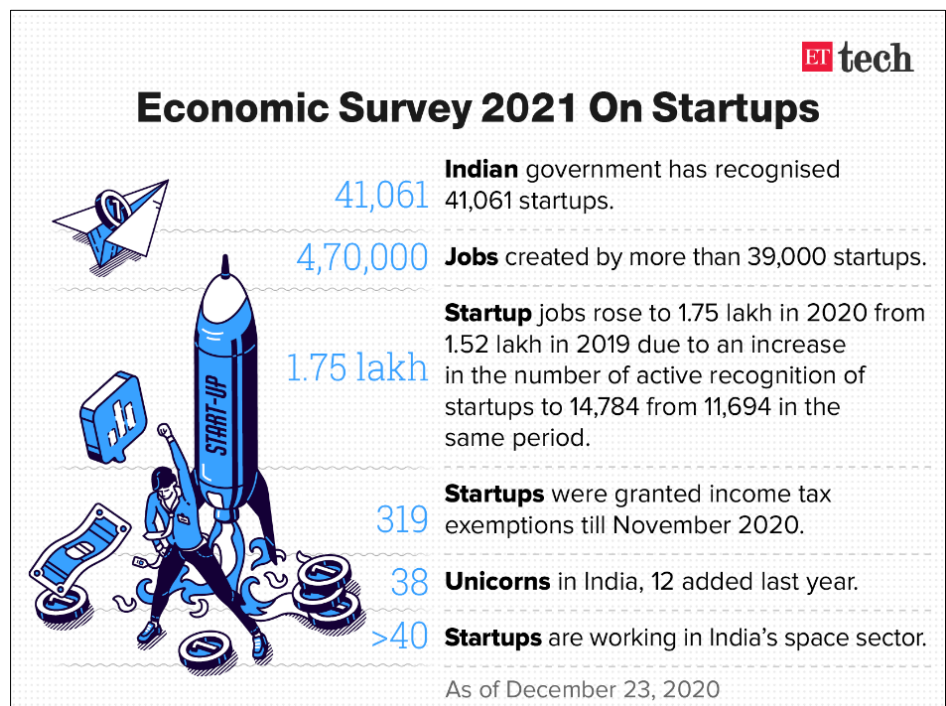
Significance of the Program

- The government believes that the initiative will not only provide the funding support to the startups but will also help in bringing skill sets together which will help them to become successful.
- The SAMRIDH programme will focus on accelerating the 300 start-ups by providing customer connect, investor connect, and international immersion in next three years.
- Also, an investment of up to ₹ 40 lakh to the start-up based on current valuation and growth stage of the Start-Up will be provided through selected accelerators. It will also facilitate equal matching investment by the accelerator / investor.
- The programme aims to further the Indian start-up growth which has seen the emergence of 63 Unicorns is now the third largest Unicorn hub globally with a total valuation of 168 Bn USD.

Analytica

Startups Ecosystem in India

- India currently houses the world's third largest startup ecosystem, with 38 firms being valued at over $1 billion, or what is known as unicorns.
- In 2020, the country minted around 12 such unicorns despite the disruption to the economy caused by the Covid-19 pandemic.
- With the government opening up the space sector for private players, there are more than 40 startups working on

Economic Survey 2021 On Startups (ET tech)

41,061 — **Indian** government has recognised 41,061 startups.

4,70,000 — **Jobs** created by more than 39,000 startups.

1.75 lakh — **Startup** jobs rose to 1.75 lakh in 2020 from 1.52 lakh in 2019 due to an increase in the number of active recognition of startups to 14,784 from 11,694 in the same period.

319 — **Startups** were granted income tax exemptions till November 2020.

38 — **Unicorns** in India, 12 added last year.

>40 — **Startups** are working in India's space sector.

As of December 23, 2020

space and satellite projects with funding, teams and structure, the survey said, citing industry estimates.
- Economic Survey 2020-21 noted that also noted that the number is expected to further increase in the coming years as technology plays a big role in unlocking the country's space potential.
- In recent years, the government has taken several measures to support startups, including broadening the definition of startups, simplifying regulations, providing income tax exemptions and setting up a Rs 10,000 crore Fund of Funds for startups operated by the Small Industries Development Bank of India (SIDBI).

Government Initiatives
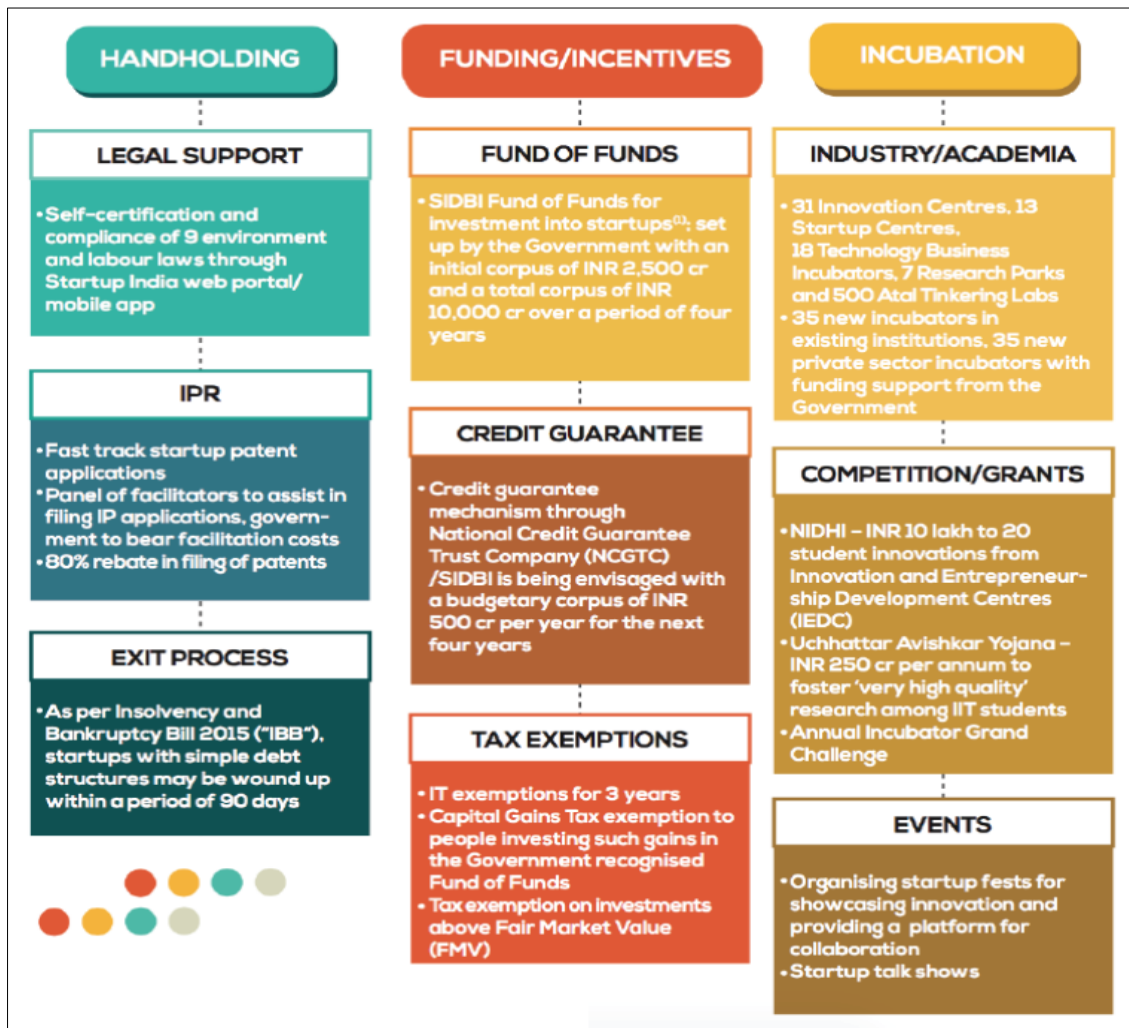
National Monetisation Pipeline

News Excerpt

Union Minister for Finance and Corporate Affairs recently launched the asset monetisation pipeline of Central ministries and public sector entities: 'National Monetisation Pipeline (NMP Volumes 1 & 2)'.

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Highlights

- Union Budget 2021-22 has identified monetisation of operating public infrastructure assets as a key means for sustainable infrastructure financing.
- Towards this, the Budget provided for preparation of a 'National Monetisation Pipeline (NMP)' of potential brownfield infrastructure assets. NITI Aayog in consultation with infra line ministries has prepared the report on NMP.
- NMP aims to provide a medium-term roadmap of the programme for public asset owners; along with visibility on potential assets to private sector.
- Report on NMP has been organised into two volumes. Volume I is structured as a guidance book, detailing the conceptual approaches and potential models for asset monetisation. Volume II is the actual roadmap for monetisation, including the pipeline of core infrastructure assets under Central Govt.

Framework

➢ The pipeline has been prepared based on inputs and consultations from respective line

ministries and departments, along with the assessment of total asset base available therein.

➤ Monetization through disinvestment and monetization of non-core assets have not been included in the NMP. Further, currently, only assets of central government line ministries and CPSEs in infrastructure sectors have been included.

➤ Process of coordination and collation of asset pipeline from states is currently ongoing and the same is envisaged to be included in due course.

➤ The framework for monetisation of core asset monetisation has three key imperatives as shown in the adjoining figure.

➤ It includes selection of de-risked and brownfield assets with stable revenue generation profile with the overall transaction structured around revenue rights.

➤ The primary ownership of the assets under these structures, hence, continues to be with the Government with the framework envisaging hand back of assets to the public authority at the end of transaction life.

Monetization of 'Rights' NOT 'ownership', Assets handed back at the end of transaction life

Brownfield de-risked assets, stable revenue streams

Structured partnerships under defined contractual frameworks with strict KPIs & performance standards

Estimated Potential

✓ Considering that infrastructure creation is inextricably linked to monetisation, the period for NMP has been decided so as to be co-terminus with balance period under National Infrastructure Pipeline (NIP).

✓ The aggregate asset pipeline under NMP over the four-year period, FY 2022-2025, is indicatively valued at Rs 6.0 lakh crore. The estimated value corresponds to ~14% of the proposed outlay for Centre under NIP (Rs 43 lakh crore). This includes more than 12 line ministries and more than 20 asset classes.

✓ The sectors included are roads, ports, airports, railways, warehousing, gas & product pipeline, power generation and transmission, mining, telecom, stadium, hospitality and housing.

✓ The top 5 sectors (by estimated value) capture ~83% of the aggregate pipeline value. These top 5 sectors include: Roads (27%) followed by Railways (25%), Power (15%), oil & gas pipelines (8%) and Telecom (6%).
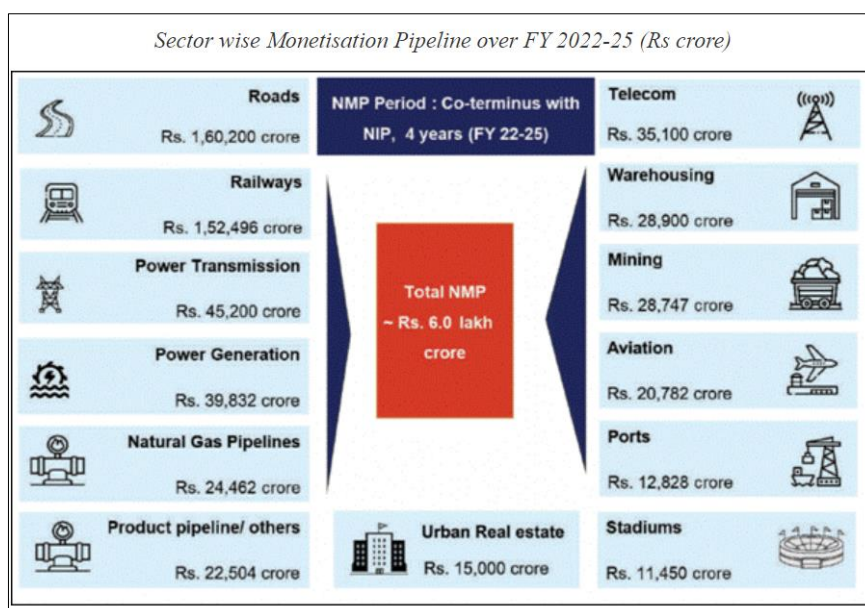
✓ In terms of annual phasing by value, 15% of assets with an indicative value of Rs 0.88 lakh crore are envisaged to be rolled out in the current financial year (FY 2021-22). However, the aggregate as well

Sector wise Monetisation Pipeline over FY 2022-25 (Rs crore)

Roads — Rs. 1,60,200 crore	Telecom — Rs. 35,100 crore
Railways — Rs. 1,52,496 crore	Warehousing — Rs. 28,900 crore
Power Transmission — Rs. 45,200 crore	Mining — Rs. 28,747 crore
Power Generation — Rs. 39,832 crore	Aviation — Rs. 20,782 crore
Natural Gas Pipelines — Rs. 24,462 crore	Ports — Rs. 12,828 crore
Product pipeline/ others — Rs. 22,504 crore	Urban Real estate — Rs. 15,000 crore — Stadiums — Rs. 11,450 crore

NMP Period : Co-terminus with NIP, 4 years (FY 22-25)

Total NMP ~ Rs. 6.0 lakh crore

as year on year value under NMP is only an indicative value with the actual realization for public assets depending on the timing, transaction structuring, investor interest etc.

✓ The assets and transactions identified under the NMP are expected to be rolled out through a range of instruments. These include direct contractual instruments such as public

private partnership concessions and capital market instruments such as Infrastructure Investment Trusts (InvIT) among others.

✓ The choice of instrument will be determined by the sector, nature of asset, timing of transactions (including market considerations), target investor profile and the level of operational/investment control envisaged to be retained by the asset owner etc.

Implementation & Monitoring Mechanism

- As an overall strategy, significant share of the asset base will remain with the government.
- The programme is envisaged to be supported through necessary policy and regulatory interventions by the Government in order to ensure an efficient and effective process of asset monetisation.
- These will include streamlining operational modalities, encouraging investor participation and facilitating commercial efficiency, among others. Real time monitoring will be undertaken through the asset monetisation dashboard, as envisaged under Union Budget 2021-22, to be rolled out shortly.
- The end objective of this initiative to enable 'Infrastructure Creation through Monetisation' wherein the public and private sector collaborate, each excelling in their core areas of competence, so as to deliver socio-economic growth and quality of life to the country's citizens.
- The monetisation value that is expected to be realised by the public asset owner through the asset monetisation process, may either be in form of upfront accruals or by way of private sector investment.
- The potential value assessed under NMP is only an indicative high level estimate based on thumb rules. This is based on various approaches such as market or cost or book or enterprise value etc. as applicable and available for respective sectors.

Analytica

- Asset monetisation, based on the philosophy of Creation through Monetisation, is aimed at tapping private sector investment for new infrastructure creation. This is necessary for creating employment opportunities, thereby enabling high economic growth and seamlessly integrating the rural and semi-urban areas for overall public welfare.
- The strategic objective of the programme is to unlock the value of investments in brownfield public sector assets by tapping institutional and long-term patient capital, which can thereafter be leveraged for further public investments.
- NMP is envisaged to serve as a medium-term roadmap for identifying potential monetisation- ready projects, across various infrastructure sectors.
- The NMP is aimed at creating a systematic and transparent mechanism for public authorities to monitor the performance of the initiative and for investors to plan their future activities.
- Asset Monetisation needs to be viewed not just as a funding mechanism, but as an overall paradigm shift in infrastructure operations, augmentation and maintenance considering private sector's resource efficiencies and its ability to dynamically adapt to the evolving global and economic reality.
- New models like Infrastructure Investment Trusts & Real Estate Investment Trusts will enable not just financial and strategic investors but also common people to participate in this asset class thereby opening new avenues for investment.
- As part of a multi-layer institutional mechanism for overall implementation and monitoring of the Asset Monetization programme, an empowered Core Group of Secretaries on Asset Monetization (CGAM) under the chairmanship of Cabinet Secretary has been constituted.
- The Government is committed to making the Asset Monetisation programme, avalue-accretive proposition both for the public sector and private investors/developers, through improved infrastructure quality and operations and maintenance. This is aimed at achieving the broader and longer-term vision of 'inclusiveness and empowerment of common citizens through best-in-class infrastructure'.

Criticism of the NMP

- Critics say that the NMP is designed to attract deep-pocketed financial institutions (PE firms) and industrial conglomerates. This is because the valuations are so high that few

other entities will have the resources or the risk carrying capacity to respond. The result will be a deepening of the concentration of capital and existing inequalities. There will be economic and social implications. The model does not build in safeguards to manage or mitigate these implications.

- As per some scholars, if the reason for low productivity was poor leadership or lack of talent, the transfer of these assets to a different, private sector-led organisational and investment structure would make sense. But if the reason had to do with structural impediments, then such a change may not be warranted, at least not in the first instance.
    - o The example of gas pipelines is illustrative. These pipelines are indeed hugely underutilised. But this is not because of the "inefficiency" of GAIL, the PSE operator. It is because of structural factors beyond the control of GAIL that have impeded the growth of gas demand. These factors are the shortage of domestic gas supplies; the regressive taxation system; the relatively uncompetitive price of gas and the perennial tussle between the Centre and state governments over land access. The operatorship of these pipelines is not, in short, the reason for the stressed state of these assets. A similar point can be made about most of the other assets identified for monetisation.

- Critics believe that the design of the NMP is out of sync with contemporary pressures. The world is in the crosshairs of existential challenges — global warming, pandemics, geopolitical chaos and fundamentalism. India has to additionally tackle endemic poverty, disappointed expectations, social polarisation and the erosion of democratic institutions. In this context, this scheme has been set within too narrow a frame. According to critics, the model seemingly absolves the government from the responsibility to unlock the intrinsic "social" value of these assets.

Challenges before NMP

- o Among the key challenges that may affect the NMP roadmap are: lack of identifiable revenues streams in various assets, level of capacity utilisation in gas and petroleum pipeline networks, dispute resolution mechanism, regulated tariffs in power sector assets, and low interest among investors in national highways below four lanes.
- o While the government has tried to address these challenges in the NMP framework, execution of the plan remains key to its success. Structuring of monetisation transactions is being seen as key.
- o The slow pace of privatisation in government companies including Air India and BPCL, and less-than-encouraging bids in the recently launched PPP initiative in trains, indicate that attracting private investors interest is not that easy.
- o The MNP framework notes that other key impediments to the monetisation process are asset-specific challenges such as presence of an identifiable revenue stream. This is specifically relevant to the railway sector, which has seen limited PPP success as a mode of project delivery.
- o Konkan Railway, for instance, has multiple stakeholders, including state governments, which own stake in the entity. Creating an effective monetisation transaction structure could be a bit challenging in this case.

> **PEPPER IT WITH**
> Demonetisation, Recapitalisation of Banks, Bad Banks

Conclusion

Idea behind the NMP looks promising but successful and timely implementation holds the key. Private-public investment structures depict the lucrative idea, but they must be modelled to also generate social value. In today's world, there are no shortcuts to sustainable development.

Global Manufacturing Risk Index

News Excerpt

India has overtaken the United States (US) to become the second-most sought-after manufacturing destination globally, driven mainly by cost competitiveness, according to real estate consultant Cushman & Wakefield.

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Highlights

- China remains at number one position, the consultant said in its 2021 Global

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Manufacturing Risk Index, which assessed the most advantageous locations for global manufacturing among 47 countries in Europe, the Americas and Asia-Pacific (APAC).

- The US is at third position, followed by Canada, Czech Republic, Indonesia, Lithuania, Thailand, Malaysia and Poland.
- In the last year's report, the US was at second position while India ranked third.

Analytica

➢ The consultant said that this indicates the growing interest shown by manufacturers in India as a preferred manufacturing hub over other countries, including the US and those in the APAC region.

➢ The growing focus on India can be attributed to India's operating conditions and cost competitiveness. Also, the country's proven success in meeting outsourcing requirements has led to the increase in the ranking year-on-year.

➢ The rankings in the report are determined based on four key parameters, including the country's capability to restart manufacturing, business environment (availability of talent/labour, access to markets), operating costs, and the risks (political, economic and environmental).

➢ The baseline ranking for top manufacturing destinations is determined on the basis of a country's operating conditions and cost effectiveness.

➢ This year, India and the US switched places (second and third) taking India one rank above from the rankings released last year, when India stood at the third place.

➢ This switch in ranking is attributed to the plant relocations from China to other parts of Asia due to an already established base in pharma, chemicals and engineering sectors, that continue to be at the centre of the US-China trade tensions.

➢ As far as the cost scenario ranking goes, India continued to retain the third spot like last year, while Vietnam is pushed to the fourth position from the third.

➢ Despite being among the top-three countries in the baseline and cost scenario rankings, there is a long road for India to traverse when it comes to areas like managing the geopolitical risks involved in running business and its ability to restart its manufacturing business after a devastating second wave of the COVID-19 virus.

Manufacturing Sector in India and Government Initiatives

✓ Manufacturing has emerged as one of the high growth sectors in India. Government launched the 'Make in India' program to place India on the world map as a manufacturing hub and give global recognition to the Indian economy. Government aims to create 100 million new jobs in the sector by 2022.

✓ The Government of India has taken several initiatives to promote a healthy environment for the growth of manufacturing sector in the country. Some of the notable initiatives and developments are:

✓ The government approved a PLI scheme for 16 plants for key starting materials (KSMs)/drug intermediates and active pharmaceutical ingredients (APIs). The establishment of these 16 plants would result in a total investment of Rs. 348.70 crore (US$ 47.01 million) and generation of ~3,042 jobs. The commercial development of these plants is expected to begin by April 2023.

✓ As part of efforts to expand its smartphone assembly industry and improve its electronics supply chain, the government, in March 2021, announced funds worth US$ 1 billion in cash to each semiconductor company that establishes manufacturing units in the country.

✓ The Union Budget 2021-22 is expected to enhance India's domestic growth in manufacturing, trade and other sectors. Development of a robust infrastructure, logistics and utility environment for the manufacturing sector is a primary focus field.

✓ In July 2021, the government launched six technology innovation platforms to develop technologies and thereby, boost the manufacturing sector in India to compete globally.

✓ To propagate Make in India, in July 2021, the Defence Ministry issued a tender of Rs. 50,000 crore (US$ 6.7 billion) for building six conventional submarines under Project-75 India.

✓ In July 2021, the Ministry of Commerce and Industry announced that 104 start-ups from sectors, including food-tech, green energy, defence, education-tech, and health-tech, have

joined 'Start-up India Showcase', an online discovery platform for the country's most promising start-ups that provides various social and digital connect opportunities.

✓ In May 2021, the government approved a PLI scheme worth Rs. 18,000 crore (US$ 2.47 billion) for production of advanced chemical cell (ACC) batteries; this is expected to attract investments worth Rs. 45,000 crore (US$ 6.18 billion) in the country, and further boost capacity in core component technology and make India a clean energy global hub.

✓ In India, the market for grain-oriented electrical steel sheet manufacturing is witnessing high demand from power transformer producers, due to the rising demand for electric power and increasing adoption of renewable energy in the country.

✓ The Mega Investment Textiles Parks (MITRA) scheme to build world-class infrastructure will enable global industry champions to be created, benefiting from economies of scale and agglomeration. Seven Textile Parks will be established over three years.

✓ The government proposed to make significant investments in the construction of modern fishing harbours and fish landing centres, covering five major fishing harbours in Kochi, Chennai, Visakhapatnam, Paradip, and Petuaghat, along with a multipurpose Seaweed Park in Tamil Nadu. These initiatives are expected to improve exports from the textiles and marine sectors.

✓ The 'Operation Green' scheme of the Ministry of the Food Processing Industry, which was limited to onions, potatoes and tomatoes, has been expanded to 22 perishable products to encourage exports from the agricultural sector. This will facilitate infrastructure projects for horticulture products.

✓ The Union Budget 2021-22 allocated funds of Rs. 1,000 crore (US$ 137.16 million) for the welfare of tea workers, especially women and their children. About 10.75 lakh tea workers will benefit from this, including 6.23 lakh women workers involved in the large tea estates of Assam and West Bengal.

Way Forward

▪ India is an attractive hub for foreign investments in the manufacturing sector. Several mobile phone, luxury and automobile brands, among others, have set up or are looking to establish their manufacturing bases in the country.

▪ The manufacturing sector of India has the potential to reach US$ 1 trillion by 2025. The implementation of the Goods and Services Tax (GST) will make India a common market with a GDP of US$ 2.5 trillion along with a population of 1.32 billion people, which will be a big draw for investors.

