

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](mailto: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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GS – IV	Ethical issues related to family society, education, Corruption etc.	Ethics in public and private administration	Issues	Related laws and rules	Governance/ Governance	Ethics in international issues	Person alities and their teachings	Other important topics				
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POLITY

Demand for Autonomous District Council

News Excerpt

The Rengma Nagas in Assam have written to the Centre demanding an autonomous district council amid a decision by the Central and the State governments to upgrade the Karbi Anglong Autonomous Council (KAAC) into a territorial council.

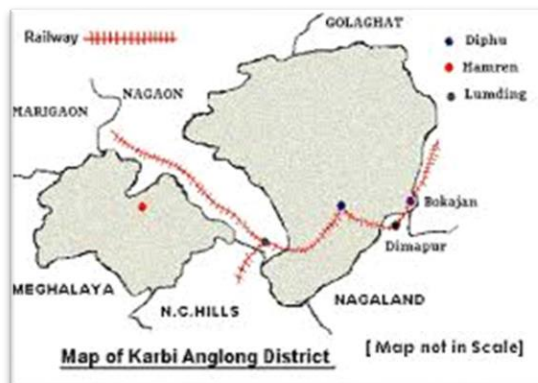
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Pre-Connect

- The Sixth schedule of the Constitution protects tribal populations and provides autonomy to the communities through creation of autonomous development councils that can frame laws on land, public health, agriculture and others.
- As of now, 10 autonomous councils exist in Assam (3), Meghalaya (3), Tripura (1) and Mizoram (3). Sixth Schedule contains provisions relating to the administration of tribal areas in these states. This special provision is provided under Article 244 and Article 275 of the Constitution of India.
- The specified tribal areas are the North Cachar Hills, Karbi Anglong and the Bodoland Territorial Area in Assam.
- The Karbi Anglong Autonomous Council has 26 seats and elections are due in 2022.

Historical Background

- According to the Rengma Naga Peoples’ Council (RNPC), a registered body, were the first tribal people in Assam to have encountered the British in 1839, but the existing Rengma Hills was eliminated from the political map of the State and replaced with that of Mikir Hills (now Karbi Anglong) in 1951.
- During the Burmese invasions of Assam in 1816 and 1819, it was the Rengmas who gave shelter to the Ahom refugees.
- The Rengma Hills was partitioned in 1963 between Assam and Nagaland at the time of creation of Nagaland State and the Karbis, who were known as Mikirs till 1976, were the indigeneous tribal people of Mikir Hills.
- According to RNPC, Rengma Hills and Mikir Hills were two separate entities till 1951. Karbis have no history in the Rengma Hills. People who are presently living in Rengma Hills are from Assam, Arunachal Pradesh and Meghalaya. They speak different dialects and do not know Karbi language of Karbi Anglong.



Major Contentions

- ✓ The KAAC population is around 12 lakh and the Karbis constitute only 3 lakh, the remaining are non-Karbis, including the Rengma Nagas, whose population is around 22,000. They are also demanding a separate legislative seat for Rengmas.
- ✓ The National Socialist Council of Nagaland or NSCN (Isak-Muivah), says that the Rengma issue was one of the important agendas of the “Indo-Naga political talks” and no authority should go far enough to override their interests.
- ✓ More than 3,000 RengmaNagas were forced to relocate to relief camps in 2013 after several people were killed in a series of attacks following a call given by a Karbi insurgent group.
- ✓ The Centre is likely to finalise a peace pact with the six Karbi insurgent groups and one of

PEPPER IT WITH
Provisions of the fifth and Seventh Schedules of the Constitution, Sanctuaries, Rivers and Hills of the Northeast

them- the KLNLF signed a suspension of operation in 2009 with the Assam government.

Administration of Tribal Areas

The rationality behind the special arrangements in respect of only the four states lies in the following:

“The tribes in Assam, Meghalaya, Tripura and Mizoram have not assimilated much the life and ways of the other people in these states. These areas have hitherto been anthropological specimens. The tribal people in other parts of India have more or less adopted the culture of the majority of the people in whose midst they live. The tribes in these states, on the other hand, still have their roots in their own culture, customs and civilization. These areas are, therefore, treated differently by the Constitution and sizeable amount of autonomy has been given to these people for self-government.”

The various features of administration contained in the Sixth Schedule are as follows:

- The tribal areas in these four states have been constituted as autonomous districts, but they do not fall outside the executive authority of the state concerned.
- The governor is empowered to organise and re-organise the autonomous districts. Thus, the governor can increase or decrease their areas or change their names or define their boundaries and so on.
- If there are different tribes in an autonomous district, the governor can divide the district into several autonomous regions.
- Each autonomous district has a district council consisting of 30 members, of whom four are nominated by the governor and the remaining 26 are elected on the basis of adult franchise. The elected members hold office for a term of five years (unless the council is dissolved earlier) and nominated members hold office during the pleasure of the governor. Each autonomous region also has a separate regional council.
- The district and regional councils administer the areas under their jurisdiction. They can make laws on certain specified matters. But all such laws require the assent of the governor.
- The district and regional councils within their territorial jurisdictions can constitute village councils or courts for trial of suits and cases between the tribes. They hear appeals from them. The jurisdiction of high court over these suits and cases is specified by the governor.
- The district council can establish, construct or manage primary schools, dispensaries, markets, ferries, fisheries, roads and so on in the district. It can also make regulations for the control of money lending and trading by nontribals. But such regulations require the assent of the governor.
- The district and regional councils are empowered to assess and collect land revenue and to impose certain specified taxes.
- The acts of Parliament or the state legislature do not apply to autonomous districts and autonomous regions or apply with specified modifications and exceptions.
- The governor can appoint a commission to examine and report on any matter relating to the administration of the autonomous districts or regions. He may dissolve a district or regional council on the recommendation of the commission.

Conclusion

Historical references are available in plenty about the bona fide status of the Rengma Nagas, or for that matter about the Karbis in the socio-political melee of Assam history. Irrespective of tribe affiliation, the Rengma Nagas or Karbis, nobody can play fool with the well documented historical records. Central scheme of things as proposed under the KAATC should find their support from historical legitimacy. Simply to appease the Karbi militants at the cost of overlooking the indigenous Rengma Nagas will only complicate the matter.

Issues with Section 79 of the IT Act

News Excerpt

In a series of tweets, the Ministry of Law & Justice, Communications, Electronics and Information Technology flogged Twitter for having “deliberately chosen the path of non-compliance”.

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Pre-Connect

- The new digital rules ask social media companies like Facebook, WhatsApp, and Twitter to identify within 36 hours the originator of a flagged message as well as to conduct additional due diligence, including the appointment of a Chief Compliance Officer, Nodal Contact Person, and resident Grievance Officer.
- Section 79 of the IT act says that any intermediary shall not be held legally or otherwise liable for any third-party information, data, or communication link made available or hosted on its platform.
- What has caught the attention of people is the term ‘safe harbour’ which is basically if these social media platforms don’t comply with the new rules, their indemnity will be taken away under Section 79 of the Information Technology Act.
- The protection under Section 79 shall be applicable if the intermediary does not in any way initiate the transmission of the message in question, select the receiver of the transmitted message, and does not modify any information contained in the transmission.
- This means that as long as a platform acts just as the messenger carrying a message from point A to point B, without interfering with its content in any manner, it will be safe from any legal prosecution brought upon due to the message being transmitted.

A lot of Twitter users have tweeted about losing followers ranging from a few hundreds to thousands of users in recent days.

What has Twitter said about the drop in follower count?

Twitter said the company “regularly challenges accounts to validate or confirm account details, like password or phone number, to better protect the integrity of the conversation on Twitter”. According to Twitter, until an account confirms the additional information, it remains in a locked state and therefore it “will not count toward follower counts”. This results in a drop in follower counts for many users.

Major Contentions

- Micro-blogging platform Twitter is facing fresh heat from the Ministry of Electronics and Information Technology (MeitY) for failing to adhere to norms while appointing executives in the roles of Resident Grievance Officer, Nodal Officer and Chief Compliance Officer.
- The communication comes at a time when the tensions seem to be escalating following a brief removal of "blue tick" verification badge from the personal account of Vice President Venkaiah Naidu since it had not been logged into for six months. The blue tick has been restored afterwards.
- The new IT rules came into effect recently. Significant social media intermediaries (with username of 50 lakh), including Twitter, was given three months to comply with them.
- In its letter to Twitter, the ministry has mentioned that the provisions for significant social media intermediaries under the rules have already come into force and till last update, Twitter has refused to comply with the provisions of these rules.
- This, according to the government, means that the protection under Section 79 of the IT Act, accorded to Twitter for being a social media intermediary, now stands withdrawn.
- Twitter has been in the line of fire with the Central government over content takedown requests for tweets from various user accounts criticizing the government on multiple occasions, including the farmer protests recently.

PEPPER IT WITH
Fundamental Rights not available to Aliens

Implication of the move

- ✓ In the short run, since the protection accorded to Twitter under Section 79 of the IT Act is now gone, it opens up the platform to the possibility of any and all penal action that is likely to be taken against it as a publisher of content.
- ✓ This means that if someone puts out any content on Twitter that leads to some form of violence, or violates any Indian law with respect to content, not only the person that has put out the tweet will be held responsible, even Twitter will be legally liable for the content as it no longer has the protection.
- ✓ In the longer run, there is also the theoretical possibility that Twitter might be subjected to the 26% cap of direct foreign investment in media and publishing, which in turn means that the platform may be forced to look for an Indian buyer for the remaining 74% stake.

Delimitation in Jammu and Kashmir

News Excerpt

A Delimitation Commission to redraw Lok Sabha and assembly constituencies of the Union Territory Jammu and Kashmir and the northeastern states of Assam, Arunachal Pradesh, Manipur and Nagaland have been constituted.

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Pre-Connect

- Articles 82 and 170 of the Constitution of India provide for readjustment and the division of each State into territorial constituencies (Parliamentary constituencies and Assembly constituencies) on the basis of the 2001 census by such authority and in such manner as Parliament may, by law, determine.
- Further, Articles 330 and 332 of the Constitution of India provide for re-fixing the number of seats reserved for the Scheduled Castes and the Scheduled Tribes in the House of the People and Legislative Assemblies of the States on the basis of the 2001 census.
- The present delimitation of Parliamentary and Assembly constituencies is based on the 1971 census. The uneven growth of population in different constituencies in different parts of the country as well as within the same State as also continuous migration of people/electorate from one place to other especially from rural areas to urban areas have resulted in strikingly differing sizes of electoral constituencies even within the same State.

Why is the Delimitation Commission in Jammu and Kashmir in the news again?

- After the abrogation of J&K's special status in 2019, delimitation of Lok Sabha and Assembly seats in the newly-created Union Territory would be as per the provisions of the Indian Constitution.
- On March 6, 2020, the government set up the Delimitation Commission, headed by retired Supreme Court judge Ranjana Prakash Desai, which was tasked with winding up delimitation in J&K in a year.

How often has delimitation been carried out in J&K?

- Delimitation exercises in J&K in the past have been slightly different from those in the rest of the country because of the region's special status, which it had.
- Delimitation of Lok Sabha seats in J&K was governed by the Constitution of India, but the delimitation of the state's Assembly seats was governed by the J&K Constitution and J&K Representation of the People Act, 1957.
- Assembly seats in J&K were delimited in 1963, 1973 and 1995. The last exercise was conducted by the Justice (retired) K K Gupta Commission when the state was under the President's Rule and was based on the 1981 census, which formed the basis of the state elections in 1996.

What is the status of the Delimitation Commission set up in 2020?

Although the Commission was tasked to finish delimitation in a year, on March 4 this year, it was granted a year's extension. This was done on the request of the panel members since it couldn't make much progress due to the Covid-19-induced shutdown across the country.

Concerns Expressed

- ✓ While on one hand, concerns have also been expressed over how the delimitation process may end up favouring the Jammu region over Kashmir in terms of the seats, on the other, arguments have also been made about how the Jammu region has been underrepresented, with demands made for increasing its share.
- ✓ Meanwhile, former J&K finance minister Haseeb Drabu had called for distribution of Assembly constituencies in the Union Territory “on the basis of share of population”.
- ✓ With population as the base, the allocation can be tempered by giving some weightage to the density of population. If the inverse of population density is used, it will work as relevant surrogate for area, since low population density will get a higher weightage.

PEPPER IT WITH
Salient features of the Representation of the People Act, 1950 and the Representation of the People Act, 1951

Conclusion

It needs to be understood by all that the Commission is an independent body and the executive and political parties cannot interfere in its functioning. Thus, all parties trying to put a question mark on the fairness and transparency of the Commission are guilty of casting aspersions and doubting the functioning of a body which is backed by constitution. The award of the Commission cannot be challenged even in a court of law.

Priority should be to strengthen grassroots democracy in J&K. Delimitation has to happen at a quick pace so that polls can happen and J&K gets an elected Government that gives strength to J&K's development trajectory.

Delimitation Commission

- ❖ Delimitation is the process of demarcation of the boundaries of parliamentary or assembly constituencies. The process is carried out every few years to ensure that each constituency has approximately an equal number of voters — the underlying logic being that a set number of voters have one representative in the Lok Sabha as well as in the state assemblies across the country.
- ❖ The commission consists of a chairman — a retired or sitting judge of the Supreme Court — the chief election commissioner or any of the two election commissioners, and the election commissioner of the state in which the exercise is being carried out. In addition, five MPs and five MLAs of the state are chosen as associate members of the commission.
- ❖ It is an independent body appointed by the President of India and works in collaboration with the Election Commission of India.
- ❖ A quota of constituencies to be reserved in each State is fixed depending on the proportion of SC or ST in that State.
- ❖ Those constituencies that have the highest proportion of Scheduled Tribe population are reserved for ST.
- ❖ In the case of Scheduled Castes, the Delimitation Commission looks at two things. It picks constituencies that have higher proportion of Scheduled Caste population. But it also spreads these constituencies in different regions of the State.
- ❖ This is done because the Scheduled Caste population is generally spread evenly throughout the country. These reserved constituencies can be rotated each time the Delimitation exercise is undertaken.
- ❖ The Delimitation Commission in India is a high power body whose orders have the force of law and cannot be called in question before any court.
- ❖ The copies of its orders are laid before Lok Sabha and the state legislative assembly concerned, "but no modifications are permissible therein by them.
- ❖ In India, such Delimitation Commissions have been constituted four times -- in 1952 under the Delimitation Commission Act, 1952, in 1963 under Delimitation Commission Act, 1962, in 1973 under Delimitation Act, 1972 and in 2002 under Delimitation Act, 2002.

Reservation for promotion of disabled person

News Excerpt

Supreme Court held that a disabled person can avail the benefit of reservation for promotion even if he or she was recruited in the regular category or developed the disability after gaining employment.

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Pre-Connect

- The Rights of Persons with Disabilities (RPwD) Act, 2016 provides that “the appropriate Government shall ensure that the PwD enjoy the right to equality, life with dignity, and respect for his or her own integrity equally with others.” The Government is to take steps to utilize the capacity of the PwD by providing appropriate environment.
- In the RPwD Act, 2016, the list has been expanded from 7 to 21 conditions and it now also includes cerebral palsy, dwarfism, muscular dystrophy, acid attack victims, hard of hearing, speech and language disability, specific learning disabilities, autism spectrum disorders, chronic neurological disorders such as multiple sclerosis and Parkinson's disease, blood disorders such as haemophilia, thalassemia, and sickle cell anaemia, and multiple disabilities.

Highlights of the Judgement

- The verdict was based on an appeal filed by the Kerala government against a State High Court decision that Leesamma Joseph was eligible for reservation in promotion under the PwD quota. Ms. Joseph, whose permanent disability was assessed at 55%, was employed in the Police department on compassionate grounds after her brother’s death in harness.
- The source of recruitment ought not to make any difference but what is material is that the employee is a PwD at the time for consideration for promotion. The important thing is the employee should be a ‘person with disability’ (PwD) at the time of the promotion to avail of the disabled quota.
- Hon’ble apex court wrote that the 1995 Act [Persons with Disabilities Act of 1995] does not make a distinction between a person who may have entered service on account of disability and a person who may have acquired disability after having entered the service. Similarly, the same position would be with the person who may have entered service on a claim of a compassionate appointment. The mode of entry in service cannot be a ground to make out a case of discriminatory promotion.
- The responsibility to provide equal opportunities to disabled persons does not end with giving them reservation at the time of recruitment. The legislative mandate provides for equal opportunity for career progression, including promotion. Thus, it would be a negation of the legislative mandate if promotion is denied to PwD and such reservation is confined to the initial stage of induction in service. This would in fact result in stagnation of the disabled in a consequential frustration.
- Apex Court gave Kerala government three months to identify posts in which reservation could be given for PwD in promotion. Once that post is identified, the logical conclusion would be that it would be reserved for PwD who have been promoted. The absence of rules to provide for reservation in promotion would not defeat the rights of PwD to a reservation in promotion as it flows from the legislation.
- Reservation has to be computed with reference to total number of vacancies in the cadre strength and no distinction can be made between the posts to be filled by direct recruitment and by promotion. Thus, total number of vacancies in the cadre strength would include the vacancies to be filled in by nomination as well as by promotion.

PEPPER IT WITH
 Mental Retardation *vs.* Intellectual disability, The UN Declaration on the Rights of Disabled Persons, National Federation of blind *vs.* Union Public Service Commission

Conclusion

Disability refers to the disadvantage or restrictions of activity caused by the way society is organised which takes little or no account if people who have physical, sensory or mental impairments. Disability is an unfortunate part of human life which can affect not only the natural

way of a living but also despair component strength and power.

The Government needs to launch more social security schemes for disabled sections and generate more employment opportunities for them. Several schemes and benefits conference on the disabled persons has come up as relief and has successfully served to provide equal opportunities to the disabled section.

The Model Tenancy Act

News Excerpt

In the absence of a formal and regulated rental tribunal, the disputes and mistrust between owners and tenants in the rental sector have been high to the extent that a large number of owners decided not to rent the property and keep them vacant.

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The recently-approved Model Tenancy Act (MTA) aims to bridge this chasm by streamlining India’s rental landscape and bringing rental laws into the 21st century.

Pre-Connect

- Rental housing is regulated by states as land, land improvement, and control of rent falls under the State List of the Constitution.
- The 2015 draft Rental Housing Policy noted that these laws led to low rental yields and disincentivised landlords from investing in rental properties. These also skewed arrangements towards tenants, made it difficult to evict them, led to more litigation, and consequently eroded the trust of landlords in the regulatory system.
- This led to the rental demand being serviced through other rental arrangements such as leave and license agreements.
- Reforms in tenancy laws were first recommended at the central level under the Jawaharlal Nehru Urban Renewal Mission (JNNURM) in 2005. JNNURM listed the repeal of rent-control laws as a mandatory reform to access aid under the mission.
- States could formulate laws regulating rental housing on the Model Rent Legislation, 1992. However, as of 2020, 20 states continue to have rent control legislations. A few states such as Madhya Pradesh, Jharkhand, and Chhattisgarh have repealed their rent control laws.

Background

- Post-independence, states regulated rental housing through rent control laws. These laws specified a ceiling on the rental amount, and put conditions for eviction of the tenant, to prevent landlords from charging exorbitant rents and ensure that people found safe and stable housing.
- Rental housing is a predominantly urban phenomenon in India. As of 2013, 95% of households in rural areas live in self-owned housing.
- Globally, the demand for rental housing in urban areas is proportionate to the growth in the population living in urban areas. However, in India the trend has been different, which could be attributed to a policy push towards home ownership and low rental yields.

Provisions for the protection of tenants’ rights

The Act prohibits the landlords from withholding essential supplies for any reason. MTA also mandates for a 24-hour notice to be served to the tenants before any repair work is carried out on the property that may curtail the supply of utilities, structural repairs by the landlords, etc. In the case a landlord fails to refund the rent, they will have to pay simple interest on the refund amount to the tenant at regular intervals. Furthermore, the law ensures that tenants can’t be evicted during the tenure of their tenancy unless the details of it are furnished in writing by both parties. The Act also mandates a three-month notice before a hike in rentals to safeguard the economic interests the tenants.

- Between 1951 and 2011, the urban population in India grew by six times and as of 2011, comprises around 31% of the total population. However, the share of persons living in urban

rental accommodation decreased from 58% to 27% between 1961 and 2011.

- Urban areas also face a significant housing shortage. As of 2012, the urban housing shortage was estimated to be at 1.9 crore units. Note that the urban population is estimated to increase to 43.7 crore by 2021.
- The draft National Urban Rental Housing Policy, 2015 noted that the housing shortage in urban areas will not be solved by home ownership, and suggested promoting rental housing. It recommended repeal of existing rent-control laws and adoption of a new rental framework based on the draft Model Tenancy Act, 2015.
- So far, Tamil Nadu has enacted a law regulating tenancy based on the 2015 Model Act. The Ministry of Housing and Urban Affairs had released another draft version of the Model Act in October 2020 for public feedback.

Highlights of the Model Tenancy Act

- ✓ The Model Tenancy Act, 2021 was approved by the Union Cabinet on June 2, 2021 for adoption by states and union territories. It seeks to:
 - a. establish a speedy adjudication mechanism for dispute resolution
 - b. regulate renting of premises
 - c. protect interests of landlords and tenants
- ✓ The Model Act requires the landlord and tenant to sign a written agreement which specifies the rent, period of tenancy and other related terms. Security deposit is capped at two months' rent for residential premises, and six months' rent for non-residential premises.
- ✓ Conditions for eviction of tenant under the Model Act include:
 - a. refusal to pay agreed upon rent
 - b. failure to pay rent for more than two months
 - c. occupation of part or whole of premises without written consent
 - d. misuse of premises despite a written notice
- ✓ The Model Act establishes a three-tier quasi-judicial dispute adjudication mechanism consisting of:
 - a. Rent Authority
 - b. Rent Court
 - c. Rent Tribunal
- ✓ No civil court will have jurisdiction over matters pertaining to provisions under the Model Act.
- ✓ Rent Authorities and Rent Courts may be established by the District Collector with the approval of the state government. The state or union territory government may establish a Rent Tribunal after consulting with the jurisdictional High Court.

Key Issues and Analysis

- The Model Act may not resolve key issues in the rental housing sector that it seeks to address. Experts have recommended various reforms that are required to address issues such as availability, affordability, and the need to formalise the rental housing market.
- The Model Act specifies minute details of what should be included in a rent agreement such as assigning responsibility for structural repairs and routine maintenance, and the maximum-security deposit. It is unclear why a central legislation must include such details which may be mutually agreed upon by contracting parties when signing an agreement
- Registration of the rent agreements requires Aadhaar number to be submitted. Mandating submission of Aadhaar number to register a rent agreement may violate a Supreme Court judgement. Further, the Authority must upload the details of the agreement (and supporting documents) on a public portal. This may violate the right to privacy of the contracting parties.

PEPPER IT WITH

Article 299: Contractual Liability of the State, Art. 300: Tortious Liability of the State, Art. 300A: Persons not to be deprived of property save by authority of law.

- The timeline for resolution of some disputes by adjudicatory bodies has not been specified in the Model Act. These include disputes on withholding essential services, revision of rent and contraventions by property managers.

Conclusion

By the Model Tenancy Act (MTA), government plans to make the real estate sector more conducive to the creation of a migration-oriented society while facilitating a 50-50 distribution between rental and owned property. If followed in letter and spirit, the law can be the key to unlocking a huge stock of vacant properties as a way of bridging the massive housing shortage which disproportionately affects Indians from low- to middle-income groups.

MTA marks a watershed moment in the Indian real estate market. Its implementation can lead to several constructive developments such as uniform legislation across all states; protection of tenant and landlord rights; and a clear demarcation of stakeholder responsibilities and provisions. It is the solution to a problem too long in the tooth and may just prove to be the silver bullet required for the rejuvenation of India's rental real estate by unlocking the vacant houses for rental purposes.

Model Panchayat Citizens Charter

News Excerpt

Ministry of Panchayati Raj in collaboration with National Institute of Rural Development and Panchayati Raj (NIRDPR) has released a Model Panchayat Citizens Charter framework for delivery of the services across the sectors, aligning actions with localised Sustainable Development Goals (SDGs).

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- The Panchayats are expected to utilise this framework to draw up a citizen's charter and adopt it through a resolution of the Gram Sabha by 15 August this year. The state governments have been requested to draw up a time bound plan of action for the purpose.
- The aim of the Model Panchayat Citizens Charter is to provide services to the people in a time bound manner, redressing their grievances and improving their lives.
- Basic objective of the Gram Panchayat Citizen Charter is to empower the citizens in relation to public services and to improve the quality of services without any prejudice, and in accordance with the expectations of the citizens.

About Model Panchayat Citizens Charter

- A Model Panchayat Citizens Charter/ framework for

Citizen's Charter

A Citizens' Charter represents the commitment of the Organisation towards standard, quality and time frame of service delivery, grievance redress mechanism, transparency and accountability. Department of Administrative Reforms and Public Grievances, in the Ministry of Personnel, Public Grievances and Pensions, Government of India, in its efforts to provide more responsive and citizen-friendly governance coordinates the efforts to formulate and operationalise Citizens' Charters. Various Central Government Ministries/ Departments/ Organisations have brought out their Citizens' Charters. With a view to ensure effective implementation of Citizens' Charter, Nodal Officers have been appointed in the concerned Central Government Ministries/ Departments/ Organisations.

The objective of Charter exercise is to build bridges between citizens and administration and to streamline administration in tune with the needs of citizens.

The Charters are expected to incorporate the following elements: -

- Vision and Mission Statement
- Details of business transacted by the organisation
- Details of clients
- Details of services provided to each client group
- Details of grievance redress mechanism and how to access it
- Expectations from the clients.

delivery of the services across the 29 sectors, aligning actions with localised SDGs was prepared by the Ministry of Panchayati Raj (MoPR) in collaboration with NIRDPR.

- It is expected that the Panchayats utilising this framework, and with the due approval of Gram Sabha, would draw up a Citizens Charter, detailing the different categories of services rendered to the citizen by the Panchayat, the conditions for such service and also the time limit for such service.
- Adopting this will help in making the citizens aware of their rights on the one hand, and to make the Panchayats and their elected representatives directly accountable to the people, on the other hand.
- It would ensure enhanced citizen service experiences.
- It would deepen inclusive and accountable Local Self Governments by incorporating diverse views while designing and delivering services.
- The charter would ensure transparent and effective delivery of public services for sustainable development.

Issues faced in Implementing the Citizen Charters

The Citizens' Charters initiative in India had started in 1997 and the Charters formulated are in a nascent stage of implementation. Introduction of a new concept is always difficult in any organisation. Introduction and implementation of the concept of Citizens' Charter in the Government of India was much more difficult due to the old bureaucratic set up/procedures and the rigid attitudes of the work force.

Way Forward

- ✓ In 1992, the UK Government introduced Charter Mark, a scheme for recognising and encouraging excellence in public service. To win a Charter Mark the organisation has to demonstrate excellence against specified charter mark criteria which corresponds to the principles of public service delivery.
- ✓ The Government of Malaysia also instituted a 'Best Client's Charter Award' in 1993 based on the UK model.
- ✓ In India, the DARPG has identified a professional agency to develop an appropriate Charter Mark scheme. This scheme will encourage and reward improvement in public service delivery with reference to the commitments and standards notified in the Charter.
- ✓ The 'Charter Mark' is proposed to be awarded after assessment by an independent panel of judges. This would not only give a sense of achievement to the organisation awarded the Charter Mark but also promote a spirit of competitiveness amongst various organisations that have issued Citizens' Charter and generating awareness among citizens.
- ✓ A prototype has been developed by the professional agency and is in the process of validation in identified Departments/ Organisations.

Key recommendations for better implementation of the Citizens Charter are as follows:

- Need for citizens and staff to be consulted at every stage of formulation of the Charter.
- Orientation of staff about the salient features and goals/ objectives of the Charter.
- Vision and mission statement of the department.
- Skills such as team building, problem solving, handling of grievances and communication skills.
- Need for creation of database on consumer grievances and redress.
- Need for wider publicity of the Charter through print media, posters, banners, leaflets, handbills, brochures, local newspapers etc. and also through electronic media.
- Earmarking of specific budgets for awareness generation and orientation of staff.
- Replication of best practices in this field.

PEPPER IT WITH
Salient features of the Right to Information Act, 2005; Central Vigilance Commission, Ombudsman, Duties and responsibilities of the Grievance Redressal Officer

Conclusion

The implementation of Citizens' Charter is an on-going exercise because it has to reflect the extensive and continual changes taking place in the domain of public services. Indian Government continuously strives to serve the citizens in an effective and efficient way so as not only to meet but to exceed their expectations. The Citizens' Charter initiative is a major step in this direction.

Schedule VIII of the Constitution

News Excerpt

The demand for official language status for Tulu was trending on social media in Karnataka. The campaign has been reignited as the Tulu film industry is celebrating its 50th anniversary.

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- Part XVII of the Constitution deals with the official language in Articles 343 to 351.
- When the President (on a demand being made) is satisfied that a substantial proportion of the population of a state desire the use of any language spoken by them to be recognised by that state, then he may direct that such language shall also be officially recognised in that state. This provision aims at protecting the linguistic interests of minorities in the states.
- Tulu is spoken in the Tulunadu region, which consists of coastal Karnataka and parts of Kerala. However, according to the Atlas of the World's Languages in Danger, published by UNESCO, Tulu is now considered a vulnerable language.

Who all speak Tulu in India now and what is its history?

- Tulu is a Dravidian language spoken mainly in Dakshina Kannada and Udupi of Karnataka and Kasaragod district of Kerala. As per the 2011 Census report, there are 18,46,427 Tulu-speaking people in India.
- Some scholars suggest Tulu is among the earliest Dravidian languages with a history of 2000 years. Robert Caldwell (1814-1891), in his book, A Comparative Grammar of the Dravidian or South-Indian Family of Languages, called Tulu "one of the most highly developed languages of the Dravidian family".

What is the demand by Tulu speakers?

The Tulu speakers have been requesting the governments to give it official language status and include it in the eighth schedule to the Constitution. Presently, there are 22 languages in the

Present status of Tulu

According to the Karnataka Tulu Sahitya Academy, people who speak Tulu are confined to the above-mentioned regions of Karnataka and Kerala, informally known as Tulu Nadu. "At present, Tulu is not an official language in the country. Efforts are being made to include Tulu in the eighth schedule of the Constitution. If included in the eighth schedule, Tulu would get recognition from the Sahitya Akademi.

Tulu in Education

Karnataka introduced Tulu as a language in schools a few years ago. According to the state education department, in the year 2020, a total of 956 children from Dakshina Kannada and Udupi districts wrote Tulu as the third optional language in the secondary examination. In 2014-15, 18 students chose the language as the third optional when it was introduced. Last year, 'Jai Tulunad' conducted an online campaign demanding to include Tulu in the new National Education Policy (NEP). The organization started a 'Tweet Tulunad' campaign with the hashtag #EducationInTulu.

Tulu Art, Culture and Cinema

Tulu has a rich oral literature tradition with folk-song forms like paddana, and traditional folk theatre yakshagana. Tulu also has an active tradition of cinema with around 5 to 7 Tulu language movies produced a year. Tulu films are being screened every day in Mangaluru and Udupi in at least one theatre.

eighth schedule to the Constitution.

Is there any resistance against the centre because of language?

- ✓ Regional aspirations of people based on language were fulfilled by the creation of separate states like Andhra Pradesh. The contribution of Potti Sriramulu is commendable which made Andhra Pradesh the first state made on linguistic grounds.
- ✓ The people of Tamil Nadu wanted a separate Dravid Nadu for a long which was also partially based on language led by CN Annadurai and EV Ramaswamy Naicker.
- ✓ Nagaland is also demanding a separate Nagalim.
- ✓ People speak different languages and hence they are Kannada, Marathi or Tulu before certain states like Maharashtra, Karnataka or Andhra Pradesh were created, hence languages cannot be taken away from them. Multiple languages pose a problem of their own like a hindrance in communication and understanding, feeling of oneness, but a diverse nation like India cannot have a single language. If a language loses its presence in daily interactions, the way of life connected to that language also vanishes.

The demand for separate statehood for Tulu Nadu

The political party 'Tuluvere Paksha', which got recognition from the Election Commission of India in February 2021 under section 29A of Representation of the People Act 1951, has given wings to the political aspirations of the Tulu-speaking people. 'Tuluvere Paksha' contended that "When the country was reorganised based on languages, Tulu Nadu was partly shared among Kerala and Karnataka. When there was a separate state for Tamil, Telugu, Malayalam and Kannada-speaking people, why there cannot be a separate state for Tulu Nadu?"

Protection of Linguistic Minorities

In this regard, the Constitution makes the following provisions:

- ✚ Every aggrieved person has the right to submit a representation for the redress of any grievance to any officer or authority of the Union or a state in any of the languages used in the Union or in the state, as the case may be. This means that a representation cannot be rejected on the ground that it is not in the official language.
- ✚ Every state and a local authority in the state should provide adequate facilities for instruction in the mother-tongue at the primary stage of education to children belonging to linguistic minority groups. The president can issue necessary directions for this purpose.
- ✚ The president should appoint a special officer for linguistic minorities to investigate all matters relating to the constitutional safeguards for linguistic minorities and to report to him. The president should place all such reports before the Parliament and send to the state government concerned.

What are the criteria for official language status?

Article 345 of the Indian Constitution provides recognition by Constitution as an official language of India. The language adopted by law, by a state legislature can be deemed as an official language of that state. According to Article 346 and 347 of the Indian constitution, any state legislature by passing a law can adopt one or more languages as an official language of the state. After the commencement of the constitution, English was used as an official language for 15 years until 1960. If a language is spoken by a minority, the President of India appoints a special officer for linguistic minorities who investigates matters associating with sheltering the language.

To look into issues related to linguistic and religious minorities national commission for religious and linguistic minorities also known as the Ranganath Mishra Commission was established by the government in 2004. The commission has to suggest ideas for the identification of economically and socially backward sections in religious and linguistic minorities. The commission had to suggest welfare measures along with reasonable constitutional, legal and bureaucratic techniques.

Conclusion

If Santhali Bodo languages are taken into consideration Tulu can be included in the eighth schedule of the Constitution. Since there is no fixed definition of linguistic minorities, Tulu can be considered a minority. As history is our witness forcing people to speak a foreign language leads to resistance. A diverse country like India with numerous dialects, scripts and languages can make room for one more.

Issues with UAPA

News Excerpt

The recent orders by the Delhi High Court are perhaps the first instance of a court calling out alleged misuse of the UAPA against individuals in cases that do not necessarily fall in the category of "terrorism" cases.

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- The Unlawful Activities (Prevention) Act 1967 (UAPA) was developed as an anti-terrorism law to prevent such unlawful activities association and maintain the sovereignty and integrity of India. Throughout the years it has been amended for effective application and to serve the primary intent of the act.
- Section 15 of the UAPA defines "terrorist act" and is punishable with imprisonment for a term of at least five years to life. In case the terrorist act results in death, the punishment is death or imprisonment for life.
- UAPA, in relaxing timelines for the state to file chargesheets and its stringent conditions for bail, gives the state more powers compared to the Indian Penal Code.

The Latest Amendment

- The UAPA has been amended on multiple occasions to incorporate the changing techniques of terrorism, from shifting the burden of proof to making extra-territorial arrests. The recent amendment that came was the Unlawful Activities (Prevention) Amendment Act, 2019 (UAPA, 2019) which dealt with expanding the definition of "terrorist" to include individuals under Section 35 and 36 of Chapter VI of the Act.
- It allows the DG of NIA seizure of property from proceeds of terrorism under Section 25 and the powers of officers with the rank of inspectors and above to investigate cases under UAPA Section 43.
- A Review Committee to 'denotify' the individual notified as a terrorist is also constituted by the Central Government.