▪ The Indian Cellular and Electronics Association (ICEA) predicts that India has the potential to scale up its cumulative laptop and tablet manufacturing capacity to US$ 100 billion by 2025 through policy interventions.

▪ With impetus on developing industrial corridors and smart cities, the Government

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Core Sector Industries, Operating Ratio

aims to ensure holistic development of the nation. The corridors would further assist in integrating, monitoring and developing a conducive environment for the industrial development and will promote advance practices in manufacturing.

Open Acreage Licensing Programme

News Excerpt

Ministry of Petroleum and Natural Gas recently launched Open Acreage Licensing Programme Bid Round-VI.

Pre-Connect

• The advent of the Hydrocarbon Exploration and Licensing Policy (HELP) promulgated in March 2016, brought about paradigm changes in the way exploratory blocks are auctioned in India.

• It led to transition from production sharing regime to revenue sharing regime.

• The Open Acreage Licensing Programme (OALP) offered the potential investors freedom to carve out blocks of their choice through submission of Expression of Interest (EoI).

• The EoI window is open round the year and the investors need to wait for periodic launch of bid rounds.

• After successful completion of 3 bidding rounds, the Government notified further policy

reforms within ambit of HELP in February 2019.

- The focus was shifted from 'revenue' to 'production' maximization. There was also focus on greater transparency and stream-lined procedures.
- Bid Rounds IV onwards are being carried out under the further reformed policy and revised model bid documents.
- The Government launched OALP Bid Round-V on January 14, 2020 for 11 E&P Blocks for an area of 19,789 sq. km and completed on November 17, 2020, with the award of all the Blocks to winning bidders. In spite of COVID-19 pandemic, the bidding was successfully completed and blocks awarded.

Highlights

➢ In continuation of its focus on aggressive acceleration of exploration and production (E&P) activities, the Government has recently launched the OALP Bid Round-VIfor International Competitive Bidding with effect fromAugust6, 2021.A total of 21 blocks, with an area of approximately 35,346 sq. km. are on offer to the investors.

➢ The 21blocks under OALP Round-VI are spread across 11Sedimentary Basins and include fifteen on land blocks, four Shallow Water blocks and two Ultra Deep Water block.

About HELP

✓ The Hydrocarbon Exploration & Licensing Policy (HELP), which adopts the Revenue Sharing Contract model, is a giant step towards improving the **'Ease of Doing Business'** in the Indian Exploration and Production (E&P) sector.

✓ It comes with attractive and liberal terms like reduced royalty rates, no Oil Cess, marketing and pricing freedom, round the year bidding, freedom to investors for carving out blocks of their interest, a single license to cover both conventional and unconventional hydrocarbon resources, exploration permission during the entire contract period, and an easy, transparent and swift bidding and awarding process.

✓ Bid Round-IV onwards bidding roundsare being carried out under the further liberalized policy terms, which focused on production maximization with higher weightage to Committed Work Programme in Category I basin and no revenue share bids required for less explored Category II & III basins.

The Government e-Marketplace (GeM) system

News Excerpt

As per recent reports, the Government e-Marketplace (GeM) system has resulted in a 10% savings in public procurement costs in five years, but has still tapped only 5% of India's total government purchases of about ₹20 lakh crore a year.

Highlights

- Procurement traditionally was riddled with allegations of corruption, and governments have been infamous for very slow procurement processes.
- The GeM has initiative has resulted in a savings of ₹10,000 crore in the cumulative procurements of ₹1 lakh crore facilitated through the portal in five years, and improved the speed of procurement.
- According to experts, the online marketplace can aggregate demand from multiple entities for similar products, and build in the preferences provided by State governments to small enterprises.
- As per the latest data, 56% of the order value processed through the portal has been delivered by micro, small and medium enterprises (MSMEs), with seven lakh small firms on board.

Government e-Marketplace System

➢ GeM is dynamic, self-sustaining and user-friendly portal for making procurement by Government offices.

➢ Government e-Marketplace owes its genesis to the recommendations of two Groups of Secretaries made to the Prime Minister in January 2016. They recommended setting up of a dedicated e-market for different goods & services procured or sold by Government/PSUs besides reforming DGS&D.

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

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

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

Gem Advantages

For Buyers

✓ Rich listing of products for individual categories of Goods/Services
✓ Search, Compare, Select and Buy facility
✓ Buying Goods and Services online, as and when required.
✓ Transparent and ease of buying
✓ Continuous vendor rating system
✓ User-friendly dash board for Buying and monitoring supplies and payments
✓ Easy Return policy

For Sellers

▪ Direct access to all Government departments.
▪ One stop shop for marketing with minimal efforts.
▪ One stop shop for bids / reverse auction on products / services
▪ New Product Suggestion facility available to Sellers
▪ Dynamic pricing: Price can be changed based on market conditions
▪ Seller friendly dashboard for selling and monitoring of supplies and payments
▪ Consistent and uniform purchase procedures

Financial Inclusion index

News Excerpt

According to the recently unveiled Reserve Bank of India's first composite Financial Inclusion Index (FI-Index), a significant segment of the country is still financially excluded. The index seeks to capture extent of financial inclusion across the country.

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Highlights

• The RBI said that the annual FI-Index for the financial year ended March 2021 crossed the halfway mark to 53.9, as compared to 43.4 for the year ended March 2017.

• The index will reflect various aspects of financial inclusion in a single value ranging between 0 and 100, where 0 represents complete financial exclusion and 100 indicates full financial inclusion, it said.

• As per the central bank, the FI-Index has been conceptualised as a comprehensive index incorporating details of banking, investments, insurance, postal

Pradhan Mantri Jan-Dhan Yojana (PMJDY)

❖ PMJDY is a National Mission on Financial Inclusion encompassing an integrated approach to bring about comprehensive financial inclusion of all the households in the country.

❖ The plan envisages universal access to banking facilities with at least one basic banking account for every household, financial literacy, access to credit, insurance and pension facility.

❖ In addition, the beneficiaries would get RuPay Debit card having inbuilt accident insurance cover of ₹ 1 lakh.

❖ The plan also envisages channelling all Government benefits (from Centre / State / Local Body) to the beneficiaries' accounts and pushing the Direct Benefits Transfer (DBT) scheme of the Union Government.

as well as the pension sector in consultation with government and sectoral regulators.

• The FI-Index comprises three broad parameters — access (35 per cent weightage), usage (45 per cent) and quality (20 per cent) — with each of these consisting of various

dimensions, which are computed based on a number of indicators.

- The index is responsive to ease of access, availability and usage of services, and quality of services, comprising, in all, 97 indicators.
- The index has been constructed without any "base year", and reflects cumulative efforts of all stakeholders. It will be published annually in July.
- A unique feature of the index is the parameter related to the quality of financial inclusion as reflected by financial literacy, consumer protection, and inequalities and deficiencies in services.

Analytica

- The FI-Index of 53.9 for 2020-21 indicates that 46.1 per cent of the parameters considered are still financially excluded, despite the launch of the Pradhan Mantri Jan Dhan Yojana for unbanked sections of society, digital payment revolution and entry of a host of players in the insurance and mutual fund segments over the last couple of years.
- Six years after its implementation, the total number of accounts opened under Jan Dhan Yojana has touched 41.4 crore, with deposits adding up to Rs 1.30 lakh crore as on December 2 last year.
- Nearly two-thirds of accounts are operational in rural and semi-urban areas. Total assets under management of mutual funds added up to Rs 35.31 lakh crore as on July 31 this year.
- Digital identity (Aadhaar), along with the proliferation of mobile phones with new payment systems, have addressed the first two challenges of access and usage to a large extent.
- According to the RBI Governor, the third challenge, i.e. quality, requires both demand and supply side interventions. Opening of Pradhan Mantri Jan Dhan Yojana accounts has enabled millions to have access to financial services. This has addressed the supply side issue to a considerable extent.

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> Inclusive Growth, Sustainable Development, Growth and Development

Ubharte Sitaare Fund

News Excerpt

Union Finance Minister recently launched the Ubharte Sitaare Fund (USF) for export-oriented small and mid-sized companies and startups in Lucknow.

Pre-Connect

Fund was announced in Budget 2020 in the backdrop of constraints faced by small and mid-sized companies in realising their export ambitions, stating that micro, small and medium enterprises (MSMEs) were important to keep the "wheels of the economy moving".

About Ubharte Sitaare Fund

- The 'Ubharte Sitaare Fund' has been set up by Exim Bank and SIDBI. The fund is expected to identify Indian enterprises with potential advantages by way of technology, products or processes along with export potential, but which are currently underperforming or unable to tap their latent potential to grow.
- The fund has a size of Rs 250 crore with a green shoe option of Rs 250 crore. The fund will invest by way of equity, and equity-like products, in export-oriented units, both in the manufacturing and services sectors.

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> Flagship Initiatives, Standup India, MSME

- Accordingly, India Exim Bank's Ubharte Sitaare Programme (USP) identifies Indian companies that have the potential to be future champions in the domestic arena while catering to global demands.
- The fund is a mix of structured support, both financial and advisory services through investments in equity or equity like instruments, debt (funded and non-funded) and technical assistance (advisory services, grants and soft loans) to the Indian companies.
- Exim Bank and SIDBI have developed a pipeline of over 100 potential companies across various sectors such as pharma, auto components, engineering solutions, agriculture, and software.

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- The ambitious programme aims to support the champion sectors. Some developed countries like Germany have already tried this by identifying, supporting and hand-holding the champion sectors and giving them necessary technology and fund infusion. Ubharte Sitaare largely follows the same principal.
- The initiative would play a catalytic role in contributing to the growth of the identified companies and would also have downstream benefits such as growth and diversification of India's exports, impetus to brand India, and employment generation.

Four-tiered structure of Urban Co-operative banks

News Excerpt

The Reserve Bank of India's (RBI's) expert committee on urban co-operative banks (UCBs) has suggested a four-tiered structure to regulate them, based on size of deposits.

Pre-Connect

- The term Urban Co-operative Banks (UCBs), though not formally defined, refers to primary cooperative banks located in urban and semi-urban areas. These banks, till 1996, were allowed to lend money only for non-agricultural purposes. This distinction does not hold today.
- These banks were traditionally centred around communities, localities work place groups. They essentially lent to small borrowers and businesses. Today, their scope of operations has widened considerably.
- The origins of the urban cooperative banking movement in India can be traced to the close of nineteenth century when, inspired by the success of the experiments related to the cooperative movement in Britain and the cooperative credit movement in Germany such societies were set up in India.
- Cooperative societies are based on the principles of cooperation, - mutual help, democratic decision making and open membership. Cooperatives represented a new and alternative approach to organisation as against proprietary firms, partnership firms and joint stock companies which represent the dominant form of commercial organisation.
- From its origins then to today, the thrust of UCBs, historically, has been to mobilise savings from the middle- and low-income urban groups and purvey credit to their members - many of which belonged to weaker sections.
- A feature of the urban banking movement has been its heterogeneous character and its uneven geographical spread with most banks concentrated in the states of Gujarat, Karnataka, Maharashtra, and Tamil Nadu.
- While most banks are unit banks without any branch network, some of the large banks have established their presence in many states when at their behest multi-state banking was allowed in 1985. Some of these banks are also Authorised Dealers in Foreign Exchange

Highlights

- The committee, headed by former RBI Deputy Governor NS Vishwanathan, has proposed setting up an umbrella organisation (UO) to oversee co-operative banks and suggested that they should be allowed to open more branches if they meet all regulatory requirements.
- In its report, the panel said the RBI should not hesitate to use the route of mandatory merger to resolve UCBs that do not meet the prudential requirements. Beginning 2004-05 till March 2020, UCBs have undergone 136 mergers, with Maharashtra accounting for over half of them, closely followed by Gujarat.
- According to the committee, based on the cooperativeness' of the banks, availability of capital and other factors, UCBs may be categorised into four tiers for regulatory purposes:
  - Tier 1 with all unit UCBs and salary earner's UCBs (irrespective of deposit size) and all other UCBs having deposits up to Rs 100 crore,
  - Tier 2 with UCBs of deposits between Rs 100 crore and Rs 1,000 crore,
  - Tier 3 with UCBs of deposits between Rs 1,000 crore and Rs 10,000 crore and
  - Tier 4 with UCBs of deposits more than Rs 10,000 crore.
- The UO should be financially strong and be well governed by a professional board and senior management, both of which are fit and proper.

➢ As an alternative to mandatory consolidation, the Committee preferred smaller banks acquiring scale via the network of the UO, which is one of the successful models of a strong financial cooperative system globally.

Analytica

Important Events in the History of Urban Cooperative Banks

✓ The enactment of Cooperative Credit Societies Act, 1904 gave the real impetus to the cooperative movement. The Cooperative Credit Societies Act, 1904 was amended in 1912, with a view to broad basing it to enable organisation of non-credit societies.

✓ The Maclagan Committee of 1915 was appointed to review their performance and suggest measures for strengthening them.The committee observed that such institutions were eminently suited to cater to the needs of the lower- and middle-income strata of society and would inculcate the principles of banking amongst the middle classes. The committee also felt that the urban cooperative credit movement was more viable than agricultural credit societies. The recommendations of the Committee went a long way in establishing the urban cooperative credit movement in its own right.

✓ The constitutional reforms which led to the passing of the Government of India Act in 1919 transferred the subject of "Cooperation" from Government of India to the Provincial Governments.

✓ The Government of Bombay passed the first State Cooperative Societies Act in 1925 "which not only gave the movement its size and shape but was a pace setter of cooperative activities and stressed the basic concept of thrift, self-help and mutual aid." Other States followed. This marked the beginning of the second phase in the history of Cooperative Credit Institutions.

✓ The first study of Urban Co-operative Banks was taken up by RBI in the year 1958-59. The Report published in 1961 acknowledged the widespread and financially sound framework of urban co-operative banks; emphasized the need to establish primary urban cooperative banks in new centers and suggested that State Governments lend active support to their development.

✓ In 1963, Varde Committee recommended that such banks should be organised at all Urban Centres with a population of 1 lakh or more and not by any single community or caste. The committee introduced the concept of minimum capital requirement and the criteria of population for defining the urban centre where UCBs were incorporated.

✓ The Madhavdas Committee (1979) evaluated the role played by urban co-operative banks in greater details and drew a roadmap for their future role recommending support from RBI and Government in the establishment of such banks in backward areas and prescribing viability standards.

✓ The Hate Working Group (1981) desired better utilisation of banks' surplus funds and that the percentage of the Cash Reserve Ratio (CRR) & the Statutory Liquidity Ratio (SLR) of these banks should be brought at par with commercial banks, in a phased manner.

> **PEPPER IT WITH**
> Niche Banks, New Development Bank, AIIB

✓ While the Marathe Committee (1992) redefined the viability norms and ushered in the era of liberalization, the Madhava Rao Committee (1999) focused on consolidation, control of sickness, better professional standards in urban co-operative banks and sought to align the urban banking movement with commercial banks.

EASE 4.0

News Excerpt

Finance Minister recently undertook the annual performance review of the public sector banks (PSBs) and launched the EASE 4.0 or Enhanced Access and Service Excellence – a common reform agenda for PSBs aimed at institutionalising clean and smart banking.

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Pre-Connect

• Over the last five years, PSBs have not only cleaned up legacy stress and addressed underlying systemic weaknesses but have emerged stronger as a result of comprehensive and institutionalized EASE reforms.

- EASE 1.0 and 2.0 laid a firm foundation of robust banking and institutionalised systems.
- EASE 3.0 emphasized on the use of digital, analytics & AI, FinTech partnerships across customer service, convenient banking, end-to-end digitalised processes for loan sourcing and processing, analytics-driven risk management as well as decision support systems for HR.

Highlights

➢ The framework will enable technology infusion, operational revamp, data exchange, and financial inclusion in rural regions.
➢ The key issues touched upon in the EASE 4.0 reforms are co-lending with non-banking firms, digital, agriculture financing, and technological resilience for 24x7 banking.
➢ A huge focus has been given to data analytics, automation, and digitization.
➢ Ease 4.0 is a continuation and further improvement of the Ease 3.0 initiative.

Analytica

The key aspects under EASE 4.0 are highlighted as under-

Digital Lending

✓ There is an aim to promote and introduce analytics-based system which would be used in the fields of pre-approved loans, MSME loans and EMI offers.
✓ The new initiatives include Dial-a-loan initiative for doorstep loan facilitation. Under dial-a-loan, the govt has tried to improve the loan initiation process using simplification, SOP based action steps, and ensuring availability of on-site product advice.
✓ Credit@click is another initiative used for end-to-end retail and MSME lending. The improvements that have been made aims to ensure customized loan terms, interest rates and processing charges based on behavior of customers and information from third party sources
✓ There is also a focus on cloud-based IT systems and improved cyber resilience. There would be a fast-track implementation of cybersecurity measures.

Mobile/ Internet Banking and Customer Service

✓ Focus has been laid on deeper penetration of mobile and internet banking and automation of all banking processes.
✓ EASE 4.0 sets the agenda and roadmap to transform all PSBs into digital-attacker banks working hand-in-hand with key constituents of the financial services ecosystem to offer industry-best customer experience.
✓ The new reforms aim to establish a call center-based retail and MSME customer outreach in regional languages and subject to customer preferences.
✓ There is also an aim to improve the design and performance of the mobile banking app.

Date Enabled Agricultural Financing

✓ Dial-a-Loan feature will also be used for agricultural lending.
✓ There are plans to automate the processing and sanctioning of agricultural loans based on field visits, borrower interaction, and risk assessment in states with digitized land records.

Collaborating with Financial Ecosystem

✓ This will help in ensuring increased digital payments in semi-urban and rural areas.
✓ Improvement in delivery of doorstep banking services and initiate such services via mobile apps and calls.
✓ There is a plan to have API-based data exchange and IT system linkage between banks and NBFC's.

The EASE Index will measure the performance of each PSB on 135+ objective metrics across five themes. It will provide all PSB's a comparative evaluation showing where banks stand on the basis of the benchmarks and among their peers on the reform agenda. The Index will follow a fully transparent scoring methodology, which will enable banks to identify precisely their strengths as well as areas for improvement. The index will be similar as what was adopted under EASE 3.0.

New Edible oil Mission

News Excerpt

The Union Cabinet has recently given its approval to launch a new Mission on Oil palm to be known as the National Mission on Edible Oils – Oil Palm (NMEO-OP) as a new Centrally Sponsored Scheme with a special focus on the North east region and the Andaman and Nicobar Islands.

Pre-Connect

- Since 1991-92, many efforts have been made by the Government of India to increase the production of oilseeds and oil palm.
- The oilseeds production has increased from 275 lakh tons in 2014-15 to 365.65 lakh tons in 2020-21.
- For harnessing the potential of palm oil production, in the year 2020, an assessment has been made by the Indian institute of Oil Palm Research (IIOPR) for cultivation of oil palm which has given an assessment of around 28 lakh ha. Thus, there is huge potential in oil palm plantation and subsequently production of Crude Palm Oil (CPO).
- At present only 3.70 lakh hectares is under Oil Palm cultivation. Oil palm produces 10 to 46 times more oil per hectare compared to other oilseed crops and has yield of around 4 tons oil per ha. Thus, it has enormous potential for cultivation.
- Keeping the above in view, and also the fact that even today around 98% of CPO is being imported, it is proposed to launch the Scheme to further increase the area and production of CPO in the country.
- The proposed scheme will subsume the current National Food Security Mission-Oil Palm programme.

Highlights

- Due to the heavy dependence on imports for edible oils, it is important to make efforts for increasing the domestic production of edible oils in which increasing area and productivity of oil palm plays an important part.
- A financial outlay of Rs.11,040 crore has been made for the scheme, out of which Rs.8,844 crore is the Government of India share and Rs.2,196 crore is State share and this includes the viability gap funding also.
- Under this scheme, it is proposed to cover an additional area of 6.5 lakh hectare (ha.) for oil palm till the year 2025-26 and thereby reaching the target of 10 lakh hectares ultimately. The production of Crude Palm Oil (CPO) is expected to go upto 11.20 lakh tonnes by 2025-26 and upto 28 lakh tonnes by 2029-30.
- The scheme will immensely benefit the oil palm farmers, increase capital investment, create employment generation, shall reduce the import dependence and also increase the income of the farmers.

Analytica

- There are two major focus areas of the Scheme. The oil palm farmers produce Fresh Fruit Bunches (FFBs) from which oil is extracted by the industry. Presently the prices of these FFBs are linked to the international CPO prices fluctuations.
- For the first time, the Government of India will give a price assurance to the oil palm farmers for the FFBs. This will be known as the Viability Price (VP). This will protect the farmers from the fluctuations of the international CPO prices and protect him from the volatility.
- This VP shall be the annual average CPO price of the last 5 years adjusted with the wholesale price index to be multiplied by 14.3 %. This will be fixed yearly for the oil palm year from 1st November to 31st October.
- This assurance will inculcate confidence in the Indian oil palm farmers to go for increased area and thereby more production of palm oil. A Formula price (FP) will also be fixed which will be 14.3% of CPO and will be fixed on a monthly basis.
- The viability gap funding will be the VP-FP and if the need arises, it would be paid directly to the farmers accounts in the form of DBT.
- The assurance to the farmers will be in the form of the viability gap funding and the industry will be mandated to pay 14.3% of the CPO price which will eventually go up to 15.3%.

- There is a sunset clause for the scheme which is 1st November 2037.
- To give impetus to the North-East and Andaman, the Government will additionally bear a cost of 2% of the CPO price to ensure that the farmers are paid at par with the rest of India.
- The states who adopt the mechanism proposed by the Government of India would benefit from the viability gap payment proposed in the scheme and for this they will enter into MoUs with the Central Government.
- The second major focus of the scheme is to substantially increase the assistance of inputs/interventions.
- A substantial increase has been made for planting material for oil palm and this has increased from Rs 12,000 per ha to Rs.29000 per ha.
- Further substantial increase has been made for maintenance and inter-cropping interventions. A special assistance @ Rs 250 per plant is being given to replant old gardens for rejuvenation of old gardens.
- To address the issue of shortage of planting material in the country, seed gardens will be provided assistance up to Rs.80 lakhs for 15 ha. in Rest of India and Rs.100 lakhs for 15 ha in North-East and Andaman regions. Further, assistance for seed gardens @ Rs.40 lakhs and Rs.50 lakhs for Rest of India and North-East & Andaman regions respectively.

> - During 2019-20 the import of Agri commodities was 19.91 USD Billion and the import of vegetable oils constituted the largest share i.e. 48%. The import of vegetable oils was undertaken with a view to bridge the gap between domestic demand and supply. \
> - The Government has been implementing Centrally Sponsored Scheme, National Food Security Mission (Oilseeds and Oil palm) in the country.
> - This mission comprises of three Sub missions namely, NFSM-Oil Seeds, NFSM-Oil palm and NFSM- Tree Born Oil seeds (TBOs) being implemented through Agriculture and Horticulture departments of State Governments.
>
> National Mission on Oilseeds and Oil Palm: The Government of India through the National Mission on Oilseeds and Oil Palm has the objective to augment the availability of edible oils and reduce the import of edible oils by increasing the production and productivity of oilseeds and oil palm.

- Further Special assistance will be provided for the North-East and the Andaman regions in which special provisions is being made for half-moon terrace cultivation, bio fencing and land clearance along with integrated farming.
- For capital assistance to the industry, for the North East states and Andamans, a provision of Rs 5 core of 5 mt/hr unit with pro rata increase for higher capacity. This will attract the industry to these regions.

PEPPER IT WITH
Low-density Lipoprotein, High-density lipoprotein

International Relations

India undertakes UNSC presidency

News Excerpt

India assumed the presidency of the United Nations Security Council for the month of August.India's month-long presidency of the powerful United Nations Security Council (UNSC) ended on August 31with substantive outcomes on key global issues.India is currently a non-permanent member (for a two-year term) of the 15-nation UNSC.