What is its scope and how has it been expanded over the years?

- The Act provided for declaring an association or a body of individuals "unlawful" if they indulged in any activity that included acts and words, spoken or written, or any sign or representation, that supported any claim to bring about "the cession of a part of the territory of India", or its "secession", or which questions or disclaims the country's sovereignty and territorial integrity.
- Prior to the UAPA's enactment, associations were being declared unlawful under the Criminal Law (Amendment) Act, 1952. However, the SC held that the provision on bans was unlawful because there was no judicial mechanism to scrutinise the validity of any ban. Therefore, the UAPA included provisions for a Tribunal which has to confirm within six months the notification declaring an outfit unlawful.
- In its present form, the Act, after the amendments in 2004 and 2013, covers the declaration of associations as unlawful, punishment for terrorist acts and activities, acts threatening the country's security, including its economic security (a term that covers fiscal and monetary security, food, livelihood, energy ecological and environmental security), and provisions to prevent the use of funds for terrorist purposes, including money laundering.
- The ban on organisations was initially for two years, but from 2013, the period of proscription

has been extended to five years.

- After the prevention of Terrorism Act (POTA), 2002, was repealed, the UAPA was expanded to include what would have been terrorist acts in earlier laws. The 2004 amendments were also aimed at giving effect to various anti-terrorism resolutions of the United Nations Security Council.

Data and Analysis

- ✓ According to data provided by the Ministry of Home Affairs in Parliament in March, a total of 1126 cases were registered under UAPA in 2019, a sharp rise from 897 in 2015.
- ✓ Official statistics on UAPA reveals that police managed just a 29% conviction rate in 2019 and 95% of cases that reached courts in that year are still pending.
- ✓ Despite this poor track record, an increasing number of cases are being registered each year – 901 in 2017, 1182 in 2018 and 1226 in 2019. Of the 2, 361 cases that went to trial in 2019, only 113 saw completions of which just 33 cases saw conviction.
- ✓ Many are of the view that UAPA presumes a person is guilty until proven innocent, contrary to the spirit of the Constitution. The provisions make it tough to get bail. Further, there is no proper disclosure of evidence which makes it more challenging.

What is the origin of the UAPA?

Centre was considering a stringent law against calls for secession in the mid – 1960s. In 1967, a peasant uprising in Naxalbari imparted a sense of urgency. On June 17, 1966, President had promulgated the Unlawful Activities (Prevention) Ordinance “to provide for the more effective prevention of unlawful activities of individuals and associations”.

How do UAPA provisions differ from regular criminal law?

Just like other special laws dealing with narcotic drugs and the now-defunct laws on terrorism, the UAPA also modifies the Code of Criminal Procedure to give it more teeth. A remand order can be for 30 days instead of the usual 15, and the maximum period of judicial custody before the filing of a chargesheet is extendable from the usual 90 days to 180 days. This extension, however, depends on the Public Prosecutor filing a report on the progress in the investigation and giving reasons for seeking another 90 days to complete it. The law also makes it more difficult to obtain bail.

What is the controversy about its bail provisions?

Under sec. 43D(5) of the Act, bail cannot be granted to a suspect if the court is of the opinion that there are reasonable grounds to believe that the charges are prima facie true. A Supreme Court judgment on this has clarified that this meant that the court considering bail should not examine the evidence too deeply, but must go by the prosecution version based on broad probabilities.

SOCIAL ISSUES, GOVERNMENT SCHEMES, REPORTS & INDICES

SDG India Index 2020-21

News Excerpt

Recently, NITI Aayog Released SDG India Index 2020-21 and Kerala has retained the top rank in Index.

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- The Index for Sustainable Development Goals (SDGs) evaluates progress of states and Union Territories (UTs) on various parameters including health, education, gender, economic growth, institutions, climate change and environment. First launched in December 2018, the index has become the primary tool for monitoring progress on the SDGs in India. It has also fostered competition among the states and UTs by ranking them on the global goals.
- The SDG India Index scores range between 0–100, higher the score of a State/UT, the greater the distance to target achieved. States and UTs are classified in four categories based on their SDG India Index score — aspirant: 0–49; performer: 50–64; front-runner: 65–99, achiever: 100. Currently, there are no states in the aspirant and achiever category; 15 states/UTs are in the performer category and 22 states/UTs in the front runner category.

What is the significance of the SDG Indian Index?

- The index is developed in collaboration with the United Nations in India. It tracks the progress of all states and UTs on 115 indicators aligned with the National Indicator Framework (NIF) of the Ministry of Statistics and Programme Implementation.
- The index is a key tool for focused policy dialogue, formulation and implementation through development actions, in line with the global SDG framework.
- It helps in identifying crucial gaps related to tracking the SDGs and the need for India to develop its statistical systems.
- From covering 13 Goals with 62 indicators in its first edition in 2018, the third edition of the index covers 16 Goals on 115 quantitative indicators.

Key Findings of the Index

- ✓ The country’s overall SDG score improved by 6 points — from 60 in 2019 to 66 in 2020-21 — on accounts of improvement in performance in providing facilities including clean water and sanitation, affordable and clean energy among others.
- ✓ While Kerala retained its rank as the top with a score of 75, Himachal Pradesh and Tamil Nadu both took the second spot with a score of 74. Bihar, Jharkhand and Assam were the worst performing states in this year’s India index.
- ✓ Chandigarh maintained its top spot among the UTs with a score of 79, followed by Delhi (68).
- ✓ Mizoram, Haryana and Uttarakhand are the top gainers in 2020-21 in terms of improvement in score from 2019, with an increase of 12, 10 and 8 points
- ✓ Twenty-one states and all UTs bagged a position in the category of front-runners, while no state/UT was in the category of aspirants (with index score less than 50).



Analytica

How can India Achieve Sustainable Development Goals (SDGs) 2030 agenda?

- India is now approaching “one size fits all” by stressing the need for localisation of SDGs to achieve the 2030 SDG agenda but countries can certainly share experience and learn from each other.
- Due to the localisation efforts, the path to implement the 2030 Agenda will be relatively smooth even in the face of the COVID-19 pandemic.
- For the 2030 Agenda to succeed in big countries like India with a population of 1.3 billion, SDG localisation is an imperative.
- Breaking down goals and implementation to sub-national and local levels is the only way to succeed in achieving SDG targets. Localisation also allows developing local solutions to local challenges by empowering provincial and local levels of government.

Conclusion

In spite of the pandemic, we have seen remarkable progress in some crucial goals, for example in Goal 3 (Good Health and Well-Being), Goal 6 (Clean Water and Sanitation), Goal 7 (Affordable and Clean Energy), Goal 11 (Sustainable Cities and Communities) and Goal 12 (Responsible Consumption and Production).

World Employment and Social Out look

News Excerpt

Global unemployment is expected to be at 205 million in 2020, surpassing the 2019 level of 187 million and the jobs shortfall induced by novel coronavirus disease (COVID-19) pandemic was 75 million in 2021 and is expected to be 23 million in 2022, warned the World Employment and Social Outlook: Trends 2021 released by International labour Organization (ILO).

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The report analyses the impact of the crisis on the labour market across the world and offers projections for recovery and gives details of the unequal impact of the crisis on different groups of workers and enterprises and calls for a broad-based human-centered recovery.

Reason for unemployment

- There has been an unprecedented disruption to labour markets worldwide due to COVID-19 pandemic, which has affected the lives of the younger generation and brought about disruption to their education, especially in those regions of the world where digital infrastructure is less developed. Also made it more difficult for them to enter the labour market and hold on to their jobs.
- The pandemic worsened long-standing inequalities with many women workers dropping out of the labour force, putting at risk years of progress towards achieving gender equality and pushing them back to the more traditional gender roles.
- For informal and low-skilled workers, working from home was not an option. Many had to face huge health risks to keep their jobs, often with no access to social security benefits.

When this unemployment situation gets controlled?

- ❖ A process of globally uneven economic recovery can be expected to begin from the second half of 2021 on- wards – driven by progress in vaccination and large-scale fiscal spending.
- ❖ These positive effects will mostly remain limited in their geographical scope without concerted international policy action on both vaccine distribution and fiscal support, including debt relief.
- ❖ Projected employment in 2021, however, will still fall short of its pre-crisis level. In addition, it is likely that there will be fewer jobs than would have been created in the absence of the pandemic.
- ❖ The projected employment growth will be too weak to provide sufficient employment opportunities for those who became inactive or unemployed during the pandemic and for younger cohorts entering the labour market, who have suffered significant disruptions to their education and training.
- ❖ As a result, many previously inactive workers will enter the labour force but will not be able to find employment. This is expected to cause a sustained and pronounced increase in unemployment: from 187 million in 2019 to 220 million in 2020, 220 million in 2021 and 205 million in 2022.

What are the situations in difference sectors?

- Many businesses, particularly micro and small enterprises, have already gone bankrupt or are facing a highly uncertain future, with negative consequences for their future productivity and their ability to retain workers.
- The problem is most pronounced in those sectors of economic activity that have been most affected by the crisis – that is, accommodation and food services, wholesale and retail trade, construction and manufacturing – and in activities where there is a large number of smaller enterprises.

- Informal workers have also been affected disproportionately by the crisis. Roughly 2-billion workers – or 60.1 per cent of the globally employed – were working informally in 2019.
- Informal employees were three times more likely than their formal counterparts, and 1.6 times more likely than the self-employed, to lose their jobs as a result of the crisis, thereby contributing to the observed shift towards self-employment.
- Workers with higher skill levels tend to work in occupations that have been less affected by employment losses and that have benefited from options for working remotely.
- Many migrant workers experienced an abrupt termination of their employment along with nonpayment or delayed payment of wages, and at the same time often lacked access to social protection benefits that could make up for their income losses.



Situation of Unemployment in India due to COVID-19

- ✓ India's unemployment rate rose to its highest level since 1991 during 2020 as coronavirus pandemic caused economy to come to a screeching halt.
- ✓ India's unemployment rate sharply rose to 7.11 per cent in 2020 from 5.27 per cent in 2019, said a report by Centre for Economic Data and Analysis (CEDA) based on the ILOSTAT database of International Labour Organisation. Going back, India saw its unemployment rate rise between 2008, when it was 5.36 per cent to 5.65 per cent in 2010. It maintained a downward trend between 2013 and 2019, when it came down from 5.67 per cent to 5.27 per cent.
- ✓ India also registered higher unemployment rate compared to United States, United Kingdom and Germany between 2015 and 2019, the report said. However, the US had higher unemployment rate as compared to India in 2020 (8.31 per cent). United Kingdom and Germany had unemployment rates of 4.34 per cent and 4.31 per cent, respectively.
- ✓ The rise in unemployment is likely to continue with India looking at double-digit unemployment rate in May this year.

What need to be done?

- There is an urgent need to build back better — create productive employment opportunities and foster long-term labour market prospects for the most vulnerable.
- There is a need to strengthen social protection schemes like the Mahatma Gandhi National Rural Employment Guarantee Scheme in India and make sure nobody is left behind.
- This would require strong institutions and social dialogue and strong international cooperation to fight global disparities.

SAGE (senior care Ageing Growth Engine) initiative

News Excerpt

Recently, the Ministry of Social Justice and Empowerment has launched the SAGE (Senior care Ageing Growth Engine) initiative.

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Significance of SAGE

- The number of elderly people is steadily increasing in our country, so there is a need to keep in mind that the elderly should remain happy, healthy, and financially and physically active for which a Senior Citizen Welfare Fund was started in 2016.
- Taking forward the service programs related to senior citizens, this Senior care Ageing Growth Engine (SAGE) portal has now been launched today. SAGE programme and SAGE portal have been launched with a view to help such persons who are interested in entrepreneurship in the field of providing services for elderly care.

About the SAGE Initiative

- The SAGE portal will be a “one-stop access” of elderly care products and services by credible start-ups. The SAGE portal will be opened for applications from 5th June, 2021 onwards.
- The start-ups will be selected on the basis of innovative products and services, which they should be able to provide across sectors such as health, housing, care centers, apart from technological access linked to finances, food and wealth management, and legal guidance.

Objective of SAGE

- ✓ The key objective of the SAGE initiative is to promote the ‘Silver Economy’ by encouraging entrepreneurial ventures and start-ups to participate in this space.
- ✓ Silver Economy is defined as the system of production, distribution and consumption of goods and services aimed at utilizing the purchasing potential of the older and ageing populations, as well as satisfying their consumption requirements and living essentials and healthcare needs.
- ✓ The Silver Economy is described in the field of social gerontology as an instrument of the ageing policy towards forming a needs-oriented economic ecosystem for an aging population.
- ✓ The SAGE project intends to identify, evaluate, verify and aggregate these needs to deliver products, solutions and services to the stakeholders.
- ✓ Budget Highlights
 - The ministry has allocated an initial sum of Rs. 100 crore (US \$13.7 million) for evaluating and promoting the Silver Economy in India. Nearly one-fourth of this allocated budget, i.e., Rs. 25 crore (US \$ 3.4 million), has been assigned for use in FY2021-22.

What is silver economy?

Silver economy is the system of production, distribution and consumption of goods and services aimed at using the purchasing potential of older and ageing people and satisfying their consumption, living and health needs.

What is Gerontechnology?

Gerontechnology (a mix of “Gerontology” and “Technology”) includes various technical systems and solutions to help the elderly and/or their caregivers perform basic daily activities.

Gerontechnologies enable elders to maintain their autonomy or to compensate for functional impairments.

Key Features

- The government envisions elements of gerontechnology – enabling technologies to suit the requirement of the elderly population – to be vital for implementation of this scheme. Gerontechnology includes various technical systems and solutions to help the elderly and their caregivers perform basic daily activities.
- Gerontechnologies enable elders to maintain their autonomy and help compensate for functional impairments.
- To achieve this objective, the ministry has called upon entrepreneurs and start-ups to develop

impactful and innovative solutions for the elderly.

- The ministry conducted detailed research with expert groups on subjects ranging from financial security, livelihoods and income generation, shelter, skilling & reskilling, healthcare and nutrition, awareness, and capacity building to develop an outline of the ideal senior care model.

Way forward

- ✦ Initial estimations suggest that the Silver Economy is worth Rs. 73,082 crore (US \$ 10 billion) at present. To boost traction in this space, the ministry has pledged Rs. 1 crore (US \$140,000) as the initial equity funding for each start-up selected to commence operations under the SAGE initiative.
- ✦ It will also continue to participate in the initiative by playing the role of a facilitator between businesses and target populations once the start-ups deploy product and service solutions.
- ✦ In addition, the government has outlined a vision for ‘model senior care’ public-private partnership (PPP) projects, in which states will be allowed to allocate land and funds to build capacity and care facilities for senior citizens, including people from the weaker sections of society.
- ✦ The PPP model stressed the need for recognising senior care as a sector with the appropriate regulations and standards, policy support, tax structure, availability of subsidised financing and appropriate governance mechanisms.

Performance Grading Index (PGI) 2019-20

News Excerpt

Recently, the Ministry of Education approved the release of Performance Grading Index (PGI) 2019-20 for States and Union Territories of India. The Government has introduced the Performance Grading Index with a set of 70 parameters to catalyse transformational change in the field of school education.

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Pre-Connect

- The PGI for States and Union Territories was first published in 2019 with reference year 2017-18. The PGI : States/UTs for 2019-20 is the third publication in this series.
- The PGI exercise envisages that the index would propel States and UTs towards undertaking multi-pronged interventions that will bring about the much-desired optimal education outcomes.
- The PGI helps the States/UTs to pinpoint the gaps and accordingly prioritise areas for intervention to ensure that the school education system is robust at every level.

Methodology of PGI

- The information on the indicators is drawn from data available from the Unified District Information System for Education Plus (UDISE+), National Achievement Survey (NAS) of National Council of Educational Research and Training (NCERT), Mid-Day Meal (MDM) website, Public Financial Management System (PFMS) and the Shagun portal.
- The PGI is structured in two categories, namely, Outcomes and Governance & Management and comprises 70 indicators in aggregate with a total weightage of 1000. The detailed list of indicators under each Domain, the respective weights, the data source and the benchmark levels are detailed in Annexure.
- The PGI is structured in two categories, namely, Outcomes and Governance & Management and comprises 70 indicators in aggregate with a total weightage of 1000. The detailed list of indicators under each Domain, the respective weights, the data source and the benchmark levels are detailed in Annexure.
- The total weightage under the PGI is 1000 points with each of the 70 indicators having an assigned weightage of either 10 or 20 points.

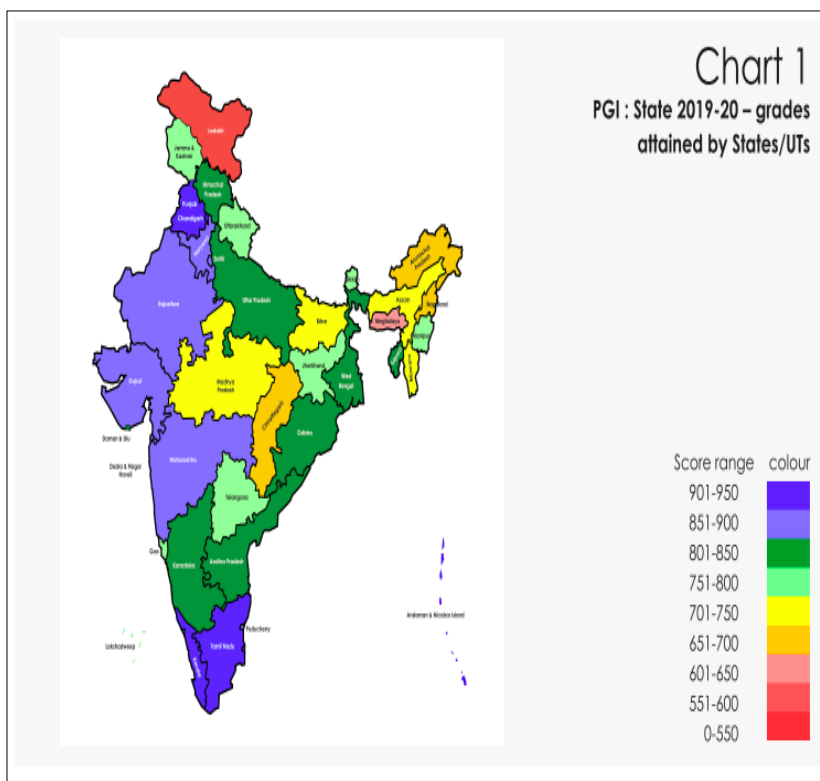
Key Finding of the Index

- ✓ Punjab, Chandigarh, Tamil Nadu, Andaman & Nicobar Islands and Kerala occupy the highest grade (Grade A++) for 2019-20.
- ✓ Most of the States/UTs have improved their grade in PGI 2019-20 compared to the earlier years.
- ✓ Andaman & Nicobar Islands, Arunachal Pradesh, Manipur, Puducherry, Punjab and Tamil Nadu have improved overall PGI score by 10%, i.e., 100 or more points.
- ✓ Andaman & Nicobar Islands, Lakshadweep and Punjab have shown improvement by 10% (8 points) or more in the PGI domain: Access.
- ✓ As many as thirteen States and UTs have shown improvement by 10% (15 points) or more in the PGI domain: Infrastructure and Facilities. Andaman & Nicobar Islands and Odisha have shown improvement by 20% or more.
- ✓ Arunachal Pradesh, Manipur and Odisha have shown more than 10% improvement in the PGI domain: Equity.
- ✓ Nineteen States and UTs have shown improvement by 10% (36 points) or more in the PGI domain: Governance Process. Andaman & Nicobar Islands, Andhra Pradesh, Arunachal Pradesh, Manipur, Punjab, Rajasthan and West Bengal have shown improvement by at least 20% (72 points or more).

Analytica

Area of Concerns

- A Domain-wise analysis also bring out some area of general concern for all the States and UTs. It is pertinent to note that in case of all the five Domains, the top score is more than 90% of maximum possible points in the respective Domain.
- While it is common knowledge that shortage of teachers and principals and administrative staff, lack of regular supervision and inspection, inadequate training of the teachers, timely availability of finances (all of which are captured in the Governance and Management Domain) are some of the factors plaguing the education system in the country, it is for the first time that there is a reliable tool that corroborates this.
- The second area that requires attention is the Domain for Infrastructure and facilities, where twenty States/UTs have scored less than 120 (80% of maximum possible score in this domain).
- This is perhaps the most important Domain and is the ultimate goal of the Index. However, unlike other Domains, which are relatively easier to comply with e.g. providing infrastructure facilities or setting up mechanisms to check attendance, improving Learning Outcomes takes time and patience.
- In case of Learning Outcomes, it has been observed that, in general, the scores obtained in the higher standards are less than those in the lower standards. It is therefore, imperative to ensure better interventions at the lower standards as it will have a positive cascading effect at



the higher levels.

Way forward

- In the arena of School Education & Literacy, guided by the #Shagun comes from the word “Shaala” (meaning school) and “Gunvatta” (meaning excellence) enabling legislative framework of the Right to Education, the National Education Policy 2020 and visionary Sustainable Development Goals (SDGs), Government Schemes like Samagra Shiksha (SS), Mid-Day Meal (MDM) and similar such schemes by the States would deliver the desired result if they are monitored effectively.
- e. In the arena of School Education & Literacy, guided by the #Shagun comes from the word “Shaala” (meaning school) and “Gunvatta” (meaning excellence) enabling legislative framework of the Right to Education, the National Education Policy 2020 and visionary Sustainable Development Goals (SDGs), Government Schemes like Samagra Shiksha (SS), Mid-Day Meal (MDM) and similar such schemes by the States would deliver the desired result if they are monitored effectively.
- A performance-based grant would provide the required incentive to the States and UTs to ensure their continuous and focused attention to this sector, which is crucial for overall growth and development of the country.

YUVA scheme

News Excerpt

Recently, Prime Minister announced the ‘Young, Upcoming and Versatile Authors’ YUVA scheme, a mentorship programme to train young authors.

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Pre-Connect

For a country like India, which tops the world chart in the youth population, we have a lot of potential ready to be tapped into and utilized for capacity and nation-building. This demographic advantage offers India and its economy an unprecedented edge. With this express intent of mentoring a new generation of young creative writers, there is an imminent requirement to take initiatives at the highest level, under the visionary national level flagship programme of Ek Bharat Shreshtha Bharat.

About the Scheme

The scheme is aimed at training 75 aspiring writers below 30 years, who are ready to express themselves and project India and its culture and literature globally. A consolidated scholarship of Rs 50,000 per month for a period of six months per author will be paid under the mentorship scheme.

The government aims to bring reading and authorship as a preferred profession at par with other job options. It is also expected to impart a positive psychological push to the young minds amidst the impact of the Covid-19 pandemic on the mental health of children.

The Procedure for Selection to the programme

- A total of 75 authors will be selected through an All India Contest at MyGov.
- The selection will be made by a Committee to be constituted by NBT.
- The contest will run from 4th June to 31st July 2021.
- The contestants will be asked to submit a manuscript of 5,000 words to judge its suitability to develop as a proper book under the Mentorship Scheme.
- The names of selected authors will be announced on the occasion of Independence Day on 15th August 2021.
- Based on mentorship, the selected authors will prepare manuscripts for final selection under the guidance of the nominated mentors.
- The entries of the winners will be readied for publication by 15th December 2021.
- The published books may be launched on 12th January 2022 on YUVA DIVAS or the National Youth Day.

All India Survey on Higher Education (AISHE) 2019-20

News Excerpt

Recently, Ministry of Education announced the release of the report of All India Survey on Higher Education 2019-20. This Report provides key performance indicators on the current status of Higher education in the country.

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Pre-Connect

- To portray the status of higher education in the country, Ministry of Education has endeavored to conduct an annual web-based All India Survey on Higher Education (AISHE) since 2010-11. The survey covers all the Institutions in the country engaged in imparting of higher education. Data is being collected on several parameters such as teachers, student enrolment, programmes, examination results, education finance, infrastructure.
- Indicators of educational development such as Institution Density, Gross Enrolment Ratio, Pupil-teacher ratio, Gender Parity Index, Per Student Expenditure will also be calculated from the data collected through AISHE. These are useful in making informed policy decisions and research for development of education sector.

About the Report

This report is the 10th in the series of AISHE annually released by the Department of Higher Education. The continuous rise in the enrolment, number of institutions, gender parity is a part of our country's major move towards improving access, equity and quality in light of National Education Policy (NEP) 2020.

Key Features of AISHE 2019-20

- **Total Enrolment** in Higher Education stands at 3.85 crore in 2019-20 as compared to 3.74 crore in 2018-19, registering a growth of 11.36 lakh (3.04 %). Total enrolment was 3.42 crore in 2014-15.
- **Gross Enrolment Ratio (GER)**, the percentage of students belonging to the eligible age group enrolled in Higher Education, in 2019-20 is 27.1% against 26.3% in 2018-19 and 24.3% in 2014-2015.
- **Gender Parity Index (GPI)** in Higher Education in 2019-20 is 1.01 against 1.00 in 2018-19 indicating an improvement in the relative access to higher education for females of eligible age group compared to males.
- **Pupil Teacher Ratio** in Higher Education in 2019-20 is 26.
- 3.38 crore Students enrolled in programmes at under-graduate and post-graduate level. Out of these, nearly 85% of the students (2.85 crore) were enrolled in the six major disciplines such as Humanities, Science, Commerce, Engineering & Technology, Medical Science and IT & Computer.
- **The number of students pursuing PhD** in 2019-20 is 2.03 lakh against 1.17 lakh in 2014-15.
- The **Total Number of Teachers** stands at 15,03,156 comprising of 57.5% male and 42.5% female.
- However, some professional programmes such as MBA, MBBS, B.Ed. and LLB continued to attract more students. The number of students pursuing an MBA, for instance, grew from 4,09,432 in 2014-15 to 4,62,853 in 2018-19. Similarly, enrolment in B.Ed. jumped by almost 80 per cent, from 6,57,194 in 2014-15 to 11,75,517 last year.

Analytica

✓ Challenges in Higher Education in India

Some of the basic challenges in higher education system in India are discussed below:

- **Enrolment:** The Gross Enrolment Ratio (GER) of India in higher education is only 15% which is quite low as compared to the developed as well as, other developing countries. With the increase of enrolments at school level, the supply of higher education institutes is insufficient to meet the growing demand in the country.
- **Equity:** There is no equity in GER among different sects of the society. According to previous studies the GER in higher education in India among male and female varies to

a greater extent. There are regional variations too some states have high GER while as some is quite behind the national GER which reflect a significant imbalances within the higher education system.

- **Quality:** Quality in higher education is a multi-dimensional, multilevel, and a dynamic concept. Ensuring quality in higher education is amongst the foremost challenges being faced in India today. However, Government is continuously focusing on the quality education. Still Large number of colleges and universities in India are unable to meet the minimum requirements laid down by the UGC and our universities are not in a position to mark its place among the top universities of the world.
- **Infrastructure:** Poor infrastructure is another challenge to the higher education system of India particularly the institutes run by the public sector suffer from poor physical facilities and infrastructure. There are large number of colleges which are functioning on second or third floor of the building on ground or first floor there exists readymade hosieries or photocopy shops.
- **Political interference:** Most of the educational Institutions are owned by the political leaders, who are playing key role in governing bodies of the Universities. They are using the innocent students for their selfish means. Students organise campaigns, forget their own objectives and begin to develop their careers in politics.
- **Faculty:** Faculty shortages and the inability of the state educational system to attract and retain well qualified teachers have been posing challenges to quality education for many years. Large numbers of NET / PhD candidates are unemployed even there are lot of vacancies in higher education, these deserving candidates are then applying in other departments which is a biggest blow to the higher education system.
- **Research and Innovation:** there are very nominal scholars in our country whose writing is cited by famous western authors. There is inadequate focus on research in higher education institutes. There are insufficient resources and facilities, as well as, limited numbers of quality faculty to advice students. Most of the research scholars are without fellowships or not getting their fellowships on time which directly or indirectly affects their research.

Suggestions Improving the System of Higher Education

- There is a need to implement innovative and transformational approach form primary to higher education level to make Indian educational system globally more relevant and competitive.
- Higher educational institutes need to improve quality and reputation.
- There should be a good infrastructure of colleges and universities which may attract the students.
- Government must promote collaboration between Indian higher education institutes and top International institutes and also generates linkage between national research laboratories and research centers of top institutions for better quality and collaborative research.
- There is a need to focus on the graduate students by providing them such courses in which they can achieve excellence, gain deeper knowledge of subject so that they will get jobs after recruitment in the companies which would reduce unnecessary rush to the higher education. Universities and colleges in both public private must be away from the political affiliations, Favouritism, money making process should be out of education system etc.
- There should be a multidisciplinary approach in higher education so that students knowledge may not be restricted only upto his own subjects.

Conclusion

- ✚ Education is a process by which a person's body, mind and character are formed and strengthened. It is bringing of head, heart and mind together and thus enabling a person to develop an all-round personality identifying the best in him or her. Higher education in India has expanded very rapidly in the last six decades after independence yet it is not equally accessible to all.
- ✚ Opportunities are available but how to get benefits from these opportunities and how to make them accessible to others is the matter of concern

- ✦ In order to sustain that rate of growth, there is need to increase the number of institutes and also the quality of higher education in India. To reach and achieve the future requirements there is an urgent need to relook at the Financial Resources, Access and Equity, Quality Standards, Relevance, infrastructure and at the end the Responsiveness.

NAFED launches Fortified Rice Bran Oil

News Excerpt

Department of Food and Public Distribution recently E-launched “Nafed Fortified Rice Bran Oil”.

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Pre-Connect

National Agricultural Cooperative Marketing Federation of India Ltd. (NAFED) was established on the auspicious day of Gandhi Jayanti in October 1958. Nafed is registered under the Multi State Co-operative Societies Act. Nafed was setup with the object to promote Co-operative marketing of agricultural produce to benefit the farmers. Agricultural farmers are the main members of Nafed, who have the authority to say in the form of members of the General Body in the working of Nafed.

About the Fortified Rice Bran Oil

- This initiative by Nafed will significantly reduce the country's consumption dependence on imported edible oil in future. It also said that this will provide opportunities for Indian edible oil manufacturers further, and also will give an impetus to the Prime Minister's Aatmanirbhar Bharat initiative.
- This initiative will provide easy access to NAFED branded high-quality rice bran oil, which will boost the indigenous oil manufacturing industry.
- It will broaden the organization’s consumer marketing segment by offering daily essential healthy products at affordable price.

Procedure

- Rice bran oil from NAFED will be fortified and will contain additional nutrients and vitamins.
- According to the FSSAI, fortified oil can help a person fulfil 25-30 per cent of the recommended dietary intake for vitamins A and D.
- AFED Fortified Rice Bran Oil will be available at all NAFED Stores and also on various online platforms and is recommended by the American Heart Association and the World Health Organization (WHO) as one of the best substitutes for other edible oils.

Health Benefits

- ✓ Rice Bran oil has multiple health benefits, including lowering cholesterol level due to its low trans-fat content and high mono unsaturated and poly unsaturated fat contents.
- ✓ It also acts as a booster and reduces the risk of cancer due to the high amount of Vitamin E it contains.
- ✓ This oil is recommended by The American Heart Association and the World Health Organization (WHO) as one of the best substitutes for other edible oils.

World Drug Report

News Excerpt

Around 275 million people used drugs worldwide last year, while over 36 million people suffered from drug use disorders, according to the World Drug Report released recently by United Nations office on Drug and Crime.

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Pre-Connect

For two decades, the United Nations Office on Drugs and Crime (UNODC) has been helping make the world safer from drugs, organized crime, corruption and terrorism.

The Office is committed to supporting Member States in implementing the 2030 Agenda for Sustainable Development and the 17 Sustainable Development Goals (SDGs) at its core. The 2030

Agenda clearly recognizes that the rule of law and fair, effective and humane justice systems, as well as health-oriented responses to drug use, are both enablers for and part of sustainable development.

About the report

- In the last 24 years cannabis potency had increased by as much as four times in parts of the world, even as the percentage of adolescents who perceived the drug as harmful fell by as much as 40 per cent, despite evidence that cannabis use is associated with a variety of health and other harms, especially among regular long-term users.
- Lower perception of drug use risks has been linked to higher rates of drug use.
- The percentage of Δ9-THC – the main psychoactive component in cannabis - has risen from Around six per cent to more than 11 per cent in Europe between 2002-2019.
- Around four per cent to 16 per cent in the United States between 1995-2019
- while the percentage of adolescents that perceived cannabis as harmful declined by 40 per cent in the United States and by 25 per cent in Europe.
- Most countries have reported a rise in the use of cannabis during the pandemic. In surveys of health professionals across 77 countries, 42 per cent asserted that cannabis use had increased.

“The theme of this year’s International Day against Drug Abuse and Illicit Trafficking is “Share facts on drugs. Save lives”, emphasizing the importance of strengthening the evidence base and raising public awareness, so that the international community, governments, civil society, families and youth can make informed decisions, better target efforts to prevent and treat drug use, and tackle world drug challenges.”

Analytica

Drug Use Rising, but science-Based Treatment More Available

- Between 2010-2019 the number of people using drugs increased by 22 per cent, owing in part to global population growth.
- Based on demographic changes alone, current projections suggest an 11 per cent rise in the number of people who use drugs globally by 2030 -- and a marked increase of 40 per cent in Africa, due to its rapidly growing and young population.
- According to the latest global estimates, about 5.5 per cent of the population aged between 15 and 64 years have used drugs at least once in the past year, while 36.3 million people, or 13 per cent of the total number of persons who use drugs, suffer from drug use disorders.
- Globally, over 11 million people are estimated to inject drugs, half of whom are living with Hepatitis C. Opioids continue to account for the largest burden of disease attributed to drug use.

The Dark Web

- ✓ Drug markets on the dark web only emerged a decade ago but major ones are now worth at least US\$ 315 million in annual sales.
- ✓ Rapid technological innovation, combined with the agility and adaptability of those using new platforms to sell drugs and other substances, is likely to usher in a globalized market where all drugs are more available and accessible everywhere. This, in turn, could trigger accelerated changes in patterns of drug use and entail public health implications.

India

Drug Abuse Problem in India

- Prescription drug abuse is growing in India and the problem is serious in South Asia. According to a UN report, drugs enter the cross-border illicit markets through various channels, being diverted from India’s pharmacy industry and smuggled from Afghanistan.
- The International Narcotics Control Board (INCB), an independent UN body tasked with monitoring the production and consumption of narcotics worldwide, said in its annual report

that governments in South Asia continue to respond strongly to the threat of drug trafficking and abuse in the region.

- According to UNODC, India accounts for 10 percent of the total pharmaceuticals produced in the world. In its report, it noted that the law required all drugs with “abuse potential” to be sold only on prescription, but that there was “significant diversion” from this.
- According to a study by the Delhi Commission for Protection of Child Rights on Substance Abuse by Children, 100 percent of the children in conflict with the law were drug abusers, while 95.5 percent of them staying in child care institutions were on drugs and 93 percent of street children consumed narcotics. The study also states that 88 percent of the children consumed drugs due to “peer pressure”.

Steps Taken by the Indian Government

- ✦ **NashaMukt Bharat Annual Action Plan for 2020-21:** It aims to focus on 272 most affected districts and launch a three-pronged attack combining efforts of Narcotics Bureau, Outreach/Awareness by Social Justice and Treatment through the Health Dept. The Action Plan has the following components: Awareness generation programmes; Focus on Higher Educational institutions, University Campuses and Schools; Community outreach and identification of dependent population; Focus on Treatment facilities in Hospital settings; and Capacity Building Programmes for Service Provider.
- ✦ The Ministry of Social Justice and Empowerment has drafted a five-year action plan for addressing the problem of drug and substance abuse in the country. **The National Action Plan for Drug Demand Reduction (2018-2023)** aims to employ a multi-pronged strategy — involving education, de-addiction and rehabilitation of affected individuals and their families — to address the issue.
- ✦ The Indian government has taken a significant step to help alcohol and drug abusers by launching a national toll-free helpline number – 1800-11-0031 and control drug abuse in India. The helpline was started to set in motion the Indian Prime Minister’s plan to eradicate the menace of drug abuse in India and assist the existing victims in successful rehabilitation.

United Nations Office On Drugs And Crime (UNODC)

- ❖ UNODC was established in 1997 as part of the United Nations reform combining the previous UN Drug Control Programme and the Centre for International Crime Prevention.
- ❖ The mandate of the Office is enshrined in UN conventions like the three UN Conventions on Drugs, the UN Convention against Transnational Organized Crime and its three Protocols on Trafficking in Persons, on Smuggling of Migrants by Land, Sea and Air and on Illicit Manufacturing of and Trafficking in Firearms, the UN Convention against Corruption, the universal instruments against terrorism and the UN standards and norms in crime prevention and criminal justice.
- ❖ With the help of these instruments, UNODC helps Member States address the issues of illicit drugs, crime and terrorism.
- ❖ UNODC is headquartered in Vienna, Austria.

Not-for-Profit Hospital Model in India

News Excerpt

NITI Aayog recently released a comprehensive study on the not-for-profit hospital model in the country, in a step towards closing the information gap on such institutions and facilitating robust policymaking in this area.

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Pre-Connect

NITI Aayog has been extensively studying the private-sector healthcare-delivery landscape in the country. While there exists adequate information on for-profit healthcare providers and institutions, there is a dearth of reliable and structured information on their not-for-profit counterparts, known for their tireless service in making quality healthcare accessible and

affordable to everyone.

Need for the study

There has been relatively low investment in the expansion of the health sector in the private domain. The stimulus that is recently announced provides an opportunity to change this situation. The report on the not-for-profit sector is a small step in that direction.

About the Study

- The study provides insights into the operation model of not-for-profit hospitals.
- It presents research-based findings on such hospitals—categorized under ownership and premise of service—and makes subsequent comparisons with private hospitals and health schemes of the Union government.
- The study discusses in detail the cost-containment strategies implemented by not-for-profit hospitals. It seeks to understand the challenges that burden the operations of these institutions and hinder their growth.
- The report proposes short- and long-term policy interventions—such as developing criteria to identify these hospitals, ranking them through a performance index, and promoting top hospitals for practising philanthropy, among others.
- It also highlights the need to use the expertise of these hospitals in managing human resources with limited finance in remote areas.

Benefits

- The not-for-profit hospital sector provides not only curative but also preventive healthcare.
- It links healthcare with social reform, community engagement, and education.
- It uses government resources and grants to provide cost-effective healthcare to people without being concerned about profits.



The advertisement is a vertical banner with a blue and white color scheme. At the top, it features the KSG logo with the tagline 'An Institute For IAS Exam.'. Below the logo, it lists the following courses and dates:

- UPSC/IAS 2022**
- FOUNDATION COURSE** starting on **11th Aug**
- ADVANCE FOUNDATION COURSE** starting on **5th Sep**, with a sub-note: 'Especially Designed For College Students'
- TEST SERIES** (INTEGRATED / PRELIMS / MAINS)
- CARe**: 15 MONTHS OF CURRENT AFFAIRS VIA ENRICHMENT SESSIONS
- NEEV**: ALL RELEVANT NCERTS VIA ENRICHMENT SESSIONS

At the bottom, it says 'For Details [CLICK HERE](#)' and 'www.ksgindia.com'.

ECONOMY

Surge in FDI inflows

News Excerpt

India received \$64 billion in foreign direct investment (FDI) in 2020, the fifth largest recipient of inflows in the world, according to a UN report which said the Covid-19 second wave in the country weighs heavily on the country's overall economic activities but its strong fundamentals provide “optimism” for the medium term.

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Highlights

- Recently released the World Investment Report 2021 by the UN Conference on Trade and Development (UNCTAD) said that the global FDI flows have been severely hit by the pandemic and they plunged by 35 per cent in 2020 to \$1 trillion from \$1.5 trillion the previous year.
- Lockdowns caused by Covid-19 around the world slowed down existing investment projects, and prospects of a recession led multinational enterprises (MNEs) to reassess new projects.
- The report said in India, FDI increased 27 per cent to \$64 billion in 2020 from \$51 billion in 2019, pushed up by acquisitions in the information and communication technology (ICT) industry, making the country the fifth largest FDI recipient in the world.
- The pandemic boosted demand for digital infrastructure and services globally. This led to higher values of greenfield FDI project announcements targeting the ICT industry, rising by more than 22 per cent to \$81 billion.
- Major project announcements in the ICT industry included a \$2.8-billion investment by online retail giant Amazon in ICT infrastructure in India.
- Announced greenfield projects in India contracted by 19 per cent to \$24 billion, and the second wave in April 2021 is affecting economic activities, which could lead to a larger contraction in 2021.
- The outbreak in India severely hit main investment destinations such as Maharashtra, which is home to one of the biggest automotive manufacturing clusters (Mumbai–Pune–Nasik–Aurangabad) and Karnataka (home to the Bengaluru tech hub), which face another lockdown as of April 2021, exposing the country to production disruption and investment delays.
- Yet India’s strong fundamentals provide optimism for the medium term. FDI to India has been on a long-term growth trend and its market size will continue to attract market-seeking investments. In addition, investment into the ICT industry is expected to keep growing.
- The country’s export-related manufacturing, a priority investment sector, will take longer to recover, but government facilitation can help. India’s Production Linkage Incentive (PLI) scheme, designed to attract manufacturing and export-oriented investments in priority industries including automotive and electronics can drive a rebound of investment in manufacturing.
- The report said FDI in South Asia rose by 20 per cent to \$71 billion, driven mainly by strong M&As in India. “Amid India’s struggle to contain the Covid-19 outbreak, robust investment through acquisitions in ICT (software and hardware) and construction bolstered FDI.
- It said adding that cross-border M&As surged 83 per cent to \$27 billion, with major deals involving ICT, health, infrastructure and energy.
- FDI outflows from South Asia fell 12 per cent to \$12 billion, driven by a drop in investment from India. India ranked 18 out of the world’s top 20 economies for FDI outflows, with \$12 billion of outflows recorded from the country in 2020, compared to \$13 billion in 2019.
- Investments from India are expected to stabilise in 2021, supported by the country’s resumption of free trade agreement (FTA) talks with the European Union (EU) and its strong investment in Africa.
- This has major impact on the prospects for South Asia. A wider resurgence of the virus in Asia could significantly lower global FDI in 2021, given that region’s significant contribution to the total.

- FDI inflows to developing Asia grew by 4 per cent to \$535 billion in 2020, making it the only region to record growth and increasing Asia's share of global inflows to 54 per cent.
- In China, FDI increased by 6 per cent to \$149 billion. While some of the largest economies in developing Asia such as China and India recorded FDI growth in 2020, the rest recorded a contraction.
- The report added that FDI inflows in Asia are expected to increase in 2021, outperforming other developing regions with a projected growth of 5–10 per cent.
- Signs of trade and industrial production recovering in the second half of 2020 provide a strong foundation for FDI growth in 2021. Yet, substantial downside risks remain for the many economies in the region that struggle to contain successive waves of Covid-19 cases and where fiscal capacity for recovery spending is limited.
- Economies in East and South-East Asia, and India, will continue to attract foreign investment in high-tech industries, given their market size and their advanced digital and technology ecosystem.

Analytica

- Critics believe that there is a wide gap between gross FDI inflow and direct investment to India.
- FDI inflow increasingly consists of private equity funds, which are usually disinvested after 3-5 years to book profits (per its business model). In principle, private equity funds do not make long-term greenfield investment.
- Similarly, measured on a net basis (that is, “direct investment to India” net of “FDI by India” or, outward FDI from India), direct investment to India has barely risen (0.8%) in 2020-21 over the last year.
- According to critics, rise in gross inflow is almost entirely on account of “Net Portfolio Investment”, shooting up from \$1.4 billion in 2019-20 to \$36.8 billion in the next year.
- FDI inflow, in theory, is supposed to bring in additional capital to augment potential output (taking managerial control/stake). In contrast, foreign portfolio investment, as the name suggests, is short-term investment in domestic capital (equity and debt) markets to realise better financial returns (that is, higher dividend/interest rate plus capital gains).
- According to critics, the flood of FIIs has boosted stock prices and financial returns. These inflows did little to augment fixed investment and output growth.

Surge in Direct Tax FY2021-22

- ❖ Finance Ministry recently said that India's direct tax collections in the first two and a half months of 2021-22 stand at nearly ₹1.86 lakh crore, double the collections over the same period of last year that was affected by the national lockdown.
- ❖ Economists said the tax collections suggest the first quarter of this year could record double-digit growth.
- ❖ The jump in the direct tax collections in Q1 FY2022 relative to Q1 FY2021, reflects healthy exports and a continuation of various industrial and construction activities, given the lower stringency of the staggered regional lockdowns in 2021 vs. the nationwide lockdown in 2020. This supports our expectation that GDP will record a double-digit expansion in first Q1.
- ❖ The direct collections from April 1 to June 15 include Corporation Tax collections of ₹74,356 crore and Personal Income Tax inflows, which include the Security Transaction Tax of ₹1.11 lakh crore. The collections last year over the same period were ₹ 92,762 crore.

G-SAP 2.0

News Excerpt

The Reserve Bank of India (RBI) has recently decided to conduct another operation under G-SAP 1.0 for purchase of G-Secs of ₹40,000 crore. Of this, ₹10,000 crore would constitute purchase of State Development Loans (SDLs). It has also been decided to undertake G-SAP 2.0 in Q2:2021-22 and conduct secondary market purchase operations of ₹1.20 lakh crore to support the market.

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- Earlier, the Governor of RBI had indicated that in addition to G-SAP, the Reserve Bank will continue to deploy regular operations under the LAF, longer-term repo/reverse repo auctions, forex operations and open market operations, including special OMOs, to ensure that liquidity conditions evolve in consonance with the stance of monetary policy and financial conditions remain supportive for all stakeholders.
- During the current year so far, the Reserve Bank has undertaken regular OMOs and injected additional liquidity to the tune of ₹36,545 crore (up to May 31) in addition to ₹60,000 crore under G-SAP 1.0.
- A purchase and sale auction under operation twist has also been conducted on May 6, 2021 to facilitate the smooth evolution of the yield curve.

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- Government Securities Acquisition Programme (G-SAP)- through it, RBI aims to purchase government securities worth Rs 1 lakh crore in the first quarter of FY22.
- In the backdrop of the government’s elevated borrowing for this year, which the RBI has to ensure, goes through without causing disruption, G-SAP aims to provide more comfort to the bond market.
- Market participants say they have always wanted to know the RBI’s Open Market Operations (OMO) purchase calendar, and the RBI has now provided that to the market through this announcement on GSAP.
- A report by Edelweiss Mutual Fund states that it will provide certainty to the bond market participants with regard to RBI’s commitment of support to the bond market in FY22.

Cryptocurrency: Bitcoin legal tender in El Salvador

News Excerpt

El Salvador, a small coastal country in Central America recently became the first in the world to make Bitcoin, a digital currency legal. The El Salvador Parliament approved the move by a supermajority of 62 out of 84.

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- The development in El Salvador changes little in terms of Indian monetary calculations around cryptocurrencies. The dynamic underpinning the whole move is that El Salvador has no monetary policy of its own and hence, no local currency to protect. The country was officially ‘dollarized’ in 2001 and runs on the monetary policy of the US Federal Reserve.
- It is said that the move in El Salvador is in part motivated by loose and expansionary Federal Reserve policy. While banks in the US received liquidity with the stimulus, El Salvador did not but lost purchasing power instead.
- The official bill proposal stated explicitly that “central banks are increasingly taking actions that may cause harm to the economic stability of El Salvador and in order to mitigate the negative impact of central banks, it becomes necessary to authorize the circulation of a digital currency with a supply that cannot be controlled by any central bank and is only altered in accord with objective and calculable criteria i.e, Bitcoin.
- President NayibBukele, however, clarified that he does not believe this constitutes “de-dollarization” of the economy. He believes the dollar will continue to remain the dominant

currency in the country and Bitcoin would exist side by side. He also appeared sceptical that Bitcoin would be held in the reserves of the country.

- Indeed, some analysts have pointed out how bitcoinization might change nothing on ground if “legal tender” is to be considered by its strict legal definition, in which case it places no obligation for merchants to accept the currency in transactions.
- However, as a result of this development, El Salvador becomes a most interesting case study of how the dollar and bitcoin would coexist side by side, and how that would play out for Bitcoin adoption.

Implications on India

- One implication that is relevant to India is the impact this could have on remittances. Remittances make up close to 20% of El Salvador’s GDP with flows approximating \$6 billion annually.
- Many citizens lack a bank account and digital banking has low penetration. In this scenario, there are multiple intermediaries in the remittance chain who take cuts of as high as 20%.
- The impact Bitcoin has on these remittance inflows would be worth monitoring for India, which is home to the largest remittance market in the world.
- Although there might not be many lessons from a monetary policy perspective but efficiency, anti money-laundering and other aspects could be closely monitored.
- The implication of this move for money laundering is unclear at the moment. Currently El Salvador is not considered deficient under the FATF money laundering requirements.
- However, with large scale cryptocurrency inflows and outflows, it would be expected that El Salvador would comply with the 2019 FATF guidance on Virtual Currencies which mandates multiple KYC requirements on cryptocurrency activity.
- It is unclear if these are in place in El Salvador or would be put in place. It could be that the country faces challenges on this front unless there is a rapid push to put in place the necessary oversight measures.
- The overall takeaway for India from the El Salvador case is not in the monetary sense at all but as an example of how far countries are willing to go to attract what they believe is the ultimate prize – innovators and entrepreneurs working on this emerging sector.
- This is the wealth that India has in spades and has barely protected with policy. While deliberations continue in India on the monetary and financial regulations around cryptocurrency, it is important that attention be paid to incentives for India’s developers working on key innovations in the space.

Beed Model of Pradhan Mantri Fasal Bima Yojana

News Excerpt

Recently, Maharashtra Chief Minister met Prime Minister and asked him for state-wide implementation of the ‘Beed model’ of the crop insurance scheme Pradhan Mantri Fasal Bhima Yogna (PMFBY).

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- Launched in 2016, the flagship PMFBY insures farm losses against inclement weather events. Farmers pay 1.5-2% of the premium with the rest borne by the state and central governments. It is a central scheme implemented by state agriculture departments as per central guidelines.
- For farmers, the low rate of premium and relatively decent coverage makes the scheme attractive. A premium of Rs 1,300 can insure a hectare of soyabean for Rs 45,000. Prior to 2020, the scheme was optional for farmers who did not have loans pending, but mandatory for loanee farmers.
- Since 2020, it has been optional for all farmers. In Maharashtra, over the years, more non-loanee farmers have enrolled, although it was optional for them.
- A total of 422 lakh farmers in the country had enrolled for the scheme paying a combined premium of Rs 3,018 crore (farmers’ share only) and insuring 328 lakh hectares in 2019-20.

- Till date, 184.9 lakh framers have received claims worth Rs 20,090 crore (according to the Fasal Bhima Yogna website; some kharif claims are yet to be finalised.)

What is Beed Model?

- Located in the drought-prone Marathwada region, the district of Beed presents a challenge for any insurance company. Farmers here have repeatedly lost crops either to failure of rains or to heavy rains.
- Given the high payouts, insurance companies have sustained losses. The state government had a difficult time getting bids for tenders to implement the scheme in Beed.
- During the 2020 kharif season, tenders for implementation did not attract any bids. So, the state Agriculture Department decided to tweak the guidelines for the district. The state-run Indian Agricultural Insurance Company implemented the scheme.
- Under the new guidelines, the insurance company provided a cover of 110% of the premium collected, with caveats. If the compensation exceeded the cover provided, the state government would pay the bridge amount. If the compensation was less than the premium collected, the insurance company would keep 20% of the amount as handling charges and reimburse the rest to the state government.
- Last kharif season, Beed reported premium collection of Rs 803.65 crore (farmers' share was Rs 60.82 crore while the rest was borne by the state and central governments). Kharif claims stood at Rs 8.61 crore, and thus insurance companies reimbursed the state with Rs 6341.41 crore of premium after deducting Rs 160.63 crore as handling charges.
- In a normal season where farmers report minimal losses, the state government is expected to get back money that can form a corpus to fund the scheme for the following year. However, the state government would have to bear the financial liability in case of losses due to extreme weather events.

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- ✓ The reason why Maharashtra is pushing for this scheme is that in most years, the claims-to-premium ratio is low with the premium being paid to the company.
- ✓ In the Beed model, the profit of the company is expected to reduce and the state government would access another source of funds.
- ✓ The reimbursed amount can lead to lower provisioning by the state for the following year, or help in financing the paying the bridge amount in case of a year of crop loss. For farmers, however, this model does not have any direct benefit.

PMFME Scheme

News Excerpt

The centrally sponsored Pradhan Mantri Formalisation of Micro food processing Enterprises (PMFME) Scheme, launched under the Aatma nirbhar Bharat Abhiyan, to enhance the competitiveness of existing individual micro-enterprises in the unorganized segment of the food processing industry and promote formalization of the sector, marks the completion of its one year.

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- Launched on 29th June 2020. The online portal for the application of the PMFME Scheme was made live on 25th January 2021.
- More than 9000 individual beneficiaries have registered on the portal, out of which more than 3500 applications have been successfully submitted under the scheme.

About the PMFME Scheme

- Launched under the Aatmanirbhar Bharat Abhiyan, the Pradhan Mantri Formalisation of Micro food processing Enterprises (PMFME) Scheme is a centrally sponsored scheme that aims to enhance the competitiveness of existing individual micro-enterprises in the unorganized segment of the food processing industry and to promote formalization of the sector and provide support to Farmer Producer Organizations, Self Help Groups, and Producers Cooperatives along their entire value chain.

- With an outlay of Rs. 10,000 cr over a period of five years from 2020-21 to 2024-25, the scheme envisages to directly assist the 2,00,000 micro food processing units for providing financial, technical, and business support for upgradation of existing micro food processing enterprises.

Milestones achieved under the PMFME Scheme

1. One District One Product:

- a. Under the One District One Product (ODOP) component of the PMFME Scheme, the Ministry of Food Processing Industries approved ODOP for 707 districts for 35 States and UTs, including 137 unique products as per the recommendations received by States/UTs.
- b. The GIS ODOP digital map of India has been launched to provide details of ODOP products of all the States and UTs.
- c. The digital map also has indicators for Tribal, SC, ST, and aspirational districts. It will enable stakeholders to make concerted efforts for its value chain development.

2. Convergence

- a. Under the PMFME Scheme, the Ministry signed three joint letters with the Ministry of Rural Development, the Ministry of Tribal Affairs, and the Ministry of Housing and Urban Affairs.
- b. The Ministry of Food Processing Industries has signed six Memorandum of Understanding (MoUs) with the Indian Council of Agricultural Research (ICAR), the National Cooperative Development Corporation (NCDC), the Tribal Cooperative Marketing Development Federation of India (TRIFED), the National Agricultural Cooperative Marketing Federation of India Ltd. (NAFED), National Scheduled Castes Finance and Development Corporation (NSFDC), and Rural Self Employment Training Institutes (RSETI).
- c. An agreement has been signed with the Union Bank of India as the Nodal Bank of the scheme and MoUs with 11 banks as official lending partners for the PMFME Scheme.

3. Capacity Building and Incubation Centres

- a. Under the Capacity Building component of the PMFME Scheme, the National Institute of Food Technology Entrepreneurship and Management (NIFTEM) and the Indian Institute of Food Processing Technology (IIFPT) have been performing a key role in providing training and research support to selected enterprises/groups/clusters in partnership with the State Level Technical Institutions.
- b. NIFTEM & IIFPT have prepared training modules on 137 ODOPs. Training of 469 District Level Trainers has been conducted in 18 States/UTs and in progress in other States. 491 District Resource Persons have been appointed across 302 districts.
- c. Under the scheme, 54 Common Incubation Centres have been approved in the 17 States and UTs like Karnataka, Uttar Pradesh, Rajasthan, J&K, Madhya Pradesh, Tamil Nadu, Telangana, Chhattisgarh, Himachal Pradesh, Kerala, Sikkim, Andaman & Nicobar, Andhra Pradesh, Meghalaya, Mizoram, Odisha, and Uttarakhand.
- d. The Ministry of Food Processing Industries in collaboration with the IIFPT has developed an online portal for submission of Common Incubation Centre proposals and an online common incubation centre map for the facilitation of details of incubation centres across the country.

4. Seed Capital

- a. The component under PMFME for providing seed capital to SHGs is being implemented with the support of the National Rural Livelihood Mission (NRLM) and its network of State Rural Livelihood Mission (SRLMs) operating at the state level.
- b. The PMFME Scheme envisages financial support of Rs. 40,000 for working capital and purchase of small tools for each member of SHGs engaged in food processing activities.
- c. To date, NRLM has recommended 43,086 SHG members to State Nodal Agencies (SNA) for an amount of Rs. 123.54 Cr. SNA has approved the seed capital of 8040 members

and disbursed the amount of Rs. 25.25 Cr. to SRLM.

5. Marketing and Branding

- a. Under the scheme, MoUs have been signed with NAFED and TRIFED to take up the marketing and branding support for 10 products each.
- b. NAFED has selected products like Pineapple, Millet based products, Coriander, Makhana, Honey, Ragi, Bakery, Isabgol, Turmeric, and Cherry for branding and marketing support.
- c. TRIFED has selected products like Honey, Tamarind, Spices, Amla, Pulses/Grains/Millet, Custard Apple, Wild Mushroom, Cashew, Black Rice, and Wild Apple under the scheme.

6. Institutional Mechanism

- a. All the 35 participating States and UTs have constituted/ identified their respective State Nodal Agencies, State Level Approval Committees, District Level Committees, and State Level Technical Institutions.
- b. Moreover, a call centre has been established at NIFTEM to address queries and guide the stakeholders of the Scheme.

7. Promotion and Publicity of the PMFME Scheme

- a. The Ministry of Food Processing Industries in collaboration with States/UTs and Agricultural Universities is conducting nationwide promotion and publicity of the PMFME Scheme to sensitize the stakeholders via radio, print media, offline workshops, webinars, regional language brochures/booklets, outdoor publicity, and over digital media via website, apps and social media platforms.
- b. The PMFME Scheme monthly e-newsletter is being sent to more than 5 lakh stakeholders. The PMFME Podcast series has been launched to interact with Agri-business incubators, industry experts, and startups.
- c. To commemorate 75 years of India’s Independence, under the Azadi Ka Amrit Mahotsav initiative, the Ministry of Food Processing Industries is conducting 75 Unique One District One Product (ODOP) webinars/offline workshops across the country in collaboration with States/UTs, NIFTEM, and IIFPT.
- d. A weekly series of success stories titled “KahaaniSukshmaUdyamon Ki” has been launched to bring 75 stories of existing micro food processing enterprises.

Aspirational Districts Programme (ADP)

News Excerpt

The United Nations Development Programme (UNDP) has lauded the Centre’s Aspirational Districts Programme (ADP), saying that it should serve as a “best practice” for other countries where regional disparities in development status persist for many reasons.

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What is Aspirational District Programme?

- The ‘Transformation of Aspirational Districts’ programme aims to quickly and effectively transform these districts.
- The broad contours of the programme are Convergence (of Central & State Schemes), Collaboration (of Central, State level ‘Prabhari’ Officers & District Collectors), and Competition among districts driven by a mass Movement.
- With States as the main drivers, this program focuses on the strength of each district, identify low-hanging fruits for immediate improvement, measure progress, and rank districts.
- To enable optimum utilization of their potential, this program focusses closely on improving people’s ability to participate fully in the burgeoning economy. Health & Nutrition, Education, Agriculture & Water Resources, Financial Inclusion & Skill Development, and Basic Infrastructure are this programme’s core areas of focus.
- After several rounds of consultations with various stakeholders, 49 key performance indicators

have been chosen to measure progress of the districts.

- Districts are prodded and encouraged to first catch-up with the best district within their state, and subsequently aspire to become one of the best in the country, by competing with, and learning from others in the spirit of competitive & cooperative federalism.

Highlights of the UNDP Report

- In a report, the UNDP said, “Overall, ADP is a very successful model of local area development. It is aligned to the principle of “leave no one behind” – the vital core of the SDGs.”
- Political commitment at the highest level has resulted in rapid success of the programme. It should serve as a best practice for several other countries where regional disparities in development status persist for many reasons.
- It must be noted most Aspirational Districts are located in remote areas, and some even plagued with Left Wing Extremist (LWE) conflicts. These factors continue to hinder their growth and make it more difficult for any development programmes to be implemented.
- However, given the political salience around ADP and the concerted efforts of different government and non-government organizations, the districts have experienced more growth and development in the last three years than ever before.

Subsidies to spur EV demand

News Excerpt

Electric two-wheeler makers recently termed as “a phenomenal move” the government’s decision to increase subsidy for such vehicles by 50% under the FAME II scheme saying it would be a game changer in the adoption of eco-friendly vehicles.

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Highlights

- The Centre recently made a partial modification of the Faster Adoption and Manufacturing of Electric Vehicles in India Phase II, including increasing the demand incentive for electric two-wheelers to ₹15,000 per KWh from an earlier uniform subsidy of ₹10,000 per KWh for all EVs, including plug-in hybrids and strong hybrids except buses.
- In the latest modification, the department of heavy industries also capped incentives for electric two-wheelers at 40% of the cost of vehicle, up from 20% earlier.

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- In April 2019, NITI Aayog, the federal think tank, published a report titled “India’s Electric Mobility Transformation”, which pegs EV sales penetration in India at 70 percent for commercial cars, 30 percent for private cars, 40 percent for buses, and 80 percent for two- and three- wheelers by 2030.
- These targets, if achieved, could lead to a net reduction of 14 exajoules of energy and 846 million tons of CO2 emissions over the deployed vehicles’ lifetime.
- Electric vehicles sold until 2030 can cumulatively save 474 million tons of oil equivalent over their lifetime, worth US\$207.33 billion.
- This will help India fulfil its global commitments to lower carbon emissions and increase use of cleaner sources of energy and transportation as required by the Nationally Determined Contributions (NDCs) under the United Nations Framework Convention on Climate Change (UNFCCC).

Steps Taken by the Government

Several fiscal and non-fiscal measures have been put in place to facilitate the adoption of electric mobility. They are as follows:

- ✓ **National Electric Mobility Mission Plan 2020 (NEMMP):** It was launched in 2013 by the Department of Heavy Industry (DHI) as a roadmap for the faster manufacture and adoption of EVs in India.
- ✓ **FAME Phase I:**
 - As part of the NEMMP 2020, the Faster Adoption and Manufacturing of Hybrid and

Electric Vehicles in India (FAME India) Scheme was notified in April 2015, to promote the manufacture of electric and hybrid vehicle technology.

- It has mainly focused on four aspects – demand creation, technology platform, pilot projects, and charging infrastructure.
- For demand creation, incentives have mainly been disbursed in the form of reduced purchase prices.
- ✓ **FAME Phase II:**
 - Launched in 2019 for a period of three years, this scheme has an outlay of US\$1.36 billion to be used for upfront incentives on the purchase of EVs as well as supporting the development of charging infrastructure.
 - FICCI has asked for continuation of FAME II till 2025, along with short-term booster incentives to enhance demand.
- ✓ **Amendments to FAME Phase II:**
 - On June 11, 2021, the Ministry of Heavy Industry announced further amendments to the FAME II scheme to give a boost to EV demand among consumers.
 - Under the revised policy, the subsidy per electric two-wheeler (Indian-made), which is linked to the battery size, has been increased to INR 15,000 (US\$204.60) per Kilowatt-hour (KWh) from INR 10,000 (US\$136.40) KWh.
 - Furthermore, electric two-wheeler manufacturers can now give discounts of up to 40 percent to consumers, which is a significant raise from the previous cap of 20 percent.
 - The eligibility criteria for these electric two-wheelers to qualify for subsidy under the FAME II scheme include a minimum range of 80 km on single charge and a minimum top speed of 40 km per hour.
 - These incentives are expected to significantly lower the purchase price and lift buyer sentiment, creating a spur in market demand.
 - The amendments in the policy have been hailed by industry stakeholders who are now expecting the EV two-wheeler industry to clock sales of over six million units by 2025.
 - Yet, according to a recent CRISIL report, 95 percent of the e-scooters in India are not eligible for the FAME II incentive scheme, as they fail to meet the eligibility criteria.
- ✓ **Ministry of Power:** It has clarified that charging EVs is considered a service, which means that operating EV charging stations will not require a license. It has also issued a policy on charging infrastructure to enable faster adoption of EVs.
- ✓ **Ministry of Road Transport and Highways:** It has announced that both commercial as well as private battery-operated vehicles will be issued green license plates. It has also notified that all battery operated, ethanol-powered, and methanol-powered transport vehicles will be exempted from the commercial permit requirement.
- ✓ **Department of Science and Technology:** It has launched a grand challenge for developing the Indian Standards for Electric Vehicle Charging Infrastructure.
- ✓ **NITIAayog:**
 - The National Mission on Transformative Mobility and Battery Storage has been approved by the cabinet, and the inter-ministerial steering committee of the Mission will be chaired by the CEO of NITIAayog.
 - The Mission aims to create a Phased Manufacturing Program (PMP) for five years till 2024, to support setting up large-scale, export-competitive integrated batteries and cell-manufacturing giga plants in India, as well as localizing production across the entire electric vehicle value chain.

States/union territories policy

- As of today, 27 states and UTs have formulated strategy plans for transforming mobility to provide their citizens with safe, inclusive, economic, and clean transport options.
- While some states like Karnataka and Tamil Nadu have had a head start due to pre-planned public policies, targeted investor incentives, as well as support infrastructure, other states too have drafted policies to stimulate market demand and create infrastructure.

Challenges faced by EV industry

- ✦ **Insufficient charging infrastructure:** In 2019, there were only 650 charging stations in India as against over 0.3 million in China. Lack of sufficient charging infrastructure is one of the primary reasons why customers often refrain from purchasing EVs.
- ✦ **High costs:**
 - Along with the range anxiety (kms/charge), another major concern among the potential customers is the current high price of EVs.
 - As compared to lower-end (internal combustion engine) ICE cars, electric cars in the same segment tend to be more expensive.
 - This is mainly because of the higher cost of technology used in the EVs, which constitutes a substantial portion of the cost, not leaving much scope for other features usually available in premium cars.
 - It is expected that in future, with increased R&D and market competitiveness, the price factor will be rationalized to suit the price sensitivity, which in India is a primary factor influencing purchase, especially in the lower-end car segment.
- ✦ With the recent announcement of subsidies, the price rationalization of EVs in the two-wheeler segment is on cards. Since the government’s fast-changing priorities are now biased towards sustainable, clean electric mobility, industry watchers expect a similar push towards easing adoption of other electric vehicles like cars and buses soon.
- ✦ **Limited options:** Since it is still a budding industry in India, customers have a very limited range of products to choose from. Increased investment in the sector will make it more competitive in due time and this will help create further demand.
- ✦ **Lower mileage:** Since the industry is young, there is immense scope for R&D. As of today, EVs in India are not cost competitive to an average customer as internal combustion engine (ICE) vehicles prove to be more cost effective.
- ✦ **Higher dependency on imports:** Reliance on imports of battery as well as other components is also one of the factors adding to the cost of EVs in India.
- ✦ **Grid challenges**
 - Another concern is regarding the price of charging EVs at private charging stations once EVs become mainstream.
 - According to Brookings India, projections for 2030 show that even with a fair penetration of EVs, the increase in demand for electricity is likely to be about 100 TWh (tera watt-hours) or about four percent of the total power generation capacity.
 - So, increasing methods of power generation are necessary to meet that growth in demand.

Conclusion

- » Ultimately, the scope of India’s EV market growth rests on availability of capital for original equipment manufacturers, battery manufacturers, and charge point operators as well as improvements to infrastructure and diversified options for consumers.
- » Realizing India’s EV ambition will also require an estimated annual battery capacity of 158 GWh by FY 2030, which provides huge investment opportunities for investors. Enabling policy support measures are a critical need at this juncture.
- » The government appears to be aware of this; it has been rolling out incentives to boost market demand in priority segments like electric two-wheelers, and localizing production of key components like ACC battery storage through the PLI scheme.

India Real Time Market in electricity

News Excerpt

Recently, the Minister of State (IC) Power and New & Renewable Energy & Minister of State (Skill Development and Entrepreneurship), launched pan-India Real Time Market in electricity through video conference in New Delhi. This has placed Indian electricity market amongst a league of few electricity markets in the world, which

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have real time market.

Highlights

- Real time market is an organized market platform to enable the buyers and sellers pan-India to meet their energy requirement closer to real time of operation.
- Introduction of real time market will bring required flexibility in the market to provide real time balance while ensuring optimal utilization of the available surplus capacity in the system.
- It will also help manage diversity in the demand pattern in the country with an organized market at national level.

How does it work?

- Real time market would be for every 30 minutes in a day based on double sided closed auction with uniform price.
- The concept of “Gate Closure” has been introduced for bringing in the desired firmness in schedules during the hours of market operation.
- Buyers/sellers shall have the option of placing buy/sell bids for each 15-minute time block.
- The proposed real time market would provide an alternate mechanism for DISCOMS to access larger market at competitive price.
- On the other hand, generators would also benefit by participating in the real time market with their un-requisitioned capacity.
- A mechanism has been provided for generators having long-term contract and participating in this market to share the net gains with the DISCOMS.
- National Load Despatch Centre-POSOCO is facilitating necessary automation in coordination with power exchanges to ensure faster transactions and settlements in the real time market framework.

Implications of the Move

- ✓ The Government of India’s target of 175 GW RE Capacity by 2022 is driving accelerated renewable penetration pan-India.
- ✓ The real time market would help to mitigate challenges to the grid management due to intermittent and variable nature of renewable energy generation and therefore, help to integrate higher quantum of renewable energy resources into the grid.
- ✓ It is expected that shorter bidding time, faster scheduling, and defined processes (e.g. gate closure) are expected to enable the participants to access resources throughout the all India grid, promoting competition.
- ✓ It would lead to better portfolio management by the utilities with efficient power procurement planning, scheduling, despatch, and imbalance handling.
- ✓ The distribution companies would be able to manage their power purchase portfolio optimally and need not tie up excess capacity.
- ✓ It would lead to cost optimization of power purchase and serving the consumers with reliable supply as any lastminute requirement of power can easily be bought from the Real Time market.
- ✓ Earlier regime of managing the grid by load shedding due last minute changes can be easily avoided.
- ✓ Thus, it is win for all stakeholders generators having opportunity to sale their surpluses, better management of variability of RE generation, better utilization of transmission systems, DISCOMS opportunity to buy or sell power and finally consumer getting reliable power supply.

PEPPER IT WITH
OECD, UNDP

Tax Inspectors Without Borders (TIWB) initiative

News Excerpt

Tax Inspectors Without Borders (TIWB), a joint initiative of the United Nations Development Programme (UNDP) and the Organisation for Economic Cooperation and Development (OECD), launched its programme in Bhutan recently. India was

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chosen as the Partner Jurisdiction and has provided the Tax Expert for this programme.