Pre-Connect

- This is not the first stint for India as a non-permanent member of the UNSC. Since the establishment of the Council in 1945, India has held the two-year term as a non-permanent member in the years 1950–51, 1967–68, 1972–73, 1977–78, 1984–85, 1991–92, and 2011–12.
- As to the presidency itself, this is India's tenth tenure as the Council President.
- The priorities in India's past council presidencies reflect the geopolitical developments from that time.
    o For instance, during New Delhi's October 1977 presidency, the apartheid regime of South Africa was condemned in the strongest words. India's focus on South Africa was the outcome of its staunch stand against repression, indiscriminate violence, and racism in the country.
    o This was soon followed by the adoption of a resolution under Libya's UNSC presidency, which imposed a mandatory arms embargo against South Africa.
    o During India's 1991 presidency, the war between Iraq and Kuwait featured on the agenda, while in 1992 the breakup of former Yugoslavia was extensively discussed before the UNSC.
- Since the UNSC is the primary organ tasked with the responsibility of maintaining international peace and security, many of the agenda items from India's past presidencies relate to situations of conflict and aggression across the globe.
- However, the UNSC does not take cognisance of every international crisis and armed conflict. While any member state of the UN can place an item on the council's agenda, only members of the council can influence the legislative calendar.
- The members of the P5 play a crucial role in this process—if the P5 is divided on a certain issue, there is a high possibility of disagreement and no resolution, and they will opt to not take up an issue.
- As such, while the procedure of the UNSC is grounded in procedure, agenda setting remains a largely political process.
- There are two divergent roles for the Council President to perform—one is to discharge the responsibilities of the presidency while the other is to remain as the representative of their government before the UNSC.

Highlights

- India's focus areas—as compared to its past presidencies—reflect the immediate developments in the world stage, such as the US withdrawal from Afghanistan.
- India began its Presidency with a high-level signature event on maritime security presided over by Prime Minister Narendra Modi. India's Permanent Representative to the UN Ambassador T S Tirumurti described it as "path-breaking" in many ways since this was the first time the Prime Minister of India chaired the Security Council.
- The event was the first time when there was a comprehensive debate on the holistic concept of maritime security. There was also a presidential statement on maritime security which was also the first such statement on the concept.
- External Affairs Minister S Jaishankar chaired the two other signature events - on Peacekeeping and Technology and the briefing on Islamic State.
- India also exchanged a Memorandum of Understanding (MoU) with the UN in support of the 'Partnership for Technology in Peacekeeping' initiative and to UN C4ISR Academy.
- For the first time, the Security Council held an open debate focused exclusively on how

technology can aid in peacekeeping and for the first time, it adopted a presidential statement on the topic of technology and peacekeeping.

➢ For the first time, India drafted a resolution on peacekeeping focused on ensuring accountability for crimes against peacekeepers. The resolution was sponsored by 80 member states, including all 15 members of the UNSC.

➢ India's presidency of the UNSC ended with the first resolution being adopted by the Council on the situation in Afghanistan following the takeover of Kabul by the Taliban.

➢ Under India's presidency, the UNSC successfully steered the discussions on various peace and security issues that are on its agenda, including Myanmar, Syria, Yemen, and the Middle East Peace Process.

➢ As such, the presidency offered a unique opportunity to India to display leadership skills, establish itself is a responsible stakeholder, and indicate its commitment to global governance.

Analytica

Issue of permanent UNSC seat for India

✓ India began its eighth term as a non-permanent member of the UNSC on January 1 and will remain as such for a period of two years.

✓ India's bid for a permanent seat at the UN Security Council has support from four of the five P5 nations, namely the US, UK, France and Russia. China is the only permanent member which is yet to officially back India's bid.

✓ While the U.S. has in the past backed India's bid for a permanent seat at the United Nations Security Council (UNSC), the Biden administration has continued to remain non-committal on the issue.

✓ The UN Security Council is composed of 15 members, including five permanent member states - China, France, Russian Federation, the United States, and the United Kingdom - and 10 non-permanent member states elected by the United Nations General Assembly (UNGA).

✓ Ten non-permanent members are elected to the UNSC every year for a two-year term. India's current term began on January 1 of this year and will last until December 31, 2023.

✓ The 10 non-permanent seats are distributed among the regions of the world: five seats for African and Asian countries (three are for Africa and two for Asia), one for Eastern European countries, two for Latin American and Caribbean countries, and the remaining two for Western European and other countries.

✓ The Africa and Asia Pacific group takes turns every two years to put up an Arab candidate.

✓ Over the course of the past several decades, especially as India has fitfully acquired economic and military power, it has campaigned vigorously for a permanent seat on the Security Council. And with India assuming a two-year term as a non-permanent member last month, the issue will become a major talking point soon.

PEPPER IT WITH
Coffee Club, Rezali Reform Plan, G4

✓ The U.N. Security Council is outdated and needs reforming, and given India's size and its growing global standing, it should be included in the new body.

✓ Since the 1950s, India has witnessed a significant shift in its position in the international arena. Furthermore, the structure of the Security Council has indeed frozen the global distribution of power that existed at the end of World War II.

✓ Yet India's policymakers need to come up with far more compelling arguments to justify an expansion of the Security Council and India's inclusion as a permanent member. To be seriously considered for a permanent seat, India needs to demonstrate that it can bring something new to the global table.

India, Sri Lanka and Maldives Security Collaboration

News Excerpt

India, Sri Lanka and the Maldives have agreed to work on "four pillars" of security cooperation, covering areas of marine security, human trafficking, counter-terrorism, and cyber security, in a recent virtual meeting of top security officials of the three countries.

Highlights

- The discussion comes nine months after National Security Adviser AjitDoval visited Colombo for deliberations with Secretary to Sri Lanka's Ministry of Defence, Kamal Gunaratne, and Defence Minister of Maldives, MariyaDidi, in which the three countries agreed to expand the scope of intelligence sharing.
- Their meeting marked the revival of NSA-level trilateral talks on maritime security in the Indian Ocean Region after a gap of six years.
- Following up on that, the Deputy NSA-level meeting identified "four pillars" of cooperation in Marine Safety and Security, Terrorism and Radicalisation, Trafficking and Organised Crime, and Cyber security, adding "specific proposals" for cooperation in each area, including joint exercises and training were discussed.
- The 'Colombo Security Conclave' among the three neighbouring countries seeks to "further promote" maritime security in the Indian Ocean Region, and was initiated by President Gotabaya Rajapaksa in 2011
- The initiative, grounded in military and security collaboration, assumes significance in the region, in the wake of the current geostrategic dynamic that India shares with Sri Lanka and the Maldives.
- Earlier this year, India aired security concerns over China being awarded development projects in an island off Sri Lanka's northern province, close to India's southern border.

Analytica

Engagement with Quad

> - The Maldives's engagement with members of the India-United States-Japan-Australia grouping, known as the 'Quad', has been growing over the last year, especially in the area of defence cooperation.

PEPPER IT WITH
Indian Ocean Rim Association, IBSA

> - The Ibrahim Mohamed Solih government signed a 'Framework for a Defence and Security Relationship' agreement with the United States last year, an initiative that India welcomed.
> - In November 2020, the Maldives received a Japanese grant of $7.6 million for the Maldivian Coast Guard and a Maritime Rescue and Coordination Center.
> - Meanwhile, Male's foreign policy choices are increasingly being challenged by sections, mostly opposition groups, wary of "Indian boots on the ground".

Permanent Forum of People of African Descent

News Excerpt

The U.N. General Assembly recently approved a resolution establishing a Permanent Forum of People of African Descent to provide expert advice on addressing the challenges of racism, racial discrimination, xenophobia and intolerance.

Pre-Connect

- The move comes just days after the Human Rights Council established a panel of experts to investigate systemic racism in policing against people of African descent, and on the heels of a report by the Office of the UN High Commissioner for Human Rights (OHCHR), prompted by the police killing of George Floyd in 2020.
- In that report and various public statements, High Commissioner Michelle Bachelet has pointed to the "compounding inequalities" and "stark socioeconomic and political marginalization" faced by Africans and people of African descent in many countries.
- The report also notes that "no State has comprehensively accounted for the past or for the current impact of systemic racism" and calls for a transformative agenda to tackle violence against Afro-descendants.

Highlights

> - The resolution adopted by consensus by the 193-member world body also calls for the forum to serve as "a platform for improving the safety and quality of life and livelihoods of people of African descent" and their full inclusion in the societies where they live.
> - The forum's establishment comes during the International Decade for People of African Descent, established by the General Assembly, which began on Jan. 1, 2015, and ends on

Dec. 31, 2024. It is focusing on the themes of recognition, justice and development.

➢ The new body's creation comes ahead of the 20th anniversary of the controversial September 2001 U.N. World Conference Against Racism in Durban, South Africa, which was dominated by clashes over the Middle East and the legacy of slavery.

➢ The United States and Israel walked out during the meeting over a draft resolution that singled out Israel for criticism and likened Zionism to racism.

➢ That language was dropped in the final documents, which condemned and called for the eradication of the scourges of racism, racial discrimination, xenophobia and intolerance.

➢ The documents also expressed deep regret at the human suffering caused by slavery, and acknowledged that slavery and the slave trade are crimes against humanity and should always have been so.

➢ The resolution approved by the General Assembly states that despite efforts to combat racism, instances and various forms of racism, racial discrimination, xenophobia and intolerance remain widespread and should be condemned.

➢ The assembly said that "all human beings are born free and equal in dignity and rights and have the potential to contribute constructively to the development and well-being of their societies."

➢ Document said that- "Any doctrine of racial superiority is scientifically false, morally condemnable, socially unjust and dangerous and must be rejected, together with theories that attempt to determine the existence of separate human races."

➢ The assembly called the global fight against racism "a matter of priority for the international community."

➢ The Permanent Forum of People of African Descent was given a series of mandates. They include helping to ensure "the full political, economic and social inclusion of people of African descent," and providing expert advice and recommendations on addressing racism to the Geneva-based Human Rights Council, the General Assembly's main committees and U.N. agencies.

➢ The resolution said the forum will consist of 10 members — five elected by the General Assembly from all regions and five appointed by the Human Rights Council following consultations with regional groups and organizations of people of African descent.

➢ The Forum will provide expert advice and recommendations to the Human Rights Council, the Assembly's main committees, and the various UN entities working on issued related to racial discrimination.

➢ It will also collect best practices and monitor progress on the effective implementation of the International Decade's activities, gathering relevant information from Governments, UN bodies, non-governmental groups and other relevant sources.

➢ The first session of the Permanent Forum will be held in 2022, with subsequent annual sessions rotating between Geneva and New York.

➢ It also calls for annual reports to the assembly and the council on the forum's activities, and an evaluation of its operation by the General Assembly after four sessions, based on an evaluation by the Human Rights Council.

> **PEPPER IT WITH**
> UNHRC, IHRC, African Union

Conclusion

✓ The new Forum will serve as a consultation mechanism for people of African descent and other stakeholders, and contribute to the elaboration of a UN declaration – a "first step towards a legally binding instrument" on the promotion and full respect of the rights of people of African descent.

✓ Further, it will work to identify and analyze best practices, challenges, opportunities and initiatives to address issues relevant to people of African descent as highlighted in the Durban Declaration and Programme of Action, which was adopted 20 years ago at a landmark UN summit against racism and discrimination.

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India-Netherlands Relations

News Excerpt

A Delegation from Netherlands led by Ambassador Marten vanden Berg recently called on the Union Minister of State (Independent Charge) Science & Technology to discuss and review bilateral cooperation in Science and Technology and Innovation.

Pre-Connect

- India and the Netherlands established diplomatic relations in 1947. Today, India and the Netherlands have strong political, economic & commercial relations, and various sectoral co- operations.
- Mutual exchanges at high-level have provided impetus to the multifaceted ties between India and the Netherlands further strengthening and developing the growing bilateral relationship.
- The trinity of Health, Agriculture and Water has been, for many years, the bedrock of close mutual collaboration between India and Netherlands.
- Union Minister also invited Netherlands for fruitful exchanges in the Space sector particularly in the wake of path-breaking reforms initiated by India in the recent past allowing the private sector to have a level playing field in satellite launches and spacebased activities.

Analytica

Areas of Cooperation

- ➤ **Counter Terrorism and Cyber security**: The 1st bilateral cyber security dialogue and the 2nd India-Netherlands JWG on counter terrorism, held in December 2018 in the Hague, enhanced the scope of the bilateral dialogues on security related issues.
- ➤ **Indo-Pacific**: The Netherlands issued its guidelines on the Indo-Pacific in 2020 which identifies India as a key partner to engage with. India welcomed the guidelines. Both sides recognise the close convergence between each other's vision for a free, open and inclusive Indo-Pacific.
- ➤ **Trade and Commercial Relations**: The Netherlands was the fifth largest investor in India for FY 2020-21 with FDI inflows of USD 2.8 billion. For the same period, the Netherlands was the third largest destination for overseas direct investment from India (approx. USD 1.22 billion). The Netherlands was India's 3rd largest trading partner in the Europe in FY 2020-2021. During FY 2020-2021, total two-way trade stood at US$13 billion with export from India amounting to US$ 8.85 billion and imports from the Netherlands at US$ 4.1 billion.
- ➤ **Water Management**: Cooperation in the water sector has been enhanced by the decision to institute 'Strategic Partnership on Water', and upgrading of the JWG on water to Ministerial-level. India is a Delta country for the Netherlands. The Netherlands is engaged with various States and Municipalities including in the States of Uttar Pradesh, Delhi, Gujarat, Punjab, West Bengal, Tamil Nadu, Kerala, and Maharashtra.
- ➤ **Ports/Shipping/Inland Waterways**: The MoU in the fields of ports and maritime transport and logistics has been extended, with a special focus on research and development, shipbuilding, innovation and sustainability. The 4th Indo-Dutch Forum on Smart & Sustainable Port-Led Development was held in September 2020. Dutch companies including Port of Rotterdam and Port of Amsterdam took part in the online Maritime India Summit held in March 2021.
- ➤ **Agriculture and Food Processing**: Agriculture is a key sector of bilateral cooperation. Food (solutions in food waste, horticulture, dairy and aqua culture) was the core theme of the 6th Indo-Dutch JWG on Agriculture Cooperation held digitally in June 2021. The first ever digital innovation mission to India which focused on Climate Smart Agriculture was organized by the Dutch Government in September 2020 in coordination with CII. Under Indo-Dutch Joint Agro-Action Plan, two Centres of Excellence (CoE) at Baramati, Maharashtra and Wayanad, Kerala have been established. Several other CoEs are in the pipelines including CoEs in Talegaon, Ludhiana, Jalandhar, Srinagar and Jammu. The two sides are working to set up 25 CoEs by 2025.

➢ **Healthcare cooperation**: JWGs have been held since 2014 under the MoU for Cooperation in the Field of Healthcare and Public Health to promote greater research collaboration in emerging health challenges associated with communicable diseases and anti-microbial resistance. Health Pilot Project have been implemented in Krishna District, Andhra Pradesh, MoU on cooperation in the area of healthcare innovation have signed between the City of The Hague and the State of Karnataka.

➢ **Urban Development and Smart Cities**: India and the Netherlands have signed an MoU in the field of Spatial Planning, Water Management and Mobility Management, under which cooperation in various fields including in urban development, smart city, waste-to-value projects, geospatial, innovation continue.

➢ **Sports**: One Million Hockey Legs Social Projects (renamed as Bovelander Foundation), initiated under the MoU in the field of Sports Infrastructure signed between India and the Netherlands in 2014, carried out extensive exercises and projects across several Indian States since its foundation in 2015. West Bengal has signed anMoU with with the Netherlands' largest football association, 'Royal Netherlands Football Association', under which Dutch coaches will train football players in West Bengal. KoninklijkeNederlandse Hockey Bond (KNHB) and Hockey India cooperates on different projects related to field hockey.

➢ **Renewable Energy**: The Netherlands signed the Framework Agreement of the International Solar Alliance (ISA) in May 2018. India is one of the convening countries of the Global Commission on Adaptation. The Netherlands joined the Coalition for Disaster Resilient Infrastructure (CDRI) in 2021. India invited the Netherlands to support CDRI's Technical Assistance Facility (TAF) for Small Island Developing States. Cooperation in the area of renewable energy continues under an MoU singed in 2014. In the virtual Dutch Trade Mission held in February 2021 solar energy, hydrogen, biofuels, energy transition and e-mobility were a core theme.

➢ **S&T and Space**: 2018 was the 10th anniversary of cooperation between the Netherlands and India in science and innovation. The Netherlands was India's partner country in the Technology Summit 2019 held in New Delhi. The Netherlands was partner country with India for the Global Bio India 2021 Virtual Summit which was held in March 2021. India and the Netherlands have agreed to launch two new calls on the WAH! Agenda, committing to boost their investments in science technology and innovation under the shared knowledge and Innovation agenda.

➢ **Indian Community and Diaspora**: The Netherlands hosts the largest Indian Diaspora on mainland Europe, including 2,00,000 strong Surinami-Hindustani community of Indian origin. Descendants up to sixth generation of the original Indian immigrants who had arrived in Suriname and later migrated to the Netherlands can avail OCI facility. The approximate 48,000 NRIs/PIOs are mainly businessmen, knowledge workers, professionals and students. Indian students are amongst the top 3 in terms of numbers amongst non-EU foreign students in the Netherlands.

IBSA meet

News Excerpt

India recently organised the IBSA (India, Brazil and South Africa) Tourism Ministers' virtual meet.

Highlights

- The IBSA Tourism Ministers Meeting recognized the importance of strengthening cooperation in tourism to overcome the impact of Covid 19 pandemic on the tourism sector.

- The Ministers agreed to implement various tourism activities to be actioned by respective member countries.

- India organized the IBSA Tourism Ministers' Meeting to promote tourism cooperation among the member states and reviewed the intra IBSA Tourism cooperation.

- The Ministers emphasised the importance of domestic tourism in reigniting the tourism economy as it can prepare the domestic tourism industry for the arrival of international visitors.

- The significant aspect of the meeting was the adoption of the IBSA Tourism Ministers Joint Statement, an outcome document on cooperation and promotion for speedy recovery of

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BENGALURU: KORMANGALA 7619166663 &**CHANDRA LAYOUT** 7619136662 | **BHOPAL:** 7509975361
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travel and tourism. The Ministers also agreed to implement various tourism activities to be actioned by respective member countries.

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> IBSA is a trilateral, developmental initiative between the Government of India, The Government of Federative Republic of Brazil and The Government of the Republic of South Africa to promote South-South cooperation and exchange.

PEPPER IT
South-South Cooperation

> The aim of the IBSA Tripartite Agreement is for strengthening relations between the member countries for economic development and for promoting cooperation in the field of tourism and expansion of tourism relations with a view to understand and appreciate each other's history, culture and way of life.

Meeting of Agriculture Ministers of BRICS countries

News Excerpt

Union Agriculture Minister ShriNarendra Singh Tomar recently chaired 11th meeting of Agriculture Ministers of BRICS countries.

Highlights

- The Ministers of Agriculture from Brazil, Russia, China and South Africa deliberated virtually on the theme "BRICS Partnership for Strengthening Agro Biodiversity for Food and Nutrition Security".
- BRICS countries are expected to play a leading role in achieving the 2030 sustainable development goals of eradicating hunger and poverty.
- BRICS Agricultural Research platform created to enhance agricultural cooperation among BRICS countries. It will promote cooperation in the areas of agricultural research, extension, technology transfer, training and capacity building.
- Action plan 2021-24 for agricultural cooperation among BRICS countries adopted.
- The Action Plan 2021-2024 provides for enhanced cooperation in the field of agriculture amongst BRICS nations and focuses on the themes of food security, welfare of farmers, conservation of agrobiodiversity, resilience of food and agricultural production systems, promotion of digital agricultural solutions etc. which are integral to the sustainable development of agriculture.
- In view of the potential for the BRICS nations to collaborate in furthering the cause of agrobiodiversity for food security and nutrition, it has been proposed to include "Conservation and promotion of agrobiodiversity for nutrition and sustainability" as a focus area for collaboration in the Action Plan 2021-2024 for Agricultural Cooperation of BRICS Countries.

Analytica

Contribution of India in Conservation

> India in preserving the agro-biodiversity by establishing and maintaining the National Gene banks for plants, animals, fish, insects and agriculturally important microorganisms at different respective Bureaus.
> India is actively promoting the diversification of its agri-food systems through countrywide programs such as pulses, oilseeds, horticultural crops, National Bamboo Mission and the recently launched National Palm Oil Mission.
> The objective of these programs is to increase the income of the farmers along with providing diversification in both farm and plate.
> The United Nations has declared the year 2023 as the International Year of Millets and preparations are being made to celebrate the International Year of Millets at the global level.
> India is focusing on capacity building in research, teaching, policy-making, trade and farming of nutritious cereals, which will benefit the farmers while conserving the amazing diversity available in this group of crops.

BRICS

✓ "BRICS" is the acronym denoting the emerging national economies of Brazil, Russia, India, China and South Africa.

- ✓ The term was originally coined in 2001 as "BRIC" by the Goldman Sachs economist Jim O'Neill in his report, Building Better Global Economic BRICs.
- ✓ At that time, the economies of Brazil, Russia, India and China experienced significant growth, raising concerns regarding their impact on the global economy.
- ✓ Foreign ministers of these countries began meeting informally in 2006, which led to more formal annual summits beginning in 2009.
- ✓ Generally speaking, these meetings are held to improve economic conditions within BRICS countries and give their leaders the opportunity to work in collaboration regarding these efforts.
- ✓ In December of 2010, South Africa joined the informal group and changed the acronym to BRICS.
- ✓ BRICS brings together the major emerging economies of the world, hosting 41% of the world population, contributing 24% of the world GDP and over 16% share in world trade.

Taliban takeover Kabul

News Excerpt

Kabul, the ultimate prize in every Afghanistan war, fell to the Taliban recently, completing their takeover of the country in a lighting offensive that saw provinces and warlords give up without a fight, days after the hasty withdrawal of US troops.

Highlights

- President Ashraf Ghani had fled the country, hours after Pakistan-backed Taliban fighters showed up on the outskirts of Kabul and their chiefs demanded transfer of power to avoid bloodshed.
- This is the first time since their ouster 20 years ago in the wake of the 9/11 strikes that Taliban fighters have entered the city — they first seized the Capital in 1996.

Analytica

- ➢ The US has now left Afghan soil completely, barring an estimated 100-200 Americans still trying to leave the country. The American embassy in Kabul had been shut down some days ago and its diplomats had been operating from the airport in the Afghan capital before being flown out.
- ➢ The US mission will now conduct diplomacy with the Taliban administration and consular operations out of Doha, Qatar.
- ➢ Biden is facing unrelenting criticism in the US on two fronts - for leaving Afghanistan that paved the way for the return of the Taliban obliterating the progress made in the past 20 years, and for the chaotic evacuation operations that played out in full view of the world, involving a deadly terror attack carried out by Islamic State at the Kabul airport that claimed close to 200 lives.
- ➢ US has rolled out a seven-point plan for America's relationship with Afghanistan that revolves around the Taliban government's ability to deliver on an entire range of assurances; such as not allowing Afghanistan to be used by terrorists to attack the US or its allies, allowing women and girls to study and work; and letting Afghans leave the country if they have the paperwork.
- ➢ Combating terrorism will be an important component of the relationship.

The China Factor

- ✓ Following the withdrawal of US forces from Afghanistan, China has emerged as one of the first nations to develop diplomatic channels with the Taliban.
- ✓ Interestingly, China has over the past two decades of US-led governance of Afghanistan, maintained a low profile, quietly observing as the longest war in history raged on taking its toll in terms of both resources and lives.
- ✓ H.E. Wang Yu, the Chinese Ambassador to Afghanistan, has highlighted that China did provide the war-torn country millions of dollars in aid for building hospitals, such as

Jamhuriat Hospital, a solar power station in Bamyan Province and more.

✓ According to Chinese domain experts, Beijing has few qualms about fostering a closer relationship with the Taliban and is ready to assert itself as the most influential outside player in an Afghanistan all but abandoned by the United States.

China's economic interest in Afghanistan:

o Afghanistan is having mineral deposits estimated to be worth up to $3 trillion. The country is probably home to what may be the world's largest reserves of lithium – the key ingredient of the large-capacity lithium-ion batteries that are widely used in electric vehicles and the renewable energy industry.

o And since China dominates Lithium-Ion Battery Production worldwide, it may seek long-term a contract with the Taliban to develop Afghanistan's massive untapped lithium reserves in return for mining rights and ownership arrangements.

o Afghanistan is also rich in several other resources such as gold, oil, bauxite, rare earths, chromium, copper, natural gas, uranium, coal, iron ore, lead, zinc, gemstones, talc, sulphur, travertine, gypsum and marble.

o Returning to power in Afghanistan after 20 years, the Taliban has recaptured these massive mineral deposits.

✓ According to China, Beijing can offer what Kabul needs most: political impartiality and economic investment.

✓ Afghanistan in turn has what China most prizes: opportunities in infrastructure and industry building — areas in which China's capabilities are arguably unmatched — and access to $1 trillion in untapped mineral deposits.

> **PEPPER IT**
> India and Afghanistan, Heart of Asia Conference

China's Belt and Road Initiative:

▪ China's strategic Belt-and-Road Initiative (BRI) could get more reach if it able to extend the initiative from Pakistan to Afghanistan, with a Peshawar-to-Kabul motorway.