Highlights

- This programme is expected to be of about 24 months' duration through which India in collaboration with the UNDP and the TIWB Secretariat aims to aid Bhutan in strengthening its tax administration by transferring technical know-how and skills to its tax auditors, and through sharing of best audit practices.
- The focus of the programme will be in the area of International Taxation and Transfer Pricing.
- This programme is another milestone in the continued cooperation between India and Bhutan and India's continued and active support for South-South cooperation.

South-South Cooperation

South-South cooperation refers to the technical cooperation among developing countries in the Global South. It is a tool used by the states, international organizations, academics, civil society and the private sector to collaborate and share knowledge, skills and successful initiatives in specific areas such as agricultural development, human rights, urbanization, health, climate change etc.

What is now known as South-South cooperation, derives from the adoption of the Buenos Aires Plan of Action for Promoting and Implementing Technical Cooperation among Developing Countries (BAPA) by 138 UN Member States in Argentina, on September 18, 1978.

The plan established a scheme of collaboration among least developed countries, mostly located in the south of the planet. It also established for the first time a framework for this type of cooperation, and incorporated in its practice the basic principles of relations between sovereign States: respect for sovereignty, non-interference in internal affairs and equality of rights, among others.

North-South cooperation

It is the most traditional type of cooperation, occurs when a developed country supports economically or with another kind of resources a less favoured one, for example, with financial aid during a natural disaster or a humanitarian crisis.

Triangular cooperation

As the name implies, it involves three actors, two from the South and one from the North. The latter, which can also be an international organization, provides the financial resources so that the countries of the South can exchange technical assistance on a specific topic.

For example, in what is considered a successful experience, Japan International Cooperation Agency (JICA) made it possible financially for demining Cambodian experts to travel to Colombia and exchange their knowledge and experience in that field. Both Cambodia and Colombia had a major issue with anti-personnel mines in different moments of their history.

Gujarat International Finance Tec-City (GIFT City)

- ❖ It is a business district near Ahmedabad in Gujarat, India. It is India's first operational greenfield smart city and international financial services centre, which the Government of Gujarat promoted as a greenfield project.
- ❖ To create large employment in the field of services industry in Gujarat is also one among the main reasons for setting up GIFT City.

India's first maritime arbitration centre

News Excerpt

The Gujarat Maritime University signed a Memorandum of Understanding (MoU) with the International Financial Services Centres Authority in GIFT City on June 21 to promote the Gujarat International Maritime Arbitration Centre (GIMAC). This will be the first centre of its kind in the country that will manage arbitration and mediation proceedings with disputes related to the maritime and shipping sector.

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Highlights

- The GIMAC will be part of a maritime cluster that the Gujarat Maritime Board (GMB) is setting up in GIFT City at Gandhinagar.
- The Maritime Board has rented about 10,000 square feet at GIFT House which is part of the Special Economic Zone (SEZ) area with the clearance from the development commissioner.

Analytica

Need of such centre

- There are over 35 arbitration centres in India. However, none of them exclusively deals with the maritime sector.
- The arbitration involving Indian players is now heard at the Singapore Arbitration Centre. The idea is to create a world-class arbitration centre focused on maritime and shipping disputes that can help resolve commercial and financial conflicts between entities having operations in India.
- Globally, London is the preferred centre for arbitration for the maritime and shipping sector.
- The maritime cluster consisting of ship leasing and brokering services is being set up with the intention of drawing back all the maritime and shipping business which is located offshore like Dubai and Singapore.
- Arbitration is an add-on maritime service which India is trying to provide within the Gujarat Maritime cluster that is being created within GIFT City.
- It is required because, for instance, the ship owners belong to a different country and the person leasing the ship is from another country. Any dispute arising between them can be resolved within this centre.
- GMB has written to various global alternate dispute resolution centres, including the Hong Kong Maritime Arbitration Group, seeking foreign collaboration for setting up the GIMAC. No formal tie-up has happened so far.'

Agri Exports from India

News Excerpt

India registered excellent growth in Agriculture Exports during 2020-21. Export of agriculture and allied products during 2020-21 jumped to USD 41.25 billion, indicating an increase of 17.34%. Organic exports registered a growth of 50.94%. Measures taken during COVID-19 pandemic ensured uninterrupted exports.

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Highlights

- After remaining stagnant for the past three years, the export of agriculture and allied products (including marine and plantation products) during 2020-21 jumped to USD 41.25 billion, indicating an increase of 17.34%.
- In INR terms, the increase is 22.62% with exports during 2020-21 amounting to Rs. 3.05 lakh crore as compared to Rs. 2.49 lakh crore during 2019-20.
- India's agricultural and allied imports during 2019-20 were USD 20.64 billion, and the corresponding figures for 2020-21 are USD 20.67 billion.
- Despite COVID-19, balance of trade in agriculture has improved by 42.16% from USD 14.51 billion to USD 20.58 billion.
- For agriculture products (excluding marine and plantation products), the growth is 28.36%

- with exports of USD 29.81 billion in 2020-21 as compared to USD 23.23 billion in 2019-20.
- India has been able to take advantage of the increased demand for staples during the COVID-19 period.
 - Huge growth has been seen in export of cereals with export of non-basmati rice growing by 136.04% to USD 4794.54 million; wheat by 774.17% to USD 549.16 million; and other cereals (Millets, Maize and other coarse grains) by 238.28% to USD 694.14 million.
 - Other agricultural products, which registered significant increase in exports, as compared to 2019-20, were oil meals (USD 1575.34 million -growth of 90.28%), sugar (USD 2789.97 million - growth 41.88%), raw cotton (USD 1897.20 million - growth 79.43%), fresh vegetables (USD 721.47 million - growth 10.71%) and vegetable oils (USD 602.77 million- growth 254.39%) etc.
 - Largest markets for India's agriculture products are USA, China, Bangladesh, UAE, Vietnam, Saudi Arabia, Indonesia, Nepal, Iran and Malaysia.
 - Exports to most of these destinations have registered growth, with highest growth being recorded for Indonesia (102.42%), Bangladesh (95.93%) and Nepal (50.49%).
 - Export of spices like ginger, pepper, cinnamon, cardamom, turmeric, saffron etc., which have known therapeutic qualities, has also grown substantially. Export of spices touched highest ever level of around USD 4 billion during 2020-21.
 - The organic exports during 2020-21 were USD1040 million as against USD 689 million in 2019-20, registering a growth of 50.94%. Organic exports include oil cake/ meals, oil seeds, cereals and millets, spices and condiments, tea, medicinal plant products, dry fruits, sugar, pulses, coffee etc.
 - Exports have also taken place from several clusters for the first time. For instance, export of fresh vegetables and mangoes from Varanasi and black Rice from Chandauli has taken place for the first time, directly benefitting farmers of the area.
 - Exports have also taken place from other clusters viz. oranges from Nagpur, banana from Theni and Ananthpur, mango from Lucknow etc.
 - Despite the pandemic, export of fresh horticulture produces took place by multimodal mode and consignments were shipped by air and sea to Dubai, London and other destinations from these areas.
 - Handholding by the Department for market linkages, post-harvest value chain development and the institutional structure such as FPOs, enabled North East farmers to send their value-added products beyond the Indian borders.
 - Cereal exports have done well during 2020-21. We have been able to export to several countries for the first time. For example, Rice has been exported to countries like Timor-Leste, Puerto Rico, Brazil, etc. for the first time. Similarly, wheat has been exported to countries like Yemen, Indonesia, Bhutan, etc and other cereals have been exported to Sudan, Poland Bolivia, etc.

Measures taken during COVID-19 pandemic

- APEDA, MPEDA and the commodity boards provided blanket extension of validity of various recognitions/ accreditations viz, packhouse recognition, peanut units registration, registration -cum- membership certificates, integrated meat plant recognition, registration of plants for export of rice to China and USA, certifications and accreditations under the National Programme for Organic Production etc. to ensure uninterrupted exports.
- Arrangements were also made for online issuance of various certificates required for exports.
- During Covid-19 lockdown (2020), a 24*7 emergency response cell was created in APEDA/ Commodity Boards to help exporters in addressing their issues related to movement of consignments/trucks/labor, issuance of certificates, lab testing reports, sample collection etc. In the first week of the lockdown itself, the cell received around one thousand calls regarding various issues faced by the exporters and sorted them out by taking up with the concerned authorities viz. State administration, Customs, Ports, Shipping, DGFT etc. and ensured the real time clearance of exports
- During the lockdown period in 2020, virtual inspections were introduced for new pack house

applicants. The validity of existing pack houses was extended, without inspections, based on the past performance. Around 216 Pack houses have continued to function uninterrupted, without the process of physical inspections and compliances. During the current COVID-19 wave also, automatic extension of recognition to the pack houses has been allowed. Around 100 pack houses, whose period of recognition was expiring, have benefited, providing relief to exporters of horticulture products.

- During the pandemic, the Export Inspection Council and Export Inspection Agencies have ensured that the services offered to the exporters' fraternity, such as issuance of certificate for export, health certificates and certificate of origin, are delivered in timely and smooth manner.
- In order to promote ease of doing business, the process of minimizing regulatory compliances and decriminalization of various offence has been initiated.
- As international trade fairs are not being organised due to COVID-19 pandemic, APEDA has developed, in-house, a platform for organising virtual trade fairs (VTF) to establish contact between Indian exporters and importers. Two VTFs – 'India Rice and Agro Commodity Show' and India Fruits, Vegetables & Floriculture Show have already been organised. APEDA would be organising following VTFs also during 2021-22: Indian Processed Food Show; Indian Meat and Poultry Show; Indian Organic Products Show.
- In order to facilitate exporters in various regions of the country, APEDA opened following Regional/ Extension/ Project offices during 2020-21: Chennai, Chandigarh, Ahmedabad, cochin, J&K, Extension Office in Bhopal, and Project Office in Varanasi.
- The Department has constantly synergized with the Ministry of Food Processing Industries for effective utilization of Operation Green scheme, which has been extended to most of the horticultural crops due to COVID-19. Similarly, the Department has also collaborated with the Ministry of Civil Aviation and the Railways in utilization of KrishiUdan and Krishi Rail respectively, to ease out pressure of high freight rates. The effort resulted in smooth movement of perishables to the important Middle East, EU and South East Asian markets. The Krishi Rail project has decisively helped exporters of fresh fruits and spices from the North Eastern States.
- Even during the lockdown in several states, it is being ensured that all the accredited Certification Bodies under the National Programme for Organic Production are operational through electronic mode. The accreditation of Certification Bodies has been extended by 3 months, enabling them to access and operate the online traceability system and issue certificates.

Implementation of Agriculture Export Policy and Export Promotion Measures

- ✓ The first ever Agriculture Export Policy (AEP) was introduced by the Government in December 2018. As a part of the process of implementation of AEP, eighteen States viz. Maharashtra, U.P., Kerala, Nagaland, Tamil Nadu, Assam, Punjab, Karnataka, Gujarat, Rajasthan, Madhya Pradesh, Andhra Pradesh, Telangana, Manipur, Sikkim, Nagaland, Mizoram and Uttarakhand and the 2 UTs viz Ladakh and Andaman & Nicobar Islands have finalized the State specific Action Plan.
- ✓ The State Level Monitoring committee has been formed in 25 States and 4 UTs. 28 States & 4 UTs have nominated respective Nodal agencies for implementation of AEP.
- ✓ As part of the Agriculture Export Policy, 46 unique product-district clusters have been identified for export promotion. 29 Cluster Level Committees have been formed in different clusters.
- ✓ **Country specific agri export strategy reports:** An interaction was carried out with 60 Indian Missions and stakeholders to identify the products, their potential and way forward for preparing the country-wise agri-export strategy.
- ✓ **Farmer Connect Portal:** A Farmer Connect Portal has been set up on APEDA's website for providing a platform for FPOs/FPCs, cooperatives to interact with exporters. Around 2360 FPO/FPCs and 2324 exporters have been registered so far.
- ✓ **Agri Cells at different Embassies of India-**APEDA is consulting 13 Agri Cells in various Missions in different countries seeking inputs on real-time basis to further strengthen the

existing Market Intelligence cell. The consolidated reports received from Agri Cells are being referred to while preparing the strategy pertaining to the specific countries.

✓ **Focus on Middle East:**

- For promoting agriculture to the Middle East countries, country-specific Agri Export strategy has been prepared in consultation with the Indian Missions in these countries.
- Virtual Buyer Seller meets were organised in the potential countries in association with Indian Missions of the respective countries for providing a virtual platform to the Indian exporters for interacting with potential importers.
- Such VBSMs were organised in seven countries of the Middle East viz. UAE, Oman, Bahrain, Kuwait, Qatar, Saudi Arabia and Iran.
- This has provided a virtual platform to the exporters and importers for interaction further for conducting business.
- India's largest agriculture exports to GCC countries are rice, buffalo meat, spices, marine products, fresh fruits & vegetables and sugar. India's exports of non-basmati rice to GCC countries in 2020-21 increased by 26.01%.
- Spices export grew by 52.39% and sugar by 50.88%. In spite of export of livestock products and marine products being severely affected by the COVID-19 pandemic, overall agriculture exports to GCC countries grew by 7.15%.

✓ **Market Access**

- The Department has been making efforts, in collaboration with the Department of Agriculture, Cooperation & Farmers Welfare, for gaining market access for Indian products in markets.
- India has recently gained market access for pomegranate in Australia; mango and Basmati rice in Argentina; carrot seeds in Iran; wheat flour, basmati rice, pomegranate arils, mango, banana and soyabean oilcake in Uzbekistan; tomato, okra and onion in Bhutan; and oranges in Serbia.

✓ Efforts are being made to expand India's export basket of agricultural products and promote export of products unique to India. Following are a few examples:

- Organically certified Moringa Leaves powder (2 MT) and seven unique value added products of Moringa Vacuum Freeze Dried Ethnic Village rice from Kumbakonam, Tamil Nadu to multiple destinations of Australia, Vietnam and Ghana.
- Jamun fruit (black plum-500kgs) was sent to London by air for the first time from Lucknow, U.P.

✓ **Ensuring adherence to EU norms for export of Basmati rice to EU:**

- Pesticide residue problems have affected Basmati rice exports to EU due to stringent norms imposed by EU for chemicals like Tricyclazole and Buprofezin, which are extensively used in rice cultivation in India.
- EIC testing has been made mandatory for Basmati exports to EU, which led to decrease in the number of alerts.
- As a result of constant follow-up by DoC, the Government of Punjab imposed a ban on sale of 9 chemicals, including tricyclazole and buprofezin, during the Kharif season 2020.
- APEDA, in collaboration with the trade bodies, has taken measures to create awareness in the Basmati growing areas.
- Efforts are also being made to ensure that the process for fixing Import Tolerance Limits (ITLs) for Tricyclazole and Buprofezin by EU is not delayed.

PEPPER IT WITH
APEDA, MPEDA, Krishi
Udan, Krishi Rail,
NPOP, Jaivik Bharat

Proposal to ban ‘flash sales’ on e-commerce sites

News Excerpt

For the purposes of preventing unfair trade practices in e-commerce, the Central Government had notified the Consumer Protection (E-Commerce) Rules, 2020 with effect from 23 July 2020.

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Need of the Amendments

- Prevalence of such unfortunate incidents has negatively impacted the consumer and business sentiment in the market, causing immense distress and anguish to many.
- It was observed that there was an evident lack of regulatory oversight in e-commerce which required some urgent action.
- Moreover, the rapid growth of e-commerce platforms has also brought into the purview the unfair trade practices of the marketplace e-commerce entities engaging in manipulating search result to promote certain sellers, preferential treatment to some sellers, indirectly operating the sellers on their platform, impinging the free choice of consumers, selling goods close to expiration etc.
- Additionally, conventional flash sales by third party sellers are not banned on e-commerce platform.
- But, certain e-commerce entities are engaging in limiting consumer choice by indulging in “back to back” or “flash” sales wherein one seller selling on platform does not carry any inventory or order fulfilment capability but merely places a “flash or back to back” order with another seller controlled by platform. This prevents a level playing field and ultimately limits customer choice and increases prices.

Analytica

The proposed amendments aim to bring transparency in the e-commerce platforms and further strengthen the regulatory regime to curb the prevalent unfair trade practices. The proposed amendments are as follows

- To ensure compliance of the Consumer Protection Act, 2019 and Rules, appointment of Chief Compliance Officer, a nodal contact person for 24x7 coordination with law enforcement agencies, officers to ensure compliance to their orders and Resident Grievance Officer for redressing of the grievances of the consumers on the e-commerce platform, has been proposed. This would ensure effective compliance with the provisions of the Act and Rules and also strengthen the grievance redressal mechanism on e-commerce entities.
- Putting in place a framework for registration of every e-commerce entity with the Department for Promotion of Industry and Internal Trade (DPIIT) for allotment of registration number which shall be displayed prominently on website as well as invoice of every order placed the e-commerce entity.
- Registration of e-commerce entities would help create a database of genuine e-commerce entities and ensure that the consumers are able to verify the genuineness of an e-commerce entity before transacting through their platform.
- To protect the interests of consumers, mis-selling has been prohibited i.e selling goods and services entities selling goods or services by deliberate misrepresentation of information by such entities about such goods or services.
- To ensure that consumers are aware about the expiry date of the products they are buying on the e-commerce platform all sellers on marketplace e-commerce entities and all inventory e-commerce entities to provide best before or use before date to enable consumers to make an informed purchase decision.
- To ensure that the domestic manufacturers and suppliers get a fair and equal treatment on the e-commerce platform it has been provided that where an e-commerce entity offers imported goods or services, it shall incorporate a filter mechanism to identify goods based on country of origin and suggest alternatives to ensure fair opportunity to domestic goods.
- To ensure that consumers are not adversely affected in the event where a seller fails to deliver

the goods or services due to negligent conduct by such seller in fulfilling the duties and liabilities in the manner as prescribed by the marketplace e-commerce entity, provisions of Fall-back liability for every marketplace e-commerce entity have been provided.

Corporatisation plan for Ordnance Factory Board

News Excerpt

Addressing a long pending reform, the Union Cabinet on recently approved a plan to corporatise the Ordnance Factory Board (OFB), which has 41 factories, into seven fully government owned corporate entities on the lines of Defence Public Sector Undertakings (DPSU).

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Pre-Connect

- Currently, the Kolkata headquartered OFB functions as a department under the Department of Defence Production.
- There have been several recommendations by high-level committees in the past for corporatising it to improve efficiency and accountability.
- An Empowered Group of Ministers (EGoM), set up last September under the chairmanship of the Defence Minister, would decide upon the matters related to implementation and review any issues arising from time to time.

Highlights

- Once implemented, the OFB, the establishment of which was accepted by the British in 1775, will cease to exist.
- It is clarified by the ministry that there will be no change in service conditions assuring the 70,000 employees who had expressed concern over the proposed move.
- All employees of the OFB (Group A, B and C) belonging to the production units would be transferred to the corporate entities on deemed deputation initially for a period of two years without altering their service conditions as Central government employees.
- The 41 factories would be subsumed into seven corporate entities based on the type of manufacturing.
- The ammunition and explosives group would be mainly engaged in producing ammunition of various calibre and explosives, with huge potential to grow exponentially, not only by way of 'Make in India' but also by 'Making for the World'.
- Similarly, the vehicles group would mainly engage in producing defence mobility and combat vehicles such as tanks, trawls, infantry and mine protected vehicles.
- The weapons and equipment group would be mainly engaged in production of small arms, medium and large calibre guns and other weapon systems and is expected to increase its share in the domestic market through meeting the demand as well as product diversification.
- The troop comfort items group, the ancillary group, the opto-electronics group and the parachute group constituted the entire structure.

Implications of the Decision

- ✓ It is a major decision in terms of national security and also make the country self-sufficient in defence manufacturing.
- ✓ This move would allow these companies autonomy and help improve accountability and efficiency.
- ✓ This restructuring is aimed at transforming the ordnance factories into productive and profitable assets, deepening specialisation in the product range, enhancing competitiveness, improving quality and achieving cost efficiency.
- ✓ The above mentioned structure would also help in overcoming various shortcomings in the existing system of the OFB by eliminating inefficient supply chains and provide these companies incentive to become competitive and exploring new opportunities in the market, including exports.

Hallmarking of gold

News Excerpt

The government on recently announced the phased implementation of mandatory hallmarking of gold jewellery with effect from June 16. In the first phase, gold hallmarking will be available in only in 256 districts and jewellers having annual turnover above Rs 40 lakh will come under its purview.

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What is hallmarking of gold?

The Bureau of Indian Standard (BIS), which operates gold and silver hallmarking scheme in India, defines hallmarking as the “accurate determination and official recording of the proportionate content of precious metal in precious metal articles.” So, it is a “guarantee of purity or fineness” of precious metal articles.

Metals that are covered under hallmarking in India

- The government, through a notification issued on June 14, 2018, notified two categories—gold jewellery and gold artefacts; and silver jewellery and silver artefacts—under the purview of hallmarking. So, hallmarking in India is available for jewellery of only two metals—gold and silver.
- However, a certain category of jewellery and items will be exempted from the mandatory requirement of hallmarking.
- According to the Department of Consumer Affairs, “Export and re-import of jewellery as per

Bureau of Indian Standards

BIS is the National Standard Body of India established under the BIS Act 2016 for the harmonious development of the activities of standardization, marking and quality certification of goods and for matters connected therewith or incidental thereto. BIS has been providing traceability and tangibility benefits to the national economy in a number of ways – providing safe reliable quality goods; minimizing health hazards to consumers; promoting exports and imports substitute; control over proliferation of varieties etc. through standardization, certification and testing.

Trade Policy of Government of India — Jewellery for international exhibitions, jewellery for government-approved B2B domestic exhibitions will be exempted from mandatory Hallmarking.”

- The Ministry of Consumer Affairs, Food and Public Distribution said that watches, fountain pens and special types of jewellery such as Kundan, Polki and Jadau will be exempted from hallmarking.

World Competitiveness Index

News Excerpt

India maintained 43rd rank on an annual World Competitiveness Index compiled by the Institute for Management Development (IMD) that examined the impact of COVID-19 on economies around the world this year.

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Highlights

- The ranking, produced annually by the IMD World Competitiveness Centre, measures the prosperity and competitiveness of 64 nations by examining four factors -- economic performance, government efficiency, business efficiency, and infrastructure.
- It assesses the extent to which a country promotes the prosperity of its people by measuring economic well-being through hard data and survey responses from executives. This year, the rankings expose the economic impact of the pandemic across the globe.
- The 64-nation list was led by Switzerland, while Sweden has moved up to the second position (from sixth last year), Denmark has lost one place to rank third, the Netherlands has retained its fourth place and Singapore has slipped to the fifth place (from first in 2020).

- At eighth, Taiwan reached the top-10 for the first time since the ranking began 33 years ago (moving up from 11th last year). The UAE and the USA remain in their same spots as last year (9th and 10th, respectively).
- The top-performing Asian economies are, in order, Singapore (fifth), Hong Kong (seventh), Taiwan (eighth) and China (16th).
- Among the BRICS nations, India is ranked second after China (16), followed by Russia (45th), Brazil (57th) and South Africa (62th).
- India has maintained its position for the past three years but this year, it had significant improvements in government efficiency, IMD said.

Analytica

- According to IMD, India's improvements in the government efficiency factor are mostly due to relatively stable public finances (despite difficulties brought by the pandemic, in 2020 the government deficit stayed at 7 per cent) and to the positive feedbacks registered among Indian business executives with respect to the support and subsidies provided by the government to the private companies.
- It, however, added that the short term performance of India's economy will depend on its ability to address the pandemic.
- The report finds that qualities such as investment in innovation, digitalisation, welfare benefits and leadership, resulting in social cohesion have helped countries better weather the crisis the best and thus ranked higher in competitiveness.
- The report said top-performing economies are characterised by varying degrees of investment in innovation, diversified economic activities, and supportive public policy, according to the experts at the World Competitiveness Centre.
- Strength in these areas prior to the pandemic allowed these economies to address the economic implications of the crisis more effectively.
- Competitive economies succeeded in transitioning to a remote work routine while also allowing remote learning. Addressing unemployment has been fundamental.
- Countries that ensured the effectiveness of key public spending, such as public finance, tax policy and business legislation, are seen as essential policies to relieve the pressure on the economies hit by COVID-19, the report said.

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INTERNATIONAL RELATION

Armistice Agreement

News Excerpt

The UN Command, led by the United States, found that North and South Korea were both guilty of violating armistice agreements following a recent incident involving gunfire along the Demilitarized Zone between the two countries.

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- The 1953 Korean Armistice Agreement was a ceasefire agreement which brought a halt to the Korean War in 1953.
- Though there was no official declaration of the end of the war, and the conflict has continued, without fighting between the parties.
- Since the armistice was enforced, there have been several violations of it from both North and South Korea, leading to persistent tensions between the two countries.
- A multinational UNC special investigation team concluded that troops from both sides had violated the agreement, which has been in place since the 1950-1953 Korean War ended with an armistice rather than a peace treaty.
- The UNC, which is commanded by an American general, oversees affairs in the heavily fortified Demilitarized Zone (DMZ) between the two Koreas, which remain technically at war.



Role played by India in ending Korean Conflict

- India played a “much-overlooked but significant role” in bringing the Korean conflict to an end
- India’s Ambassador in China, K.M. Panikkar, was the channel through which Chinese Premier Zhou Enlai communicated his views on the Korean conflict to the Americans as well as to the UN, since the People’s Republic of China was not a member of that body then.
- At the United Nations, India’s Permanent Representative to the UN and a member of the UN’s Special Political Committee, V.K. Krishna Menon took on the responsibility of finding a solution to the pressing issue of the future of the prisoners of war.
- A Neutral Nations Repatriation Committee (NNRC) was set up, with India at the helm. Prisoners of the Korean War who refused to return to their countries would be placed under the protection of the NNRC.
- India was tasked with sending a Custodian Force comprising military and civilian personnel who would ensure the welfare of all prisoners of war who did not wish to be repatriated.

India-Bhutan Bilateral Relations

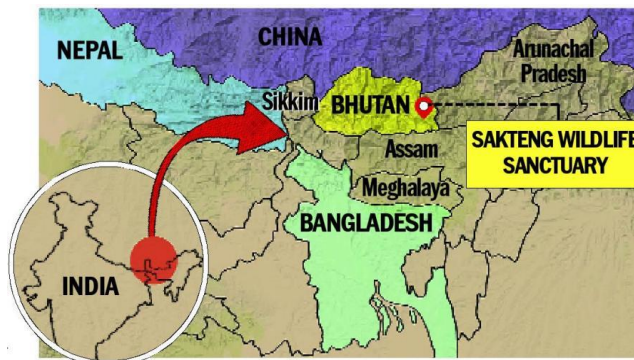
News Excerpt

The Union Cabinet has given its approval for signing the Memorandum of Understanding between the Government of the Republic of India and the Royal Government of Bhutan on Cooperation in the areas of Environment.

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Pre-Connect

- The Memorandum of Understanding on environment will enable establishment and promotion of closer and long-term cooperation between the two countries in the field of environment protection and management of natural resources on the basis of equity, reciprocity and mutual benefits, taking into account the applicable laws and legal provisions in each country.
- Keeping in view the bilateral interest of both sides and mutually agreed priorities, a Memorandum of Understanding covering the following areas of environment has been considered:
 - Air
 - Waste
 - Chemical Management
 - Climate Change



- The Memorandum of Understanding will facilitate exchange of experiences, best practices and technical know-how through both public and private sectors and shall contribute to sustainable development.

India-Bhutan relations in recent times

- Diplomatic relations between India and Bhutan were established in 1968 with the establishment of a special office of India in Thimphu.
- The basic framework of India-Bhutan bilateral relations is the Treaty of Friendship and Cooperation signed in 1949 between the two countries and revised in February 2007.
- India and Bhutan share a unique and time tested bilateral relationship, characterized by utmost trust, goodwill and mutual understanding.
- Government of India has consistently supported the socio-economic development of Bhutan. Hydro-power cooperation between the two countries is an example of win-win cooperation.
- Key areas of cooperation include agriculture and irrigation development, ICT, health, industrial development, road transport, energy, civil aviation, urban development, human resource development, capacity building, scholarship, education and culture.
- **India is Bhutan's largest trading partner.**
- There is a Joint Group of Experts (JGE) on flood management between India and Bhutan to discuss/ assess the probable causes and effects of the recurring floods and erosion in the southern foothills of Bhutan and adjoining plains in India.
- There are vibrant cultural exchanges between the two countries. A number of Bhutanese pilgrims travel to holy Buddhists sites in India. Reflecting the special nature of the relationship, the two countries share an open border with regular exchange of travelers in both directions for work, tourism, shopping, medical care etc.
- There are about 60,000 Indian nationals living in Bhutan, employed mostly in the hydroelectric power and construction industry. In addition, between 8000 and 10,000 daily workers enter and exit Bhutan every day in border towns.

Irritants in India Bhutan Relations

- ✓ The hydropower projects where delays in constructing and commissioning in Bhutan by Indian companies have led to the country's burgeoning national debt.
- ✓ India's power-surplus status and the advent of other renewable energies like wind and solar power will make it more difficult for Bhutan to ensure that its hydropower sector becomes profitable. And unless India finds ways to help, it will be accused of the same sort of "debt-trapping" that China is accused of today.
- ✓ The goods and services tax still hurts Bhutanese exporters, and demonetisation has left

- lasting scars on the banking system.
- ✓ The biggest issue between India and Bhutan will remain how to deal with China. The Doklam crisis has brought home many realities for the Bhutanese establishment. One of the most important factor is that Doklam, which has long been discussed as part of a possible “package solution” to the Bhutan-China border dispute, could become a point of India-China conflagration, with Bhutan becoming a hapless spectator in the middle

Conclusion

Keeping Bhutan by its side has become very important for India’s foreign policy. India should take any socio economic and diplomatic step possible to keep Bhutan on its ambit, like it recently did with the new trade route. India should be able to make Bhutan contemplate on their embarkment upon the road of model friendship and cooperation, with peace and consensus, even amidst hostility and conflicts in and around the region.

China-ASEAN Relations

News Excerpt

China has offered ASEAN (Association of Southeast Asian Nations) countries its vaccines as well as closer cooperation on joint vaccine development and production, as it hosted ten foreign ministers from the Southeast Asian grouping.

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China’s rapprochement to ASEAN

- China’s hosting of the ASEAN foreign ministers in the city of Chongqing marked the 30th anniversary of ties.
- China’s told the visiting ministers of ASEAN that China and ASEAN should “jointly carry forward Asian values” in a subtle dig at the West.
- China suggested taking root in the Oriental tradition; both sides should strengthen mutual learning and cultural exchanges, and carry forward Asian values, instilling positive energy to global and regional governance.
- China-ASEAN trade had grown to approx. \$684.6 billion and the expectation is for that to only grow following the signing of the Regional Comprehensive Economic Partnership (RCEP) trade deal.
- China has also put forward a proposal to implement a "China-ASEAN Public Health Cooperation Initiative” and an "ASEAN Regional Reserve of Medical Supplies for Public Health Emergencies.
- A vaccine passport connecting China and ASEAN countries is also being discussed.

ASEAN Defence Ministers Meeting Plus

The ADMM Plus is an annual meeting of Defence Ministers of 10 ASEAN countries and eight dialogue partner countries - Australia, China, India, Japan, New Zealand, Republic of Korea, Russia and the United States.

At the recent Meeting

- ❖ India reemphasized its support for freedom of navigation, over-flight and unimpeded commerce for all in international waters in accordance with the UN Convention on the Law of the Sea (UNCLOS).
- ❖ Maritime security challenges are a concern to India. The Sea lanes of Communication are critical for peace, stability, prosperity and development of the Indo-Pacific region.
- ❖ To deal with cyber threats, India suggested a multi-stakeholder approach, guided by democratic values, with a governance structure that is open and inclusive and a secure, open and stable internet with due respect to sovereignty of countries, that would drive the future of cyberspace.

Impact on India, region and QUAD

- Chinese officials have in recent weeks stepped up criticism of the Quad — the informal India, Australia, Japan and United States grouping — and of US in particular.
- During recent visits to Sri Lanka and Bangladesh, China called on both countries to reject “military alliances” — a term that some Beijing are using to describe the Quad, but a label that the group rejects.

- China reiterated the need to "advance consultations on the Code of Conduct in the South China Sea" but as the recent incidents underlined, progress has been slow.
- Beijing is banking on deep economic links to both offset maritime disputes and the push among some ASEAN countries for closer defence ties with the U.S amid their concerns about China's growing military footprint in the South China Sea.
- Recently, China and the Philippines have clashed over the presence of Chinese vessels near a disputed reef, while Malaysia alleged the intrusion of 16 Chinese aircraft into its airspace.
- Deepening economic cooperation, particularly following the signing of the Regional Comprehensive Economic Partnership (RCEP) trade deal, would be China's focus.
- After the first Quad leaders' summit held in March and the announcement of a regional vaccine initiative, many Chinese analysts framed ASEAN as a key space where Chinese and Quad initiatives may rub up against each other.

BRICS opposes exceptionalism and emphasizes multilateralism

China sought to frame a joint statement from the Foreign Ministers of the BRICS [Brazil, Russia, India, China and South Africa] countries, who met virtually last week, as standing in opposition to what Beijing has increasingly hit out at "bloc politics" from the United States and the West.

Ironically, among the targets of Beijing's recent attacks on what it calls "selective multilateralism" is the India-Australia-Japan-U.S. Quad grouping.

BRICS Joint Statement on Strengthening and Reforming the Multilateral System laid out the following principles:

- ❖ First, it should make global governance more inclusive, representative and participatory to facilitate greater and more meaningful participation of developing and least developed countries.
- ❖ Second, it should be based on inclusive consultation and collaboration for the benefit of all.
- ❖ Third, it should make multilateral organisations more responsive, action-oriented and solution-oriented based on the norms and principles of international law and the spirit of mutual respect, justice, equality, mutual beneficial cooperation.
- ❖ Fourth, it should use innovative and inclusive solutions, including digital and technological tools.
- ❖ Fifth, it should strengthen capacities of individual States and international organizations.
- ❖ Sixth, it should promote people-centered international cooperation at the core.

Conclusion

Quad members should further rope in ASEAN members to counter China as Southeast Asia is of great significance to the US' and India's Indo-Pacific Strategy. They must pursue openness, inclusiveness and win-win cooperation, and reject ideological confrontation.

India has strengthened its cooperative engagements in the Indo-Pacific based on converging visions and values for promotion of peace, stability and prosperity in the region. Premised upon the centrality of ASEAN, India supports utilization of ASEAN-led mechanisms as important platforms for implementation of our shared vision for the Indo-Pacific.

G7 Summit

News Excerpt

The leaders of the Group of Seven (G7) rich nations are expected to sign the ‘Carbis Bay Declaration’, a landmark global health declaration aimed at preventing future pandemics.

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- The Group of 7 (G7) is an informal group of seven countries — the United States, Canada, France, Germany, Italy, Japan and the United Kingdom, the heads of which hold an annual summit with European Union and other invitees.
- Together the member countries represent 40% of global GDP and only **10% of the world’s population.**
- The G7 draws its roots from a meeting between the current G7 members, excluding Canada that took place in 1975. At the time, the global economy was in a state of recession due to the OPEC oil embargo.
- The President of the European Commission was asked to join the meetings in 1977 and following the collapse of the Soviet Union in 1991 and a subsequent thaw in relations between the East and West, Russia was also invited to join the group in 1998. Thereafter the group was named the G8 until 2014, when Russia was expelled for its annexation of Crimea from Ukraine.
- Unlike other bodies such as NATO, the G7 has no legal existence, permanent secretariat or official members.
- It also has no binding impact on policy and all decisions and commitments made at G7 meetings need to be ratified independently by governing bodies of member states.
- The UK holds the G7 presidency for 2021.
- This year, India, South Korea and Australia have been invited to attend the G7 summit as participating guests.
- The G7 Summit has been the birthplace for several global initiatives. Their efforts led to the formation of the **Global Fund**, an innovative financing mechanism that has disbursed more than \$45 billion in aid and, according to its website, has saved the lives of over 38 million people. More recently, the **Global Apollo Program** was launched out of the 2015 G7 summit meeting. Designed to tackle climate change through clean energy research and development.

Highlights of the summit

- **Tax MNCs** – G7 finance ministers decided to work for a regime change in corporate tax: Every country to adopt a minimum corporate tax rate of 15% and every country to get the right to tax the profits a global firm generates from it. In return, countries like India and France give up their tax on digital companies.
- **Vaccinate the Poor** – Of the 2.33 billion vaccine doses delivered worldwide, only 0.3% have gone to the poorest nations. How to manufacture and deliver vaccines for the entire world is a challenge. India and South Africa had proposed waiving intellectual property rights on Covid vaccines, much to the alarm of pharma companies. The US is in favour, the EU is not.
- **Invest to Recover** – Economic recovery from the pandemic, through sustained liquidity and fiscal support, was another theme. A global infrastructure drive that would offer developing countries an alternative to walking into the debt trap that China presents via its Belt and Road Initiative. China has put billions into associated loans, with covenants in small print that say that failure to service the loan would transfer the financed asset to Chinese ownership, as with Sri Lanka’s Hambantota port.
- **Defend Democracy** – Warning authoritarian regimes was another part of the agenda. Under this, China has been called upon to stop its human rights violations in its Muslim enclave of Xinjiang, and Russia has been asked to take action against cyber criminals based there. India signed off on the ‘open societies’ joint statement by the G7 and guest countries, which encourages values such as “freedom of expression, both online and offline, as a freedom that

safeguards democracy and helps people live free from fear and oppression”,

Analytica

- ✓ The G7 summit provides a forum for member countries to discuss shared values and concerns.
- ✓ While it initially focused on international economic policy, in the 1980s, the G7 extended its mandate to include issues related to foreign policy and security as well.
- ✓ In recent years, G7 leaders have met to formulate common responses to challenges encompassing counterterrorism, development, education, health, human rights and climate change.
- ✓ Despite its achievements, the G7 has also come under significant criticism and has been involved in a number of controversies. Until the mid-1980s, G7 meetings were held discreetly and informally.
- ✓ At a G7 summit in 1985, member countries subsequently signed the **Plaza Accords**, an agreement that had major ramifications for global currency markets. Their actions caused strong international backlash, with other nations upset by the fact that a meeting between a small group of countries could have such a disproportionate effect on the world economy.
- ✓ Several countries and individuals still perceive the G7 as an exclusive, closed group that blatantly exercises their power over other nations. As a result, virtually every summit since 2000 has been met with protests and demonstrations in the country in which it has been held.
- ✓ The G7 has been criticized for being outdated and ineffective in recent decades due to its exclusion of two of the world’s largest economies in India and China.

G-7 & G-20

- The G-20 is a larger group of countries, which also includes G7 members. The G-20 was formed in 1999, in response to a felt need to bring more countries on board to address global economic concerns.
- Apart from the G-7 countries, the G-20 comprises Argentina, Australia, Brazil, China, India, Indonesia, Mexico, Russia, Saudi Arabia, South Africa, South Korea, and Turkey.
- Together, the G-20 countries make up around 80% of the world’s economy. As opposed to the G-7, which discusses a broad range of issues, deliberations at the G-20 are confined to those concerning the global economy and financial markets.

India & G7

- During Prime Minister Manmohan Singh’s tenure, India attended the G8 Summit five times.
- Since 2014, India has participated twice in the G7 meeting. India had been invited by the G7 French presidency in 2019 to the Biarritz Summit as a “Goodwill Partner”.
- Earlier US President had suggested that G7 be called “G10 or G11”, and proposed that the grouping meet in September or November ‘2020. But, due to the pandemic and the US election outcome, that did not happen.
- India has long called for reforming global institutions and groupings to reflect modern-day geopolitical realities. US offer to expand G7 fitted into New Delhi’s idea of being part of the global high table.

Conclusion

G7 still has value because all of the member countries are grappling with similar issues, including populist backlash against the uneven effects of globalization. They’re a repository, an embodiment of common values and a similar rules-based approach to world order.” In addition, the G7 can serve as a useful platform for “prenegotiation, allowing members to hash out disagreements before taking proposals to the G20 or other forums.

The Antarctic Treaty

News Excerpt

The 1959 Antarctic Treaty celebrated its 60th anniversary. Negotiated during the middle of the Cold War by 12 countries with Antarctic interests, it remains the only example of a single treaty that governs a whole continent.

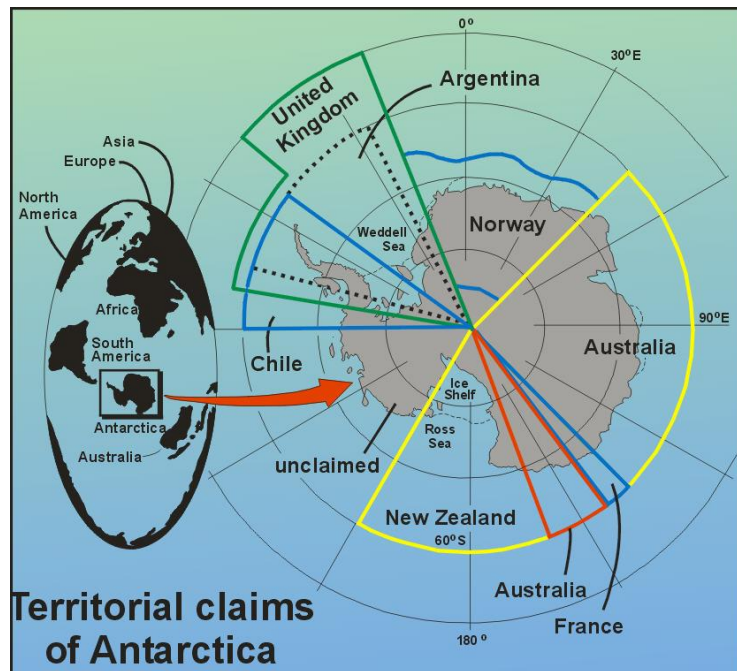
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- The Antarctic Treaty was signed in Washington on 1 December 1959 by the twelve countries whose scientists had been active in and around Antarctica during 1957-58.
- It entered into force in 1961 and has since been acceded to by many other nations. The total number of Parties to the Treaty is now 54 (as of June 2021). India is also a party.
- It is also the foundation of a rules-based international order for a continent without a permanent population.
- Principal provisions include promoting the freedom of scientific research, the use of the continent only for peaceful purposes, and the prohibition of military activities, nuclear tests and the disposal of radioactive waste.
- Other countries do not recognize any claims. The US and Russia maintain a “basis of claim”. All positions are explicitly protected in Article IV, which preserves the status quo.
- Article VIII provides that, to promote the objectives and ensure the observance of the provisions of the Treaty, "All areas of Antarctica, including all stations, installations and equipment within those areas shall be open at all times to inspection.

Analytica

- Since the treaty was negotiated in a very different era and there have been a number of environmental, resource and geopolitical disputes related to Antarctica in recent decades the relevance of this treaty needs to be evaluated.
- A key reason why the treaty has been able to survive has been its ability to evolve through a number of additional conventions and other legal protocols. These have dealt with the conservation of marine living resources, prohibitions on mining, and the adoption of comprehensive environmental protection mechanisms.
- Though the compact has held for 60 years, there have been tensions from time to time. Argentina and the UK, for instance, have overlapping claims to territory on the continent. When combined with their ongoing dispute over the nearby Falkland (Malvinas) Islands, their Antarctic relationship remains frosty.
- Tensions have arisen in recent years over the promotion of Southern Ocean marine reserves. Agreement was reached in 2016 on a Ross Sea Marine Protected Area, and momentum is building for a broader network of Southern Ocean marine protected areas. China and Russia have resisted these initiatives.
- While the Antarctic Treaty has been able to successfully respond to a range of challenges, circumstances are radically different in the 2020s compared to the 1950s. Antarctica is much more accessible, partly due to technology but also climate change. More countries now have substantive interests in the continent than the original 12. Some global resources are



becoming scarce, especially oil.

- This will inevitably result in increased attention being given to the potential for Antarctic mining to take place sometime in the future. Calls to revisit the prohibition on Antarctic mining would seem inevitable.
- There is also uncertainty as to China's intentions in Antarctica. There is considerable speculation as to China's interests in Antarctic resources, especially fisheries and minerals, and whether China may seek to exploit weaknesses in the treaty system to secure access to those resources.
- The mining ban under the Madrid Protocol to the treaty could be subject to review in 2048. If the treaty's signatories wish to ensure it remains fit for purpose in 2048 and beyond, more strategic thinking needs to be given to Antarctica's future.

The Financial Action Task Force (FATF)

News Excerpt

The Financial Action Task Force (FATF) has refused to take Pakistan out of the 'Grey List' yet again. Recently it said that Pakistan had failed to take appropriate action against UN-designated terrorists such as 26/11 accused Hafiz Saeed and JeM chief Masood Azhar.

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Pre-Connect

- The Financial Action Task Force (FATF) is the global money laundering and terrorist financing watchdog.
- The Financial Action Task Force (FATF) was established in July 1989 by a Group of Seven (G-7) Summit in Paris, initially to examine and develop measures to combat money laundering.
- In October 2001, the FATF expanded its mandate to incorporate efforts to combat terrorist financing, in addition to money laundering. In April 2012, it added efforts to counter the financing of proliferation of weapons of mass destruction.
- The FATF currently comprises 37 member jurisdictions and 2 regional organisations, representing most major financial centres in all parts of the globe.

Functions of Financial Action Task Force (FATF)

- The inter-governmental body sets international standards that aim to prevent these illegal activities and the harm they cause to society.
- As a policy-making body, the FATF works to generate the necessary political will to bring about national legislative and regulatory reforms in these areas.
- The FATF has developed the FATF Recommendations, or FATF Standards, which ensure a co-ordinated global response to prevent organised crime, corruption and terrorism.
- They help authorities go after the money of criminals dealing in illegal drugs, human trafficking and other crimes. The FATF also works to stop funding for weapons of mass destruction.
- The FATF monitors countries to ensure they implement the FATF Standards fully and effectively, and holds countries to account that do not comply.
- FATF has issued global, binding standards to prevent the misuse of virtual assets for money laundering and terrorist financing. The standards ensure that virtual assets are treated fairly, applying the same safeguards as the financial sector.
- The FATF conducts peer reviews of each member on an ongoing basis to assess levels of implementation of the FATF Recommendations, providing an in-depth description and analysis of each country's system for preventing criminal abuse of the financial system.

FATF Grey and Black list

- ✓ The FATF 'grey list' comprises countries that FATF thinks should be under "increased monitoring" even as they engage with FATF "to address strategic deficiencies in their regimes to counter money laundering, terrorist financing, and proliferation financing".

- ✓ The Grey list at present has 19 countries including Myanmar, Mauritius, Cambodia, Panama, Barbados, Cayman Islands & Syria. Pakistan has continued on this list since June 2018.
- ✓ Some of these countries are known tax havens while others have faced trouble with terrorism. In all cases, they are on the 'grey list' because it is deemed that their financial structures are susceptible to being exploited for prohibited dealings.
- ✓ As to the actual implications, being on the grey list could make it more difficult to raise money or loans in foreign markets while the flow of overseas investments into these countries may suffer as well. What suffers is also the perception regarding such a country among the international community.
- ✓ The Financial Action Task Force (FATF) blacklist (sometimes referred to as the OECD blacklist) is a list of countries that the organization considers non-cooperative in the global effort to combat money laundering and the financing of terrorism. By issuing the list, the FATF hopes to encourage countries to improve their regulatory regimes and establish a global set of AML/CFT standards and norms.
- ✓ The current FATF blacklist includes two countries: North Korea and Iran.
- ✓ Like the blacklist, countries on the FATF grey list represent a much higher risk of money laundering and terrorism financing but have formally committed to working with the FATF to develop action plans that will address their AML/CFT deficiencies.



The advertisement is a vertical banner for KSG Online Learning. At the top is the KSG logo with a red arrow pointing up and right, and the text 'An Institute For IAS Exam...'. Below this is a yellow banner with 'UPSC/IAS 2022'. The main text reads 'KSG ONLINE LEARNING' in white on a dark blue background. Underneath, it says 'Quality Of Physical Classes With Convenience Of Online'. There are two course offerings: 'FOUNDATION COURSE' starting on '11th Aug' with a 'Join Our Free Pre-Preparation Plan' link, and 'ADVANCE FOUNDATION COURSE' starting on '5th Sep', which is 'Especially Designed For College Students'. The bottom section features the slogan 'It pays to study with Specialists...' and a yellow box with 'LIVE Classes' and the website 'www.ksgindia.com' for registration details.

ENVIRONMENT

Streamlining Biosafety Regulation

News Excerpt

The Department of Biotechnology has taken numerous proactive measures to streamline the biosafety regulation to facilitate researchers and industries which are undertaking research and development in Recombinant DNA Technology and Hazardous Microorganisms.

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- India's Biosafety and Recombinant DNA Guidelines (1990) fall under the Environment (Protection) Act of 1986.
- The Ministry of Environment and Forests has notified the Rules for the Manufacture, Use, Import, Export and Storage of Hazardous Microorganisms/Genetically Engineered Organisms or Cells 1989 (known as 'Rules, 1989').
- The Genetic Engineering Appraisal Committee (GEAC) is responsible for appraisal of activities involving large scale use of hazardous microorganisms and recombinants in research and industrial production from the environmental angle.
- The Nagoya Protocol on Access to Genetic Resources and the Fair and Equitable Sharing of Benefits Arising from their Utilization to the Convention on Biological Diversity is an international agreement which aims at sharing the benefits arising from the utilization of genetic resources in a fair and equitable way.
- The Convention on Biological Diversity (CBD) is the international legal instrument for "the conservation of biological diversity, the sustainable use of its components and the fair and equitable sharing of the benefits arising out of the utilization of genetic resources.

Measures Taken by India for Biosafety

- **Operationalization of Indian Biosafety Knowledge Portal:** The Indian Knowledge Biosafety Portal launched in 2019 was made fully operationalized and now the Department is receiving all new applications through online portal only. This has made the whole process transparent and time bound.
- **Notification of Revised Simplified Guidelines on Import, Export and Exchange of GE (Genetically Engineered) Organisms and Product Thereof for R&D Purpose:** The Department issued the Revised Guidelines in January, 2020 in which Institutional Biosafety Committee have been delegated authority to take decisions on applications of import export and exchange of GE organisms and product thereof for R&D purpose.
- **Facilitation of Research and Development on COVID-19:** Considering the emerging situations of spread of Coronavirus and with the understanding on requirement of rapid research and development for COVI-19, the Department has proactively taken several steps to facilitate researchers and industries involved in research on COVID19. DBT (Department of Biotechnology) has issued following guidelines, orders and checklist on COVID 19:
 - Rapid Response Regulatory Framework for COVID-19 to deal with application for development of vaccines, diagnostics, prophylactics and therapeutics has been notified in March2020.
 - "Interim Guidance Document on Laboratory Biosafety to Handle COVID-19 Specimens".
 - Rapid response regulatory framework for development of recombinant DNA COVID 19 vaccine.

PEPPER IT WITH
 Indian Biosafety Knowledge Portal, Patents, Gram-positive bacteria, Cell membrane

Conclusion

- ✓ Biosafety is important to ensure the safe utilization of bio-technology. Certain biosafety levels have been proposed for the laboratories depending upon the pathogenicity of the microbes being worked upon. These levels protect the environment and the surroundings from the

hazards of such microbes.

- ✓ India has a systematic and structured regulatory framework for biosafety. India was one of the early movers in development of a biosafety regulatory system. In addition, India have various other acts, rules and policies which are also applicable to micro-organisms.

Northern Limit of Monsoon (NLM)

News Excerpt

Recently, Indian meteorological department says that due to the no progress of the northern Limit of monsoon (NLM), Monsoon is unlikely to progress over the rest of India. Monsoon rain over the country has remained extremely subdued till then.

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- Generally, Monsoon clouds covered 80% of India’s landmass by the middle of June.
- Monsoon is a seasonal change in the direction of the prevailing, or strongest, winds of a region, and blow always from cold to warm regions.
- The key phenomenon that aids the arrival of the monsoon is described as the “differential heating and cooling of land and water”. As the Indian landmass heats up in the summer months, the warm air rises up, creating a low pressure zone while the Indian Ocean has relatively high temperatures. Nature abhors a vacuum and, hence, this triggers the movement of winds from the sea towards the land, setting in motion the process of the monsoon’s arrival.

About Northern Limit of the Monsoon (NLM)

- The northern limit of monsoon, or NLM, is the northernmost boundary of India up to which monsoon rains have advanced on any given day. So, it is a way of tracking the progress of monsoon clouds as they move over India’s landmass.
- NLM is directly related to the onset and advance of Monsoon. The term NLM starts flowing right from the onset to the withdrawal of Monsoon.
- Southwest Monsoon normally sets in over Kerala around June 1. It advances northwards, usually in surges, and covers the entire country by July 15.
- This year the onset of Monsoon over Mumbai and Kolkata is likely to be delayed by one week. The NLM will reach Delhi around July 2-4.
- The advancing of monsoon had weakened due to impact of mid-latitude westerly winds which didn’t allow easterly winds to progress; unfavorable Madden Julian Oscillation (MJO) and absence of formation of low pressure system over North Bay of Bengal.

Factors Affecting NLM

Madden Julian Oscillation (MJO)	Mid-latitude westerly winds
<ul style="list-style-type: none"> ❖ The MJO currently lies in Phase 1 (equatorial eastern Africa) with amplitude more than 1. ❖ It is likely to propagate eastwards into Phase 2 (Western Equatorial Indian Ocean and adjoining Arabian Sea) with amplitude close to 1 by July 2 and further into Phase 3 (Eastern Equatorial Indian Ocean Bay of Bengal). ❖ MJO is likely to gradually favour enhancement of convection and cross equatorial flow over the North Indian Ocean (NIO) during Week 2 after July 7. ❖ MJO location and amplitude strongly modulates the intensity of tropical convection and features like low pressure systems over the north Indian Ocean. 	<ul style="list-style-type: none"> ❖ Due to likely dry westerly or southwesterly winds from Pakistan to northwest India at lower levels, heat wave conditions are likely over some parts of Punjab, Haryana, Chandigarh, Delhi, Rajasthan, West Uttar Pradesh.

Conclusion

The forecasting accuracy has a major role in India's agricultural productivity. It provides a clear opportunity to make a positive difference to people's lives. Early forecasts of expected variations in the monsoon season may help to reduce crop losses. This early forecast would be helpful to farmers, as it will prepare earlier for unexpected heavy rainfall or extended dry periods, both of which regularly destroy crops in India.

PEPPER IT WITH
Monsoon trough, ITCZ, Indian Ocean Dipole, El-Nino, La-Nina, Monsoon, Break in monsoon

International Nitrogen Initiative (INI)

News Excerpt

Recently, Eighth triennial conference of the International Nitrogen Initiative (INI) was held virtually. The conference was postponed from last year due to the novel coronavirus disease (COVID-19) pandemic.

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- INI is an international program, set up in 2003 under sponsorship of the Scientific Committee on Problems of the Environment (SCOPE) and from the International Geosphere-Biosphere Program (IGBP). The key aims of the INI are to-
 - Optimize nitrogen’s beneficial role in sustainable food production, and
 - Minimize nitrogen’s negative effects on human health and the environment resulting from food and energy production.
- The INI holds a conference every three years, inviting members of the international nitrogen community to meet up and discuss ideas and exchange knowledge on nitrogen issues.
- The Gothenburg Protocol was established to address pollutants that cause acidification and eutrophication. It sets limits on air pollutants including sulphur dioxide, nitrogen oxide, ammonia and volatile organic compounds that are hazardous to human health and the environment.
- The protocol was updated in 2012 to include particulate matter (PM) and black carbon (as a component of PM) and to include new commitments for 2020.

Key points

- Fertilisers are a predominant source of nitrous oxide and ammonia pollution.
- India championed the UN nitrogen resolution and Sri Lanka championed the Columbo declaration, which called for a global ambition to halve the nitrogen waste. These are developments of huge importance in meeting the nitrogen challenge.
- Reactive nitrogen inputs are extremely important for crop production and global food security, but there are huge imbalances in their access and use. The 41st session of FAO endorsed a code of conduct for sustainable use of fertilisers.
- South Asia is one of the global hotspots for nitrogen pollution.
- The Indian nitrogen assessment of 2017 has provided a huge impetus to the UN resolution, as well as to the ongoing South Asian nitrogen assessment. Millions of lives and livelihoods are affected by nitrogen pollution, apart from loss of fertilisers worth billions of dollars from farms.

Impacts of Nitrogen pollution

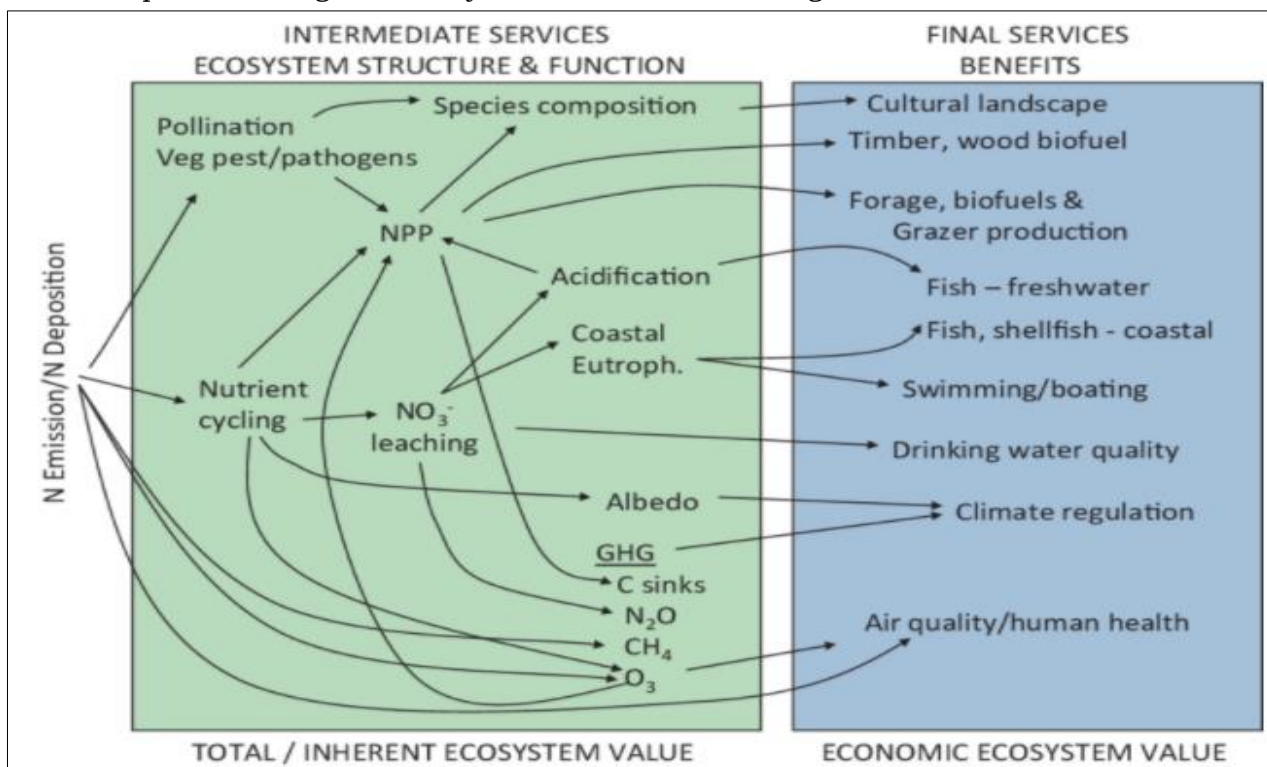
Reactive nitrogen compounds like NOx, ammonia and the greenhouse gas nitrous oxide impact air, water and soil quality, health, biodiversity and climate change, among others. These compounds are lost from fertilisers, manures and sewage as well as from fuel burning in transport and industry. Assessing and managing them sustainably will be crucial to achieve the 17 UN SDGs targeted for 2030.

Nitrogen: Fertilizer Production and Consumption in India

- ✓ India has emerged to be the second largest producer and consumer of nitrogen in the world.
- ✓ Agriculture is the key source of nitrogen pollution in India followed by Sewage and organic

solid wastes. Ammonia concentration in India is the highest in the world due to cattle population and excessive fertilizer uses.

- ✓ Five major crops, namely rice, wheat, maize, sugarcane, and cotton, account for about 70% of total N consumption. Similarly, about 50% total N is consumed in five states—Uttar Pradesh, Maharashtra, Punjab, Gujarat, and Madhya Pradesh.
- ✓ Based on current pricing policy and growth trends, it is estimated that the demand and supply of N in India by 2030 would be 23.45 and 18.76 Mt, respectively, leaving a gap of 4.69 Mt. (According to the Indian Nitrogen Assessment).
- ✓ Nitrogen has played a key role in food grain production, although its use efficiency (20–50%) is very low in India
- ✓ About 67% of the applied N fertilizer is ultimately converted back to the non-atmospheric N₂ after alteration of N cycle and the rest of 33% N_r contributes to different ecosystems.
- ✓ The Impacts of nitrogen on ecosystem is illustrated in image.



Way Forward

- Judicious use of Nitrogen based fertilizers on proper understanding of N cycle must be adopted to balance energy, use efficiency and environmental safety while optimizing N resources for sustainable crop production.
- Loss of nitrogen fertilizer through emissions means more pollution, lower yields and higher costs to farmers. To cut overuse and limit the amount of nitrogen run-off into air and water, farmers could adopt precision technology to calculate the best possible time and amount needed for crops to thrive. Government should have to allocate subsidy for technological intervention instead of direct subsidy to fertilizers.
- Good management of livestock manure is critical in reducing nitrogen pollution. Manure can be beneficial for soils and plants if applied at appropriate levels, but it can also lead to ground and surface water pollution if allowed to run-off.

PEPPER IT WITH
Eutrophication, Neem Coated Urea, Nitrification, Nitrobacter, NPK ratio, Fertigation

Global Energy Investment 2021: IEA

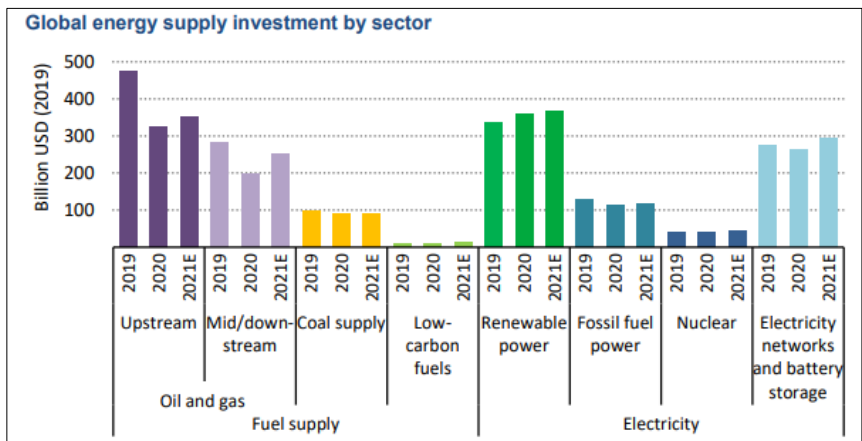
News Excerpt

2021 edition of the World Energy Investment report presents the latest data and analysis of ‘energy investment’ flows.

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Key Highlights of report

- The report focuses on two key queries—
 - Whether the growing momentum among governments and investors to accelerate clean energy transitions is translating into an actual uptick in capital expenditures on clean energy projects.
 - Whether the energy investment response to the economic crisis caused by the Covid-19 pandemic will be broad-based or if some sectors, geographies and vulnerable parts of the world’s population will be left behind.
- Global energy investment is set to rebound by around 10% in 2021, reversing most of the drop caused by the COVID-19.



- Policies remain a crucial driver for many energy investments, with the impact of recovery plans becoming visible in some countries.
- Most of this investment will flow towards power and end-use sectors, shifting out of traditional fossil fuel production. Renewable power will have the largest share — around 70 per cent of the total \$530 billion will be spent on new power generation capacity.
- Energy efficiency sector will also see a substantial rise (10 per cent) in investment, though the low fossil fuel price may act as a deterrent.
- The scenario is perfectly aligned with the projection that global energy demand will rise 4.6 per cent year-on-year in 2021, offsetting its contraction in 2020, according to the report.

Analytica

Key Concerns

- The above positive scenarios will still not deter the increase in carbon dioxide emission, after contraction in 2020 mainly due to economic slowdown induced by the novel coronavirus disease (COVID-19).
- As per the report, Global emission is set to grow by 1.5 billion tonnes this year.
- The pandemic recovery strategies in many countries lack the required stimulant towards emission biennial technologies and pathways. The rhetoric around ‘Net Zero’ is gaining momentum but its transition to actual action is not visible.
- Pandemic has caused serious damages to the foundational pillar of economy, in order to revive the distress economy countries may shift their priority, and changing priority may halt the efforts to minimize the impacts of climate change.
- Accelerating innovation cycles to meet net-zero goals will require more stimulus funding, broad collaboration and a push to catalyse private investment at scale. New and better technologies will be crucial to tackle climate change and other environmental problems associated with energy use, alongside the adoption of existing advanced technologies.
- The emerging market is almost 70 per cent responsible for demand growth and India plays an important part in this block. China is showing a tremendous expansion in coal-based power production — their coal consumption in December 2020 was a historic high — though

the country has a commendable renewable growth. The increment of coal-fired power in 2020, mostly driven by China, is indicating that ‘coal is down but not yet out’.

- Market stimulus amid the pandemic may have lost the opportunity to maximise the clean developmental pathway, which the world is in dire need of.
- So, the urgency visible in communication is still not satisfactorily reflected in action and the world is far away from the scientific target of limiting climate change within two degrees Celsius

Way Forward

For the advancement of the renewable energy sector, in addition to addressing the issues at hand, the government will also have to take concrete steps for design and development of a solid grid infrastructure that can transfer power from rich renewable energy areas to non-rich renewable energy areas, failing which both the target gigawatt milestone and “Power for All” programme may not see the light of day. Democratic decision-making process and de-corporatisation of the energy sector is the need of the future for the survival of the civilisation on this planet.

PEPPER IT WITH
 International Solar Alliance,
 One Sun, One World, One
 Grid, CDM, Carbon Credit,
 Carbon offsetting

Glacier Melting

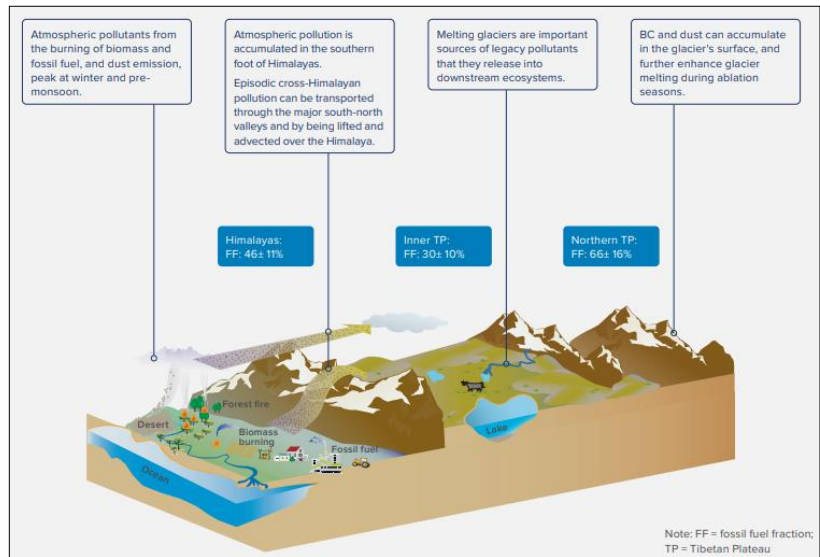
News Excerpt

According to UNDP, Hindu Kush Himalayan (HKH) mountain ranges could lose up to two-third of its ice by 2100.

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About Hindu Kush Mountain

- The HKH region, often referred to as the ‘Third Pole’, is spread over 3,500 square kilometres across eight countries including India, Nepal and China. It contains the world’s third-largest storage of frozen water after the Antarctica and Arctic.
- The glaciers feed at least 10 major river systems, which have bearings on agricultural activities, drinking water and hydroelectricity production in the region.



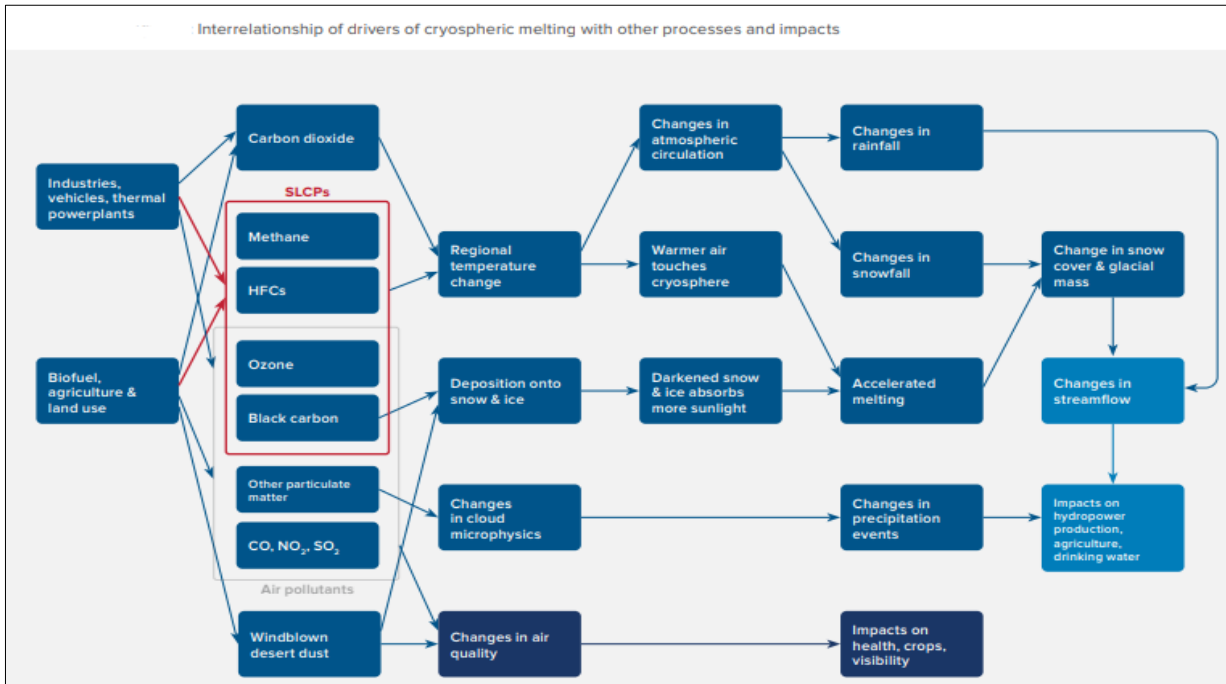
Key Points of the report

- The UNDP report stated that the melting is driven by larger anthropogenic modifications of the atmosphere. The HKH region lies downwind from some of the most heavily polluted places on Earth. This threatens agriculture, climate as well as monsoon patterns.
- The report said in the best-case scenarios, High Mountain Asia (the Asian mountain ranges surrounding the Tibetan Plateau) will lose a substantial part of its cryosphere in the next decades and thus a substantial part of its water storage abilities. This will lead to increased water stress in high mountain areas.
- UNDP Report has warned the alarming melting of glaciers will affect agriculture, access to drinking water directly downstream, it is also closely connected to the same drivers that are worsening the region’s air quality and changing the monsoon patterns, affecting two billion people who live in the river basins of the region.