▪ The road, which is already being discussed, would create a much shorter land route for faster and convenient access to markets in the Middle East for Chinese goods.

▪ A new route through Kabul would also render India's reluctance to join BRI less consequential.

Beijing's security concerns about a Taliban-ruled Afghanistan:

♦ The Turkistan Islamic Movement (TIM), also known as the East Turkestan Islamic Movement (ETIM), is an Uyghur Islamic extremist organisation founded in Western China with the aim to establish an independent state called East Turkestan in the place of Xinjiang.

♦ Since 2002, the ETIM has been listed as a terrorist organisation by the UN Security Council Al-Qaida Sanctions Committee. However, the United States removed it from its list of Terrorist Organizations in 2020.

♦ The US, the United Kingdom and the UN have accused China of widespread human rights abuses against the local Muslim Uyghur population in Xinjiang, including forced labour and large-scale detentions. Beijing has denied these claims.

♦ According to the UN security council, the ETIM had roots in Afghanistan as it received support from the Taliban and Al Qaeda in the 2000s. Some experts doubt the capacity of the group to instigate violence, or even its present-day existence.

♦ Still China is worried that Afghanistan could become a potential haven for the Uyghur extremist group, which could retaliate against the "widespread repression of Uyghurs."

Does the return of the Taliban in Afghanistan represent the end of the American

era?

» On the heels of what appears to have been a disastrous decision by Biden to adhere to a U.S. troop drawdown that was set in motion by his predecessor, it can certainly be said that the international image of the United States has been damaged.

» It seems a valid question to ask whether the United States can claim much moral authority internationally after handing Afghanistan, and its millions of hapless citizens, back to the custody of the Taliban.

» But it remains unclear whether, as Rory Stewart (Former British Government Minister) suggests, the U.S. retreat from Afghanistan represents part of a larger inward turn, or whether, asJames Clad (Former U.S. Deputy Assistant Secretary of Defense) believes, the U.S. may soon reassert itself somewhere else to show the world that it still has muscle.

» Right now, it feels as if the American era isn't quite over, but it isn't what it once was, either.

What Next?

› While the United States has officially declared an end to its military operations in Afghanistan, military operations will not really be terminated, but will transition to a new phase.

› The United States still retains vital interests in evacuating US citizens and coalition and Afghan allies, and in preventing additional terrorist attacks by al-Qaeda and others.

› Both of these objectives, as well as others, will require a lot more work (both diplomatic and military), a lot more time, and additional national resources.

› The United States also now has a lot of work to do to shore up its alliances in the wake of the poorly executed withdrawal.

› This, too, will require new efforts if the United States seeks to navigate this dangerous new era in a way that protects American security and prosperity.

China's new maritime regulations

News Excerpt

From September 1, China's new maritime rules designed to control the entry of foreign vessels in what Beijing calls "Chinese territorial waters" take effect. The move is expected to have far-reaching consequences for passage of vessels, both commercial and military, in the disputed South China Sea, East China Sea and Taiwan Strait, and is likely to escalate the existing tension with the US and its neighbours in the region.

Pre-Connect

• Over $5 trillion trade passes through the South China Sea, and 55% of India's trade pass through its waters and the Malacca Straits, according to estimates by India's Ministry of External Affairs (MEA).

• China claims under a so-called "nine dash line" on its maps most of the South China Sea's waters, which are disputed by several other countries, including the Philippines, Vietnam, Malaysia and Indonesia.

Analytica

➤ Such a rollout of maritime regulations are seen as a sign of stepped-up efforts to safeguard China's national security at sea by implementing strict rules to boost maritime identification capability.

➤ How China will enforce these rules remains to be seen, and in which waters of the sea. Indian commercial vessels as well as ships of the Indian Navy regularly traverse the waters of the South China Sea, through which pass key international sea lanes.

➤ While China claims most of its waters, marked by the "nine dash line" on its maps, Indian officials say Beijing has generally onlysought to enforce its claims in response to the passage of foreign military vessels not in the entire sea but in the territorial waters around the islands, reefs and other features, some artificially constructed, that China claims.

What is the New Law?

✓ Foreign vessels, both military and commercial, will be henceforth required to submit to Chinese supervision in "Chinese territorial waters," as per the new law.

✓ The state-run Global Times, quoting the country's Maritime Safety Administration, said that "operators of submersibles, nuclear vessels, ships carrying radioactive materials and ships carrying bulk oil, chemicals, liquefied gas and other toxic and harmful substances are required to report their detailed information upon their visits to Chinese territorial waters".

✓ The report goes on to add that vessels that "endanger the maritime traffic safety of China" will be required to report their name, call sign, current position and next port of call and estimated time of arrival. The name of shipborne dangerous goods and cargo deadweight will also be required.
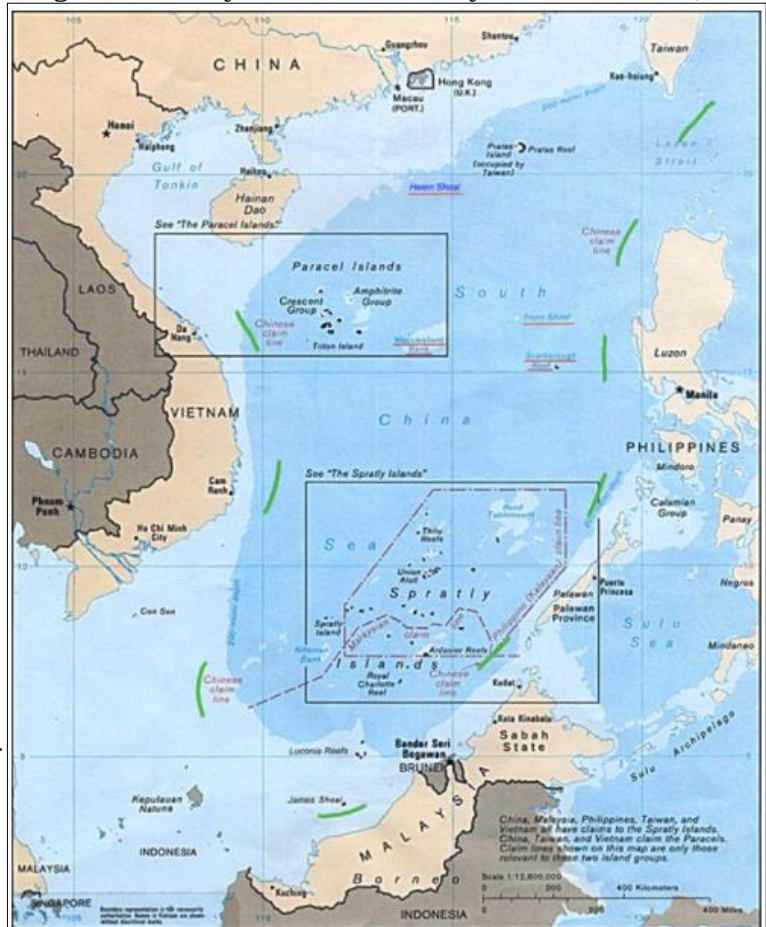
Significance of the New Law

▪ The South China Sea, which lies between China, Taiwan, the Philippines, Brunei, Malaysia, Indonesia and Vietnam, is of great economic importance globally.

▪ Nearly one-third of the world's shipping passes through its lanes, and the waters house numerous important fisheries.

▪ It is also a critical route for India, both militarily and commercially. The South China Sea plays a vital role in facilitating India's trade with Japan, South Korea and ASEAN countries, and assists in the efficient procurement of energy supplies.

▪ In fact, the Ministry of External Affairs estimates that more than 55% of India's trade passes through the South China Sea and Malacca Straits. India is also involved in oil and gas exploration in offshore blocks in the margins of the Sea, which has led to standoffs with Chinese authorities.

▪ The waters around China are hotly contested. Under a "nine-dash line" map, China claims most of the South China Sea as its sovereign territory. This claim is contested by its neighbours in the region and by the United States, which, though it has no claim in the Sea, backs the smaller nations in the fight against Chinese overreach.

The United Nations Convention on the Law of the Sea (UNCLOS)

It is an international treaty which was adopted and signed in 1982. It replaced the four Geneva Conventions of April, 1958, which respectively concerned the territorial sea and the contiguous zone, the continental shelf, the high seas, fishing and conservation of living resources on the high seas. The Convention has created three new institutions on the international scene :

– the International Tribunal for the Law of the Sea,

– the International Seabed Authority,

– the Commission on the Limits of the Continental Shelf.

▪ The two countries recently sparred over the issue at a UN meeting on maritime security, with US saying that it has seen "provocative actions to advance unlawful maritime claims" and China retorting that the US has been "arbitrarily sending advanced military vessels and aircraft into the South China Sea

PEPPER IT WITH
South China Sea, UNCLOS

as provocations".

International position

- Currently, international maritime activities are governed by an international agreement called the United Nations Convention on the Law of the Sea (UNCLOS) of which China, India and over a hundred other countries are signatories (the US, significantly, is not).

- Accordingly, states have the right to implement territorial rights up to 12 nautical miles into the sea. The UNCLOS also states that all vessels have the right of "innocent passage" through this region – China's new law violates this.

- As the law comes into effect, several questions remain. For one, it is unclear how China intends to implement the regulation.

- The US, which routinely holds naval exercises in the region, is unlikely to abide by Beijing's law. It also remains to be seen how the rest of the UNCLOS signatories react to this challenge to the agreement.
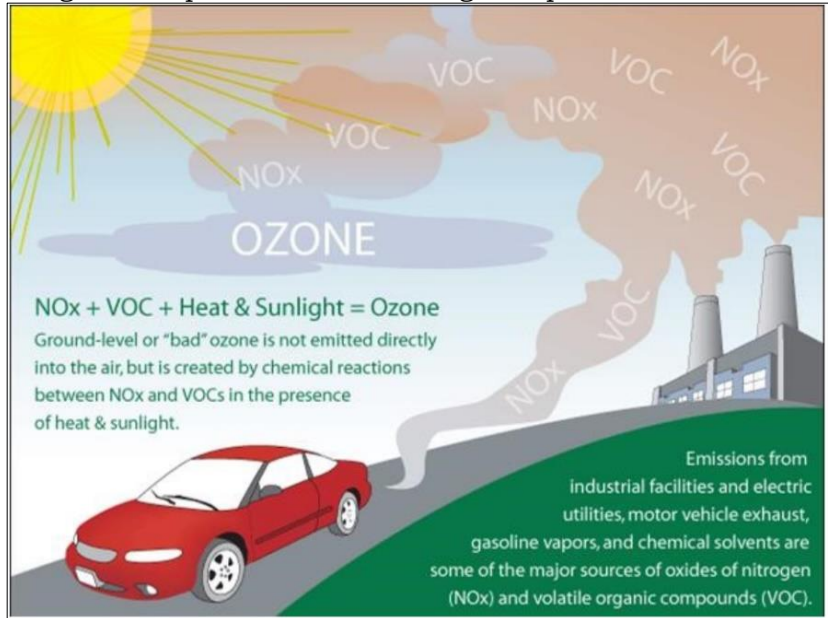
ENVIRONMENT

Exceeding Ozone Level

News Excerpt

A Centre for Science and Environment study has found that ozone levels are exceeding the permitted levels even during winter in Delhi-NCR, making the smog more "toxic".

Pre-Connect

- Ozone, the triplet oxygen (O_3), is formed from the reaction between dioxygen (O_2, the normal oxygen molecule) and a singlet oxygen (O, oxygen atom) in the presence of a third-body molecule able to absorb the heat of the reaction.
- The highly reactive and short-lived singlet oxygen (O) can be generated via the photolysis of nitrogen dioxide (NO_2) or ionization of O_2.
- Background ozone is present in both the stratosphere and the troposphere. Stratospheric ozone is concentrated in the tropopause (~between 8 and 15 km above the ground), a region that is called ozone layer.
- Stratospheric ozone is nicknamed "good" ozone, because the ozone layer plays a vital role in absorbing ultraviolet (UV-B) rays that are harmful to living beings on the earth.
- Since direct contact with ozone at the ground level can cause damages to living cells, organs, and species including humans, animals, and plants, tropospheric or ground-level ozone is nicknamed "bad" ozone.
- Ground level ozone is formed in the air by the photochemical reaction of sunlight and nitrogen oxides (NOx), facilitated by a variety of volatile organic compounds (VOCs), which are photochemically reactive hydrocarbons.

Highlights

- The study was done by analysing the Central Pollution Control Board (CPCB) data.
- Despite the pandemic and lockdowns, more days and locations witnessed higher and longer duration of ozone spells.
- Ozone, a highly reactive gas and dangerous for those suffering from respiratory conditions and asthma, is becoming more widespread in Delhi and NCR across all seasons.
- Contrary to the notion that ozone, produced photochemically from interaction between gases in the presence of sunlight, is predominantly a summer phenomenon, the analysis finds the gas has emerged as an equally strong concern during winter as well.
- Even smaller towns of NCR, including Bulandshahr in Uttar Pradesh and Bhiwani in Haryana, appeared in the top 20 list of ozone-afflicted towns and cities. South Delhi locations dominate the list with four mentions in top 10.

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Impacts of the Ground Level Ozone

- **Health Effects:** Breathing ground-level ozone can trigger a variety of health problems including chest pain, coughing, throat irritation, and congestion. It can worsen bronchitis, emphysema, and asthma. Ozone also can reduce lung function and inflame the lining of the lungs. Repeated exposure may permanently scar lung tissue.
- **Environmental Effects:** Ozone damages vegetation and ecosystems by inhibiting the ability of plants to open the microscopic pores on their leaves to breathe. It interferes with the photosynthesis process by reducing the amount of carbon dioxide the plants can process and release as oxygen. Elevated levels of ozone leads to reduced agricultural crop and commercial forest yields, reduced growth and survivability of tree seedlings, and increased susceptibility to diseases, pests and other stresses such as harsh weather.
- **Yield Loss Caused by Ozone:** Dicot species, such a soybean, cotton and peanut, are more sensitive to yield loss caused by ozone than monocot species such as sorghum, field corn and winter wheat.

> **PEPPER IT WITH**
> Burning of fuelwood, Biomass, Hydrocarbon Policy

The Ecological footprint of dairy

News Excerpt

The dairy industry has recently galvanised the debate around harmful consequences of animal harvesting on climate, with the charge being led by non-profit People for the Ethical Treatment of Animals (PETA).

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Pre-Connect

- Harvesting animals for dairy and animal-based products in India is a major source of livelihood for 150 million dairy farmers. The products are a source of nutrition and food security for a significant chunk of the population as well. The dairy sector accounts for 4.2 per cent of the national gross domestic product.

- India has transitioned from a milk-deficient country to the largest producer of milk globally. The Anand model (Amul), which has been replicated across the country, boosted milk production and made dairy the second-largest employment sector after agriculture in India.

- Multinational companies such as Nestle SA and Danone SA have also been accused of promoting water-intensive dairy industry in Punjab and the neighbouring states, which is fast depleting groundwater. Traditionally, these were less water-intensive wheat-growing states.

> ### IndiGau Chip
>
> ❖ Union Minister of State (Independent Charge) Science & Technology recently released "IndiGau', India's first Cattle Genomic Chip for the conservation of pure varieties of indigenous cattle breeds like, Gir, Kankrej, Sahiwal, Ongole etc.
>
> ❖ This indigenous chip was developed by the concerted efforts of scientists of National Institute of Animal Biotechnology (NAIB), Hyderabad, an autonomous institution under the aegis of the Department of Biotechnology.
>
> ❖ IndiGau Chip has 11,496 markers (SNPs) more than that placed on 777K Illumina chip of US & UK breeds.
>
> ❖ This chip will have practical utility in the Governments schemes to achieve the goal of conservation of our own breeds with better characters and help towards doubling of farmers' income by 2022.

- Amul recently launched an advertising campaign challenging PETA's claim that plant-based alternatives are the way forward to create a sustainable food system. PETA implored Amul to introduce vegan alternatives, taking a cue from developed countries where the vegan movement is gaining momentum due to ecological and health benefits of plant-based food including milk.

- Food Safety and Standards Authority of India (FSSAI) notified that the word 'milk' cannot be used for plant-based dairy alternatives. Questions have been raised about the suitability of chemical-laden, lab-produced plant-based milk for human consumption.

- Amul and its supporters argue that PETA's moves may be a ploy for multinational companies to promote synthetic milk and genetically modified seeds through a misinformation campaign.

Analytica

New age activism and changing consumer perceptions

➤ Debate is going around regarding human need of milk for consumption beyond infancy, especially that of another species. The appalling conditions in cattle rearing have been widely condemned.

➤ These include artificial insemination, widespread use of growth hormones to boost milk production, injecting oxytocin into milch cattle, slaughter of male calves, abandoning cattle that are sterile, and selling livestock to slaughterhouses and tanneries when they can no longer produce milk.

➤ Despite guidelines for appropriate handling of cattle, these cruel practices continue unabated to boost production efficiencies as demand for diary and meat continues to grow.

➤ Path-breaking documentaries such as Cowspiracy and The Human Experiment, as well as social media campaigns and celebrity endorsements have inspired millions of people across

the world, including India, to adopt plant-based diets that have proved beneficial to human health, environment and the planet.

➢ Animal exploitation through animal farming, destruction of natural habitats, livestock-associated deforestation, hunting and trading of wildlife are the leading cause of zoonotic diseases caused by germs that spread between animals and humans.

➢ The novel coronavirus disease (COVID-19) pandemic is the latest in the long list of such diseases. Widespread evidence suggests that adoption of plant-based diets and lifestyles, referred to as veganism, may result decrease the threat of zoonotic diseases.

How healthy is dairy?

✓ For eons, besides the holy significance of the cow in Hindu tradition guided by age-old traditional wisdom, turmeric milk, desi ghee and cow urine have been considered a panacea for several diseases. Milk, ghee, paneer and milk-based sweets and products have been an inseparable part of the Indian palate.

✓ About 66.8 million metric tonnes of milk was consumed in India in 2018. Milk is perceived to be a vital source of protein for the 20 per cent vegetarian population in India.

> **PEPPER IT WITH**
> Animal Husbandry, Edible Oil, Vaccine Set-up

✓ Milk and milk products in India are not free from adulteration. A recent FSSAI report revealed the presence of aflatoxin M1 and hormone residues in them beyond permissible limits through unregulated feed and fodder. This led to a variety of lifestyle diseases in humans.

The ecological footprint of dairy

▪ Agriculture contributes approximately **16 per cent of India's greenhouse gas (GHG)** emissions which is released by cattle during dairy farming. Methane from ruminant belching and **animal waste contribute about 75 per cent of the total GHG emissions of the dairy sector.**

▪ The alarming loss of biodiversity is attributed to water- and energy-intensive crops needed to feed the cattle.

▪ India is increasingly becoming water-stressed due to exploding human and cattle population growth. India inefficiently uses **two-three times more water to grow its major food crops** compared to its peers. A typical crossbred cow consumes about 1,100 litres / day.

▪ The situation will likely worsen in the coming years. Dairy producers cannot ignore the climate consequences of the sector. They need to proactively ramp up production of plant-based human food alternatives to dairy products. Otherwise they may risk being forced to do so reactively by government regulation.
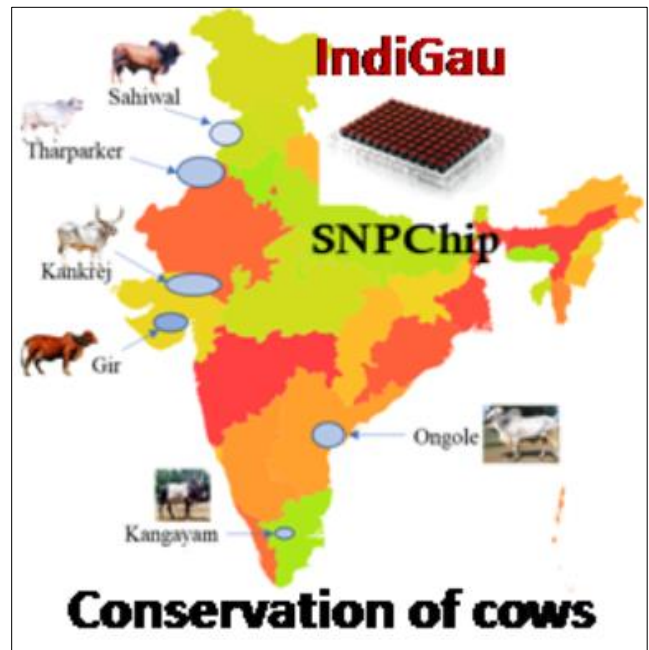
With livelihoods of 150 million at stake, policymakers will need to identify alternative employment opportunities for the displaced masses. Large-scale social forestry could be an answer to address this fall-out, with positive consequences to the planet.

Net Zero Carbon and Climate Change

News Excerpt

Independent charitable organisation Oxfam has said that 'net zero' carbon targets that many countries have announced may be a "dangerous distraction" from the priority of cutting carbon emissions.

Pre-Connect

• In 2019, the New Zealand government passed the Zero Carbon Act, which committed the

- country to zero carbon emissions by 2050 or sooner, as part of the country's attempts to meet its Paris climate accord commitments.
- In the same year, the UK's parliament passed legislation requiring the government to reduce the UK's net emissions of greenhouse gases by 100 per cent relative to 1990 levels by the year 2050.
- More recently, **US** president Joe Biden announced that the country will cut its greenhouse **gas emissions by at least 50 per cent below** 2005 levels by 2030.
- Further, John Kerry, who is US's climate envoy and considered one of the chief architects of the Paris Climate agreement, launched a bipartisan organisation called **World War Zero in 2019** to bring together unlikely allies on climate change and with the goal of reaching net-zero carbon emissions in the country by 2050.
- The European Union too, has a similar plan, called **"Fit for 55",** the European Commission has asked all of its 27 member countries **to cut emissions by 55 per cent below 1990 levels by 2030.**
- Last year, **China** also announced that it would become **net-zero** by the year **2060** and that it would not allow its emissions to peak beyond what they are in 2030.

Highlights

- ➢ Land-hungry 'net zero' schemes could force an 80 per cent rise in global food prices and more hunger while allowing rich nations and corporates to continue "dirty business-as-usual," Oxfam has said in a new report titled "Tightening the Net" that has been released just a few months ahead of the UN climate talks in Glasgow.
- ➢ The report says that if the challenge of change is tackled only by way of planting more trees, then about 1.6 billion hectares of new forests would be required to remove the world's excess carbon emissions by the year 2050.
- ➢ Further, it says that to limit global warming below 1.5°C and to prevent irreversible damage from climate change, the world needs to collectively be on track and should aim to cut emissions by 45 per cent by 2030 from 2010 levels, "with the sharpest being made by the biggest emitters."
- ➢ Currently, countries' plans to cut emissions **will only lead to a one per cent reduction by the year 2030**. Significantly, if only land-based methods to deal with climate change are used, food rises are expected to rise even more. Oxfam estimates that they could rise by 80 per cent by the year 2050.
- ➢ Oxfam's report shows that if the entire energy sector -whose emissions continue to soar-were to set similar 'net-zero' targets, it would require an area of land nearly the size of the Amazon rainforest, equivalent to a third of all farmland worldwide.
- ➢ The report emphasises that reducing emissions cannot be considered a substitute for cutting emissionsand these should be counted separately.

Analytica

What does Net-Zero Mean?

- ✓ Net-zero, which is also referred to as carbon-neutrality, does not mean that a country would bring down its emissions to zero. That would be gross-zero, which means reaching a state where there are no emissions at all, a scenario hard to comprehend.
- ✓ Therefore, net-zero is a state in which a country's emissions are compensated by absorption and removal of greenhouse gases from the atmosphere.

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<tr><td>Eartth summit, State Action Plan on Climate Change, FAME Scheme</td></tr>
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- ✓ One way by which carbon can be absorbed is by creating carbon sinks. Until recently, the Amazon rainforests in South America, which are the largest tropical forests in the world, were carbon sinks. But eastern parts of these forests have started emitting CO2 instead of absorbing carbon emissions as a result of significant deforestation.
- ✓ This way, it is even possible for a country to have negative emissions, if the absorption and removal exceed the actual emissions. Bhutan has negative emissions, because it absorbs more than it emits.

Ban on Single-use plastic

News Excerpt

The Centre has banned single-use plastic beginning July next year 2022. The Environment Ministry recently released a draft gazette notification that announced the ban and spelt out for the first time the items would fall under its purview — cutlery, earbuds and ice cream sticks, among others.