- Over 240 million people live in the region's mountains; 1.7 billion live in the river basins downstream, while food grown in these basins reaches three billion people

Reason of faster melting of Ice

Temperatures in the high Himalayas are rising faster than almost anywhere else on the globe except in the Arctic and Antarctic. The paper builds its case on scientific findings that if current emission trends were to continue, the HKH mountain ranges – would lose two thirds of its ice by 2100.



Way Forward

- ✓ The report suggested policies and actions to address the needs of key stakeholders affected by water stress, which include:
 - Farmers will need support to design and invest in locally-appropriate water storage solutions, or to shift to agricultural practices that consume less water
 - Designs of new hydropower plants and grids will need to take into account the changing climate and water availability
 - Data and information, capacity-building and early warning systems and infrastructure design will need to be improved. This calls for sufficient funding and large-scale coordination
- ✓ There is dire need to shift away from fossil fuel use in energy, transport, and other sectors, while changing diets and agricultural practices to move to net-zero emissions of greenhouse gases. The countries in the region need to reduce emissions of black carbon and other air pollutants as well.
- ✓ Other strategies which should be adopted are—
 - Reduce and transition out of fossil fuels and regulate a significant cut in the emissions of black carbon and other short-lived air pollutants. Shift billions of people to clean cooking and heating, through incentives and access to low cost technologies.
 - Implement major changes in agricultural practices and massively reduce open fires, through awareness, regulation and heavy fines and rethink urban spaces and promote sustainable urbanisation.

Anti-Hail Gun

To help out horticulturists who face crop damage due to hailstorms, the Himachal Pradesh government will be testing the use of indigenously developed ‘anti-hail guns

An anti-hail gun is a machine which generates shock waves to disrupt the growth of hailstones in clouds.

Hail is produced by cumulonimbus clouds, which are generally large and dark and may cause thunder and lightning.

It comprises a tall, fixed structure somewhat resembling an inverted tower, several metres high, with a long and narrow cone opening towards the sky.

The gun is “fired” by feeding an explosive mixture of acetylene gas and air into its lower chamber, which releases a shock wave (waves which travel faster than the speed of sound, such as those produced by supersonic aircraft).

These shock waves supposedly stop water droplets in clouds from turning into hailstones, so that they fall simply as raindrops.

It is this hail formation process that the shock waves from anti-hail guns try to disrupt in a radius of 500 metres, so that the water droplets fall down before they can be lifted by the updrafts.

The machine is repeatedly fired every few seconds during an approaching thunderstorm. However, the effectiveness of anti-hail guns has remained a contentious issue.

For More on Cryosphere and Climate Change, Refer CURRENT CONNECT May 2021 Edition, Page no-79.

Southern Ocean

News Excerpt

The National Geographic magazine has recognised the ‘Southern Ocean’ as the world’s fifth ocean.

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- The International Hydrographic Organization (IHO) too had recognised ‘Southern Ocean’ as a distinct body of water surrounding Antarctica in 1937 but had repealed the same in 1953, according to the magazine.
- The United States Board on Geographic Names as well as the National Oceanic and Atmospheric Administration, both recognize the term ‘Southern Ocean’.

About Fifth Ocean

- Since National Geographic began making maps in 1915, it has recognized four oceans: the Atlantic, Pacific, Indian, and Arctic Oceans. Starting on June 8, World Oceans Day, it will recognize the Southern Ocean as the world’s fifth ocean.
- Usually, the magazine has followed the International Hydrographic Organization (IHO) on marine names.
- The change in name was in alignment with the National Geographic Society’s initiative to conserve the world’s oceans.
- The magazine says the Southern Ocean is the only ocean ‘to touch three other oceans and to completely embrace a continent rather than being embraced by them’.
- Its northern limit is latitude of 60 degrees south. It is also defined by its Antarctic Circumpolar Current that was formed 34 million years ago. The current flows from west to east around Antarctica.
- The Southern Ocean is home to large populations of whales, penguins and seals. But industrial fishing on species like krill and Patagonian tooth-fish had been a concern for decades.

- It hoped to draw attention to these issues, in addition to the rapid warming of the Southern Ocean due to global warming.
- Geographers debated whether the waters around Antarctica had enough unique characteristics to deserve their own name, or whether they were simply cold, southern extensions of the Pacific, Atlantic, and Indian Oceans.

Desertification and Land Degradation Atlas

News Excerpt

ISRO recently released a Desertification and Land Degradation Atlas. Atlas report has highlighted vulnerable areas for mitigation to policy makers, managers, planners, and researchers.

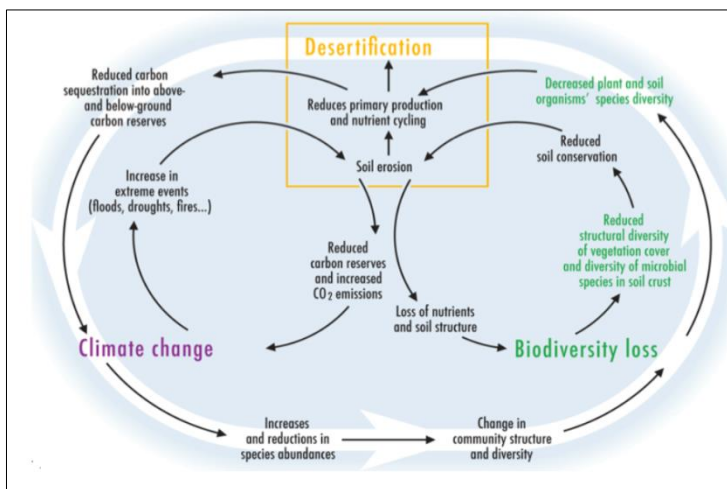
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- According to the United Nations Convention to Combat Desertification (UNCCD), Land degradation is “the reduction or loss of the biological or economic productivity and complexity of rainfed cropland, irrigated cropland, or rangeland, pasture, forest and woodlands resulting from land uses, including processes arising from human activities and habitation patterns.
- Generally, land degradation occurs in dryland areas, more specifically arid, semi-arid and dry sub-humid areas, it is referred to as desertification.
- Around 69 percent of India falls under drylands.
- India is a signatory to the UNCCD. Thematic Programme Network 1 (TPN-1), on ‘Desertification Monitoring and Assessment’, is one of the six thematic programme areas identified as part of Asian regional action programme under UNCCD.
- One of the important tasks under TPN-1 was to prepare desertification status map at national and regional levels.

Key Points of ‘Land Degradation and Desertification’ Atlas

- The Atlas provides state wise area of degraded lands for the time frame 2018-19. It also provides the change analysis for the duration of 15 years, from 2003-05 to 2018-19.
- The analysis reveals that out of selected/ mapped 49.66 million ha area, 22.80 million ha area (45.92%) is undergoing degradation during timeframe 2011-13.
- The area under degradation during time frame 2003-05 is 22.94 million ha (46.20%). A cumulative decrease of 0.14 million ha area (0.28%) in the area undergoing land degradation is observed.
- Mapping has been carried out for 49.66 million ha, which is ~ 15.10 % of country’s total geographical area.
- The analysis revealed that 96.40 mha area of the country is undergoing process of land degradation i.e., 29.32% of the Total Geographic Area (TGA) of the country during 2011-13, while during 2003-05 the area undergoing process of land degradation is 94.53 mha (28.76% of the TGA).
- However, the analysis with respect to TGA of the individual states show that Jharkhand, Rajasthan, Delhi, Gujarat and Goa are showing more than 50% area under desertification/land degradation, whereas states with less than 10% area under desertification/land degradation are Kerala, Assam, Mizoram, Haryana, Bihar, Uttar Pradesh,



Punjab and Arunachal Pradesh.

- There is a cumulative increase of 1.87 mha area undergoing process of desertification/land degradation in the country (constituting 0.57% of the TGA of the country) during the time frame 2003-05 and 2011-13.

Government Initiative regarding land degradation

- ❖ The Soil Health Card scheme
- ❖ The National Afforestation Programme (NAP) scheme
- ❖ Green India Mission (GIM)
- ❖ PradhanMantriFasalBimaYojana (PMFBY)
- ❖ PradhanMantriKrishiSinchaiYojana (PMKSY)
- ❖ The Integrated Watershed Management Programme (IWMP)

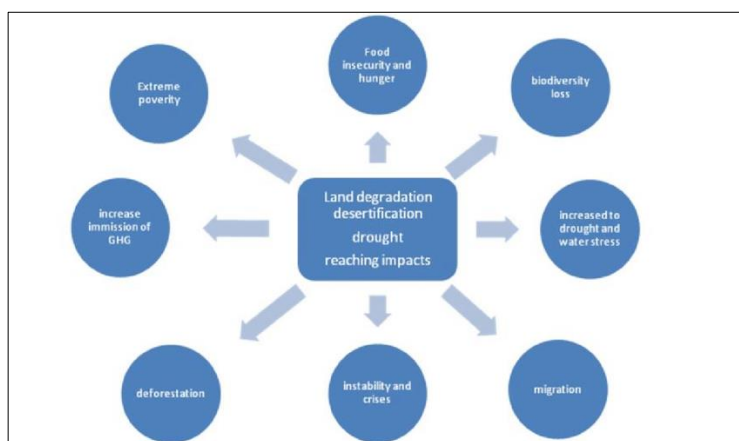
- The change analysis indicates that around 1.95 mha land has been reclaimed and 0.44 mha land has been converted from high severity to low severity degradation class, indicating improvement.

- On the other hand, around 3.63 mha productive land has degraded and 0.74 mha land has converted from low severity to high severity degradation class.

- Area under desertification (arid, semi-arid and dry sub-humid regions of the country) during 2011-13 is 82.64 mha; whereas, during 2003-05 it is 81.48 mha. Thus there is a cumulative increase of 1.16 mha area under desertification. The most significant processes of desertification in arid region is observed to be wind erosion and in semi-arid and dry sub-humid regions vegetation degradation and water erosion dominates.

Causes of Land Degradation

- ✓ Land degradation is driven by climate or human activities.
- ✓ Increasing population (both human and cattle), over exploitation of natural resources, un-sustainable land use practices, frequent natural hazards, extreme weather conditions and climate changes are accelerating the processes of land degradation.



- ✓ The physical status of the land is also a critical factor towards its vulnerability to land degradation, For Instance— a land without vegetation cover and loose soil is more susceptible to erosion by water or wind.
- ✓ The main anthropogenic factors contributing to land degradation include deforestation and land clearing for economic use and to cope with increasing urbanisation.
- ✓ Increasing population is putting infinite pressure on our finite land resources. Inappropriate land use and agricultural practices viz., over-cultivation, overgrazing, deforestation, poor irrigation practices, indiscriminate mining, increasing urbanization are some of the major causes leading to loss of fertile agricultural and forest covered land.

Way Forward

- Better regulation of lands and stepping up watershed management initiatives are need of hour to combat the rising trend of degradation. Reclaiming degraded lands will require a strict land-use policy and better watershed management initiatives.
- Space technology can be effectively utilised not only for rapid inventory and monitoring but also for action plan preparation to combat land degradation.
- Preventive actions should be encouraged like- Integrating land and water management to protect soils from erosion, salinization, and other forms of degradation, Protecting the vegetative cover, which can be a major instrument for soil conservation against wind and water erosion, Integrating the use of land for grazing and farming where conditions are favorable,

allowing for a more efficient cycling of nutrients within the agricultural systems and giving local communities the capacity to prevent desertification and to manage dryland resources effectively.

- Among practical measures undertaken to prevent and restore degraded land are prevention of soil erosion; improved early warning system and water resource management; sustainable pasture, forest and livestock management; aero-seeding over shifting sand dunes; narrow strip planting, windbreaks and shelterbelts of live plants; agroforestry ecosystems; afforestation and reforestation; introduction of new species and varieties with a capacity to tolerate salinity and/or aridity; and environmentally sound human settlements.

GM Rubber in Assam

News Excerpt

The world’s first genetically modified (GM) rubber plant was planted on the outskirts of Guwahati, Assam. This GM plant was developed at the Kerala-based Rubber Research Institute of India (RRII).

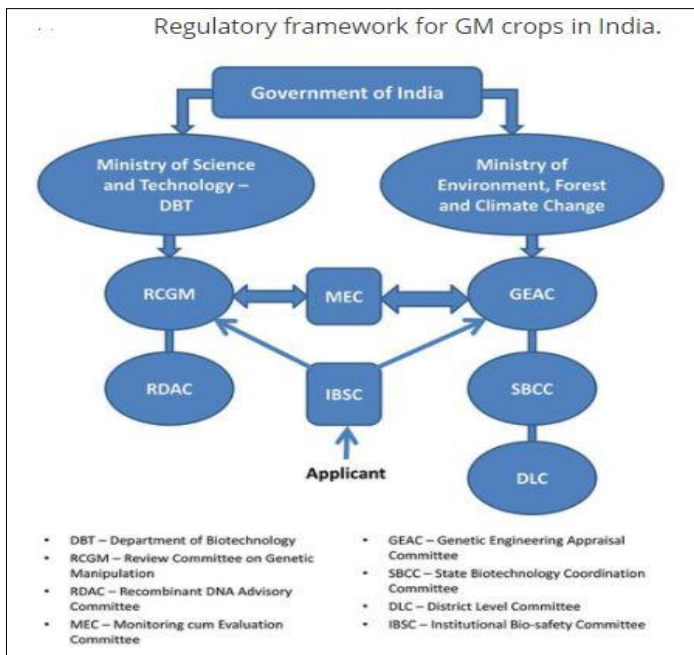
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Pre-Connect

- The Genetic Engineering Appraisal Committee (GEAC) is responsible for appraisal of proposals relating to release of genetically engineered (GE) organisms and products into the environment including experimental field trials.
- GEAC functions under the ambit of the Ministry of Environment, Forest and Climate Change (MoEF&CC).
- Natural rubber is a native of warm humid Amazon forests and is not naturally suited for other places, but the GM variety uses a gene that can enable the crop to tide over extreme hot or cold temperatures.

GM Rubber in India

- First time, a GM crop has been developed exclusively for north east region.
- The GM rubber sapling is world’s first, and has been modified by inserting additional copies of the gene MnSOD (manganese-containing superoxide dismutase).
- This gene enables the newly developed rubber plant to tide over extreme climatic stress such as hot and cold temperatures, along with drought-like conditions.
- The MnSOD gene removes toxic oxygen in plants caused by extreme temperatures such as heat or harsh winter, as is the case in Northeast, which inhibits growth.
- The MnSOD gene has the ability to protect plants from the adverse effects of severe environmental stress such as cold or drought.
- The new crop is expected to cut short the maturity period of rubber, indicating chances for an early yield.



Benefits

- ✓ GM Rubber is likely to provide a boost to the production of the crop in the northeastern region of the country, since natural rubber is a native of warm humid Amazon forests and is not naturally suited for other colder conditions.

- ✓ The development of GM rubber is essential to allow non-traditional rubber states such as Assam and Mizoram to further increase their production.
- ✓ With the new GM crop, the growth in winter times in Northeast region can be seen at par to normal plant growing levels in Kerala, thereby reducing the maturity level by one year.

Risks of GM Crops

- GM foods have more potential to trigger allergic reactions due to the modified genes. New traits could cause adverse health reactions. Further, removal of traits can have severe impact on eco-system.
- GM Crops may limit the local biodiversity. It could impact cross pollination which could lead to ‘Super Weeds’.
- The issue of patent could cause socio-economic adversaries on farmers. Patents restrict the access to farmer to use GM crops.
- In the absence of adequate Regulatory, labeling and monitoring mechanism, GM Crops may escalate governance issues.

Sale of illegal HTBt cotton seeds doubles

- ❖ The illegal cultivation of herbicide tolerant (HT) Bt cotton has seen a huge jump.
- ❖ The sale of illegal seed packets has more than doubled from 30 lakh last year to 75 lakh this year.
- ❖ The HTBt cotton variant adds another layer of modification, making the plant resistant to the herbicide glyphosate. It has not been approved by regulators. Fears include glyphosate having a carcinogenic effect, as well as the unchecked spread of herbicide resistance to nearby plants through pollination, creating a variety of superweeds.
- ❖ Farmers are at risk with such illegal cotton seed sale as there is no accountability of the quality of seed, it pollutes the environment, the industry is losing legitimate seed sale and the government also loses revenue in terms of tax collection.
- ❖ It will not only decimate small cotton seed companies but also threatens the entire legal cotton seed market in India.

Way forward

- ✚ Given the present agricultural distress, there is dire need for broad reforms in the agriculture sector. The potential of GM crops to supplement those reforms with increased drought resistance and reduced pesticide dependence, among other benefits can be used with stricter monitoring and regulating mechanisms.
- ✚ There is dire need to move away from the current position of regulating new varieties (GM) based on process and adopt an appropriate regulatory framework for biotechnology that can adapt to changes in breeding methods and future agricultural practices in a logical and predictable manner.
- ✚ Informed choice in all sections of the agricultural and food/feed supply chain by openly communicating the benefits should be provided, and also the risks and longer-term sustainability of different agricultural systems should be adopted while formulating related policies and schemes.

PEPPER IT WITH
Genome Sequencing, Gene Slicing, transgenic crops, CBD convention, Environmental Protection Act

Summer Solstice

News Excerpt

The longest day of 2021 for north hemisphere is on June 21. This day is referred as the ‘summer solstice’, the longest (duration) day in summer season.

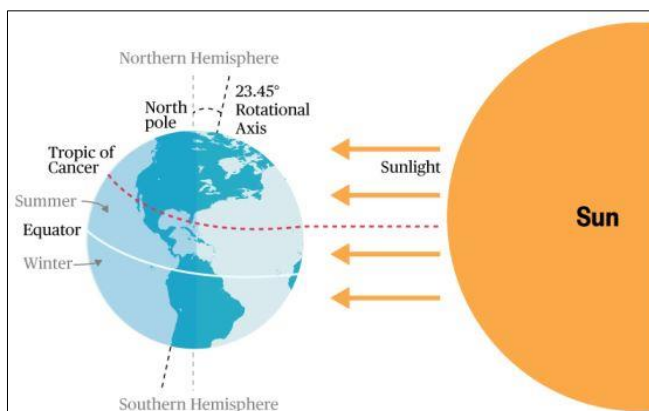
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About Summer Solstice

- It occurs when the sun is directly over the Tropic of Cancer, or more specifically right over 23.5 degree north latitude.
- During the solstice, the Earth’s axis around which the planet spins, complete one turn each day. It is tilted in a way that the North Pole is tipped towards the sun and the South Pole is

away from it.

- Typically, this imaginary axis passes right through the middle of the Earth from top to bottom and is always tilted at 23.5 degree with respect to the sun. Therefore, the solstice is that instant in time when the North Pole points more directly toward the sun that at any other time during the year.
- Summer solstice does not mean the earliest sunrise or latest sunset. Solstice means “sun standing still”. The sun appears to linger at its highest point in the sky for the year at midday on the summer solstice.



Effect of Summer Solstice on Earth

- This day is characterised by a greater amount of energy received from the sun. According to NASA, the amount of incoming energy the Earth received from the sun on this day is 30 per cent higher at the North Pole than at the Equator.
- When the Northern Hemisphere is tilted toward the sun, sunlight falls at a steeper angle on it to cause the hot months of summer.
- Summer solstice is very closely linked to the seasons, and seasons are directly linked to human behavior and activity and resources. In India, intense heating invites monsoon during summer solstice which have direct impact on agriculture and economy.
- Summer Solstice also changes the duration of Day and Night in respective hemisphere.
- The further north one moves from the equator, the more light one receives during the summer solstice. At the Arctic Circle, the sun never sets during the solstice.

Great Barrier Reef

News Excerpt

A United Nations body is recommending that Australia's Great Barrier Reef be included on a list of world heritage ‘in danger’.

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- To be included on the World Heritage List, sites must be of outstanding universal value and meet at least one out of ten selection criteria.
- The Great Barrier Reef is unique as it extends over 14 degrees of latitude, from shallow estuarine areas to deep oceanic waters. Within this vast expanse are a unique range of ecological communities, habitats and species – all of which make the Reef one of the most complex natural ecosystems in the world.
- The reef is called the 'Barrier' Reef because it is an outer reef, situated along the Australian continental shelf with the channel between the coastline and the reef reaching a depth of about 60m.
- When corals face stress by changes in conditions such as temperature, light, or nutrients, they expel the symbiotic algae zooxanthellae living in their tissues, causing them to turn completely white.



This phenomenon is called coral bleaching.

Great Barrier Reef and Australia

- Australia has for years been battling to keep the Great Barrier Reef, a major tourist attraction that supports thousands of jobs, off the “in danger” list, a step that could potentially lead towards its eventual removal as a World Heritage Site.
- It was recommended to add to the list because of the impact of climate change.
- In 2015, its lobbying included hosting UNESCO World Heritage delegates on a trip to an unspoiled stretch of the reef, but since then, scientists say, the world’s largest living ecosystem has suffered three major coral bleaching events due to severe marine heatwaves.
- Australia, which is one of the world's largest carbon emitters per capita, has remained reluctant to commit to stronger climate action and has cited jobs as a major reason to back the country's fossil fuel industries.

‘Sea Snot’ outbreak

News Excerpt

Recently, a thick slimy layer of the organic matter, known as marine mucilage, has spread around the cost of turkey.

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About Outbreak

- A ‘sea snot’ outbreak was first recorded in the turkey in 2007. It was spotted in the Aegean Sea near Greece.
- Now, Turkey’s Sea of Marmara, that connects the Black Sea to the Aegean Sea, has witnessed the largest outbreak of ‘sea snot’. ‘Sea snot’ is marine mucilage that is formed when algae are overloaded with nutrients as a result of water pollution combined with the effects of climate change.
- The nutrient overload occurs when algae feast on warm weather caused by global warming. Water pollution adds to the problem.
- The overproduction of phytoplankton caused by climate change and the uncontrolled dumping of household and industrial waste into the seas has led to the present crisis.
- Dumping of sewage in the sea along with rising temperatures is causing the crisis.
- The thick slimy layer of organic matter, which looks like a viscous, brown and foamy substance, has spread through the sea south of Istanbul and also blanketed harbours and shorelines.

Impact of ‘Sea Snot’ on Marine Eco-System

- The growth of the mucilage, which floats up on the surface of the sea like a brown phlegm, is posing a severe threat to the marine ecosystem.
- Sea Snot has caused mass deaths among the fish population, and also killed other aquatic organisms such as corals and sponges.
- The mucilage is now covering the surface of the sea and has also spread to 80-100 feet below the surface. If unchecked, this can collapse to the bottom and cover the sea floor, causing major damage to the marine ecosystem.
- Over a period of time, it could end up poisoning all aquatic life, including fishes, crabs, oysters, mussels and sea stars.
- Besides aquatic life, the ‘sea snot’ outbreak has also affected the livelihoods of fishermen. The sludge is getting collected in fishing nets, making them so heavy that they break or get lost. Moreover, the mucilage coating the strings makes the nets visible to fish and keep them away.
- It is often cited that the problem has already existed for a long time and aquatic life was getting

poisoned by the dumping of waste and global warming. Over the years, fishing catch has considerably reduced and there have been less fish in the sea. This has compounded the economic crisis for fishermen.

Conclusion

The brown mucilage floating in the seas of Turkey is a sign of how the marine ecosystem can be damaged and the effect it can have on the environment as a whole if serious steps are not taken to tackle the twin crisis of pollution and global warming. Along with that there is dire need to limit the sewage discharge in sea. There is need to purify the water before it inflow in sea.

Dihing Patkai National Park

News Excerpt

The Assam State government has notified Dihing Patkai as a National Park.

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- National park can be designated via a notification from the state govt.
- Central government can also declare a national park via a notification where the State Government leases or otherwise transfers any area under its control, not being an area within a Sanctuary, to the Central Government and the Central Government may, if it is satisfied that the conditions specified in 1972 Act are fulfilled in relation to the area so transferred to it, declare such area, by notification.
- All kinds of destruction, exploitation and removal of Wildlife and any damage in the habitat of any animal is strictly prohibited inside a national park.
- Under no circumstance grazing of cattle is permitted inside the national park.
- No alterations of the boundaries of a national park shall be made except on a resolution passed by the legislature of the state.



National Parks in Assam

- Assam now has the third most National Parks after the 12 in Madhya Pradesh and nine in the Andaman and Nicobar Islands.
- Kaziranga and Manas are UNESCO World Heritage Sites. They are also tiger reserves along with Nameri and Orang.

About DihingPatkai National Park

- ✓ The “last remaining stretches” of the Assam Valley tropical wet evergreen forests have become Assam’s seventh National Park.
- ✓ The 234.26-sq. km Dihing Patkai straddling eastern Assam’s Dibrugarh and Tinsukia districts is a major elephant habitat and various species of butterflies have been recorded there.
- ✓ The park has 47 species each of reptiles and mammals, including the tiger and clouded leopard.
- ✓ The forest village area diverted under Forest Conservation Act has been excluded. Short stretches of the Dirak and Buri Dihing rivers have been included in the park.

About Raimona National Park

- Raimona national park adjoins the Buxa Tiger Reserve in West Bengal to its west, Phipsoo Wildlife Sanctuary in Bhutan to its north and the first addition to Manas National Park to the

east.

- With 11 different forest types and subtypes, Raimona is home to the golden langur, elephant, tiger, clouded leopard and Indian gaur besides sustaining several species of orchids, more than 150 species of butterflies, 170 species of birds and 380 species of plants.

Rajasthan set to get its fourth tiger reserve

- ❖ Rajasthan is poised to get its fourth tiger reserve after Ramgarh Vishdhari wildlife sanctuary received a nod from the National Tiger Conservation Authority.
- ❖ Ramgarh Vishdhari Sanctuary which will link Ranthambore Tiger Reserve in the Northeast & Mukundra Hills Tiger Reserve on the southern side. Increasing numbers of Tigers and other apex predators certify our robust biodiversity.
- ❖ According to a 2018 tiger census, there are 102 tigers in three reserves -- Ranthambore Tiger Reserve in Sawai Madhopur, Sariska Tiger Reserve in Alwar, and Mukundra Hills Tiger Reserve in Kota — in the state.

'Operation Olivia'

- ❖ Every year, the Indian Coast Guard's "Operation Olivia" helps to protect Olive Ridley turtles as they congregate along the Odisha coast for breeding and nesting from November to December.
- ❖ Coast Guard has carried out extensive patrol vessels, interceptor craft and Dornier aircraft to enforce laws near the rookeries.
- ❖ The Olive Ridley (*Lepidochelys olivacea*) is listed as vulnerable under the International Union for Conservation of Nature's Red list.
- ❖ All five species of sea turtles found in India are included in Schedule I of the Indian Wildlife Protection Act, 1972, and in the Appendix I of the Convention of International Trade in Endangered Species of Wild Fauna and Flora (CITES), which prohibits trade in turtle products by signatory countries.
- ❖ Odisha has also formulated laws for protecting Olive Ridley turtles, and the Orissa Marine Fisheries Act empowers the Coast Guard as one of its enforcement agencies.



FOUNDATION COURSE
11th Aug

ADVANCE FOUNDATION COURSE
5th Sep

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SCIENCE & TECHNOLOGY

DAVINCI+ and VERITAS missions

News Excerpt

NASA has selected two missions to the planet Venus, Earth’s nearest neighbour. The missions called DAVINCI+ and VERITAS have been selected based on their potential for scientific value and the feasibility of their development plans. NASA is expected to allot \$500 million to each of these missions that will launch between 2028-2030.

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About Venus

- For those on Earth, Venus is the second-brightest object in the sky after the moon. It appears bright because of its thick cloud cover that reflects and scatters light.
- But while Venus, which is the second closest planet to the Sun, is called the Earth’s twin because of their similar sizes, the two planets have significant differences between them.
- The planet’s thick atmosphere traps heat and is the reason that it is the hottest planet in the solar system, despite coming after Mercury, the closest planet to the Sun.
- Surface temperatures on Venus can go up to 471 degrees Celsius, which is hot enough to melt lead, NASA notes.
- Further, Venus moves forward on its orbit around the Sun but spins backwards around its axis slowly. This means on Venus the Sun rises in the west and sets in the East.
- One day on Venus is equivalent to 243 Earth days because of its backward spinning, opposite to that of the Earth’s and most other planets. Venus also does not have a moon and no rings.

Pre-Connect

- Because of the planet’s harsh environment, no humans have visited it and even the spacecraft that have been sent to the planet have not survived for a very long time.
- “Venus’ high surface temperatures overheat electronics in spacecraft in a short time, so it seems unlikely that a person could survive for long on the Venusian surface.
- So far, spacecraft from several nations have visited the planet. The first such spacecraft was the Soviet Union’s Venera series (the spacecraft, however, could not survive for long because of the planet’s harsh conditions), followed by NASA’s Magellan Mission that studied Venus from 1990-1994.
- As of now, Japan’s Akatsuki mission is studying the planet from Orbit.

Analytica

Both missions are part of the space agency’s Discovery Program, which began in 1992 to give scientists the chance to launch some missions that use fewer resources and have shorter developmental times. The two selections are a part of the ninth Discovery Program and were made from proposals submitted in 2019.

DAVINCI+

- ✓ DAVINCI+ is short for ‘Deep Atmosphere Venus Investigation of Noble gases, Chemistry, and Imaging’ and is the first US-led mission to the planet’s atmosphere since 1978. It will try to understand Venus’ composition to see how the planet formed and evolved. This mission also consists of a descent sphere that will pass through the planet’s thick atmosphere and make observations and take measurements of noble gases and other elements.
- ✓ Significantly, this mission will also try to return the first high resolution photographs of a geological feature that is unique to Venus. This feature, which is called “tesserae” may be comparable to Earth’s continents, NASA says. The presence of tesseraes may suggest that Venus has tectonic plates like Earth.

VERITAS

- The second mission called VERITAS is short for ‘Venus Emissivity, Radio Science, InSAR, Topography, and Spectroscopy’ and will map the planet’s surface to determine its geologic history and understand the reasons why it developed so differently from Earth.
- VERITAS will orbit Venus with a radar that will help to create a three-dimensional

reconstruction of its topography which might be able to tell scientists if processes such as plate tectonics and volcanism are still active there. This mission will also map the emissions from Venus’s surface that may help in determining the type of rocks that exist on Venus—a piece of information that is not exactly known yet. It will also determine if active volcanoes are releasing water vapour into the atmosphere.

Expected Outcomes

- ✚ The results from DAVINCI+ are expected to reshape the understanding of terrestrial planet formation in the solar system and beyond. Taken together, both missions are expected to tell scientists more about the planet’s thick cloud cover and the volcanoes on its surface.
- ✚ Further, scientists speculate about the existence of life on Venus in its distant past and the possibility that life may exist in the top layers of its clouds where temperatures are less extreme.

EnVision Mission

News Excerpt

Following NASA’s footsteps, the European Space Agency (ESA) recently announced that it has selected EnVision as its next orbiter that will visit Venus sometime in the 2030s.

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Highlights

- EnVision is an ESA led mission with contributions from NASA. It is likely to be launched sometime in the 2030s. The earliest launch opportunity for EnVision is 2031, followed by 2032 and 2033.
- Once launched on an Ariane 6 rocket, the spacecraft will take about 15 months to reach Venus and will take 16 more months to achieve orbit circularisation.
- The spacecraft will carry a range of instruments to study the planet’s atmosphere and surface, monitor trace gases in the atmosphere and analyse its surface composition. A radar provided by NASA will help to image and map the surface.
- EnVision will follow another ESA-led mission to Venus called ‘Venus Express’ (2005-2014) that focussed on atmospheric research and pointed to volcanic hotspots on the planet’s surface.

Significance of Venus

- At the core of the ESA’s mission is the question of how Earth and Venus evolved so differently from each other considering that they are roughly of the same size and composition.
- Venus is the hottest planet in the solar system because of the heat that is trapped by its thick cloud cover.
- In 2020, a team of scientists reported that they had found phosphine gas (a chemical produced only through biological processes) in the atmosphere of Venus that triggered excitement in the scientific community that some life forms might be supported by the planet.
- But the existence of life on the planet is nearly impossible given the high temperatures of Venus and its acidic atmosphere. Even so, this discovery could mean that life forms could have existed on Venus before when it was habitable. As per this theory, the discovery of phosphine could simply be remnants from the past.

Supersonic Flying

News Excerpt

Nearly two decades since the last supersonic passenger flight, of the British-French airliner Concorde, took off, the planes are set to return to the runways by 2029. United Airlines recently announced that it was ordering 15 planes with the ability to travel at Mach 1.7, faster than the speed of sound, from the Denver-based startup ‘Boom’.

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Highlights

- If the deal gets through, the new supersonic “Overture” aircraft will become the world’s fastest

commercial airliner, reducing travel time by about half of today's planes.

- Supersonic vehicles in the past have been flagged for their high use of jet fuels, causing extensive environmental damage. But the company (Boom) claims to produce an eco-friendly aircraft with “net-zero carbon emissions”, set to fly with 100 per cent sustainable aviation fuel (SAF).
- As per the claims of the company, the Overture will also not be noisy as supersonic planes in the past were as it aims for “zero overland noise.” This essentially means that it will cruise at supersonic speeds only over water, ensuring that no sonic boom or excessive noise reaches the surfaces where people live.
- Coastal buffer zones will be created into route planning of the airline, enabling the Overture planes to travel over Mach 1 only after it reaches a “safe” distance from the shore.
- The announcement of the new technology comes at the time when the global aviation industry is bearing losses due to the Covid-19 pandemic, and a third of the world's air routes have been lost since 2020.

What is a supersonic plane?

- Supersonic aircraft are planes that can fly faster than the speed of sound. The technology for supersonic flights is actually over 70 years old, but only recently has been used for commercial flying. Before 1976, when the first commercial supersonic flight took off, the planes were used entirely for military purposes.
- Concorde, the British-French turbojet-powered commercial airliner, was the first aircraft to carry passengers at supersonic speed, but eventually had to discontinue, due to cost and other concerns.
- Usually, supersonic planes can travel at the speed of around 900 kmph, twice the speed of normal aircraft.

The sustainability factor in Overture planes

- ✓ Overture planes would rely completely on sustainable aviation fuel, made from biodegradable material. In using this, it aims for maximum fuel efficiency during operations.
- ✓ Several experts say that such sustainable fuel is currently very limited in its supply, and is extremely expensive. Moreover, the use of this fuel does not eliminate greenhouse gas emissions altogether.
- ✓ The company also promises to equip the airliner with advanced aerodynamics and carbon composite materials. Through this, it says, it will be able to cut significant development and maintenance costs in ways which the Concorde planes could not.