Highlights

- Polythene bags with thickness less than 50 microns are already banned in the country.
- Now, the Ministry has chalked out a phased manner of banning-single use carry bags as well as other commodities.
- From September 30 this year, polythene bags under 75 microns will not be allowed.
- From December 31 next year, polythene bags under 120 microns will be banned.
- Environmental experts have found that rag-pickers find thicker plastic bags have higher value than thinner ones. Plastic bags with higher thickness are more easily handled as waste and have higher recyclability.

Utility Index- parameters (100)	Environmental impact- parameters (100)
Hygiene (20)	Collectability (20)
Product safety (20)	Recyclability (20)
Essentiality (20)	Possibility of end of life solutions (20)
Social impact (20)	Environmental impact of alternate products (20)
Economic impact (20)	Littering propensity (20)

- The ban of plastic carry bags under 75 microns can come into effect immediately because manufacturers can continue using the same machines for producing plastic bags above 50 microns. More time is given to industry before implementing the 120 micron plastic ban because to produce these they need to install a different kind of machine.
- The 20 items that will be banned beginning next year are—Earbuds with plastic sticks, plastic sticks for balloons, plastic flags, candy sticks, ice-cream sticks, polystyrene (thermocol) for decoration, plastic plates, cups, glasses, cutlery such as forks, spoons and knives, straw, trays, wrapping films around sweet boxes, invitation cards, and cigarette packets, plastic or PVC banners less than 100-microns and stirrers.
- The ban will not apply to commodities made of compostable plastic.
- Some states, such as Karnataka, have already enforced bans on the items mentioned in the draft notification.
- For banning other plastic commodities in the future, other than those that have been listed in this notification, the government has given industry ten years from the date of notification for compliance.
- Officials say this has been a demand that industry has made, and that it has been accepted taking into consideration the capital cost in changing from plastic to an alternative material.
- The Central Pollution Control Board, along with state pollution bodies, will monitor the ban, identify violations, and impose penalties already prescribed under the Environmental Protection Act.

Analytica

What is Single Use Plastic?

- SUP is plastic produced and designed to be thrown away after being used only once. By that definition, a large number of products fall in the category. These include everything from a disposable straw to a disposable syringe.
- India has defined SUP as "a plastic commodity intended to be used once for the same purpose before being disposed of or recycled" in its Plastic Waste Management Amendment Rules, 2021.
- The identification of single-use plastic items to be phased out was done on the basis of a report by an expert committee constituted by the Department of Chemicals and Petrochemicals (DCPC), under the direction of the Union Ministry of Chemicals and

Fertilizers on SUP.

➢ The expert committee comprised policy makers, scientists, academicians and researchers in the field of plastic and allied materials. The assessment was conducted by DCPC by comparing two pillars — the utility index of a particular type of SUP and the environmental impact of the same.
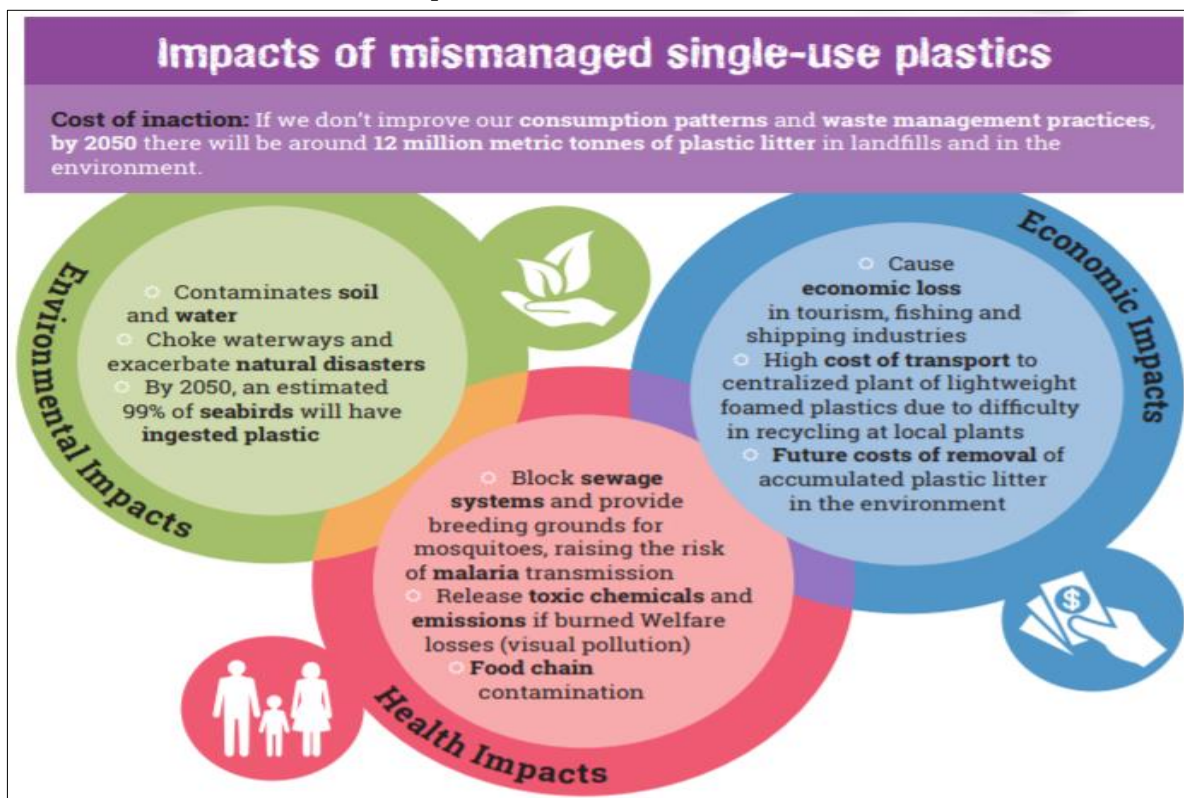
Criticism of the Policy

✓ All the 20 items that are proposed to be phased out are not applicable to commodities that are made up of compostable plastics. India does not have an existing labelling mechanism to differentiate fossil-based plastics from the compostable ones.

✓ India, with its current waste management system, is not ready for compostable plastics as they end up contaminating the potentially recyclable plastic. This adds to labour costs and further reduces the overall efficiency of plastic waste recycling in the country.

✓ Experts believe that the government should have pushed the plastic industry to invest in relevant research and development and ensure use of recycled products in their non-food packaging applications; 10 years window gives the industry the license to keep polluting in the coming years.

Case studies in the publication

EUROPE:
Ireland (levy on consumers)
Austria (voluntary public-private agreement)

AFRICA:
Rwanda (total plastic bag ban)
South Africa (combined ban and levy on retailers)
Kenya (punitive total ban)

ASIA:
China (national and provincial bans and levies)
Bangladesh (how social pressure and disaster management can lead to banning)
India (public action as driver of change)

AMERICAS:
New York City (Styrofoam ban)
Costa Rica (total single-use plastic ban)
Bans in the Caribbean Region (Antigua and Barbuda, Aruba, Bay Islands Honduras)

✓ Multi-layered plastics (MLP) were proposed to be banned in the Plastic Waste Management Rules, 2016. The 2018 amendment introduced new narratives like "energy recovery" and "alternate use". The amendment notified phase out of MLP that was non-recyclable and non-energy recoverable, making the phase out redundant. The 2021 amendment followed suit and provided the industry with the avenue to pollute for another decade by exempting MLP from the list of items to be phased out.

Impacts of mismanaged single-use plastics

Cost of inaction: If we don't improve our **consumption patterns** and **waste management practices, by 2050** there will be around **12 million metric tonnes of plastic litter** in landfills and in the environment.

Environmental Impacts
- Contaminates **soil** and **water**
- Choke waterways and exacerbate **natural disasters**
- By 2050, an estimated 99% of **seabirds** will have ingested plastic

Health Impacts
- Block **sewage systems** and provide breeding grounds for mosquitoes, raising the risk of **malaria** transmission
- Release **toxic chemicals** and **emissions** if burned Welfare losses (visual pollution)
- **Food chain** contamination

Economic Impacts
- Cause **economic loss** in tourism, fishing and shipping industries
- High **cost of transport** to centralized plant of lightweight foamed plastics due to difficulty in recycling at local plants
- **Future costs of removal** of accumulated plastic litter in the environment

Impact of new notification

- The notification has a huge communication value in the global fight against plastic pollution. But its effect on ground cannot be measured due to poor data on generation and recycling of plastic waste.
- It will be interesting to estimate the amount of plastic waste that we will be diverting from our dumpsites, by analysing the volume of waste generated from the 20 SUP items proposed to be phased out as a share of the current plastic waste generation with the share of the overall plastic waste generated in the country.

Priority actions to minimize single-use plastics

- **Improve Waste Management Systems:**
  - Segregation of waste at sources: plastics, organic, metals, paper, etc.
  - Effective collection of the segregated waste, transport and safe storage
- **Promote Eco-Friendly Alternatives to Phase Out Single-Use Plastics**
  - Introduce Economic Incentives including tax rebates, research and development funds, technology incubation support, public-private partnerships Cost-effective recycling of materials (including plastics)
  - Support projects to upscale or recycle single-use items transforming potential wastes into a resource Less landfilling and dumping in the environment
  - Stimulate creation of micro-enterprises to drive job creation and economic growth
- **Educate Consumers to Make Environmentally Friendly Choices:**
  - School education incorporated in curriculums
  - Awareness campaigns
  - Public pressure to drive public and private sector decisions
- **Enable Voluntary Reduction Strategies:**
  - Reduction strategies can lead to fostering the understandings of people, without the forced sudden change.
  - Promotion and adoption of reusable bags, as alternatives to plastic bags
  - Voluntary agreements between government and retailers/producers
  - Existence of the raised social awareness and the public pressure would be a pre-condition for the effective reduction strategies
- **Ban or Introduce Levies on The Use and Sale of Single-Use Plastic Items:**
  - Example of policy tools: Regulatory instruments, Economic instruments, Combination of Regulatory and Economic instruments, Ban, Levy on suppliers, Levy on retailers Levy on consumers, Ban and levy, Extended Producer Responsibility.

> **PEPPER IT WITH**
> Food Chain, Negative effects of plastic on human health, Plastic contaminated Seafood

Report on Sea Erosion

News Excerpt

According to a recent technical report by the National Centre for Coastal Research (NCCR) under the Union Ministry of Earth Sciences, as much as 32 per cent of India's coastline underwent sea erosion and 27 per cent of it expanded between 1990 and 2018.

Pre-Connect

- The NCCR, an attached office of the Ministry of Earth Sciences, monitors shoreline changes along the Indian coast.
- It has carried out a national shoreline change assessment mapping for Indian coast using 28 years of satellite data from 1990 to 2018 along nine coastal states and two Union territories (UT) to provide information for coastal management strategy, the minister added.
- The National Centre for Sustainable Coastal Management under the Union Ministry of Environment, Forests and Climate Change and the Central Water Commission under the Union Ministry of Jal Shakti also undertake studies on shoreline changes / coastal erosion and their impact.

- Planning and execution of anti-sea erosion measures are undertaken by the maritime states and UTs as per their own priority and from their own resources. The role of the Union government is technical, advisory and catalytic in nature.

Highlights

➢ The West Bengal coastline has been particularly vulnerable: 60 per cent of the coastline underwent erosion during the period, followed by Puducherry (56 per cent); Kerala (41 per cent); Tamil Nadu (41 per cent); Andhra Pradesh (28 per cent); Gujarat including Daman and Diu (26 per cent); Odisha (26 per cent); Karnataka (24 per cent); Maharashtra (22 per cent); and Goa (19 per cent).

➢ Report said that the Odisha coast expanded by 51 per cent.

➢ This was followed by the coast of Andhra Pradesh, which expanded 48 per cent; Karnataka (26 per cent); West Bengal (25 per cent); Tamil Nadu (22 per cent); Kerala (21 per cent); Gujarat including Daman and Diu (20 per cent); Goa(14 per cent; Maharashtra (10 per cent) and Puducherry (8 per cent).

➢ The country's coastline is 6,631.53 kilometres long: 2,135.65 kilometres was subject to varying degrees of erosion and 1,760.06 km expanded during this period. Nearly 2,700 km of the coastline is stable.

> **Shoreline "hardening"**
> - ❖ In the past, protecting the coast often meant "hardening" the shoreline with structures such as seawalls, groins, rip-rap, and levees.
> - ❖ As understanding of natural shoreline function improves, there is a growing acceptance that structural solutions may cause more problems than they solve.
> - ❖ Structural projects interfere with natural water currents and prevent sand from shifting along coastlines.
> - ❖ Additional reasons to avoid structural protective measures include the high costs to install and maintain them, state or local prohibitions against them, their propensity to cause erosion to adjacent beaches and dunes, and the unintended diversion of stormwater and waves onto other properties.

➢ As many as 98 coastal pockets of the country have been facing sea erosion. Tamil Nadu has 26 coastal areas vulnerable to sea erosion, followed by West Bengal (16); Kerala (12); Maharashtra (8); Gujarat including Daman and Diu (8); Karnataka (7); Andhra Pradesh (6); Odisha (5); Goa (3) and Puducherry (3)

➢ Some stretches of India's shoreline are subject to varying degrees of erosion due to natural causes or anthropogenic activities. The coastal erosion does impact coastal communities residing in the erosion prone areas, including fishermen communities.

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✓ Coastal erosion is the process by which local sea level rise, strong wave action, and coastal flooding wear down or carry away rocks, soils, and/or sands along the coast.

✓ All coastlines are affected by storms and other natural events that cause erosion; the combination of storm surge at high tide with additional effects from strong waves—conditions commonly associated with landfalling tropical storms—creates the most damaging conditions.

✓ The extent and severity of the problem is worsening with global sea level rise, but it differs in different parts of the country, so there is no one-size-fits-all solution.

What Can be Done?

▪ Shifting towards non-structural shoreline stabilization techniques.

▪ Unlike structural projects, nature-based or "green infrastructure" protection measures enhance the natural ability of shorelines to absorb and dissipate storm energy without interfering with natural coastal processes.

▪ Non-structural shore protection methods that have the potential to control erosion include stabilizing dunes with fences and/or native vegetation, wetland protection and restoration, and relocation or removal of structures and debris.

Coastal restoration

- Even with the implementation of coastal shoreline erosion and risk reduction measures, residual risk remains.
- Some areas are constantly in danger during severe storms.
- For some regions of the country, the more intense storms are predicted to increase in strength and frequency as climate continues to change, though the overall frequency of all storms may decrease.
- In some cases, the only way to prevent structures from causing harm may be to remove them entirely. After the structure has been removed, communities usually dedicate the land to public open space or transfer it to land trusts for protection.
- Coastal restoration projects can be highly cost-effective for communities.

> **Beach Nourishment**
> ❖ One common strategy for dealing with coastal erosion is beach nourishment— placing additional sand on a beach to serve as a buffer against erosion or to enhance the recreational value of the beach.
> ❖ However, beach nourishment has also become a controversial shore protection measure, in part because it has the potential to adversely impact a variety of natural resources.
> ❖ Consequently, these projects must comply with a wide range of complex laws and regulations. Beach nourishment is also expensive

- Benefits of returning land to its undeveloped state include buffering storm surges, safeguarding coastal homes and businesses, sequestering carbon and other pollutants, creating nursery habitat for commercially and recreationally important fish species, and restoring open space and wildlife that support recreation, tourism, and the culture of coastal communities.

India ratified Kigali Amendment to the Montreal Protocol

News Excerpt

Following similar decisions by the United States and China in the past few months, India recently decided to ratify a key amendment to the 1989 ozone-saving Montreal Protocol negotiated five years ago.

Pre-Connect

- The Kigali Amendment, named after the Rwandan capital where it was negotiated, enables the phase-out of hydrofluorocarbons, a set of chemicals notorious for their capacity to warm the planet.
- The 2016 amendment was seen as one of the most important breakthroughs in the global efforts to fight climate change, because the HFCs, a set of 19 gases used extensively in the air-conditioning and refrigerant industry, are known to be hundreds, even thousands, of times more potent than carbon dioxide in their ability to cause global warming.
- It is estimated that a complete phase-out of HFCs by 2050 would prevent about 0.5-degree Celsius rise in global temperatures by the end of this century.
- This important instrument, therefore, is crucial to achieving the target of restraining the increase in global temperatures to 2 degree Celsius from pre-industrial times.
- As pointed out by a recent report of the Intergovernmental Panel on Climate Change (IPCC), the average temperatures of the planet has already risen by about 1.1 degree Celsius.
- According to a recent factsheet issued by Natural Resources Defense Council (NRDC), a US-based environmental organisation, and The Energy and Resources Institute (TERI), 122 countries had ratified the Kigali Amendment by the end of July.

Ozone-saving provisions

➢ The 1989 Montreal Protocol is not a climate agreement.
➢ It is instead aimed at protecting the earth from ozone-destroying chemicals like the chlorofluorocarbons, or CFCs, that were earlier used in the air-conditioning and refrigerant industry.
➢ The widespread use of CFCs had caused a hole in the Ozone layer of the atmosphere, which allowed some harmful radiations to reach the earth. These radiations were considered

Page 69

potential health hazards.

- The Montreal Protocol led to the replacement of CFCs with HFCs which do not destroy the Ozone layer. But they were later found to be extremely potent in causing global warming.
- So, the HFCs solved one problem, but were contributing in a major way in another. But theses could not be eliminated under the original provisions of Montreal Protocol which was meant to phase-out ozone-destroying chemicals only.
- The Kigali Amendment enabled the Montreal Protocol to mandate the elimination of HFCs as well.

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✓ Under the Kigali amendment, the United States, China and India are in separate group of countries, with different time schedules to phase out their HFCs and replace them with climate-friendly alternatives.

✓ India has to reduce its HFC use by 80 per cent by the year 2047, while China and the United States have to achieve the same target by the year 2045 and 2034 respectively.

✓ India said that it will draw up a national strategy for phase-down of HFCs by the year 2023 in "consultation with all industry stakeholders".

✓ It said that existing domestic laws that govern the implementation of the Montreal Protocol would be amended by the middle of 2024 to facilitate the HFC phase-down. India's reductions have to begin only after 2028.

Smog Tower

News Excerpt

Delhi Chief Minister recently inaugurated the country's first 'smog tower', an experimental set up worth Rs 20 crore to purify air in a 1-km radius around the structure.

Pre-Connect

Supreme Court order

- In 2019, the Supreme Court directed the Central Pollution Control Board (CPCB) and the Delhi government to come up with a plan to install smog towers to combat air pollution.
- The court was hearing a matter related to air pollution in the national capital due to stubble-burning in Punjab, Haryana and Uttar Pradesh.
- IIT-Bombay then submitted a proposal for the towers to the CPCB. In January 2020, the Supreme Court directed that two towers should be installed by April as a pilot project.
- Since 2009, an increase of 258% to 335% had been observed in the concentration of PM10 in Delhi, a 2016 report by the CPCB noted. But the most prominent pollutant in Delhi and neighbouring areas is PM2.5.

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Components of smog tower

- The structure is 24 m high, about as much as an 8-storey building — an 18-metre concrete tower, topped by a 6-metre-high canopy. At its base are 40 fans, 10 on each side.

- Each fan can discharge 25 cubic metres per second of air, adding up to 1,000 cubic metres per second for the tower as a whole.
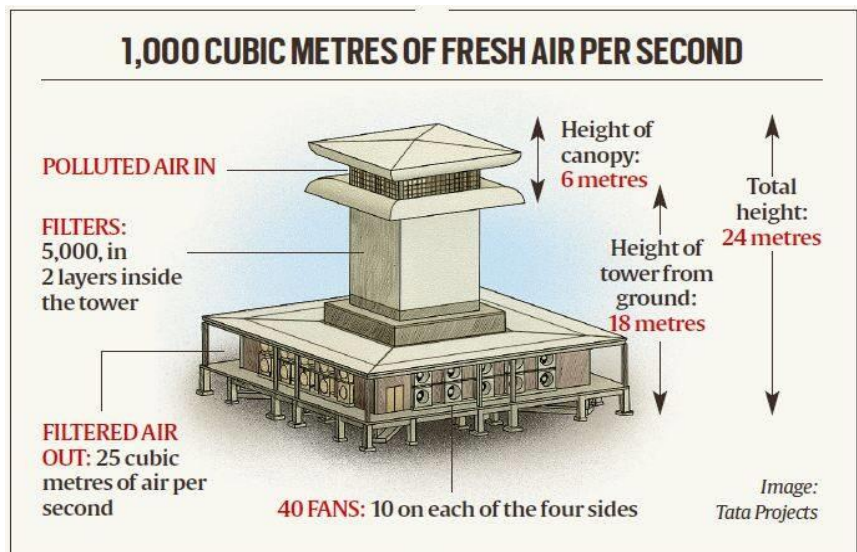
Inside the tower in two layers are 5,000 filters. The filters and fans have been imported from the United States.

Working Principle of a Smog Tower

✓ The tower uses a 'downdraft air cleaning system' developed by the University of Minnesota. IIT-Bombay has collaborated with the American university to replicate the technology, which has been implemented by the commercial arm of Tata Projects Limited.

✓ Polluted air is sucked in at a height of 24 m, and filtered air is released at the bottom of the tower, at a height of about 10 m from the ground.

✓ When the fans at the bottom of the tower operate, the negative pressure created sucks in air from the top. The 'macro' layer in the filter traps particles of 10 microns and larger, while the 'micro' layer filters smaller particles of around 0.3 microns.

✓ The downdraft method is different from the system used in China, where a 60-metre smog tower in Xian city uses an 'updraft' system — air is sucked in from near the ground, and is propelled upwards by heating and convection. Filtered air is released at the top of the tower.

Likely Impact

▪ Computational fluid dynamics modelling by IIT-Bombay suggests the tower could have an impact on the air quality up to 1 km from the tower. The actual impact will be assessed by IIT-Bombay and IIT-Delhi in a two-year pilot study that will also determine how the tower functions under different weather conditions, and how levels of PM2.5 vary with the flow of air.

▪ An automated Supervisory Control and Data Acquisition (SCADA) system in the tower will monitor air quality. Levels of PM2.5 and PM10, besides temperature and humidity, will be measured constantly, and will be displayed on a board atop the tower.

▪ Monitors will soon be installed at various distances from the tower to determine its impact at these distances. The project aims to provide purified air in a "localised" area.

▪ This is the first experiment with a large-scale outdoor air-purification system in India. Small smog towers have been raised in Netherlands and South Korea; larger ones have been set up in China.

▪ Experts said there isn't enough evidence that smog towers work.

Olympian Bat

News Excerpt

A bat dubbed the "Olympian bat" by scientists is peaking the interest of climate scientists after she broke British records by flying a distance of more than 2,000 km from London to the Pskov region in north western Russia.

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• The 'Olympian' bat's record is topped by another bat from the same species that flew from Latvia to Spain in 2019 covering a distance of 2,224 km.

• The bats belonging to the Nathusius' pipistrelle species typically weigh less than 10 grams are known to migrate from summer breeding grounds in north eastern Europe to warmer areas of the continent where they hibernate in trees in buildings.

Significance of Journey

➢ The journey is significant because it is the longest one undertaken by a bat from Britain across Europe.

➢ For climate scientists the journey is a window into studying bat migration and its connection with climate change.

➢ Bat Conservation Trust UK says that the Nathusius' pipstrelle's range expansion is linked to climate change and future changes in climate will further impact this species.

➢ The Bat Conservation Trust launched a project called the National Nathusius' Pipistrelle Project in 2014 to improve our understanding of the ecology, current status and conservation threats for Nathusius' pipistrelles in Great Britain.

➢ One of the goals of this project is to determine the migratory origins of this species of bats since they might help in understanding its links to climate change. There is already some evidence of birds migrating early because of a warming planet.

Umbrella Head

News Excerpt

After nearly four decades, a group of botanists from Central University of Punjab, Bathinda (CUPB) have discovered an algal species from the Andaman and Nicobar Islands.

Highlights

- Measuring as small as 20 to 40 mm, the stunning bright green algae, resembling an umbrella or a mushroom, has grooves on its cap measuring 15 to 20mm in diameter.
- Named after the imaginary sea mermaid, Acetabulariajalakanyakae is very primitive and is a single-cell organism.
- Yet another characteristic about the newly-discovered species is that its nucleus forms a rhizoid structure, which facilitates the algae to attach itself to shallow rocks.
- Acetabularia, is highly regenerative in nature. Even if one chops off the top portion, this algae can regrow.
- The Andaman and Nicobar Islands are home to coral reefs and are rich in marine biodiversity. Like other islands and coastal areas around the world, these too face the threat of sea levels rising due to global warming.
- As it is primarily a marine algae, the projected sea level rise due to global warming is not as much of a direct threat to its existence, the experts noted. But due to climate change, the oceans are warming and there is increasing acidification — both of which could be harmful.