Challenges with Supersonic Planes

- Flying passengers at a supersonic speed is accompanied by a whole set of challenges. Firstly, the costs of making “sustainable” supersonic planes are extremely high. The very nature of its flying — using excessive amounts of fuel and energy — is likely to have high environmental costs.
- Despite the use of sustainable fuels, the greenhouse gas emissions are not nullified. This has been seen in Concorde's flights, which were terrible in terms of emissions. Not to mention the high amounts of fuel the planes will consume in order to take off, that too in a market where sustainable fuels aren't readily available. The Concorde used eight times the amount of oil per passenger mile used in a modern day Boeing.
- Secondly, the very speed of the planes results in producing excessive amounts of noise pollution in the environment. The “Sonic Boom” created by these planes feels like an explosion to the human ear. This, thus, limits where and when the supersonic planes can fly. They can only reach their actual speed until they are far enough from people and completely over the ocean.
- To top these, regulatory approvals to fly such planes can be unsuccessful, especially for transatlantic flights. Getting clearance from regulators around the world would be a challenging task, since the supersonic planes in the past have already been flagged for these hurdles.

- Lastly, it would not be economically feasible for everyone. Only the very rich can afford supersonic planes, as a ticket is likely to be way more costly than a first class ticket of a regular plane.

CHIME Telescope

News Excerpt

Scientists with the Canadian Hydrogen Intensity Mapping Experiment (CHIME) Collaboration, who include researchers at the Pune-based Tata Institute for Fundamental Research (TIFR) and the National Centre for Radio Astrophysics (NCRA), have assembled the largest collection of fast radio bursts (FRBs) in the telescope’s first FRB catalogue.

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Analytica

- FRBs are radio pulses that look like light flashes and last for a fraction of a millisecond, and which can glow anytime.
- Located at the Dominion Radio Astrophysical Observatory in British Columbia in Canada, scientists used the radio telescope Canadian Hydrogen Intensity Mapping Experiment (CHIME) to carry out its maiden sky scanning after it became operational in 2018.
- CHIME comprises four massive cylindrical radio antennas, roughly the size and shape of snow-boarding half-pipes. The telescope receives radio signals each day from half of the sky as the Earth rotates.
- Though FRBs were first detected in 2007 and since then, about 140 bursts have been confirmed, it is the first time that a single sky survey, lasting for 12 months between June 2018 and June 2019 in this bandwidth, has detected such a large number of bursts.
- Within one year of the sky scanning, CHIME was able to detect anywhere between 2 to 8 FRBs every day. No FRBs had been detected, back then, in the 400 to 800 MHz bandwidth.
- During the year-long scanning, a total of 535 FRBs were detected and identified with their characteristics. 18 of these bursts were found to be repeated ones, that is, emerging from the same source.
- Of the FRBs which were tagged as repeat bursts from the same source, one source was found to emit bursts once after every 16.5 days. The repeat burst was found to last slightly longer than those which flashed only once.
- What makes CHIME an advanced radio telescope is its ability to look at a large area of the sky, even though it is kept stationary.
- Despite having the telescope’s eyes looking into large areas of the sky, the challenge was that FRBs emerged from all directions and were well distributed in the sky.
- But the advantage CHIME enjoys, as it monitors more than half of the celestial sphere with very high sensitivity, has increased chances for detecting more FRBs.
- Such is the data handling capacity of CHIME that it processes 7 terabits of information every second – roughly some percentage of the world’s internet traffic.
- It is then by using the Machine Learning, Artificial Intelligence and specialised algorithms that these interferences – through mobile towers, airlines or satellites — are filtered out to ultimately confirm an FRB among millions of radio signals. The vast volumes of data of the order of 7 terabits per second is compressed to 140GB, after which further processing is done.
- According to experts, the fact that the bursts were bright enough to be detected by CHIME suggests that they must have been produced by extremely energetic sources. As the telescope detects more FRBs, scientists hope to pin down exactly what kind of exotic phenomena could generate such ultra bright, ultra fast signals.
- The scientists plan to use the bursts, and their dispersion estimates, to map the distribution of gas throughout the universe.

PASIPHAE Project

News Excerpt

The mysteries surrounding the origin of the universe continue to draw human curiosity. The development of a vital instrument, which will be used in upcoming sky surveys to study stars, is being led by an Indian astronomer. The project has been funded by the world's leading institutions, signalling India's growing expertise in building complex astronomical instruments.

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What is PASIPHAE?

- Polar-Areas Stellar-Imaging in Polarisation High-Accuracy Experiment (PASIPHAE) is an international collaborative sky surveying project. Scientists aim to study the polarisation in the light coming from millions of stars.
- The name is inspired from Pasiphae, the daughter of Greek Sun God Helios, who was married to King Minos.
- The survey will use two high-tech optical polarimeters to observe the northern and southern skies, simultaneously.
- It will focus on capturing starlight polarisation of very faint stars that are so far away that polarisation signals from there have not been systematically studied. The distances to these stars will be obtained from measurements of the GAIA satellite.
- By combining these data, astronomers will perform a maiden magnetic field tomography mapping of the interstellar medium of very large areas of the sky using a novel polarimeter instrument known as WALOP (Wide Area Linear Optical Polarimeter).
- The Infosys Foundation, India, Stavros Niarchos Foundation, Greece and USA's National Science Foundation have each provided a grant of \$1 million, combined with contributions from the European Research Council and the National Research Foundation in South Africa.

Significance of the PASIPHAE

- Since its birth about 14 billion years ago, the universe has been constantly expanding, as evidenced by the presence of Cosmic Microwave Background (CMB) radiation which fills the universe.
- Immediately after its birth, the universe went through a short inflationary phase during which it expanded at a very high rate, before it slowed down and reached the current rate. However, so far, there have only been theories and indirect evidence of inflation associated with the early universe.
- A definitive consequence of the inflationary phase is that a tiny fraction of the CMB radiation should have its imprints in the form of a specific kind of polarisation (known scientifically as B-mode signal).
- All previous attempts to detect this signal met with failure mainly due to the difficulty posed by our galaxy, the Milky Way, which emits copious amounts of polarised radiation.
- Besides, it contains a lot of dust clouds that are present in the form of clusters. When starlight passes through these dust clouds, they get scattered and polarised.
- It is like trying to see faint stars in the sky during daytime. The galactic emission is so bright that the polarisation signal of CMB radiation is lost.
- The PASIPHAE survey will measure starlight polarisation over large areas of the sky. This data along with GAIA distances to the stars will help create a 3-Dimensional model of the distribution of the dust and magnetic field structure of the galaxy. Such data can help remove the galactic polarised foreground light and enable astronomers to look for the elusive B-mode signal.

UNESCO Report on India's investment in research

News Excerpt

Recently, the UNESCO Science Report has observed that while India has made 'solid progress' towards the Sustainable Development Goal (SDG) targets concerning industry, infrastructure and innovation, the country's investment in research remains unsatisfactory.

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Highlights of the Report

- The gross domestic expenditure on research (GERD) has been stagnant at 0.7% of the GDP for years, although, in absolute terms, research expenditure has increased.
- India has one of the lowest GERD/GDP ratios among the BRICS nations, according to the report which is published every five years.
- It noted that, India's research intensity has been declining since 2014. The Science and Technology Policy of 2003 fixed the threshold of devoting 2% of GDP to research and development (R&D) by 2007. This target date was set back to 2018 in the new Science, Technology and Innovation Policy (2013) then again to 2022 by the Economic Advisory Council of the Prime Minister. In 2020, the task force drafting the country's new Science and Technology Policy recommended pushing back the target date to a more realistic 2030.
- The density of scientists/engineers engaged in R&D in the country per 10,000 of the labour force stood at ten. It rose to just 11 in 2018, when it stood at 50 in China, 130 in Japan and 180 in South Korea.
- R&D in the government sector has been in steady decline since 2015, whereas the share of private business enterprises in it has shot up to 42%. While in theory this is a positive trend, the R&D is focused primarily in sectors such as pharmaceuticals, automotive, and information technology. Even in these industries, it is concentrated in a small number of firms, the report said.
- It further noted that investment in R&D by foreign multinationals is on the rise, accounting for as much as 16% of private-sector investment in R&D in 2019.
- On the bright side is the encouraging increase in scientific publications by Indian researchers on cutting-edge technologies. Total publications have risen from 80,458 in 2011 to 1.61 lakh in 2019.
- The report noted that Indian researchers are publishing between 1.5 and 1.8 times the global average on smart-grid technologies, photovoltaics, biofuels and biomass and wind turbine technologies, complementing the government's push to expand green energy sources.
- But then again, patenting by domestic corporations, research institutes, universities and individuals remains low in India. The report noted that the majority of the software-related patents were being bagged by MNCs operating from Indian soil, while pharma patents were obtained mostly by domestic firms.

Steps Taken by the Government

- Prime Minister Research Fellowship (PMRF) Scheme for promotion of research in the frontier areas of science & technology. It seeks to incentivize a maximum of 3,000 most talented students from recognized Universities/Institutions who will be selected as per PMRF guidelines to enrol in the Ph.D program in IITs/IISc/IISERs/CUs by providing attractive rates of fellowship. In addition, a research grant of Rs.2.00 lakh per year for a period of 5 years will be given to each fellow to meet the cost of presenting research papers.
- The University Grants Commission (UGC) is providing financial assistance to the Ph.D scholars under the schemes of Junior Research Fellowship (JRF) and Senior Research Fellowship (SRF) in Science, Humanities and Social Sciences (NET), Swami Vivekanand Single Girl Child Fellowship for research in Social Science, Maulana Azad National Fellowship for Minority Students, National Fellowship for Scheduled Castes (SCs) and National Fellowship for Other Backward Classes (OBCs), wherein fellowship @ Rs.31000/- per month is provided for first 2 years as JRF followed by Rs.35000/- per month for remaining tenure as SRF. In addition to

the fellowship, admissible HRA & contingency grants are also provided.

- Scheme for Trans-disciplinary Research for India's Developing Economy (STRIDE) for Humanities and Human Sciences.
- Impacting Research Innovation and Technology (IMPRINT) for technical research.
- Impactful Policy Research in Social Science (IMPRESS) for social sciences research.
- Scheme for Promotion of Academic and Research Collaboration (SPARC) for joint research with Foreign Universities; and
- National Doctoral Fellowship (NDF) scheme to promote research culture and collaborative research between Institute and Industries leading to start-ups in AICTE institutions.

Echolocation for blind people

- ❖ Recently researchers at Durham University in the UK have shown that a technique used by animals such as dolphins, whales and bats to navigate their surroundings can also be used by blind people to get around better and have greater independence and well-being.
- ❖ Using the method, called 'echolocation', animals emit sounds that bounce off objects and come back to them, providing information about what is around them. The same technique helps blind people locate still objects by producing clicking sounds from their mouth and hands.
- ❖ While the concept itself is not novel, the Durham research focuses on how easily visually impaired people can learn echolocation, and whether age influences learning.

What needs to be done?

- ✓ The UNESCO Science Report underscores the need for 'policy bridges' for fostering a more effective interaction between foreign and local research firms.
- ✓ Given the large number of multinational corporations now engaged in R&D, it is imperative that the host economy benefit from this activity
- ✓ It also called for improved linkages between the start-up ecosystem and manufacturers to push technological development in sectors where India enjoys a global presence.

Doppler radar network for Maharashtra

News Excerpt

The India Meteorological Department (IMD) will install seven new doppler radars in Maharashtra, including Mumbai, this year.

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Pre-Connect

- India's east coast, which is frequently affected by the cyclones formed in the Bay of Bengal, has radars operational at eight locations — Kolkata, Paradip, Gopalpur, Vishakhapatnam, Machilipatanam, Sriharikota, Karaikal and Chennai.
- Along the west coast, there are radars at Thiruvananthapuram, Kochi, Goa and Mumbai. Other radars are operating from Srinagar, Patiala, Kufri, Delhi, Mukteshwar, Jaipur, Bhuj, Lucknow, Patna, Mohanbar, Agartala, Sohra, Bhopal, Hyderabad and Nagpur.
- The radars can oversee an area of up to 500 km, with effective range of up to 250 km.
- The modernisation and upgrade of existing radars are ongoing and the IMD plans to have a network of 55 doppler radars. The Chennai radar, which is presently defunct, will be upgraded soon.

Highlights

- Doppler radars of varying frequencies — S-band, C-band and X-band — are commonly used by the IMD to detect and track the movement of weather systems, cloud bands and gauge rainfall over its coverage area of about 500 km. The radars guide meteorologists, particularly in times of extreme weather events like cyclones and associated heavy rainfall.
- With the radar observations, updated every 10 minutes, forecasters can follow the development

of weather systems as well as their varying intensities, and accordingly predict weather events and their impact.

- An X-band radar is used to detect thunderstorms and lightning whereas C-band guides at the time of cyclone tracking.
- During the next couple of months, four X-band and one C-band radar will be deployed over Mumbai. In addition, Ratnagiri will get a new C-band and Vengurla will get an X-band radar, each of which will operate for multiple purposes

LiDAR Survey

News Excerpt

Union Environment Minister recently released LiDAR-based reports mapping out the water requirement within forest areas in 10 states. These reports will be used to augment groundwater in forest areas so that animals don't venture out in search of water.

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Highlights

- The LiDAR (light detection and ranging) technology was used to create 3-D images of the project areas to recommend soil and water conservation structures.
- The surveys were carried out at forest areas in Assam, Bihar, Chhattisgarh, Goa, Jharkhand, Madhya Pradesh, Maharashtra, Manipur, Nagaland, and Tripura.
- The project, awarded to WAPCOS, a PSU under the Jal Shakti Ministry, is a first of its kind and a unique experiment using LiDAR technology which will help augment water and fodder in jungles areas thereby reducing human-animal conflict.
- The survey will help in identifying areas which need groundwater recharge which will in turn help local communities. Central Government has partnered with 26 states to pilot this project.
- Four more states will submit their surveys by July 15th, while the rest will submit their reports by September.
- The soil and water conservation structures will help in catching rainwater and prevent stream run-off, which will help in recharging groundwater.
- The project was awarded to WAPCOS in July 2020 at a cost of over Rs18 crore for implementation in 26 states over 261897 hectares.

Lidar Technology

- ❖ Lidar stands for Light Detection and Ranging, is a remote sensing method that uses light in the form of a pulsed laser to measure ranges (variable distances) to the Earth.
- ❖ These light pulses—combined with other data recorded by the airborne system — generate precise, three-dimensional information about the shape of the Earth and its surface characteristics.
- ❖ A lidar instrument principally consists of a laser, a scanner, and a specialized GPS receiver. Airplanes and helicopters are the most commonly used platforms for acquiring lidar data over broad areas.
- ❖ Two types of lidar are topographic and bathymetric. Topographic lidar typically uses a near-infrared laser to map the land, while bathymetric lidar uses water-penetrating green light to also measure seafloor and riverbed elevations.
- ❖ Lidar systems allow scientists and mapping professionals to examine both natural and manmade environments with accuracy, precision, and flexibility.

Analytica

- WAPCOS with the participation of State Forest Departments identified one major ridge inside a forest block in these states with average area of 10,000 ha selected in each State for preparation of Detailed Project Reports for planning and identifying locations and structures for construction of appropriate and feasible micro soil and water conservation structures

consistent with site specific geography, topography and soil characteristics.

- States/UTs identified one major ridge inside a forest block with the criteria that area selected should have average rainfall of the state, and the area requires assisted natural generation which means the density of forests should be less than 0.4 or below, but should have reasonable potential to regenerate with the ANR interventions.
- The sites that have been selected are ones which are slightly degraded, and the states have identified these so that water and fodder augmentation projects, as well as afforestation, can be carried out in the identified site.
- Central Government will provide states with CAMPA funds by which this project can be undertaken and they can enhance water resources within the forests to meet the needs of flora and fauna, as well as fodder augmentation.

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SECURITY

China's Opposition to THAAD defence System

News Excerpt

Recently, China has issued a statement reiterating its long-standing objections to the presence of the US THAAD missile defense system in South Korea and has called for its deployment to be stopped, and the missiles already installed to be removed.

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- China has been objecting to the defence system since it was first deployed in South Korea three year ago, causing a deterioration in ties between the two countries.
 - China's agitation arises from its belief that the THAAD radar system will invade Chinese territory.
- The U.S. deployment of an advanced anti-missile system in South Korea gravely harms the strategic security interests of China, Russia and other countries in the region.

What is THAAD?

- THAAD is an acronym for Terminal High Altitude Area Defense, a transportable, ground-based missile defense system.
 - It uses hit-to-kill technology to destroy enemy missiles by kinetic energy.
 - It is able to intercept incoming missiles at endo- and exo-atmospheric altitudes, with a maximum engagement altitude of roughly 93 miles above the earth's surface.
- THAAD is coupled with space-based and ground-based surveillance stations, which transfer data about the incoming missile and informs the THAAD interceptor missile of the threat type classification.
- It has been previously deployed in the UAE, Guam, Israel and Romania.
- THAAD only works against ballistic missiles in the terminal phase and not against inter-continental ones anyway.

PEPPER IT WITH
S-400 missile defence system, Iron Dome

Issue with THAAD

- ✓ This missile defense system was a countermeasure against potential attacks by North Korea, particularly after the country had engaged in testing ballistic missiles.
- ✓ In South Korea, the THAAD missile defense system is operated by the US army stationed in the country.
- ✓ THAAD's deployment in South Korea has infuriated China, which fears it will weaken its own ballistic missile capabilities and says it upsets the regional security balance.
- ✓ The US and South Korea have consistently maintained that these missiles are only to counter potential threats by North Korea.

China's Concern

- China's opposition has little to do with the missiles itself and is more about the system's inbuilt advanced radar systems that could track China's actions.
- The controversy also has much to do with the geo-politics and complex conflicts in East Asia.
- China believes the US exerts influence over South Korea and Japan and may interfere with Beijing's long-term military, diplomatic and economic interests in the region.

Issue of Instability in South China Sea

- ✚ Since the outbreak of the Covid-19 pandemic, tensions in the South China Sea (SCS) have been on the rise.
- ✚ China claims nearly all of the disputed South China Sea, though Taiwan, the Philippines, Brunei, Malaysia and Vietnam all claim parts of it. Beijing has built artificial islands and military installations in the South China Sea.
- ✚ Tensions in the SCS have risen sharply in recent times.

- An example of this was the conducting of naval exercises by both the US and China in the disputed area around the same time as was seen in July 2020.
- China continues to construct military and industrial outposts on artificial islands it has built in disputed waters.
- ✚ The United States has also stepped up its military activity and naval presence in the region in recent years, including freedom of navigation operations (FONOPs).
 - Since May 2017, the United States has conducted six FONOPs in the region.
- ✚ These actions by both China and the US and especially the deteriorating US-China relations have put the Southeast Asian claimant countries in a tough spot.
- ✚ The saga of China's expansionist activities in this territorial dispute is not a new or a sudden one.
 - China has been engaging in artificial island reclamation activities since 2013, China even considers the 2016 Arbitral ruling as invalid and still upholds its "so-called historic rights" in the South China Sea.
- ✚ This ongoing turf war is only causing more strain in maintaining peace and stability in these disputed waters.

Cold War 2.0: The so-called 'Cold War 2.0' brewing between the United States and China/Russia bears little resemblance to the post-World War II scenario. The current phase of rivalry between the US and China/Russia is more about preserving US unilateral hegemony over economy, technology and global sphere of influence than about military's offensive and defensive capabilities. The rise of China and Russia challenges the US more in terms of the latter's unilateral domination in essentially non-military fields, although both economy and technology have military implications as well. The Cold War 2.0 is more about trade and tussle over technology such as 5G. Also, whereas the focus of the Cold War was Europe, the Cold War 2.0 is developing in Asia and the Pacific, the emerging centre of the world's economic growth.

Maritime Security Impacts on India

- » India stood for a rule-based order in the Indo-Pacific based on respect for sovereignty and territorial integrity of nations, peaceful resolution of disputes through dialogue and adherence to international rules and laws.
 - In recent months as China has sought to consolidate power and influence in the South China Sea, the question of 'rules-based security' is back in focus.
- » The developments in the South China Sea have attracted attention in the region and beyond, seen as an oblique reference to China's aggressive behaviour in the critical sea lanes.
 - The sea lanes of communication are critical for peace, stability, prosperity and development of the Indo-Pacific region.
- » India also reiterated the importance of freedom of navigation and overflight on the high seas, unimpeded lawful commerce, as well as resolving maritime disputes by peaceful means, in accordance with universally recognised principles of international law including the 1982 U.N. Convention on the Law of the Sea (UNCLOS).

Research Design & Standards Organization

News Excerpt

Indian Railways' Research Design & Standards Organization (RDSO) has recently become the nation's first institution to be declared as Standard Developing Organization (SDO) under the mission called "One Nation One Standard" on Bureau of Indian Standards.

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Pre-Connect

Research Designs & Standards Organization (RDSO), Lucknow, which is the sole R&D Wing of Ministry of Railways, is one of India's leading Standard formulating Body undertaking standardization work for railway sector.

Highlights

- The idea of One Nation One Standard Mission was first conceived in 2019, it was envisioned on the line of one nation, one ration card scheme in order to ensure quality products in the country.
- To attain the government’s “One Nation One Standard” vision, a scheme was launched by BIS- the National Standards Body, which provides for “Recognition of SDO”.
 - The recognition is valid for 3 years and will require renewal after completion of the validity period.
- RDSO took the initiative to seek recognition as a Standard Developing Organization (SDO) under the BIS SDO Recognition Scheme.

Bureau of Indian Standards

(BIS): BIS is the National Standard Body of India established under the BIS Act 2016 for the harmonious development of the activities of standardization, marking and quality certification of goods and for matters connected therewith or incidental thereto.

It is an institution under the Department of Consumer Affairs.

Benefits of this Recognition

- ✓ Larger participation of industry/vendors/technology developers/MSME’s in Indian Railways supply chain
- ✓ The competitiveness amongst the industry will increase
- ✓ There will be a reduction in cost and quantum improvement in the quality of product and services
- ✓ There will be smooth induction of latest evolving & emerging technologies on Indian Railways
- ✓ Dependence on imports will reduce and “Make-in-India” will get a boost
- ✓ Improved ease-of-doing-business
- ✓ RDSO will be recognized on international standards-making bodies and there will be integration with global supply chain/global trade

Analytica

- BIS aims at aggregating and integrating the existing capabilities and dedicated domain specific expertise available with various organizations in the country engaged in standards development in their specific sectors.
- The idea is to develop one template of standard for one given product instead of having multiple agencies set it.
- Enable convergence of all standard development activities in the country resulting in “One National Standard for One Subject”.
- This will help in establishing in the long run Brand India. This will also ensure market relevance for the Indian standards.

CORPAT

News Excerpt

Recently, the 31st edition of India-Thailand Coordinated Patrol (Indo-Thai CORPAT) between the Indian Navy and the Royal Thai Navy was conducted in the Andaman Sea.

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Pre-Connect

- India and Thailand navies have been bi-annually undertaking CORPAT along their international maritime boundary line (IMBL) since 2005 with an aim to keep the vital part of the Indian Ocean safe and secure for global trade.
- The 31st edition of the joint exercise comes in the backdrop of China’s expanding presence in the Indian Ocean region.

Highlights

- The CORPAT builds up understanding and interoperability between navies and facilitates institution of measures to prevent and suppress unlawful activities like illegal unreported unregulated [IUU] fishing, drug trafficking, maritime terrorism, armed robbery and piracy.
 - The Indian Navy’s offshore patrol vessel INS Saryu and Thai ship Krabi along with Dornier maritime patrol aircraft from both navies participated in the 31st edition CORPAT.
- In sync with the government’s vision of SAGAR (Security And Growth for All in the Region), the Indian Navy has been proactively engaging with the countries in the Indian Ocean Region towards enhancing regional maritime security.
- It will contribute towards Indian Navy’s efforts to consolidate inter-operability and forge strong bonds of friendship with Royal Thai Navy.

PEPPER IT WITH
 South China Sea, Malabar exercise, Project Mausam, Act East Policy

EUNAVFOR Exercise

News Excerpt

Recently, the maiden Indian Navy and European Union Naval Force (EUNAVFOR) exercise conducted in the Gulf of Aden.

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Highlights

- The exercise would see high tempo-naval operations at sea, including advanced air defence and anti-submarine exercises, tactical manoeuvres, search and rescue, and other maritime security operations.
- It aims to enhance and hone their war-fighting skills and their ability as an integrated force to promote, peace, security and stability in the maritime domain.
- INS Trikand, mission deployed for anti-piracy operations, is participating in the exercise.
 - The other countries participating in the exercise are: Italy, Spain and France.

Significance

- The EUNAVFOR and the Indian Navy converged on multiple issues, including counter-piracy operations and protection of vessels deployed under the charter of World Food Programme (UN WFP).
- The two sides also have regular interaction through SHADE (Shared Awareness and De-confliction) meetings held annually in Bahrain.
 - This engagement showcases increased levels of synergy, coordination and inter-operability between IN and EUNAVFOR.
- It also underscores the shared values as partner navies, in ensuring freedom of seas and commitment to an open, inclusive and a rules-based international order.
- Concurrently, a virtual “Information sharing Exercise” was conducted between the Indian Navy’s Information Fusion Centre for Indian Ocean Region and Maritime Security Centre-Horn of Africa, an integral part of EUNAVFOR.

PEPPER IT WITH
 Brexit, Indo-EU BIT Treaty, Global Health, INSTC

Major reforms undertaken in defense sector

News Excerpt

Recently, the Defense Minister released an E-booklet titled '20 Reforms in 2020', highlighting the major reforms undertaken by Ministry of Defense (MoD) in 2020.

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Highlights

Chief of Defence Staff & Department of Military Affairs

- The post of CDS was created to increase efficiency & coordination among the Armed Forces

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and reduce duplication, while DMA was established to ensure improved civil-military integration.

- General Bipin Rawat was appointed as the first CDS who also fulfills the responsibilities of Secretary, DMA.

Aatma Nirbharta in Defence

- To promote 'Make in India' in defense sector, a list of 101 defense items was notified in August 2020, while Defense Acquisition Procedure 2020 was unveiled in September 2020.
- Corporatisation of Ordnance Factory Board (OFB) was approved in May 2020 for greater efficiency and productivity.
- There was 10 per cent budget increase in 2020-21 over the previous year.

Increased Defence Exports

- ✓ The increased partnership with the private sector has led to a substantial rise in defense exports.
- ✓ The value of total defense exports rose from Rs 1,941 crore in 2014-15 to Rs 9,116 crore in 2019-20. Also, for the first time, India figured in the list of defense equipment exporting nations, as the exports expanded to more than 84 countries.

Defense Acquisition

- First five Rafale fighter aircraft arrived in India in July 2020 and several more since then, adding firepower to the arsenal of the Indian Air Force.
- To promote innovation by young minds, five Young Scientists Laboratories of DRDO were launched in 2020.
- DRDO has joined hands with the private sector in design & development and identified 108 Systems & Subsystems for the industry to design, develop and manufacture.

Digital Transformation

Directorate General Quality Assurance (DGQA) started online Pre-Delivery inspection in May 2020 to address security threats, while Armed Forces Tribunal began digital hearing for the first time in August 2020.

Strengthening border infrastructure

Reforms of processes and workflows within Border Roads Organisation (BRO) enabled it to achieve targets ahead of schedule, in some instances.

World's longest Atal tunnel above 10,000 feet, at Rohtang on the Leh-Manali Highway was inaugurated in October 2020.

Stree Shakti in Armed Forces

- ✚ Ten streams of Indian Army were opened for giving Permanent Commission to Short Service Commission (SSC) Women officers, while women pilots of Indian Navy were operationalised for the first time.
- ✚ All Sainik Schools were thrown open for girl students from academic session 2020-21.

Reforms in National Cadet Corps (NCC)

- » Expanding the reach of NCC to remote locations was a major announcement.
- » It was decided to give preference to NCC cadets in employment in Central Armed Police Forces from May 2020.

Aid to civil administration during COVID-19

- Ministry of Defense and the Armed Forces have mobilised resources to aid the civil administration in fight against COVID-19.
- DRDO has set up several hospitals to treat COVID patients across the states, passed on technology expertise to manufacture ventilators, oxygen plants, medicines, test kits and PPE kits to private sector for mass production.

Help beyond boundaries

- The Armed Forces extended a helping hand to the countries in distress. Indian Navy mounted eight relief missions during 2020-21.
- Besides evacuating stranded Indians from Iran, Sri Lanka and Maldives under Vande Bharat Mission, Indian Naval ships provided Covid-19 medical relief to five countries.
- INS Airavat provided 270 MT food aid to Sudan, Djibouti and Eritrea struck by natural calamities.
- The Indian Coast Guard led the rescue operation to save Sri Lanka coast of its biggest oil spill.

PEPPER IT WITH
 Chief of Defense Staff (CDS),
 Defense Acquisition Council
 and Vande Bharat Mission,
 Cold Start Doctrine

Nuclear Arsenal: SIPRI Report

News Excerpt

According to Swedish think tank Stockholm International Peace Research Institute (SIPRI) Year Book 2021, the Number of nuclear warheads globally appears to be increasing.

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Pre-Connect

- The Stockholm International Peace Research Institute (SIPRI), a Swedish think tank that researches international armament and conflict.
- The SIPRI “Yearbook 2021” assesses the current state of armaments, disarmament and international security.

Highlights

- The nine nuclear armed states - the U.S., Russia, the U.K., France, China, India, Pakistan, Israel and North Korea - together possessed an estimated 13,080 nuclear weapons at the start of 2021.
- Russia and the U.S. together possessed over 90% of global nuclear weapons and have extensive and expensive modernization programmes under way.
 - The U.S. and Russia have reduced their nuclear arsenals under the 2010 New Strategic Arms Reduction Treaty (New START) but it will lapse in February 2021.
 - Both the countries have approved the extension of New START for another five years.
- Low levels of transparency: The availability of reliable information on the status of the nuclear arsenals and capabilities of the nuclear-armed states varied considerably.

PEPPER IT WITH
 New START Treaty,
 TPNW, NPT and CTBT.

Military spenders

India was the third largest military spender in the world in 2020, behind only the US and China.

- The US accounted for 39 per cent of the money spent on military globally, China accounted for 13 per cent, and India accounted for 3.7 per cent of the globe’s share.

Importers and Suppliers of Major Arms

- ✓ The five largest arms importers were Saudi Arabia, India, Egypt, Australia and China.
- ✓ The five largest arms exporters were the United States, Russia, France, Germany and China.
- ✓ **Region Wise:** Asia and Oceania were the largest importing regions for major arms, receiving 42% of global arms transfers in 2016–20.
 - India, Australia, China, South Korea and Pakistan were the biggest importers in the region.

Integrated tri-service theatre command

News Excerpt

Recently, a high-level committee was formed for wider consultations on the creation of integrated tri-service theatre commands.

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Pre-Connect

- The committee will examine all issues and find a way forward before a formal note on their creation is sent to the Cabinet Committee on Security.
- The idea of creating an integrated tri-Services command in India is not new — it had been recommended at various levels after the Kargil conflict.
- The DB Shekatkar committee in 2015 recommended the creation of 3 integrated theatre commands — northern for the China border, western for the Pakistan border and southern for the maritime role.
- The mandate of the Chief of Defense Staff (CDS) includes bringing about jointness among the three services, including through the establishment of joint/theatre commands.

PEPPER IT WITH
Chief of Defense Staff (CDS),
Joint Logistics Node (JLN)

Highlights

- The move was necessitated due to some aspects like bringing in paramilitary forces, which are under the Home Ministry, under the purview of the theatre commands and financial implications that may arise in the process of integration.
- The proposed Air Defense Command plans to integrate all air assets of the armed forces while the Maritime Theatre Command plans to bring in all assets of Navy, Coast Guard as well as coastal formations of Army and Air Force under one umbrella.
- On land, the Army’s Northern command and Western Command would be converted into 2-5 theatre commands.

What are integrated theatre commands?

- ✓ An integrated theatre command envisages a unified command of the three Services, under a single commander, for geographical theatres that are of security concern.
 - Several nations in the world have theatre commands, including the United States and China.
- ✓ The commander of such a force will be able to bring to bear all resources at his disposal — from the IAF, the Army and the Navy — with seamless efficacy.
- ✓ It will not be answerable to individual Services, and will be free to train, equip and exercise his command to make it a cohesive fighting force capable of achieving designated goals.
- ✓ The logistic resources required to support his operations will also be placed at the disposal of the theatre commander so that he does not have to look for anything when operations are ongoing.
 - A logistics command is in the works to avoid duplication of efforts and resources.
- ✓ This is in contrast to the model of service-specific commands which India currently has, wherein the Army, Air Force and Navy all have their own commands all over the country. In case of war, each Service Chief is expected to control the operations of his Service through individual commands, while they operate jointly.

How many commands does India have currently?

- As of now, the three forces have 17 commands between them. Each command is headed by a 4-star rank military officer.
 - The Army has seven commands: Northern, Eastern, Southern, Western, Central, Southwestern and Army Training Command (ARTRAC).
 - The Air Force has seven as well: Western, Eastern, Southern, Southwestern, Central, Training, and Maintenance commands.
 - The Navy has three: Western, Eastern and Southern, of which Southern is largely about

training.

- There are two existing tri-Service commands as well —
 - The Andaman and Nicobar Command (ANC), which is headed by rotation by officers from the three Services. It was formed in 2001, after the Kargil War.
 - The Strategic Force Command (SFC), looks after the delivery and operational control of the country's nuclear assets.
 - It was created in 2003, is not an integrated theatre command but an integrated functional command.

Krivak class frigate

News Excerpt

Recently, the Vice-Chief of the Naval Staff has inaugurated the construction of the second frigate of Krivak or the Talwar Class.

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Pre-Connect

India had earlier procured six Krivak class frigates weighing around 4000 tonnes in two different batches, the Talwar class and the upgraded Teg class.

- The first three joined the fleet between June 2003 and April 2004, followed by another three between April 2012 and June 2013. With the current contract, the navy will operate 10 Krivak III frigates — the fleet's largest single type.

Highlights

- The Krivak class stealth ships being built with technology transfer from Russia by Goa Shipyard Ltd. (GSL) under "Make in India".
- In October 2016, India and Russia signed an Inter-Governmental Agreement (IGA) for four Krivak or Talwar stealth frigates.
 - Two to be procured directly from Russia and two to be built by the GSL.
- Due to the use of stealth technologies and a special hull design, the resulting frigate features reduced radar cross section (RCS) as well as electromagnetic, acoustic and infrared signatures.
- They are primarily used to accomplishing a wide variety of naval missions such as finding and eliminating enemy submarines and large surface ships.

PEPPER IT WITH

Exercise INDRA, Frigates;
Shivalik Class; Teg
Class; Kamorta Class

Project Seabird

The largest naval infrastructure project for India, it involves creation of a naval base at Karwar on the west coast of India. It envisages expanding facilities to house additional warships and set up a new Naval Air Station, among other plans.

INS Kadamba is an Indian Navy base located near Karwar in Karnataka. INS Kadamba is currently the third-largest Indian naval base, and is expected to become the largest naval base in the eastern hemisphere after completion of expansion Phase II.

After the completion of this project trade, economy, and humanitarian aid operations, including security preparedness of the country, will be further strengthened.

Jammu Drone Attacks

News Excerpt

Recently, Drones were used for the first time to drop explosive devices, triggering blasts inside the Air Force Station's technical area in Jammu.