IPCC Report on Climate Change

News Excerpt

Among the most alarming findings as laid out in the Inter-governmental Panel on Climate Change (IPCC) report released recently is the effect of climate change on glaciers and the snow cover in the mountains.

Highlights

- The Sixth Assessment Report states scientists have ascertained that global warming will have a serious impact on mountain ranges across the world, including the Himalayas.
- The consequences are stark and dreary — the freezing level height of mountains are likely to change and snowlines will retreat over the coming decades.
- The report has further said that glaciers are melting and receding across the globe, including in the Himalayas, and that this is now a phenomenon that is "locked in"' and cannot be reversed.
- It adds that the level of temperature rise in the mountains and glacial melt is unprecedented in 2,000 years. The retreat of glaciers is now attributed to anthropogenic factors and human influence.
- Retreating snowlines and melting glaciers is a cause for alarm as this can cause a change in the water cycle, the precipitation patterns, increased floods as well as an increased scarcity of water in the future in the states across the Himalayas.
- The report also predicts the increased likelihood of incidents such as the landslide caused

> ### The Intergovernmental Panel on Climate Change (IPCC)
> - Created in 1988 by the World Meteorological Organization (WMO) and the United Nations Environment Programme (UNEP), the objective of the IPCC is to provide governments at all levels with scientific information that they can use to develop climate policies.
> - IPCC reports are also a key input into international climate change negotiations.
> - The IPCC is an organization of governments that are members of the United Nations or WMO. The IPCC currently has 195 members.
> - The IPCC provides regular assessments of the scientific basis of climate change, its impacts and future risks, and options for adaptation and mitigation.
> - Through its assessments, the IPCC identifies the strength of scientific agreement in different areas and indicates where further research is needed.
> - The IPCC does not conduct its own research.

by glacial break on Nanda Devi at Chamoli in Uttarakhand earlier this year that caused floods in the region.

- Extreme precipitation is projected to increase in major mountainous regions with potential cascading consequences of floods, landslides and lake outbursts in all scenarios.

- According to experts, Human influence has been responsible for the retreat of mountain glaciers in the 20th century. Glaciers are one of the slowest responding parts of the climate system.

- The retreat of glaciers being seen now are a result of the actions of the past and not an immediate effect. So even if we were to stop emissions right now, we should expect to see the continued retreat of glaciers over the coming decade. If it is business as usual and emissions are not curtailed, this retreat will be even faster. This retreat of glaciers in the Himalayas is a matter of great concern as it will affect the availability of fresh water in the region.

- IPCC's assessment has found that the freezing level height in mountain areas is projected to rise and this will alter the snow and ice conditions.

- A rise in temperature has been recorded in the Himalayas, the Swiss Alps and the central Andes, and this has increased with altitude. Such elevation-dependent warming could lead to faster changes in the snowline, the glacier equilibrium-line altitude and the snow/rain transition height.

Average Annual Natural Hazard Occurrence for 1900-2018
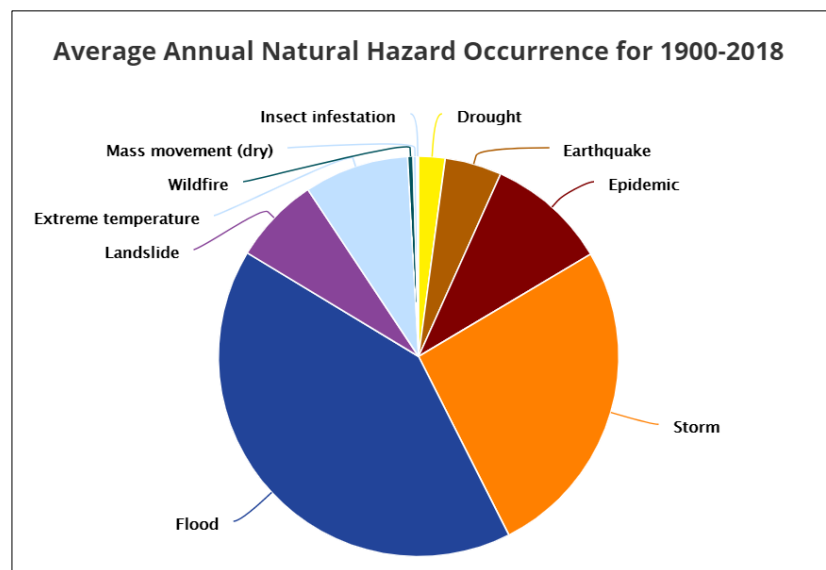
- With a few exceptions, mountain glaciers have retreated since the second half of the 19th century. This retreat has occurred at increased rates since the 1990s, with human influence very likely being the main driver. Furthermore, the report states that glaciers will continue to lose mass at least for several decades even if global temperature is stabilised.

- Global warming has induced the earlier onset of spring snowmelt, with the increased melting of glaciers having already contributed to seasonal changes in streamflow in low-elevation mountain catchments. Mountain glaciers will continue to shrink and permafrost to thaw in all regions where they are present, the report states. Moreover, mountain glaciers are projected to lose more mass in higher greenhouse gas emissions scenario over the 21st century.

- It is also virtually certain that the snow cover will decline over most land regions during the 21st century, in terms of water equivalent, extent and annual duration, the report added.

- According to the predictions, the projected runoff is typically decreased by contributions from small glaciers because of glacier mass loss, while runoff from larger glaciers will generally increase with increasing global warming levels until their mass becomes depleted.

- All of these changes will pose significant challenges for water supply, energy production, ecosystems integrity, agricultural and forestry production, disaster preparedness and ecotourism.

India's Vulnerability to Climate Change

➢ India faces some of the highest disaster risk levels in the world, ranked 29 out of 191 countries by the 2019 Inform Risk Index. India has very high exposure to flooding, including, riverine, flash, and coastal, as well as high exposure to tropical cyclones and their associated hazards and drought.

- Disaster risk in India is also driven by its social vulnerability. India's vulnerability ranking (44 out of 191) is driven by its high levels of socioeconomic deprivation.
- India scores markedly better in terms of its coping capacity.
- India regularly experiences some of the world's highest maximum temperatures, with an average monthly maximum of around 30°C and an average May maximum of 36°C.
- While heatwaves refer to the periodic occurrence of exceptionally high heats, the incidence of permanent (chronic) heat stress is likely to increase significantly in India under all emissions pathways.
- Floods are on average the greatest source of annual losses to disaster in India, costing an estimated $7 billion every year (UNISDR, 2014). During the 20th century, flood hazard increased across a majority of India. The implications of the general trend towards more intense extreme precipitation events are serious for potential future flood extent.
- Cyclone activity makes a large contribution to disaster risk in India, notably along the east coast. The 1999 cyclone "Orissa" caused over 10,000 people to lose their lives, and overwhelmed and damaged buildings, lifeline infrastructure, and economic assets along many coastal districts. 86% of all deaths from tropical cyclones are accounted for in India and Bangladesh. Storm drainage infrastructure is vulnerable to being overloaded and cause flooding, which will have adverse impacts on human health and the local economy.
- Projections point towards an increase in summer monsoon precipitation, however, snowmelt and glacial melt as a result of climate change will cause changes in the timing of river peak flows (i.e. peaking in early spring and diminishing in the summer) and the year-to-year variability of monsoon rainfall will contribute to a greater frequency of floods and droughts and lower recharge rates of groundwater reservoirs.
- Riverine flooding and inland flooding are expected to become more severe in the future with climate change, especially in the Godavari and Mahanadi River basins along the eastern coast of India.
- The north western region of India is projected to see an increase in droughts in the future and eastern India is expected to see an increase in the length of dry spells. By 2030, it is estimated that the agricultural losses in India will be over $7 billion and affect 10% of the populations' income, but this estimate could be reduced by 80% if climate resilience and adaptation policies are employed.
- Climate change is expected to interact with cyclone hazard in complex ways which are currently poorly understood. Known risks include the action of sea-level rise to enhance the damage caused by cyclone-induced storm surges, and the possibility of increased windspeed and precipitation intensity.

Steps Taken by India

India's cumulative and per capita current emissions are significantly low and far less than its fair share of global carbon budget. It has taken several initiatives over the past few years, some of which include-

- ✓ India's **National Action Plan on Climate Change (NAPCC)** which covers eight major missions on Solar, Enhanced Energy Efficiency, Sustainable Habitat, Water, Sustaining the Himalayan Ecosystem, Green India, Sustainable Agriculture and Strategic Knowledge on Climate Change
- ✓ **International Solar Alliances (ISA)-** The International Solar Alliance (ISA) is a treaty based inter-governmental organization working to create a global market system to tap the benefits of solar power and promote clean energy applications. With 75 signatory countries in this global collective, the ISA creates a multi-stakeholder ecosystem where sovereign nations, multilateral organizations, industry, policymakers and innovators work in together to promote the common and shared goal of meeting energy demands of a secure & sustainable world.
- ✓ **State Action Plan on Climate Change (SAPCC)-**In 2009 the Government of India directed all state governments and union territories to prepare State Action Plans on Climate Change (SAPCC), consistent with the strategy outlined in the National Action Plan on Climate Change (NAPCC).
- ✓ **FAME Scheme –**Fame is designed to support the electrification of public and shared transport and help create charging infrastructure. The marquee scheme signals the

government's intent to reduce vehicular emissions and dependence on fossil fuel.

✓ **Atal Mission for Rejuvenation & Urban Transformation (AMRUT)** – The purpose of "AMRUT" mission is to (i) ensure that every household has access to a tap with assured supply of water and a sewerage connection (ii) increase the amenity value of cities by developing greenery and well-maintained open spaces e.g. parks and (iii) reduce pollution by switching to public transport or constructing facilities for non-motorized transport e.g. walking and cycling. The major project components are Water Supply system, Sewerage, Septage, Storm Water Drainage, Urban Transport, Green Space and Parks, Reforms management and support, Capacity building etc. in that order of priority.

✓ **Pradhan Mantri Ujjwala Yojana** – In May 2016, Ministry of Petroleum and Natural Gas (MOPNG), introduced the 'Pradhan Mantri Ujjwala Yojana' (PMUY) as a flagship scheme with an objective to make clean cooking fuel such as LPG available to the rural and deprived households which were otherwise using traditional cooking fuels such as firewood, coal, cow-dung cakes etc. Usage of traditional cooking fuels had detrimental impacts on the health of rural women as well as on the environment. UJALA scheme - for embracing energy efficient LED bulbs

✓ **Swachh Bharat Mission-** To accelerate the efforts to achieve universal sanitation coverage and to put the focus on sanitation, the Government had launched the Swachh Bharat Mission on 2nd October 2014. Under the mission, all villages, Gram Panchayats, Districts, States and Union Territories in India declared themselves "open-defecation free" (ODF) by 2 October 2019, the 150th birth anniversary of Mahatma Gandhi, by constructing over 100 million toilets in rural India.

✓ Raising the domestic renewable energy target to 450 GW by 2030 and **National Hydrogen Mission**- This recently launched mission aims to draw up a road map for using hydrogen as an energy source.According to industry veterans, an accelerated uptake of green hydrogen within the country can reshape the renewable energy future of India and thereby further facilitate green growth.

What Needs to be Done?

- Improve public health infrastructure (i.e. disease surveillance and emergency response capabilities), control of vector borne diseases (e.g. malaria, kalaazar), introduce emergency medical relief programs, and prepare disaster management plans.
- Sustainable use of groundwater resources, introduce more drought tolerant crop varieties, and water harvesting and recycling.
- Improve drainage and sanitation infrastructure.
- Introduce soil conversation and drip irrigation techniques.
- Coastal protection infrastructure, coastal zone studies to assess vulnerability to sea level rise, water-harvesting techniques, improvement of infrastructure (e.g. sanitation and drainage systems), and early warning systems for extreme events will help build Indians resilience to sea level rise.

SCIENCE AND TECHNOLOGY

GSLV F10

News Excerpt

Recently, ISRO's **Earth Observation satellite** (EOS-03) faced a setback minutes after it was launched due to performance anomaly in the **cryogenic stage** of the rocket.

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Highlights

- The 51.70-metre-tall rocket GSLV-F10/EOS-03 successfully lifted off from the second launch pad at the spaceport as planned at 05.43 hrs soon after the 26-hour countdown concluded.
- However, Cryogenic Upper Stage ignition did not happen due to technical anomaly. The mission couldn't be accomplished as intended.
- ISRO had said that EOS-03 will be capable of obtaining vital information for application in different sectors including agriculture, forestry, water bodies as well as for disaster warning, cyclone monitoring, cloudburst, or thunderstorm monitoring.
- It also said that earth observation satellite would provide real time images of the country and borders and also able to quick monitor of natural disasters.
- It was capable of imaging the entire country **four to five times** every day.
- This was the second launch for ISRO in 2021 after its successful mission in February, which was Brazil's earth observation satellite Amazonia-1 and 18 co-passenger satellites.
- Previous launches of GSLV include the GSLV-MkIII-M1/Chandrayaan-2 mission on July 2019 while GSLV-F11 successfully placed GSAT-7A in December 2018.
- The previous earth observation satellite was launched by ISRO in November 2020 onboard a polar satellite launch vehicle.

Gene bank

News Excerpt

Union Minister for Agriculture and Farmers Welfare, inaugurated the **world's second-largest refurbished** state-of-the-art **National Gene Bank** at the National Bureau of Plant Genetic Resources (NBPGR), Pusa, New Delhi.

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What is Gene Bank?

- Genetic banks help in conservation of rare plants and animals.
- Researchers or farmers can withdraw samples from these "gene" banks to help rebuild populations of rare plant varieties and animal breeds or to help increase genetic diversity within species.
- Gene banks also preserve cells or organisms that host unusual gene variants — genes with special traits.
- Those genes might later prove useful when some disease epidemic strikes, when the climate changes or when other factors threaten the survival of plants or animals.
- Farmers could use the banked deposits — stored cells or tissues — to restore genetic diversity or to introduce traits from other breeds or varieties.
- Some gene banks house millions or even billions of plant seeds. One example: the Svalbard Global Seed Vault. It's located underground on a remote island north of Norway.
- The San Diego Institute for Conservation Research houses another project, called the Frozen Zoo. Its collection includes cells from thousands of birds, reptiles, mammals, amphibians and fish. The cells stored there might one day be used to help rebuild populations of endangered species.

Types of Gene Banks

Gene bank refers to a place or organization where germplasm can be conserved in living state. Gene banks are also known as germplasm banks. The germplasm is stored in the form of seeds, pollen or in vitro cultures, or in the case of a field gene bank, as plants growing in the field. Gene banks are mainly of two types,

(1) Seed gene banks
(2) Field gene banks

1. Seed Gene bank

➢ A place where germplasm is conserved in the form of seeds is called seed gene bank. Seeds are very convenient for storage because they occupy smaller space than whole plants.

➢ However, seeds of all crops cannot be stored at low temperature in the seed banks.

➢ The germplasm of only orthodox species (whose seed can be dried to low moisture content without losing variability) can be conserved in seed banks.

➢ In the seed banks, there are three types of conservation, viz., (1) Short term, (2) Medium term, and (3) Long-term.

➢ Base collections are conserved for long term (50 years or more) at -18 or -20°C.

➢ Active collections are stored for medium term (10-15 years) at zero degreesCelsius.

➢ Working collection is stored for short term (3-5 years) at 5-10°C.

Gene Sanctuaries

❖ The genetic diversity is sometimes conserved under natural habitat.

❖ In other words, areas of great genetic diversity are protected from human interference.

❖ These protected areas in natural habitat are referred to as gene sanctuaries.

❖ Gene sanctuary is generally established in the centers of diversity or microcenter.

❖ Gene sanctuary is Also Known as Natural Park or biosphere reserve.

❖ India has setup its first gene sanctuary in the Garo Hills of Assam for wild relatives of citrus.

❖ Efforts are also being made to setup gene sanctuaries for banana, sugarcane, rice and Mango.

❖ In Ethiopia gene sanctuaries for conservation of wild relatives of coffee was setup in 1984.

❖ Gene sanctuaries have two main advantages. Firstly, it protects the loss of genetic diversity caused by human intervention. Secondly, it allows natural selection and evolution to operate.

❖ There are two main drawbacks of gene sanctuary. Firstly, entire variability of a crop species cannot be conserved. Secondly, its maintenance and establishment is a difficult task. It is a very good method of in Situ Conservation.

Advantages of gene banks

1. Large number of germplasm samples or entire variability can be conserved in a very small space.
2. In seed banks, handling of germplasm is easy.
3. Germplasm is conserved under pathogen and insect free environment.

Disadvantages

1. Seeds of recalcitrant species cannot be stored in seed banks.

Established field gene banks	
Name of country	**Crop species for which field gene bank is established**
Malaysia	Oil palm has been conserved on 500 ha.
Indonesia	Earmarked 1000 ha. Area for coconut and other perennial crops.
Philippines	South East Asian germplasm of banana has been conserved.
India	Global collection of coconut has been conserved to Andman and Nicobar.

2. Failure of power supply may lead to loss of viability and thereby loss of germplasm.
3. It requires periodical evaluation of seed viability. After some time multiplication is essential to get new or fresh seeds for storage.

2. Field Gene banks

✓ Field gene banks also called plant gene banks are areas of land in which germplasm collections of growing plants are assembled. This is also called ex-situ conservation of

germplasm. Those plant species that have recalcitrant seeds or do not produce seeds readily are conserved in field gene banks.

✓ In field gene banks, germplasm is maintained in the form of plants as a permanent living collection.

✓ Field gene banks are often established to maintain working collections of living plants for experimental purposes.

✓ They are used as source of germplasm for species such as coconut, rubber, mango, cassava, yam and cocoa. Field gene banks have been established in many countries for different crops.

Advantages

1. It provides opportunities for continuous evaluation for various economic characters.

2. It can be directly utilized in the breeding programme.

Disadvantages

1. Field gene banks can not cover the entire genetic diversity of a species. It can cover only a fraction of the full range of diversity of a species.

2. The germplasm in field gene banks is exposed to pathogens and insects and sometimes is damaged by natural disasters such as bushfires, cyclones, floods, etc.

3. Maintenance of germplasm in the field gene banks is costly.

Meristem Gene Banks

▪ Germplasm of asexually propagated species can be conserved in the form of meristem.

▪ This method is widely used for conservation and propagation of horticultural species.

▪ In vitro method can be used in two ways, first, for storage of tissue under slow growth conditions. Second, for long term conservation of germplasm by cryopreservation.

▪ In cryopreservation, the tissues are stored at very low temperatures i.e., at 196 0C in liquid nitrogen. At these temperatures, all biological processes virtually come to a stop.

▪ Based on status of Research Institutes, gene banks are again of two types, viz. 1) National gene banks, and 2) International or global gene banks.

▪ National gene banks are maintained by each country and global gene banks are located in International Crop Research Institutes/ Centers.

▪ In India, gene banks are maintained by concerned crop research institute of ICAR. National Bureau of Plant Genetic Resources, New Delhi is also maintaining germplasm of various field crops.

What is the National Gene Bank?

🔸 The National Gene Bank was established in 1996 to preserve the seeds of Plant Genetic Resources (PGR) for future generations. It has the capacity to preserve about one million germplasm in the form of seeds.

🔸 Presently it is protecting 4.52 lakh accessions, of which 2.7 lakh are Indian germplasm and the rest have been imported from other countries.

🔸 National Bureau of Plant Genetic Resources is meeting the need of in-situ and ex-situ germplasm conservation through Delhi Headquarters and 10 regional stations in the country.

🔸 It is a type of Ex-Situ conservation technique.

National Bureau of Plant Genetic Resources (NBPGR)

› Set up in January 1977, the 'National Bureau of Plant Introduction' was renamed as 'National Bureau of Plant Genetic Resources' (NBPGR).

› It is one of the Indian Council of Agricultural Research (ICAR) Institutes.

› The Bureau has played a pivotal role in the improvement of various crop plants and diversification and development of agriculture in India through germplasm introduction from various institutes, organizations located in foreign countries and germplasm collection from within the country and abroad and conservation thereof.

Global facilities working towards conserving crops

» The Svalbard Global Seed Vault in Norway houses the world's largest collection of seeds.

» India's seed vault is at Chang La (Ladakh) in the Himalayas. Built in 2010 jointly by the

Defence Institute of High-Altitude Research and the National Bureau of Plant Genetic Resources, this seed bank is the second largest in the world

» Established with the objective of conserving the indigenous livestock biodiversity, National Animal Gene Bank is nestled at the National Bureau of Animal Genetic Resources (NBAGR – Karnal, Haryana), has the objective of conserving the indigenous livestock biodiversity.

Nuclear fusion

News Excerpt

The Lawrence Livermore National Laboratory in California announced that an experiment carried out in its National Ignition Facility has made a breakthrough in nuclear fusion research.

Pre-Connect

- Nuclear fusion is defined as the combining of several small nuclei into one large nucleus with the subsequent release of huge amounts of energy.
- Nuclear fusion powers our sun and harnessing this fusion energy could provide an unlimited amount of renewable energy.
- The 2018 book Comprehensive Energy Systems notes: Nuclear fusion energy is a good choice as the base load energy in the future with many advantages, such as inexhaustibility of resources, inherent safety, no long-lived radioactive wastes, and almost no CO_2 emissions.
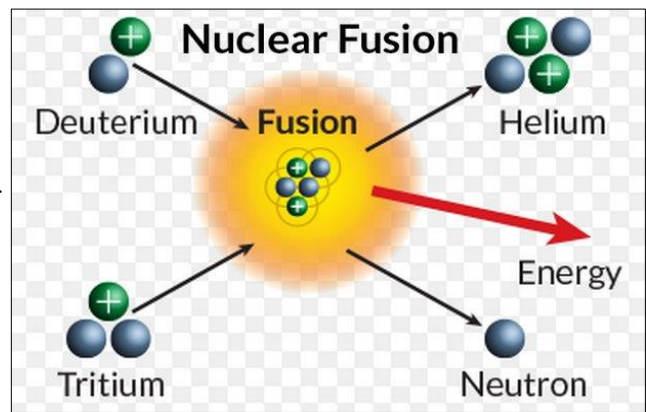
Highlights

➢ In the experiment, lasers were used to heat a small target or fuel pellets.

➢ These pellets containing deuterium and tritium fused and produced more energy. The team noted that they were able to achieve a yield of more than 1.3 megajoules.

➢ According to scientists, the megajoule of energy released in the experiment is indeed impressive in fusion terms, but in practice, this is equivalent to the energy required to boil a kettle.

Significance

✓ Reproducing the conditions at the centre of the Sun will allow scientists to study states of matter which was never created in the lab before, including those found in stars and supernovae

✓ Scientists could also gain insights into quantum states of matter and even conditions closer and closer to the beginning of the Big Bang – the hotter we get, the closer we get to the very first state of the Universe.

Marburg Outbreak

News Excerpt

Health authorities in Guinea have confirmed one death from Marburg virus, a highly infectious hemorrhagic fever similar to Ebola.

Pre-Connect

- It marks the **first time** that the deadly disease has been identified in **West Africa**.
- There have been 12 major Marburg outbreaks since 1967, mostly in southern and eastern Africa.
- Guinea's new case was first identified last week, just two months after the country was declared **free of Ebola** following a brief flare-up earlier this year that killed 12 people.
- Both the Marburg case and this year's Ebola cases were detected in **Guinea's Gueckedou district**, near the borders with Liberia and Ivory Coast.

- The first cases of the 2014-2016 Ebola epidemic, the largest in history, also were from the same region in Southeastern Guinea's forest region.

Highlights

➢ According to WHO, Marburg case fatality rates have varied from 24% to 88% in past outbreaks depending on virus strain and case management

WHAT IS MARBURG VIRUS?

- Marburg virus causes a severe and highly fatal haemorrhagic fever that often kills whoever catches it
- Initial symptoms include a severe headache, a high fever, diarrhea, stomach pain and vomiting and become increasingly severe
- After five days, many patients start to bleed under the skin, in internal organs or from body opening such as the mouth, eyes and ears
- Patients then die from nervous system failure and the fatality rate is 50 per cent, according to World Health Organization estimates
- It is initially transmitted to humans through exposure to mines or caves inhabited by Rousettus bats and it is then spread through direct contact with infected people's bodily fluids or surfaces and materials contaminated with these fluids

➢ Transmission occurs through contact with infected body fluids and tissue.
➢ Symptoms include headache, vomiting blood, muscle pains and bleeding through various orifices.