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- Over the past two years, drones have been deployed regularly by Pakistan-based outfits to smuggle arms, ammunition and drugs into Indian Territory.
- According to Association of the US Army (AUSA), between 1994 and 2018, more than 14

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- planned or attempted terrorist attacks took place using drones.
 - These have only increased in the last couple of years.
- Weaponised drones were first used by the Islamic State in northern Iraq in 2016 and then in Syria.
 - In 2018, Syrian rebels used homemade drones to attack Russian military bases in Syria
- Drones are becoming security threats particularly in conflict zones where non-state actors are active and have deep pockets that make such technology easily accessible.
 - In 2019, Houthi rebels claimed responsibility for bombing Saudi oil installations using drones.
- In a war situation, Azerbaijan effectively drones used to defeat Armenia in the recent conflict between the two countries.

Highlights

- According to government figures, 167 drone sightings were recorded along the border with Pakistan in 2019, and in 2020, there were 77 such sightings.
- The drone strike at IAF Jammu base marks a paradigm shift in the nature of the threat and counter measures.
 - A drone attack is a cost-effective method to cause precision attacks and being small in shape and size are not easily picked up by RADAR systems. These small drones have a limited range.
- In terms of military usage, drones can be used for a number of purposes such as reconnaissance, surveillance, establishing military links and delivering supplies to attacking targets.
 - In some countries, armed drones are even being reportedly developed to be used in missile defense.
- In India, the most commonly known drones are quad- and hexacopters used for civil and commercial purposes, and Heron drones used for military surveillance.
 - Different UAVs operate under various technologies ranging from remote control by a human operator to using GPS and radio frequencies, and autopilot assistance.
- The Defense Research and Development Organisation (DRDO) have developed a detect-and-destroy technology for drones, but it is not yet into mass production.
 - The DRDO system, developed in 2019, has capabilities for hard kill (destroying a drone with lasers) and soft kill (jamming a drone's signals).
 - It has a 360° radar that can detect micro drones up to 4 km, and other sensors to do so within 2 km.
 - Its soft kill range is 3 km and hard kills range between 150 m and 1 km.
- Rafael, the defense company behind Israel's famed Iron Dome missile system, has also developed something called the Drone Dome.

Drone: Drone is a layman terminology for Unmanned Aircraft (UA). There are three subsets of Unmanned Aircraft, a) Remotely Piloted Aircraft (RPA), b) Autonomous Aircraft and c) Model Aircraft. Besides combat use, drones are used for a range of purposes like package delivery, in agriculture (spraying pesticides etc.), monitoring environmental changes, aerial photography, and during search and relief operations, among others.

- Like the Iron Dome, which identifies and intercepts incoming missiles, the Drone Dome detects and intercepts drones.

Analytica

- ✓ Drones fly low and therefore cannot be detected by any radar system. Besides the low altitude, what also makes it difficult to trace and intercept drones is their slow speed.
- ✓ The biggest advantage that comes with using a drone for combat purpose is that it can be controlled from a remote distance and does not endanger any member of the attacking side.
 - Drone attacks are precise and can cause extensive damage.
- ✓ Anti-drone jammers cannot be that effective in the border areas, but they can be deployed at security sensitive installations to prevent such attacks in future.
- ✓ Besides this, terror outfits are interested in having combat drones because they provide them the capability of air strikes.
 - Globally, a majority of non-state actors do not have infrastructure to launch air strikes. With combat drones coming into play, this monopoly that till now rested with sovereign governments no longer remains exclusive.

PEPPER IT WITH

The Unmanned Aircraft System Rules, 2021 and National Counter Rogue Drone Guidelines 2019. Drone Categories in India

Way Forward

- The conventional drones being larger in size were being engaged by interceptor aircraft / automatic weapons using direct line of sight engagements. With smaller drones, this is a challenge and needs AI-based detection and destruction algorithms.
- The government needs to look beyond promulgation of orders by having effective drone systems in these vulnerable areas and vulnerable points, to negate any future threats.

Agni-P Missile

News Excerpt

Recently, a new generation nuclear capable ballistic missile Agni-P (Prime) was successfully test-fired by the Defense Research and Development Organisation (DRDO).

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- The test was conducted from Dr. APJ Abdul Kalam Island off the coast of Odisha, Balasore.

Highlights

- Agni-P is a new generation advanced variant of Agni class of missiles.
 - It is a canisterised missile with range capability between 1,000 and 2,000 kms.
- The nuclear-capable missile, which met all mission objectives with high level of accuracy, has been designed and developed by the Defense Research and Development Organisation (DRDO).
- Many advanced technologies including composites, propulsion systems, innovative guidance and control mechanisms and state-of-the-art navigation systems have been introduced.

What are Agni class of missiles?

- ✓ Agni class of missiles are the mainstay of India’s nuclear launch capability which also includes the Prithvi short range ballistic missiles, submarine launched ballistic missiles and fighter aircraft.
 - India has five missiles in its most ambitious Agni

PEPPER IT WITH

Integrated Guided Missiles Development Programme (IGMDP) and Canister based launch system.

series.

- ✓ The longest of the Agni series, Agni-V, an Inter-Continental Ballistic Missile (ICBM) with a range of over 5,000 km, has already been tested several times and validated for induction.
- ✓ INS Arihant, the only SSBN in service, is armed with K-15 missiles with a range of 750 km.

Analytica

- The Agni-P missile would further strengthen India's credible deterrence capabilities
- Agni-P has improved parameters including manoeuvring and accuracy from earlier Agni class of missiles.
- Canisterisation of missiles reduces the time required to launch the missile while improving its storage and mobility.
- In the last few years, India has also operationalised its submarine-based nuclear launch capability, completing the nuclear triad.
- This is especially important given India's No-First-Use policy while reserving the right of massive retaliation if struck with nuclear weapons first.



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Art & Culture

PandavLeni Complex

News Excerpt

The Archaeological Survey of India (ASI) has found three more caves in the Trirashmi Buddhist cave complex, also known as PandavLeni, near Nashik, Maharashtra.

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Highlights

- The Trirashmi or Pandav Leni caves are a group of 25 caves that were carved out of Trirashmi Hill between the 2nd century BC and 6th century AD.
- The Trirashmi Buddhist caves complex was first documented in 1823 by Captain James Delamaine and is now an ASI- protected site.
- The Buddhist sculptures and caves in Nashik are a significant early example of Indian rock-cut architecture representing the Hinayana tradition of Buddhism.
- The caves have images of the Buddha and Bodhisattvas, and sculptures with designs of Indo-Greek architecture.
- The caves are on a vertical face of the hill.
- The sculptures carved in cave premises showcase the impact of Buddhism and Jainism which provide information that Pandavleni caves served both the religion during an ancient period.
 - The cave has idols of Buddha, Jain TeerthankaraVrishabhdeo, and the icons of Bodhisatva, Veer Manibhadraji and Ambikadevi.
- These caves are popular meeting places for the disciples as well.
- There are also attractive water tanks that are very skillfullychiseled into the rock.
- It is believed to be as old as the Karla Cave near Lonavala.

Analytica

- The newly found caves are believed to be older than the Trirashmi caves.
- It is believed that these caves could be dwellings of Buddhist monks.
- The caves all have verandahs and they also consist of a square stone platform for monks.
- Like in the Wai and Kanheri caves, these caves have also been found to have special arrangements to facilitate meditation of monks.

PEPPER IT WITH
Mahayana, Hinayana and Theravada Buddhism. Jataka stories

Chhatrapati Shivaji Maharaj

News Excerpt

The Goa government released a short film on ChhatrapatiShivaji on the occasion of the anniversary of Maratha king’s coronation day.

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Highlights

- Chhatrapati Shivaji Maharaj, great Maratha ruler was born on February 19, 1630 to Shahaji Bhosle and Jijabai in the fort of Shivneri, near the city of Junnar of the Pune district.
- Shivaji’s father Shahaji was in service of the Bijapuri Sultanate - a tripartite association between Bijapur, Ahmednagar, and Golconda, as a general. Shivaji’s mother Jijabai, a deeply religious woman, who instilled in him a strict sense of right and wrong.
- Kanhoji Jedhe and Baji Pasalkar were appointed to train Shivaji in military and martial arts.
- Chatrapati Shivaji Maharaj was the founder of the Maratha Empire in western India.
- Aurangzeb invited Shivaji to Agra with an aim to use his military prowess to consolidate Mughal empires in Afghanistan. Shivaji travelled to Agra with his eight year old son Sambhaji and was offended by Aurangzeb’s treatment of him. He stormed out of the court and an

offended Aurangzeb placed him under house arrest.

- He disguised as one of the carriers and hid his son in one of the baskets, and escaped on August 17, 1666.
- In subsequent times, Mughal and Maratha hostilities were pacified to a large extent by constant mediation through Mughal Sardar Jaswant Singh. Peace lasted till 1670, after which Shivaji launched an all-out offense against the Mughals. He recovered most of his territories sieged by the Mughals within four months.
- In October 1670, he also harassed the English forces at Bombay for their support of the Mughals.
- After having consolidated a considerable control over territories adjoining Poona and Konkan. He was crowned the King of Marathas on June 6, 1674, at Raigadh in an elaborate coronation ceremony.
- Shivaji vigorously promoted the use of Marathi and Sanskrit in his court instead of Persian, the existing Royal language.

The administrative system of the Marathas

- The administrative system of the Marathas was very much influenced by the administrative system of the Mughals and the Deccani states.
- His administrative policies were subject-friendly and humane, and he encouraged liberty of women in his rule.
- He was strictly against caste discrimination and employed people from all caste in his court.
- The administration was divided into eight departments headed by ministers who are sometimes called Ashtapradhan.
 - Shivaji Maharaj selected the Council on the basis of their merit and achievements.
 - Under Shivaji these offices were neither hereditary nor permanent.
 - All the members of the asthapradhan except Pandit Rao and Nyaydhish were asked to lead military campaigns.
- He divided his kingdom into four provinces, each headed by a Mamlatdar. Village was the smallest unit of administration and the head was titled as Deshpande, who headed the Village Panchayat.
- Shivaji introduced the collection of two taxes called the Chauth and Sardeshmukhi.
- Shivaji is well-known for his innovative military tactics that centered around non-conventional methods leveraging strategic factors like geography, speed, and surprise to defeat his more powerful enemies.
 - Shivaji was also considered a master of the guerrilla warfare.

PEPPER IT WITH
About Ashtapradhan and Chauth and Sardeshmukhi taxes

Title

He took upon several titles like Chhtrapati (paramount sovereign), Shakakarta (founder of an era), Kshatriya Kulavantas (head of Kshatriyas) and HaindavaDharmodhhaarak (one who uplifts the sanctity of Hinduism).

National Maritime Heritage Complex

News Excerpt

The Ministry of Culture (MoC) and Ministry of Ports, Shipping and Waterways (MoPSW) signed a Memorandum of Understanding (MoU) for 'Cooperation in Development of National Maritime Heritage Complex (NMHC) at Lothal, Gujarat.

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Highlights

- A National Maritime Heritage Complex (NMHC) will be developed in Lothal region of Gujarat.
- NMHC would be developed as an international tourist destination, where the maritime heritage of India from ancient to modern times would be showcased.

- The government is aiming to showcase this via an edutainment approach where the latest technology would be adopted to spread awareness.
- It would be developed in an area of about 400 acres with various unique structures such as National Maritime Heritage Museum, Light House Museum, Heritage Theme Park, Museum Themed Hotels & Maritime themed eco-resorts, Maritime Institute etc.
- The unique feature of NMHC is the recreation of ancient Lothal city, which is one of the prominent cities of the ancient Indus valley civilization dating to 2400 BC.
- NMHC would have pavilion for each coastal states and union territories to showcase the artifacts/maritime heritage of the respective states and union territories.

Analytica

- Lothal was one of the southernmost cities, and the only port town, in the Indus Valley civilisation, located in Gujarat.
 - Construction of the city began around 2400 BCE.
- According to the ASI, Lothal had the world's earliest known dock, which connected the city to an ancient course of the Sabarmati River on the trade route between Harappan cities in Sindh and the peninsula of Saurashtra.
 - Artifacts suggest that trade may have been conducted with Mesopotamia, Egypt and Persia.
- Other features include the acropolis, the lower town, the bead factory, the warehouses, and the drainage system.
- It has been nominated as a UNESCO World Heritage Site by the Indian government, its application is pending on the United Nation’s tentative list.

PEPPER IT WITH
Indus Valley Civilisation (IVC), World Heritage Sites, Cultural Tourism

International Yoga Day

News Excerpt

Seventh International Yoga Day is being celebrated the Ministry of Culture at 75 cultural heritage locations across the country.

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Highlights

- This year, the theme is ‘Yoga For Wellness’.
- The Ministry of Culture celebrated the International Day of Yoga by organizing a drive named “Yoga an Indian Heritage” as a part of “AzadikaAmritMahotsav” campaign.
 - The program will be conducted at 75 cultural heritage locations.
- The Prime Minister of India, along with United Nations and WHO, launched a mYoga app which will help in achieving ‘One World, One Health’.
 - The app will have videos of yoga training based on a Common Yoga Protocol and will be available in different languages.

PEPPER IT WITH
UN General Assembly and UNSC.

About Yoga

- Yoga is essentially a spiritual discipline based on an extremely subtle science, which focuses on bringing harmony between mind and body.
- The word ‘Yoga’ is derived from the Sanskrit root ‘Yuj’, meaning ‘to join’ or ‘to yoke’ or ‘to unite’.
- The aim of Yoga is Self-realization, to overcome all kinds of sufferings leading to 'the state of liberation' (Moksha) or 'freedom' (Kaivalya).
- Prime Minister of India termed yoga a “ray of hope” and a source of strength in the midst of the coronavirus pandemic.

- o Yoga shows us the way from stress to strength and from negativity to creativity.

Analytica

- ✓ In 2014, Indian Prime Minister proposed marking a day as the International Day of Yoga in his address at the UN General Assembly, and the proposal was endorsed by 175 member states, post which the United Nations recognized June 21 as the day to celebrate Yoga.
- ✓ Yoga is an ancient Indian practice that helps in maintaining physical and mental well-being, and over the years, it has found popularity in other countries as well.

SantKabir Das Jayanti

News Excerpt

Recently, the Prime Minister paid tribute to SantKabir Das Ji on his Jayanti on 24 JUNE 2021.

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Highlights

- KabirdasJayanti also known as KabirPrakatDiwas is celebrated once a year on the full moon day in the Hindu month Jyeshtha.
- He was born in Kashi (Varanasi, Uttar Pradesh). However, SantKabir's birth and death are unclear.
- He was a 15th-century Indian mystic, social reformer, poet and saint has a significant role among the people in India.
- The name of his real parents is unknown but it was Neeru and Neema who found him lying beside a pond in Varanasi.
- In his poems, Kabir calls himself a julaha and kori. Both mean weaver, belonging to a so called lower caste.
- He was raised by a very poor Muslim weavers family and got all his spiritual training from his Guru named, Ramananda, a Hindu bhakti leader known for devotional Vaishnavism with a strong bent to Advaita philosophy teaching that God was inside every person, everything.
 - o He was devoted to the Nirguna Bhakti and not to the Saguna Bhakti like his Guru.
- Kabir's legacy is continued through the Kabirpanth ("Path of Kabir"), a religious community that recognises him as its founder. Its members are known as Kabirpanthis.

His works

- KabirDas' writings had a great influence on the Bhakti movement and include titles like KabirGranthawali, AnuragSagar, Bijak, and SakhiGranth.
 - o Kabir's verses are found in Sikhism's scripture Guru Granth Sahib.
 - o The major part of his work was collected by the fifth Sikh guru--GuruArjan Dev.
 - o He was best known for his two-line couplets, known as 'KabirKeDohe'.
- Kabir's works were written in the Hindi language which was easy to comprehend. He used to write in couplets to enlighten people.
- Kabir'sdohas were critical to orthodox practices of both Hinduism and Islam, stating that the former was misguided by the Vedas.

PEPPER IT WITH
 Bhakti Movement, Alvars, Nayanars and Andal, and Basaveshwara.

His philosophy

- ✓ His philosophy of oneness in God and Karma as a real Dharma has changed the mind of people towards goodness. His love and devotion towards God fulfill the concept of both Hindu Bhakti and Muslim Sufi.
- ✓ Kabir believed in a formless Supreme God and preached that the only path to salvation was

through bhakti or devotion.

- He always believed in the Karma of life.
- ✓ He was a follower and promoter of the ahimsa.
- ✓ According to him, every life has a relationship with two spiritual principles (Jivatma and Paramatma).
 - His view about the moksha was it is the process of uniting these two divine principles.
- ✓ The teachings of the Kabir Das are universal and equal to all as he never differentiate among Muslims, Sikhs, Hindus and others of different religions.

Bankim Chandra Chattopadhyay Jayanti

News Excerpt

Recently, the Prime Minister paid homage to Bankim Chandra Chattopadhyay on his Jayanti on 27th June.

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Highlights

- He was born on June 27, 1838 in the village Kantalpara of the 24 Paraganas, Naihati, West Bengal.
- He was one of the greatest novelists and poets of India.
- He was also addressed as SahityaSamrat in Bengali. He is said to have been influenced the likes Rabindranath Tagore, Sarat Chandra Chattopadhyay and SurendranathDutt.
- He was a member of an orthodox Brahman family and was educated at Hooghly College, at Presidency College, Calcutta, and at the University of Calcutta, of which he was one of the first graduates.
 - He had a Law degree and was appointed as the Deputy Collector of Jessore in 1858.
- In 1857, there was a strong revolt against the rule of East India Company but Bankim Chandra Chatterjee continued his studies and passed his B.A. Examination in 1859.
- Bankim Chandra Chatterjee was in Government service for thirty-two years and retired in 1891

PEPPER IT WITH

Rabindranath Tagore, sanyasi rebellion, Indian National Movement, Role of Press in INM

Contributions

- His epic Anandamath — set in the background of the Sanyasi Rebellion (late 18th century), when Bengal was facing a famine too — made Bankim Chandra Chattopadhyay an influential figure on the Bengali renaissance.
 - He kept the people of Bengal intellectually stimulated through his literary campaign.
 - The novel became synonymous with India's struggle for freedom from the British — who banned it.
 - India got its national song, Vande Mataram, from Anandamath.
- He also founded a monthly literary magazine, Bangadarshan, in 1872, through which he is credited with influencing the emergence of a Bengali identity and nationalism.
 - He wanted the magazine to work as the medium of communication between the educated and the uneducated classes.
 - The magazine stopped publication in the late 1880s, but was resurrected in 1901 with Tagore as its editor.
 - While it carried Tagore's writings — including his first full-length novel Chokher Bali — the 'new' Bangadarshan retained its original philosophy, nurturing the

nationalistic spirit.

- During the Partition of Bengal (1905), the magazine played a vital role in giving an outlet to the voices of protest and dissent.
- His earliest works were published in a weekly newspaper named Sangbad Prabhakar.
- His first novel in English was titled, Rajmohan's Wife while his first novel in Bengali was named Durgeshnondini.
- He had studied Sanskrit and was very interested in the subject, but later took on the responsibility to make Bengali the language of the masses. Interestingly, however, his first published work — a novel — was in English.
- His best works include, Devi Chaudhurani, Rajsimha, Ananda Math, Radharani, KrishnakanterUil, Kapalkundala, and Devi Chaudhurani, Rajsimha. Durgeshnandini and Kapalkundala were his first major publications and were so well received that they were translated in different languages.



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Miscellaneous

Incredible India Tourist Facilitator Certification (IITFC)

- Incredible India Tourist Facilitator (IITF) Certification Programme is a digital initiative of Ministry of Tourism (MoT), Govt. of India for the citizens of India to become a part of the booming Tourism Industry.
- It is an online programme where one can learn about tourism at their own time, space, path and pace.
- The successful completion of this programme would enable the learner to become a Certified Tourist Facilitator of Ministry of Tourism, Govt. of India.

Operation Pangea XIV

- Recently, the Interpol through its Operation Pangea XIV targeted the sale of fake and illicit medicines and medical products.
- More than 1.10 lakh web links, including websites and online marketplaces, have been taken down in an operation.
 - The first “Operation Pangea” conducted in 2008.
- The operation coordinated by INTERPOL involved police, customs and health regulatory authorities from 92 countries. Indian agencies also participated in the operation.
 - The Central Bureau of Investigation is the nodal body for the Interpol in India.
- The online sale of illicit medicines continues to pose a threat to public safety, which is why operations such as Pangea remain vital in combating this global health scourge

Heritage trees

- The Maharashtra Cabinet passed an action plan to protect and preserve trees older than 50 years in urban areas by terming them heritage trees.
 - The most common method of determining the age of the tree is **Dendrochronology** – or tree-ring dating also called growth rings.
- The plan includes the concept of heritage tree and plan of action for conservation; method to define age of the tree; compensatory plantation; rules to be followed before hacking trees, etc.
- Compensatory plantation will include planting the number of trees equivalent to the age of trees to be cut.
 - The saplings need to be six to eight feet in height while planting and they will undergo geo-tagging with seven years of caring period.
 - The option of monetary compensation has also been given, instead of compensatory plantation.

Birth Anniversary of Ram Prasad Bismil

- Recently, the Ministry of Culture organized a special ceremony at Shahjahanpur, UP tomorrow to mark Birth Anniversary of Shaheed Ram Prasad Bismil.
- Pt. Ram Prasad Bismil, born on 11th June, 1897 in Shahjahanpur to Murlidhar and Moolmati, was amongst the most notable Indian revolutionaries who fought against British colonialism.
 - He was associated with the AryaSamaj from an early age.
- The ideals of freedom and revolution got first ingrained in his mind after he read the death sentence passed on BhaiParmanand, an Indian nationalist and AryaSamaj missionary.
- He wrote powerful patriotic poems in Urdu and Hindi under the pen name of Bismil from age of 19.
- His ideals of freedom struggle stood in stark contrast to that of Mahatma Gandhi and he would reportedly say “independence would not be achieved by means of non-violence”.
- He formed the **Hindustan Republican Association** with leaders like Bhagat Singh and

Chandrasekhar Azad and participated in the **Mainpuri conspiracy of 1918**, and the **Kakori conspiracy of 1925** with AshfaqUllah Khan and Roshan Singh to protest against the British Rule.

- He was martyred at Gorakhpur Jail on 19th December, 1927 just aged 30, for his role in Kakori conspiracy.
 - While in jail, he wrote 'Mera Rang De BasantiChola' and 'Sarfaroshi Ki Tamanna' which became the anthem for freedom fighters.

Helpline for cyber fraud

- The Ministry of Home Affairs (MHA) has operationalised a national Helpline (155260) and reporting platform for preventing financial loss due to cyber fraud.
- The national helpline and reporting platform provide a mechanism for persons cheated in cyber frauds to report such cases to prevent loss of their hard-earned money.
 - Since its soft launch, in a short span of two months, the helpline has assisted in saving more than Rs 1.85 crore.
- The helpline has been made operational by the Indian Cyber Crime Coordination Centre (I4C), in coordination with the Reserve Bank of India, all major banks, payment banks, wallets and online merchants.
- The Citizen Financial Cyber Fraud Reporting and Management System has been developed in-house by I4C to integrate law enforcement agencies and banks and financial intermediaries.
- The facility empowers both the banks and the police, by leveraging new-age technologies for sharing online fraud related information and taking action in almost real-time.



The advertisement is a vertical banner for KSG Online Learning. At the top, it features the KSG logo with a red arrow pointing upwards and the text 'An Institute For IAS Exam...'. Below this, it highlights 'UPSC/IAS 2022' in a yellow box. The main heading is 'KSG ONLINE LEARNING' in white on a dark blue background. A tagline reads 'Quality Of Physical Classes With Convenience Of Online'. Two course offerings are listed: 'FOUNDATION COURSE' starting on '11th Aug' and 'ADVANCE FOUNDATION COURSE' starting on '5th Sep', with a note that the latter is 'Especially Designed For College Students'. The banner concludes with the slogan 'It pays to study with Specialists...' and a yellow box at the bottom that says 'LIVE Classes' and provides the website 'www.ksgindia.com' for details and registration.

Concept Clearing Assignment

1. Despite a commendable growth in industry, infrastructure and innovation, India's investment in research remains unsatisfactory. Do you agree? Substantiate. Also, highlight the steps taken by the Government for promotion of research and development in the country.
2. What is LiDAR Technology? Discuss the applications of the LiDAR technology in brief.
3. Discuss India's Agriculture Export Policy in brief. What steps are taken by the Indian Government for promotion of Agri Exports in India?
4. Discuss the Pradhan Mantri Formalisation of Micro food processing Enterprises (PMFME) Scheme in brief. Highlight its contribution in the upliftment of the living standards of the unorganised sector workforce in India.
5. What is aspirational Districts Program? To what extent it can help in solving the problem of regional disparity in India? Also, suggest measures to ensure inclusive and balanced regional growth in India.
6. What is Model Panchayat Citizens Charter? In what ways it can help in achieving the local sustainable development goals in India?
7. Discuss the significance of the geostrategic status of Bhutan and its importance in the security of India.
8. What is Carbis Bay Declaration? Also, throw a light on the major outcomes of the recently held G-7 summit.
9. What is International Nitrogen Initiative? Also, comment on Nitrogen fertiliser production and consumption in India. Suggest sustainable ways to optimise the use of nitrogen resources.
10. Discuss the factors responsible for land degradation and desertification. What initiatives are taken by the Indian government to check land degradation in India?
11. Discuss the reforms undertaken in the Defense sector by India in recent times. Do you think these reforms will help in achieving self-reliance in defense production?
12. Discuss the contribution of Saint Kabir in the Bhakti Movement. Also, comment on the relevance of Saint Kabir's thought in the contemporary times.
13. Discuss the contribution of the Bankim Chandra Chattopadhyay in the Indian Freedom Struggle.
14. Explain the concept of the SDG India Index and its significance in brief. Also, highlight the steps taken by India to achieve sustainable development goals 2030.
15. What is Performance Grading Index? In what ways it can help in bringing transformative change in the education sector? Also, suggest measures to ensure qualitative and sustainable growth of the human resource in India.



The banner for KSG Online Learning features a blue and white color scheme. On the left, it lists 'FOUNDATION COURSE' starting on '11th Aug' and 'ADVANCE FOUNDATION COURSE' starting on '5th Sep'. A central yellow box highlights 'UPSC IAS 2022'. The main text reads 'KSG ONLINE LEARNING' with the tagline 'Quality Of Physical Classes With Convenience Of Online' and a call to 'Join Our Free Pre-Preparation Plan'. A table at the bottom provides contact numbers for various cities: North Delhi (9717 380 832), Central Delhi (9811 293 743), Jaipur (8290 800 441), Bhopal (7509 975 361), Indore (9893 772 941), Patna (7463 950 774), Ranchi (9939 982 007), Bengaluru (7619 166 663), and Bengaluru (7619 136 662). A 'LIVE Classes' logo is in the bottom right corner.

P.T. Oriented Questions

1. Recently, Supreme Court (SC) has given Judgement regarding the Reservation for Promotion of disabled person. In this context, consider the following statements:

1. As per SC, Disabled person can avail the benefits even if that candidate was recruited in the regular category.
2. As per SC, If a person developed the disability after gaining employment, then he and she cannot avail the benefits of reservation.

Which of the statements given above is/are correct?

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

2. Consider the following statements regarding the Model Tenancy Act 2021:

1. All civil courts have jurisdiction over matter pertaining to the provision under this act.
2. Under this act, if the tenants fail to pay the rent for more than two month then tenants need to evacuate.
3. The act established Rent Authority, Rent court, and Rent tribunal for speedy adjudication.

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

3. Which among the following has released the Model Panchayat Citizens Charter?

1. Ministry of Panchayati Raj.
2. National Institute of Rural Development and Panchayati Raj (NIRDPR)
3. Department of Administrative Reforms and Public Grievances

Select the correct answer using the code given below:

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

4. Consider the following statements:

1. Tulu is a Dravidian language spoken mainly in Karnataka and Kerala.
2. According to Article 346 any state legislature by passing a law can adopt one or more languages as an official language of 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

5. Consider the following statements regarding the Terminal High Altitude Area Défense (THAAD):

1. THAAD is coupled with space-based and ground-based surveillance stations.
2. THAAD works against both ballistic missiles and inter-continental missiles.
3. THAAD uses hit-to-kill technology to destroy enemy missiles by kinetic energy.

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

6. Which of the following statements are correct regarding Agni-P Missile?

1. It is a canisterised missile with range capability between 1,000 and 2,000 kms.
2. It is nuclear-capable missile.
3. It has been introduced with state-of-the-art navigation systems.

Select the correct answer using the code given below:

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

7. Consider the following statement regarding the Northern Limit of the Monsoon (NLM):

1. NLM is directly related to the onset and advance of Monsoon.

2. The Madden Julian Oscillation indicates a high pressure system over the north Indian Ocean doesn't affects NLM.
Which of the statements given above is/are correct?
(a) 1 only (b) 2 only
(c) Both 1 and 2 (d) Neither 1 nor 2
8. Consider the following statements regarding the World Energy Investment report 2021:
1. Global energy investment is set to shrink by around 25% in 2021.
2. Report projected that Global energy demand will rise in 2021 in comparison to 2020.
3. China is showing a tremendous expansion in coal-based power production.
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
9. Consider the following statements regarding the Southern Ocean:
1. Recently, the National Geographic magazine has recognised the Southern Ocean as world's fifth ocean.
2. The Southern Ocean is the only ocean to touch three other oceans and to completely embrace a continent.
Which of the statements given above is/are correct?
(a) 1 only (b) 2 only
(c) Both 1 and 2 (d) Neither 1 nor 2
10. Which of the following initiatives/schemes are related to land degradation in India?
1. The Soil Health Card scheme
2. The National Afforestation Programme
3. Pradhan Mantri Krishi Sinchai Yojana
Select the correct answer using the code given below:
(a) 1 and 2 only
(b) 2 and 3 only
(c) 1 and 3 only
(d) 1, 2 and 3
11. Consider the following statements regarding Great Barrier reef:
1. It is unique as it extends over 14 degrees of latitude and having only shallow estuarine areas.
2. It is situated along Australian continental shelf with the channel between the coastline and the reef reaching a depth of about 60m.
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. Recently, Assam State government has notified DihingPatkai as a National Park, the park is situated at:
(a) Dibrugarh and Tinsukia districts
(b) Lakhimpur and Dhubri district
(c) Baksa and Jorhat district
(d) Jorhat district
13. Consider the following statements regarding national park:
1. A national park can be designated via a notification from the State Government only.
2. No alterations of the boundaries of a national park shall be made except on a resolution passed by the legislature of 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
14. Consider the following statements regarding Group of Seven (G7):
1. The Group of 7 (G7) is a formal group of seven countries.
2. It comprises United States, Canada, France, Germany, Italy, Japan and the United Kingdom.
3. Member countries represent 40% of the global GDP and 10% of the world's population.

- 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
15. Consider the following statements regarding the Antarctic Treaty:
1. It was signed just before the Second World War.
 2. It was primarily signed in France by more than 50 countries with Antarctic interests.
- 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
16. The 'Carbis Bay Declaration' is aimed at-
- (a) Preventing attack on Pacific Region
 - (b) Preventing future pandemics
 - (c) Preventing attack from NATO
 - (d) Preventing Middle-East from Taliban attacks
17. Consider the following statements regarding the SDG India Index 2020-21:
1. Ministry of Housing and Urban Affairs has released the Index.
 2. As per the Index, Kerala has retained the top rank.
 3. The index tracks the progress of all states and UTs on 115 indicators aligned with the National Indicator Framework (NIF) of the Ministry of Statistics and Programme Implementation.
- 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
18. Which of the following statements is/are correct?
1. Ministry of Health and Family Welfare has launched the SAGE (Senior care Ageing Growth Engine) initiative.
 2. The SAGE portal is "one-stop access" of elderly care products and services by credible start-ups.
3. The key objective of the SAGE initiative is to promote the 'Silver Economy' by encouraging entrepreneurial ventures.
- Select the correct answer using the code given below:
(a) 1 and 2 only (b) 3 only
(c) 2 and 3 only (d) 1, 2 and 3
19. With reference to the DAVINCI+ and VERITAS missions, consider the following statements:
1. NASA has selected two missions to the planet Mars.
 2. These have been selected based on their potential for scientific value and the feasibility of development plans.
 3. The missions will be launched during 2022-2023.
- Which of the Statements given above is/are correct?
(a) 1 and 3 only (b) 2 only
(c) 2 and 3 only (d) 1, 2 and 3
20. Consider the following statements regarding Venus Planet:
1. It is the second-brightest object in the sky after the moon.
 2. It appears bright because of its thick cloud cover that reflects and scatters light.
- 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
21. The 'EUNAVFOR Exercise' is conducted between-
- (a) United Arab Emirate and Indian Air force
 - (b) Indian Navy and European Union Naval Force
 - (c) United States of America and European Union
 - (d) European Union and Japan's naval Force

22. With reference to the Chhatrapati Shivaji Maharaj, consider the following statements:

1. He was strictly against caste discrimination and employed people from all caste in his court.
2. He introduced the collection of two taxes called the Chauth and Sardeshmukhi.

Which of the statements given above is/are correct?

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

23. Consider the following statements regarding saint Kabir Das:

1. Kabir's verses are found in Sikhism's scripture Guru Granth Sahib.
2. The major part of his work was collected by the eighth Sikh Guru TeghBahadur.

Which of the statements given above is/are correct?

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

24. Which among the following belongs to Ram Prasad Bismil?

1. Formation of Hindustan Republican Association
2. Participation in Mainpuri conspiracy of 1918
3. Participation in Kakori conspiracy of 1925

Select the correct answer using the code given below:

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

25. Consider the following statements regarding 'Operation Pangea':

1. The first "Operation Pangea" conducted in 2015.
2. Recently, the Interpol through its Operation Pangea had targeted the sale of illegal lithium ore across the world.

Which of the statements given above is/are correct?

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

26. With reference to the Indian Regional Navigation Satellite System (IRNSS), consider the following statements: (USSC 2018)

1. IRNSS has three satellites in geostationary and four satellites in geosynchronous orbits.
2. IRNSS covers entire India and about 5500 sq. km beyond its borders.
3. India will have its own satellite navigation system with full global coverage by the middle of 2019.

Which of the statements given above is/are correct ?

- (a) 1 only (b) 1 and 2 only
(c) 2 and 3 only (d) None

27. With reference to the Genetically Modified mustard (GM mustard) developed in India, consider the following statements: (UPSC 2018)

1. GM mustard has the genes of a soil bacterium that give the plant the property of pest-resistance to a wide variety of pests.
2. GM mustard has the genes that allow the plant cross-pollination and hybridization.
3. GM mustard has been developed jointly by the IARI and Punjab Agricultural University.

Which of the statements given above is/are correct ?

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

28. With reference to 'Global Climate Change Alliance', which of the following statements is/are correct? (UPSC 2017)

1. It is an initiative of the European Union.
2. It provides technical and financial support to targeted developing countries to integrate climate change into their development policies and budgets.

3. It is coordinated by World Resources Institute (WRI) and World Business Council for Sustainable Development (WBCSD).
Select the correct answer using the code given below:
(a) 1 and 2 only (b) 3 only
(c) 2 and 3 only (d) 1, 2 and 3
29. Biological Oxygen Demand (BOD) is a standard criterion for (UPSC 2017)
(a) Measuring oxygen levels in blood
(b) Computing oxygen levels in forest ecosystems
(c) Pollution assay in aquatic ecosystems
(d) Assessing oxygen levels in high altitude regions
30. Consider the following statements: (UPSC 2017)
1. Climate and Clean Air Coalition (CCAC) to Reduce Short Lived Climate Pollutants is a unique initiative of G20 group of countries.
2. The CCAC focuses on methane, black carbon and hydrofluorocarbons.
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

ANSWERS

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