Earthquake Observatories

News Excerpt

Union Minister of State Science & Technology said that India is going to have **35 more earthquake Observatories** by end of this year and **100 more such Observatories in next five years**.

Highlights

- Minister pointed out that in last six and a half decades since Independence, the country had only115 Earthquake Observatories
- Indian subcontinent is considered as one of the world's most disaster-prone areas in terms of earthquakes, landslides, cyclones, floods, and tsunamis
- The Joint Scientific Assembly of **International Association of Geomagnetism and Aeronomy (IAGA) - International Association of Seismology and Physics of the Earth's Interior (IASPEI)** will act as a catalyst in bringing on board a greater number of researchers and practitioners from global community to work on issues related to rendering science to society.
- The linkage between the deep earth structure and geomagnetism, and the role of fluids in earthquake nucleation are a few examples to emphasize the significance of the Joint Scientific Assembly of these two Associations to promote cross-disciplinary research
- It would foster new enthusiasm in young researchers and enable them to forge collaborations and construct cross disciplinary science proposals, the outcomes of which will help us to move into the future with better understanding of our planet, armed with new scientific solutions.
- India is committed to support various projects of earth system science to quantify the seismic hazard for better land use and urban planning and creating disaster-resilient infrastructures for reducing risks and ultimately paving way to sustainable development.

Milky Sea

News Excerpt

Scientists are using new satellite tech to find glow-in-the-dark milky seas of maritime lore Milky seas are so elusive that it has been almost impossible to sample them.

Highlights

- Satellites offer a practical way to monitor the vast oceans, but it takes a special instrument able to detect light around 100 million times fainter than daylight.
- **Day/Night Band:** The new sensor went live in late 2011, but hopes were initially dashed when it was realized that the Day/Night Band's high sensitivity also detected light emitted by air molecules. It took years of studying Day/Night Band imagery to be able to interpret observations.
- In early 2018, an odd swoosh-shaped feature appeared in the Day/Night Band imagery offshore Somalia. Scientists compared it with images from the nights before and after. While the clouds and airglow features changed, the swoosh remained. It is called as Milky Sea.

What is Milky Seas?

➢ They are a **rare nocturnal phenomenon** in which the ocean's surface emits a steady bright glow which can cover thousands of square miles.

➢ Also called mareel, the milky sea is caused by **bioluminescent bacteria**, billions of trillions of them, which live throughout the water column from the surface to the sea floor.

➢ However, what causes these massive displays remains a mystery. If bacteria growing on algae were the main cause of milky seas, they'd be happening all over the place, all the time.

➢ Yet, as per reports, **only about two or three milky seas occur per year worldwide**, mostly in the waters of the northwest Indian Ocean and off the coast of Indonesia.

SECURITY

Women officers in combat

News Excerpt

In a first,Indo-Tibetan Border Police (ITBP) inducted women officers in the combat role, joining it as Assistant Commandants (AC).

Pre-Connect

The ITBP started recruiting women combat officers in its cadre from 2016 through an all-India examination conducted by the Union Public Service Commission (UPSC).Before this, it only had combat women in the constabulary ranks.

Highlights

- The army, air force and navy began inducting women as short-service commission (SSC) officers in 1992. This was the first time women were allowed to join the military outside the medical stream.
- In 2015, India also opened new combat air force roles for women as fighter pilots.
- In 2020, The Supreme Court last year ruled that women could serve as army commanders further granting permanent commission and promotions equal to their male counterparts.
  - The apex court had directed that women officers in the Army be granted permanent commission, rejecting the Centre's stand of their physiological limitations as being based on "sex stereotypes" and "gender discrimination against women".
  - The SC has done away with all discrimination on the basis of years of service for grant of PC in 10 streams of combat support arms and services, bringing them on a par with male officers.
  - Women officers are now eligible to occupy all the command appointments, at par with male officers, which would open avenues for further promotions to higher ranks for them.If women officers had served only in staff, they would not have gone beyond the rank of Colonel.
- In early 2021, the Indian Navy has deployed four women officers on warships after a hiatus of almost 25 years.
- India's only aircraft carrier INS Vikramaditya and fleet tanker INS Shakti are the warships that have been assigned their first women crews since the late-1990s.
- Recently, the Indian Army inducted the first batch of women into the Corps of Military Police, the first time women have joined the military in the non-officer cadre.
- The army will soon open the doors of its aviation wing, which operates helicopters, to women officers. Until now, women officers were only carrying out ground duties in army aviation. The first batch of women officers will commence training to become pilots in July 2021.

Issues

➢ Physical Ability: While the majority of jobs in the armed forces are open equally to men and women, there are some to which women are just not physically suited. The standards of physical fitness have been set to suit men, and women attempting to reach them will over-stretch themselves. In addition, combat units engage in activities designed to suit men's capabilities. Women serving in integrated units will suffer higher injury rates as a result of this.

➢ Military readiness: Pregnancy can affect the deployability of a unit when the unit has a disproportionate number of women or is understaffed.

➢ There are challenges — domestic issues, fitness, pregnancy.

Pros

✓ Ability vs Gender: As long as an applicant is qualified for a position, one's gender is arbitrary. In modern high technology battlefield technical expertise and decision-making skills are increasingly more valuable than simple brute strength.

✓ Effectiveness: The blanket restriction for women limits the ability of commanders in theater to pick the most capable person for the job.

✓ Military Readiness: Allowing a mixed gender force keeps the military strong. The all-

volunteer forces are severely troubled by falling retention and recruitment rates. This can be addressed by allowing women in the combat role.

✓ Tradition: Training will be required to facilitate the integration of women into combat units. Cultures change over time and the masculine subculture can evolve too.

Indo-Tibetan Border Police (ITBP)

▪ The ITBPforce was raised in the aftermath of the 1962 Chinese aggression and its primary role is to guard the 3,488 km long India-China Line of Actual Control (LAC) apart from rendering a variety of roles in the internal security domain.

▪ ITBP was initially raised under the CRPF Act. However, in 1992, parliament enacted the ITBPF Act and the rules there under were framed in 1994.

▪ ITBP has replaced Assam Rifles in Sikkim and Arunachal Pradesh.

▪ The motto of the Force is "Shaurya-Dridhata-Karma Nishtha" (Valour – Determination – Devotion to Duty).

  o It is Central Armed Police Forces (CAPFs) functioning under the Ministry of Home affairs of Government of India.

  o Other Central Armed Police Forces (CAPFs) are: Assam Rifles (AR), Border Security Force (BSF), Central Industrial Security Force (CISF), Central Reserve Police Force (CRPF), Indo Tibetan Border Police (ITBP), National Security Guard (NSG) and Seema SurakshaBal (SSB).

'AL – Mohed AL – Hindi' Exercise

News Excerpt

Recently, the naval army of India and Saudi Arabia started their first-ever joint exercise called exercise 'AL – Mohed AL – Hindi'.

Pre-Connect

• India's defence and military ties with Saudi Arabia received a major boost with Indian Army chief Gen MM Naravane's visit to Riyadh – the first such trip by an Indian service chief.

• The Indian Navy's exercises with the UAE and Saudi Arabia are being held against the backdrop of growing tensions in the Persian Gulf following a drone attack on the tanker MV Mercer Street off Oman that killed a Briton and a Romanian citizen.

Highlights

➢ Indian Navy participated with its indigenously built stealth destroyer Kochi with two integral Sea King helicopters.

  o The visit of INS Kochi, an indigenously designed and built Kolkata-class stealth guided missile destroyer, also gives India an opportunity to display its ship-building capabilities in West Asia. The warship incorporates new design concepts for stealth and has a large component of indigenous combat suites.

  o It is equipped with sophisticated digital networks, and a unique feature of the warship is the high level of indigenisation, with most systems sourced from within India.

  o Some of the major indigenised systems on INS Kochi include the electronic warfare suite and the ship's stabilisers.

➢ The two navies undertake co-ordinated action against asymmetric threat, replenishment at sea procedures, anti-piracy and boarding operations.

➢ The two sides carried out tactical manoeuvres, search and rescue operations, and an electronic warfare drill to enhance interoperability.

➢ It will enhance their cooperation in defence and security areas.

EXERCISE KONKAN 2021

News Excerpt

The Indo-UK Naval exercise, Exercise Konkan 2021 was held between INS Tabar and HMS Westminster in the English Channel.

• English Channel, also called The Channel, French La Manche, narrow arm of the Atlantic Ocean separating the southern coast of England from the northern coast of France and tapering eastward to its junction with the North Sea at the Strait of Dover.

Highlights

➢ Exercise KONKAN, named after the Western coastal region of India, was institutionalised in 2004. Since then, the exercise hosted in rotation by both the Navies, has grown in complexity, scale and intensity.

PEPPER IT WITH
Exercise Indradhanush and Ajeya Warrior' exercises.

➢ These along with the diverse professional engagements held earlier in the harbour, have enabled Exercise Konkan-2021 consolidate interoperability and helped cement the strong bonds of friendship the between the two navies.

The Talwar-Class guided missile frigate is a modified Krivak III-Class frigate in service with the Indian Navy. Built by BaltiyskyZavod, the frigate supports naval forces during air, surface and sub-surface missions. It is also used to detect and destroy enemy submarines and other surface ships.

The first and second frigates in the class, the INS Talwar and INS Trishul, were commissioned in June 2003. The INS Tabar was commissioned in April 2004.

In October 2016, India and Russia signed an Inter-Governmental Agreement (IGA) for four Krivak or Talwar class stealth frigates — two to be procured directly from Russia and two to be built by the Goa Shipyard Limited (GSL).

Maritime exercise with Philippine

News Excerpt

Recently, the Indian Navy carried out a Maritime Partnership Exercise with the Philippine Navyin the West Philippine Sea.

Highlights

➢ The BRP Antonio Luna of the Philippine Navy welcomed the two Indian Navy ships, INS Ranvijay and INS Kora and carried out a Maritime Partnership Exercise in the West Philippine Sea.

➢ The Indian naval ships are currently deployed to the Western Pacific to reinforce India's maritime security while collaboration with partner nations.

➢ This is in a series of exercises that India is conducting with littoral nations that share their maritime boundaries with China as part of its deployment.

➢ India and the Philippines share a strong defence and security cooperation built over several years and spanning across all domains.

Malabar Exercise

News Excerpt

Recently, Two Indian naval ships arrive in Guam to take part in Malabar exercise.

• Guam is an island territory of the United States, located in the heart of the Western Pacific, the largest of the Mariana and Micronesian islands, and home to some of the warmest people in the world.

Highlights

➢ Malabar is a multilateral war-gaming naval exercise that was started in 1992. It began as a bilateral exercise between the navies of India and the United States.

➢ Two more editions of the exercise were carried out in 1995 and 1996, after which there was a break until 2002 in the aftermath of India's nuclear tests.

➢ From 2002 onward, the exercise has been conducted every year.

➢ Japan and Australia first participated in 2007, and since 2014, India, the US and Japan have participated in the exercise every year.

➢ Japan became a permanent member of the exercise in 2015.

➢ In 2020, for the first time in over a decade, the exercise saw the participation of all four Quad members. It was the second time that Australia participated in the Malabar series of Naval exercises.

➢ This annual exercise was conducted off the coast of Guam in 2018 and off the coast of Japan in 2019.

➢ Last year, the exercise was hosted in two phases in the Bay of Bengal and the Arabian Sea.

Analytica

✓ India, the U.S., Australia, Japan and many other like-minded countries are working towards ensuring a free, open and inclusive Indo-Pacific.

✓ The exercise will provide an opportunity for common minded navies to enhance inter-operability, gain from best practices and develop a common understanding of procedures for maritime security operations.

PEPPER IT WITH
PASSEX, Yudha Abhyas, Dharma Guardian and Exercise Pitch Black

✓ China has been suspicious about the purpose of the Malabar exercise as it feels that the annual war game is an effort to contain its influence in the Indo-Pacific region.

✓ The Malabar-21 would witness high-tempo exercises among destroyers, frigates, corvettes, submarines, helicopters and long-range maritime patrol aircraft of the participating navies.

Indo-Kazakhstan joint training exercise

News Excerpt

Recently, the 5th edition of Indo- Kazakhstan Joint Training Exercise, "KAZIND-21" held at Training Node, Aisha Bibi, Kazakhstan.

Highlights

➢ The exercise is a joint training between both the Armies, which will boost the bilateral relations between India and Kazakhstan.

➢ The scope of the exercise will include professional exchange, planning and execution of operations in a counter-terrorism environment, sharing of expertise and train for counter-insurgency and counter-terrorism operations in the mountainous, rural scenarios under the UN mandate.

➢ The exercise will strengthen mutual confidence, inter-operability and enable sharing of best practices between the Armed Forces of India and Kazakhstan.

Kazakhstan is an important power in Central Asia by virtue of its geographic location, large territory, ample natural resources, and economic growth, but it faces ethnic, political, and other challenges to stability. Kazakhstan gained independence at the end of 1991 after the break-up of the former Soviet Union. Kazakhstan has a land area equal to that of Western Europe, but one of the lowest population densities globally.

Kazakhstan is the most resource-rich country in Central Asia and is also India's largest trade and investment partner.

Kazakhstan is host to the famous Baikonur Cosmodrome (currently leased by the Kazakh Government to Russia until 2050).

Both India and Kazakhstan have inked a Strategic Partnership treaty in 2009, and a Defence and Military Technical cooperation 2015. The two countries have several projects in hydrocarbon, education, pharmaceutical and other sectors

Defence Testing Infrastructure Scheme

News Excerpt

Recently, Ministry of Defence (MoD) has launched Defence Testing Infrastructure Scheme (DTIS)in order to boost domestic defence and aerospace manufacturing.

Highlights

➢ The Scheme has an outlay of 400 crore for creating state-of-the-art testing infrastructure over the duration of five years.

➢ It envisages to setup new test facilities in partnership with private industry.

➢ The projects under the scheme will be provided with up to 75% government funding in the

form of 'Grant-in-Aid'.

➢ The remaining 25% of the cost will be borne by the Special Purpose Vehicles (SPV), whose constituents will be Indian private entities and State Governments.

➢ The SPV will be made of State Governments and Private entities and the scheme will be registered under Companies Act 2013.

➢ While a majority of test facilities are expected to come up in the two Defence Industrial Corridors (DICs), the scheme is not limited to setting up such facilities in the DICs only.

   o The test facilities are not going to be limited just in the two Defence Industrial Corridors (DIC) in Uttar Pradesh & Tamil Nadu.

➢ It will be a Greenfield Defence Testing Infrastructure which will help in boosting production in both the defence and aerospace sector which had been lacking such facility for the private players.

Analytica

This will facilitate indigenous defence production, consequently reduce imports of military equipment and help make the country self-reliant.

The 'Defence India Startup Challenge 5.0

News Excerpt

Recently, the Defence Minister launched the 5th edition of the Defence India Start-up Challenge (DISC) under Innovations for Defence Excellence - Defence Innovation Organisation (iDEX-DIO).

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Pre-Connect

• The launch of DISC 5.0 comes three years after the launch of DISC 1.0.
   o iDEX initiative was launched in April 2018.
• iDEX4fauji was a similar initiative that gave an opportunity to the Service personnel to showcase their talent in these fields.

Highlights

➢ Thirty-five problem statements – 13 from the Services and 22 from Defence Public Sector Undertakings (DPSUs) – were unveiled under DISC 5.0.

➢ These are in areas such as situational awareness, augmented reality, artificial intelligence, aircraft-trainer, non-lethal devices, 5G network, underwater domain awareness, Drone SWARMS and data capturing.

➢ It aimed at supporting Startups/MSMEs/Innovators to create prototypes and/or commercialize products/solutions in the area of National Defence and Security.

➢ It meant to achieve self-reliance and foster innovation and technology development in the defence and aerospace sectors.

➢ It was launched by Ministry of defencein partnership with Atal Innovation Mission.

➢ The vision of the Challenge is two-fold:

   I. Help create functional prototypes of products/technologies relevant for national security (prototyping), and spur fast-moving innovation in the India defencesector;

   II. Help new tech products/technologies find a market and early customer (commercialization) in the form of the Indian Defence Establishment.

Analytica

✓ Initiatives like iDEX form a link between our youth, academia, R&D, start-ups and the armed forces.

✓ It will be a massive leap towards leveraging the startup ecosystem to develop India's defence technologies, equipment design and manufacturing capabilities.

✓ These challenges will also encourage startups to become more attuned to innovative concepts and inculcate the approach of creative thinking in India's budding entrepreneurs.

✓ The government has been focusing on reducing dependence on imported military platforms and has decided to support domestic defence manufacturing.

✓ The defence ministry has set a goal of a turnover of USD 25 billion (Rs 1.75 lakh crore) in defence manufacturing by 2025 that included an export target of USD 5 billion (Rs 35,000

crore) worth of military hardware.

Innovations for Defence Excellence (iDEX): An innovation ecosystem for Defence titled Innovations for Defence Excellence (iDEX) was launched in April 2018. iDEX is aimed at creation of an ecosystem to foster innovation and technology development in Defence and Aerospace by engaging Industries including MSMEs, Startups, Individual Innovators, R&D institutes and Academia and provide them grants/funding and other support to carry out R&D which has good potential for future adoption for Indian defence and aerospace needs.

iDEX will function as the executive arm of the Defence Innovation Organisation (DIO). The scheme mandates setting up of Defence Innovation Hubs across the country, to provide necessary incubation and infrastructure support to defence startups and innovators.

Highest Motorable road in the World in Eastern Ladakh

News Excerpt

Recently, the Border Roads Organisation (BRO) has constructed and completed black topping the world's highest motorable road at Umling La in Eastern Ladakh located at an altitude of 19,300 ft.

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Highlights

➢ The BRO has created a record in high-altitude road construction.
  o It has constructed a 52-km long tarmac road through Umlingla Pass, bettering the previous record of a road in Bolivia connecting to its volcano Uturuncu at 18,953 ft.
➢ The strategic road built under 'Project Himank' passes through the Umling La Top and connects Chisumle and Demchok villages.
➢ The road is close to the Line of Actual Control (LAC) and will allow quick movement of troops and equipment.
➢ It will enhance the socio-economic condition and promote tourism in Ladakh.
  o It offers an alternate direct route connecting Chisumle and Demchok from Leh.

PEPPER IT WITH

About Border Roads Organisation (BRO), Project Dantak, Project Sampark and Project Vartak, etc.

Analytica

✓ The road has been constructed at an altitude higher than the Mt Everest Base Camps as the South Base Camp in Nepal is at an altitude of 17,598 ft, while North Base Camp in Tibet is at 16,900 ft.
✓ The road has been constructed much above the altitude of Siachen Glacier which is at 17,700 ft.
✓ The Khardung La Pass in Leh is at an altitude of 17,582 ft.

Project Himank: It is a project of the Border Roads Organisation (BRO) in the Ladakh region of northernmost India that started in August 1985.

This project, aptly known as Mountain Tamers, is located at the highest inhabited place in the world between great Himalayan and Karakoram mountain ranges.

Under the Himank project, BRO is responsible for the construction and maintenance of roads and related infrastructure including some of world's highest motorable roads across the Khardung La, Tanglang La and Chang La passes.

ART & CULTURE

Parsi New Year, Navroz

News Excerpt

Recently, The Vice President has greeted the people on the eve of Parsi New Year, Navroz on August 16.Across the world, Navroz is celebrated at the time of the vernal equinox around March 21.

Highlights

- In Persian, 'Nav' stands for new, and 'Roz' stands for the day, which literally translates to 'new day'.

- Parsi New Year, also known as Navroz or Nowroz, is celebrated to mark the beginning of the Iranian calendar, observed by Iranians and Zorastians for the past 3,000 years.

- Navroz is celebrated in March globally, however, in India, the Shahenshahi calendar is followed that doesn't account for leap years, henceNavroz arrives 200 days later, in August.

- Navroz is also known as Jamshed-i-Navroz, after the Persian King, Jamshed. The king is credited with having created the Persian calendar, or the Shahenshahi calendar.

> **PEPPER IT WITH**
>
> New year festivals in India: Bihu; Baisakhi; Navreh; GudiPadwa, etc.

- Navroz, the celebrations of the Iranian New Year is a festival that is inscribed by UNESCO as Intangible Cultural Heritage in 2009.

Significance

- Navroz is a day when people pray for health and prosperity. Parsis also believe it to be a day of remittance of sins and a time for repentance. On Navroz, Parsis visit the fire temple.
- The celebrations begin on the eve of the New Year and is known as Pateti.

Zoroastrianism:

- Zoroastrianism, one of the earliest known monotheistic religions in the world.It was founded by the prophet Zarathustra in Persia (now Iran).
- It was one of the most important religions in the ancient world until the emergence of Islam in the seventh century.
- During the Islamic invasion of Persia, many Persians fled to India and Pakistan.
- Navroz or Nowruz is the day that marks the Parsi New Year for the followers of the Zoroastrian faith.
- Zoroastrians dedicate it to cleaning their minds and souls from evil deeds and thoughts, so as to make space for peace and love.
- The small community of Parsis and their way of life is slowly depleting, therefore needs to be preserved for continuity in the coming years.

The Narayankoti Temple

News Excerpt

Recently, Uttarakhand's Narayankoti temple has been identified under the central government 'Adopt a Heritage' project.

Highlights

- The Narayankoti Temple is a group of ancient temples located about two kilometers from Guptkashi on the Rudraprayag-Gaurikund highway.The mention of this temple group is also found in Kedarkhand.

- It is devoted to Lakshmi Narayanawho is associated with Pandavas.

- It is a major attraction for devotees visiting Rudraprayag as it's the only place in the country where temples of all the nine planets – Mars, Mercury, Jupiter, Venus, Saturn, Sun, Moon, Rahu and Ketu – are present.

- This is the only place in the country which has nine planetary temples in a group that are a "symbol of nine planets".

- It is believed that these temples were constructed in the 9th century.

'Adopt a Heritage' project

➢ The 'Adopt a Heritage: Apni Dharohar, Apni Pehchaan' scheme is an initiative of the Ministry of Tourism, in collaboration with the Ministry of Culture and the Archaeological Survey of India.It was launched in September 2017 on World Tourism Day.

➢ Under it, the government invites entities, including public sector companies, private sector firms as well as individuals, to develop selected monuments and heritage and tourist sites across India.

➢ The sites/monument are selected on the basis of tourist footfall and visibility and can be adopted by private and public sector companies and individuals — known as Monument Mitras — for an initial period of five years.

➢ The Monument Mitras are selected by the 'oversight and vision committee,' co-chaired by the Tourism Secretary and the Culture Secretary, on the basis of the bidder's 'vision' for development of all amenities at the heritage site.There is no financial bid involved.

> **PEPPER IT WITH**
> SwadeshDarshanand PRASHAD Scheme, AMRUT scheme

➢ The corporate sector is expected to use corporate social responsibility (CSR) funds for the upkeep of the site.

Analytica

✓ This is not the first time the government has tried to rope in the corporate sector to help maintain tourist sites and monuments, the government in 2011 formed a National Culture Fund.

✓ Another similar scheme under the UPA government was 'Campaign Clean India,' in which the government had identified 120 monuments/destinations.

  o Under this scheme, the India Tourism Development Corporation had adopted QutabMinar as a pilot project in 2012, while ONGC adopted six monuments — Ellora Caves, Elephanta Caves, Golkonda Fort, Mamallapuram , Red Fort and TajMahal — as part of its CSR.

Sri Guru Granth Sahib

News Excerpt

Recently, India has brought three saroops of the Guru Granth Sahib from Afghanistan. There were initially 13 saroops in Afghanistan, of which seven had earlier been shifted to India. Now, with the transfer of three more saroops to India, three are left in Afghanistan.

Pre-Connect

The previous seven saroops were transferred following an attack on GurudwaraHarRai Sahib in Kabul on March 25, 2020, when an Islamic State gunman stormed inside and killed at least 25 Sikhs.

Highlights

• The saroop, also called Bir in Punjabi, is a physical copy of Sri Guru Granth Sahib, also called Bir in Punjabi. Every Bir has 1,430 pages, which are referred to as Ang. The verses on every page remain the same.

• The Sikhs consider the saroop of Guru Granth Sahib a living guru and treat it with utmost respect. They believe that all the 10 Gurus were the same spirit in different bodies, and the Guru Granth Sahib is their eternal physical and spiritual form.

• It was the fifth Sikh master, Guru ArjanDev, who compiled the first Bir of the Guru Granth Sahib in 1604, and installed it at the Golden Temple in Amritsar.

> **PEPPER IT WITH**
> Sikhismand rehatmaryada.

• Later, the tenth Sikh master, Guru Gobind Singh, added verses penned by the ninth master, his father Guru TeghBahadur, and compiled the Bir for the second and last time.

• It was in 1708 that Guru Gobind Singh declared the Guru Granth Sahib the living Guru of the Sikhs.

- Guru Granth Sahib is a compendium of hymns written by six Sikh gurus,15 saints, including BhagatKabir, Bhagat Ravidas, Sheikh Farid and BhagatNamdev, 11 Bhatts (balladeers) and four Sikhs.
  - The verses are composed in 31 ragas.
- The installation and transportation of Guru Granth Sahib is governed by a strict code of conduct called rehatmaryada.

Sree Narayana Guru Jayanti

News Excerpt

Recently, the Prime Minister has paid tributes to SreeNarayana Guru on his Jayanti.

Highlights

- Shree Narayana Guru was born on August 20, 1856, in the village of Chempazhanthi near Thiruvananthapuram as the son of MadanAsan, a farmer, and KuttiAmma.
- He was born into a family of the Ezhava caste in an era when people from such communities, which were regarded as Avarna, faced much injustice in the caste-ridden society of Kerala.
- He was a catalyst and leader who reformed the oppressive caste system that prevailed in society at the time.
  - The caste system was rampant in Kerala at that time.
- One of his famous sayings in Malayalam was **'One caste, one religion, one god for all.'**
- He demonstrated a path to social emancipation without invoking the dualism of the oppressed and the oppressor.
- His philosophy always advocated social equality, education for all, and spiritual enlightenment.
- He loved solitude and always indulged himself in deep contemplation.He was intensely drawn to worship at the local temples and composed hymns and several devotional songs.
- He is revered for his Vedic knowledge, poetic proficiency, openness to the views of others, non-violent philosophy, and unrelenting resolve to set aright social wrongs.
- He was instrumental in setting the spiritual foundations for social reform in Kerala and was one of the most successful social reformers to revolt against caste system in India.
- Narayana Guru consecrated the first temple of Lord Shiva in 1888 where an idol was ordinated by a non-brahmin in Aruvippuram village of Kerala. His step sparked off the anti-caste revolution against the upper-caste Brahmin communities.
- Later, in 1903, he established the Sree Narayana Dharma Paripalana Yogam (SNDP) as the founder and president. The organisation continues to mark its strong presence to this day.
- He had set up more than 40 temples across the state as an act of protest to permit lower caste people to enter temples.
- The famous 'Vaikom Satyagraha' protest movement against caste discrimination and untouchability abolished untouchability and inequality. Hence, this day is quite important in Kerala and is observed as a public holiday.
- The Sivagiri pilgrimage was established in 1924 to promote the virtues of cleanliness, education, devotion, agriculture, handicrafts, and trade.
- His philosophy and teachings are a way of life for the people of Kerala.
- He passed away on September 20, 1928.

Miscellaneous

Miscellaneous

Abanindranath Tagore

> The National Galary of Modern Art (NGMA) has organized a virtual tour titled "The Great Maestro Abanindranath Tagore" to commemorate the 150th Birth Anniversary of Abanindranath Tagore on 7th August 2020.

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> Abanindranath, a nephew of Rabindranath Tagore and a decade younger to the poet, helped shape modern Indian art and was the creator of the iconic 'Bharat Mata' painting.
>> o This beautiful painting was completed in the year 1905. The painting depicts Bharat Mata (Mother India). She is portrayed as having four hands, carrying important elements in each of her hand. The painting reflects Indian tradition, which features in most of his works.
> He was arguably the first major exponent of an artistic idiom that sought to modernise the Mughal and the Rajput styles in order to counter the influence of Western models of art under the colonial regime.
> His idea of modernizing Mughal and Rajput paintings eventually gave rise to modern Indian painting, which took birth at his Bengal school of art.
> His unique interpretation of swadeshi themes created a new awakening and heralded a revival of Indian art.
> He liked to paint sets of images dealing with a theme or a text such as the 'Arabian Nights' or the 'Krishna Leela'.
> He is also regarded as a proficient and accomplished writer.
> Most of his literary works were meant for children.Some of his books like 'BudoAngla', 'KhirerPutul' and 'Rajkahini' are best examples of Bengali children's literature.
> The iconic south verandah of Jorasanko was established as a studio and laboratory by the artist and his brothers Gaganendranath and Samarendranth and it hosted art classes, plays, performances, addas, and magic shows.

Rajiv Gandhi Khel Ratna award

> Recently, The Prime Minister renamed of the Rajiv Gandhi Khel Ratna Award, the country's highest sporting honour, after hockey wizard Major Dhyan Chand.
>> o Major Dhyan Chand was among India's foremost sportspersons who brought honour and pride for India.
>> o Known as The Wizard, Major Dhyan Chand, a field hockey player, played international hockey from 1926 to 1949, scroing over 400 goals in his career.
>> o Dhyan Chand, born in Allahabad, was part of the Olympic team that won gold medals in 1928, 1932 and 1936.
> The now renamed Major Dhyan Chand Khel Ratna award comes with a cash prize of Rs 25 lakh.
> Apart from the Khel Ratna award, the country's highest award for lifetime achievement in sports is known as the Dhyan Chand Award. It was instituted in 2002.
> The National Stadium in New Delhi was also renamed as the Dhyan Chand National Stadium in 2002.
> The Khel Ratna award was instituted in 1991-1992 and the first recepient was Chess legend Viswanathan Anand. Among the other winners were Leander Paes, Sachin Tendulkar, Dhanraj Pillay, Pullela Gopichand, Abhinav Bindra, Anju Bobby George, Mary Kom and Rani Rampal in 2020.

Quit India Movement Day

> The 79th anniversary of the Quit India Movement, famously known as the August Revolution in the history of India's freedom movement, falls on August 8.

➤ On 8th August, 1942, father of the nation Mahatma Gandhi gave the clarion call of Do or Die to all Indians to drive away Britishers from the country. The movement had begun from Gawalia Tank in Mumbai. The day is observed as August Kranti Day every year.
   o July 1942- The Quit India Movement Resolution was passed at the Wardha Conference of All India Congress Committee.
➤ ArunaAsaf Ali, popularly known as the 'Grand Old Lady' of the Independence Movement, hoisted the National Flag at Mumbai's Gowalia Tank Maidan.
➤ The slogan "Quit India" was coined by Yusuf Meherally, a socialist and trade unionist who also served as Mayor of Mumbai.
   o A few years ago, in 1928, it was Meherally who had coined the slogan "Simon Go Back".
➤ The Quit India Movement can be viewed in three phases from its inception to end. The phases are as follows:
   1. The first phase or the inception of the movement had no violence. It began with civil disobedience, boycotts, strikes that the British Government quickly suppressed.
   2. In its second phase, the movement shifted to the countryside. The second phase of the movement took a violent and aggressive turn. Any building or offices which were the symbol of the colonial authority was attacked and distracted. Communication systems, railway stations & tracks, telegraph poles and wires were also targeted.
   3. In the last phase of the movement, there was the formation of many independent national or parallel governments in the isolated pockets of the country, such as Ballia, Satara, Tamluk, etc.
➤ The Quit India movement was violently suppressed by the British – people were shot, lathi-charged, villages burnt and enormous fines imposed. However, though the movement was quelled, it changed the character of the Indian freedom struggle.

RanaPunja Bhil

➤ Recently, a dispute over has erupted in Rajasthan's Udaipur district over hoisting of a flag on August 9 on the statue of Rana Punja Bhil, a historical figure considered as a hero by the tribal Bhil community.
   o After the Amagarh fort dispute, this is the second issue in Rajasthan within a month.
➤ Punja Bhil was a contemporary of 16th century ruler of Mewar, Maharana Pratap.
➤ He is considered to be a significant character who bolstered the strength of Pratap during his battles with Mughal emperor Akbar.
➤ When Maharana Pratap was readying for the battle with Akbar, the tribal Bhil community voluntarily came to his assistance and at the time the Bhil army was commanded by Punja.Owing to his status as a commander, he was bestowed the title of Rana.
   o The Bhils were also adept in guerilla warfare with bows, arrows and slingshots
➤ Bhils are an ancient tribe, whose history goes back to even mythologies. Due to their unmatched knowledge of the hills and forests of Mewar, the community has always exercised a strong influence in the region.
➤ The Bhil community-classified as a scheduled tribe in Rajasthan-, which is a forest dweller group has exercised significant influence in the Mewar region and throughout the past, the Rajput rulers of the region have forged alliances with the tribal group.

Jallianwala Bagh Massacre

➤ Recently, Prime Minister inaugurated the newly renovated Jallianwala Bagh complex and museum in Amritsar.
   o The complex is a memorial dedicated to those who were killed on April 13, 1919 on orders of Brigadier General Reginald Dyer.
➤ The Rowlatt Act (Black Act) was passed on March 10, 1919, authorizing the government to imprison or confine, without a trial, any person associated with seditious activities. This led to nationwide unrest.

- Gandhi initiated Satyagraha to protest against the Rowlatt Act.
- Dr Saifuddin Kitchlew and Dr Satyapal, the two prominent leaders who were a symbol of Hindu-Muslim unity, organised a peaceful protest against the Rowlatt Act in Amritsar.
- The massacre took place at Jallianwala Bagh in Punjab's Amritsar during the Baisakhi festival on April 13, 1919 when the British Indian Army under the command of Colonel Reginald Dyer opened fire at a crowd staging a pro-Independence demonstration.
- Two days after the massacre, Martial Law was clamped down on five districts - Lahore, Amritsar, Gujranwala, Gujarat and Lyallpore.
  - The declaration of Martial Law was to empower the Viceroy to direct immediate trial by court-martial of any person involved in the revolutionary activities. As the news of the massacre spread across the nation, Tagore renounced his Knighthood.
- On October 14, 1919, the Disorders Inquiry Committee was formed to inquire about the massacre. It later came to be known as the Hunter Commission.
  - As a consequence, the Commander-in-Chief of the Army directed Brig Gen Dyer to resign his appointment as Brigade Commander and informed him that he will receive no further employment in India.

Hari Singh Nalwa

- Hari Singh Nalwa, a legendary Sikh commander, had once tamed the turbulent forces in Afghanistan and earned the reputation of being the "most feared Sikh warrior".
  - Hari Singh got the 'Nalwa' title attached to his name after he reportedly killed a tiger at a very young age. He was also called 'Bagh Maar' (killer of tiger) for the same reason.
- Hari Singh Nalwa was one of the most trustworthy commanders in Maharaja Ranjit Singh's army. He was the Governor of Kashmir, Hazara and Peshawar.
- Nalwa shot to fame after defeating the Afghans and establishing control over various regions along the boundary of Afghanistan.
- He also prevented Afghans from entering Punjab through the Khyber Pass, which was the main route that foreign invaders used to enter India from 1000 AD till the early 19th century.
- He had defeated thousands of Hazars, a tribe based in Afghanistan, with less than three times their strength.
- To celebrate his unmatched bravery, the Government of India in 2013 released a stamp featuring the name of Nalwa.

Nalwa fought many successful battles:

- In 1807, at the age of 16, Nalwa fought the battle of Kasur (which is now in Pakistan) and defeated Afghani ruler Kutab-ud-din Khan.
- The battle of Attock in 1813, Nalwa along with other commanders won against Azim Khan and his brother Dost Mohammad Khan, who fought on behalf of Shah Mahmud of Kabul.
  - This was the first major victory of the Sikhs over the DurraniPathans.
- In 1818, a Sikh army under Nalwa won the battle of Peshawar.
    a. Nalwa took control over Jamrud in 1837, a fort at the entryway to Afghanistan through the Khyber Pass.
- Historians maintain that if Maharaja Ranjit Singh and his commander Nalwa would have not taken control of Peshawar and the northwest frontier, which is part of Pakistan now, then these areas could have been part of Afghanistan. This, in turn, could have led to more Afghan incursions into Punjab and Delhi.

Concept Clearing Assignment

1. Discuss the idea of National Monetisation Pipeline (NMP) in brief. Also, critically analyse the significance of the NMP in the development of infrastructure segment in India.

2. Explain the National Mission on Edible Oils in brief. Highlight its significance in reducing the import bill of edible oils in India.

3. What is SAMRIDH Scheme? In what ways will it impact the startup ecosystem in India.

4. Critically analyse the consequences of animal harvesting on climate. Also, comment on the changing consumer perceptions w.r.t. dairy sector.

5. In the light of the recent IPCC Report on Climate Change, discuss the effect of climate change on glaciers and the snow cover in the mountains. Suggest suitable measures to minimise the impact.

6. Discuss the Ozone-saving provisions undertaken by the global community to protect Stratospheric Ozone Layer. Also, comment on the significance of the Kigali Agreement in this context.

7. Discuss the impacts of the mismanaged single used plastics. Also, critically analyse the policy of banning single use plastics in India.

8. Explain the concept of Nuclear Fusion. Discuss its significance in the context of renewable energy.

9. Explain the concept of Gene banks and discuss its types in brief. Also, mention the global facilities working towards conservation of crops in short.

10. Do you think that the US withdrawal from Afghanistan marks the end of an American Era? Substantiate your views. Also, highlight the position of China in the Afghanistan Crisis.

11. Discuss the initiatives undertaken by the UNSC under the India's recent Presidency. Also, comment on the need for the reforms in the UNSC and suitability of India as a permanent member of the Council.

12. Discuss the pardoning powers of The President of India. In the light of recent supreme court judgement, compare it with the pardoning powers of the Governor of a state.

13. What do you understand by the PESA Act of 1996 (Extension Act)? Analyse the powers given to the Gram Sabha under the PESA Act.

14. What do you understand by the collegium system of judicial appointments? What is the controversy over consultation of the appointment of the Judges of the higher judiciary?

15. What is the Retrospective Taxation? Discuss the features of recently declared retrospective taxation policy.

P.T Oriented Questions

1. Consider the following statements regarding the Ozone:
   1. Ozone, the triplet oxygen (O3), is formed from the reaction between three singlet atoms of oxygen.
   2. Ground level ozone is formed in the air by the photochemical reaction of sunlight and nitrogen oxides (NOx)
   3. Stratospheric ozone is nicknamed "good" ozone, because the ozone layer plays a vital role in absorbing ultraviolet (UV-B) rays.

   Which of the Statements given above is/are not correct?
   (a) 1 and 2 only   (b) 1 only
   (c) 2 and 3 only   (d) 1, 2 and 3

2. With reference to the "IndiGau Chip", consider the following statements:
   1. "IndiGau', India's first Cattle Genomic Chip for the conservation of pure varieties of indigenous cattle breeds.
   2. This indigenous chip was developed by the concerted efforts of scientists of National Institute of Animal Biotechnology (NAIB), Hyderabad.

   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

3. Consider the following statements regarding "Net-Zero Mean":
   1. It is also referred to as carbon-positivity.
   2. It means that a country would bring down its emissions to zero.
   3. It is a state of Carbon neutrality.

   Which of the statements given above is/are correct?
   (a) 1 and 2 only   (b) 3 only
   (c) 2 and 3 only   (d) 1, 2 and 3

4. With reference to the Single Use Plastic, which of the following statements is/are correct?
   1. A plastic commodity intended to be used once for the same

purpose before being disposed of or recycled.
   2. It is responsible for food chain contamination.

   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

5. Consider the following statements regarding the Shoreline "hardening":
   1. It is "hardening" the shoreline with structures such as seawalls, groins, rip-rap, and levees.
   2. It makes way for the natural water currents and allows sand in shifting along coastlines.
   3. Additional reasons to allow it is the low costs to install and maintain them.

   Which of the Statements given above is/are notcorrect?
   (a) 1 only   (b) 1 and 2 only
   (c) 2 and 3 only   (d) 1, 2 and 3

6. Consider the following statements regarding the fortification of food:
   1. Fortification is the addition of key vitamins and minerals such as iron, iodine, zinc, Vitamin A & D to staple foods.
   2. These nutrients must have not been originally present in the food before processing.

   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

7. With reference to the benefits of fortification, consider the following statements:
   1. Fortification is a safe method of improving nutrition among people.
   2. Fortification improves the characteristics of the food—the taste, the feel, the look.
   3. Fortification does not require any

changes in food habits and patterns of people.

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

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

8. Consider the following statements regarding the "PM-DAKSH":
   1. Under it, eligible target group are being provided skill development training programmes.
   2. These training programs are being implemented through Private Training Institutes, Sector Skill Councils.
   3. Scheme is being implemented by the Ministry of Skill Development and Entrepreneurship from the year 2020-21.

   Which of the statements given above is/are correct?

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

9. With reference to the "e-SHRAM", which of the following statements is/are correct?
   1. Minister of Social Justice and Empowerment launched the e-Shram portal.
   2. It is handled by the states/UTs for registration of unorganised workers across the country.
   3. The government aims to register 38 crore unorganised workers such as construction labourers.

   Select the correct answer using the codes given below:

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

10. Consider the following statements regarding the National Commission for Protection of Child Rights (NCPCR):
    1. For the Commission, protection of all children in the 0 to 14 years age group is of equal importance.
    2. It emphasises the principle of universality and inviolability of child rights and recognises the tone of urgency in all the child

related policies of the country.

3. Under it, policies define priority actions for the most vulnerable children.

Which of the Statements given above is/are correct?

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

11. With reference to the "Sarva Shiksha Abhiyan (SSA)", consider the following statements:
    1. It is a Government of India's flagship programme for the achievement of Universalization of Elementary Education.
    2. The programme seeks to open new schools in those habitations which do not have schooling facilities and strengthen existing school infrastructure.

    Which of the Statements given above is/are correct?

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

12. Consider the following statements regarding "TAPAS":
    1. Its objective is to provide access to lectures by subject experts, study material and more.
    2. It stands for Training for Augmenting Productivity and Services.
    3. It is developed by the National Institute of Social Defence.

    Which of the statements given above is/are correct?

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

13. With reference to the pardoning power of the President, which of the following statements is/are not correct?
    1. The president derives its pardoning power under Article 72 of the Constitution of India.
    2. The pardoning power of the President is a judicial power.

    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

14. Consider the following statements regarding the "Preventive Detention":

1. It means to detain a person so that to prevent that person from commenting on any possible crime.

2. It is an action taken by the government on the grounds of the suspicion that some wrong actions may be done by the person concerned which will be prejudicial to the state.

Which of the Statements given above is/are correct?

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

15. With reference to the "e-PRISON" consider the following statements:

1. The scope of this project is to computerize and integrate all the activities related to prison and prisoner management in the jail.

2. It is cloud-based product designed with easy-to-use GUI and embedded with a comprehensive security feature.

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

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

16. Consider the following statements relating to the "PESA Act":

1. The provisions of Part IX of the constitution relating to the Panchayats are applicable to the Fifth Schedule areas.

2. Objective of the PESA Act is to extend the provisions of Part IX of

the Constitution relating to the panchayats to the scheduled areas with certain modifications.

Which of the statements given above is/are correct?

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

17. Consider the following statements regarding the e-RUPI digital payment system:

1. e-RUPI is used for delivering services under Ayushman Bharat and Mother and child welfare scheme.

2. e-RUPI is considered as a central bank digital currency and reduce the gap in central digital payments infrastructure.

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

18. Recently, the term Retrospective Taxation was in news in this consider the following statements:

1. It is the tax that is additional charged on the transactions done in past.

2. Retrospective tax allows a nation to impose tax on companies from a time before the date on which law passed.

3. Retrospective tax affects companies that had unknowingly or knowingly used the tax rules differently.

Which of the statements given above are correct?

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

19. Consider the following statements regarding the SAMRIDH Scheme

recently launched by government:

1. The Scheme provide the funding support to the startups in the field of space and technology only.

2. The Scheme is launched jointly by India Space and research Organization (ISRO) and Ministry of Electronic and Information Technology.

Which of the statements given above is/are correct?

(a) 1 only

(b) 2 only

(c) Both 1 and 2

(d) Neither 1 nor 2

20. Consider the following statements Earth Observation Satellite (EOS-03):

1. GSLV-F 10 was used for placing EOS-03 it in Geosynchronous Transfer Orbit.

2. It was capable of imaging the entire country four to five times every day.

Which of the statements given above are correct?

(a) 1 only

(b) 2 only

(c) Both 1 and 2

(d) Neither 1 nor 2

21. With reference to Marburg Outbreak, consider the following statements:

1. This virus causes a severe and highly fatal hemorrhagic fever.

2. It is transmitted to humans through chickens and spread though materials contaminated with this virus.

Which of the statements given above is/are correct?

(a) 1 only

(b) 2 only

(c) Both 1 and 2

(d) Neither 1 nor 2

22. Consider the following statements

regarding the Narayankoti temple recently seen in news:

1. The Narayankoti Temple is a group of ancient temples which has nine planetary temples located in different parts of India.

2. Recently these all temples has been identified under the central government 'Adopt a Heritage' project.

3. Under this project the corporate sector is expected to use corporate social responsibility (CSR) funds for the upkeep of the site.

Which of the statements given above are correct?

(a) 1 and 2 only

(b) 2 and 3 only

(c) 1 and 3 only

(d) 1, 2 and 3

23. Recently, India have agreed to work on "four pillars" of security cooperation, covering areas of marine security, human trafficking, counter-terrorism, and cyber security with which of the following countries?

1. Sri Lanka

2. Bangladesh

3. Singapore

4. Maldives

Select the correct answer using the code given below:

(a) 1 and 2 only

(b) 1, 2 and 3 only

(c) 1 and 4 only

(d) 2 and 4 only

24. Consider the following statements regarding the China's new maritime regulation:

1. Foreign vessels, both military and commercial, will be henceforth required to submit to Chinese supervision in "Chinese territorial waters.

2. No permission required for ships carrying bulk oil, chemicals and

liquefied gas,

Which of the statements given above is/are correct?

(a) 1 only

(b) 2 only

(c) Both 1 and 2

(d) Neither 1 nor 2

25. Consider the following statement regarding the Global manufacture Risk Index:

1. China and United States (US) remains at first and second position respectively in manufacturing destination.

2. The rankings in the report are determined based parameters like the country's capability to restart manufacturing and business environment.

3. India's rank was pushed down due this COVID-19 outbreak in the country.

Which of the statements given above is/are correct?

(a) 1 and 2 only

(b) 2 only

(c) 1 and 3 only

(d) 1, 2 and 3

26. With reference to an initiative called "The Economics of Ecosystems and Biodiversity (TEEB)", which of the following statements is/are correct? (UPSC2016)

1. It is an initiative hosted by UNEP, IMF and World Economic Forum.

2. It is a global initiative that focuses on drawing attention to the economic benefits of biodiversity.

3. It presents an approach that can help decision-makers recognize, demonstrate and capture the value of ecosystems and biodiversity.

Select the correct answer using the codes given below:

(a) 1 and 2 only

(b) 3 only

(c) 2 and 3 only

(d) 1, 2 and 3

27. With reference to Asian Infrastructure Investment Bank (AIIB), consider the following statements: (UPSC 2019)

1. AIIB has more than 80 member nations.

2. India is the largest shareholder in AIIB.

3. AIIB does not have any members from outside Asia.

Which of the statements given above is/are correct?

(a) 1 only

(b) 2 and 3 only

(c) 1 and 3 only

(d) 1, 2 and 3

28. Which of the following Protected Areas are located in Cauvery basin? (UPSC 2020)

1. Nagarhole National Park

2. Papikonda National Park

3. Sathya Mangalam Tiger Reserve

4. Wayanad Wildlife sanctuary

Select the correct answer using the code given below:

(a) 1 and 2 only

(b) 3 and 4 only

(c) 1, 3 and 4 only

(d) 1, 2, 3 and 4

29. Consider the following statements: (UPSC 2020)

1. The weightage of food in Consumer Price Index (CPI) is higher than that in Wholesale Price Index (WPI).

2. The WPI does not capture changes in the prices of services, which CPI does.

3. Reserve Bank of India has now adopted WPI as its key measure of inflation and to decide on changing the key policy rates.

Which of the statements given- above is/are correct?

(a) 1 and 2 only

(b) 2 only

(c) 3 only 4

(d) 1, 2 and 3

30. Consider the following statements: (UPSC 2010)

1. Every individual in the population is equally susceptible host for Swine Flu.

2. Antibiotics have no role in the primary treatment of Swine Flu.

3. To prevent the future spread of Swine Flu in the epidemic area, the swine (pigs) must all be culled.

Which of the statements given above is/are correct?

(a) 1 and 2 only

(b) 2 only

(c) 2 and 3 only

(d) 1, 2 and 3

Answer Key

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