GS SCORE

IAS 2018

Prelims Special
Current Affairs

Volume-3

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GS SCORE

Polity & Governance

1
NHRC

A five-member team of National Human Rights Commission reached Koraput district of Odisha to probe the alleged gang rape and suicide of a minor girl near Kunduli.

Hereby, discussing the composition role and powers of NHRC.

Underlined Concepts

➤ **About NHRC**

The National Human Rights Commission (NHRC) was established on October 12, 1993.

➤ **Composition**

The NHRC consists of:

◉ A Chairperson.

◉ One Member who is, or has been, a Judge of the Supreme Court of India.

◉ One Member who is, or has been, the Chief Justice of a High Court.

◉ Two Members to be appointed from among persons having knowledge of, or practical experience in, matters relating to human rights.

◉ In addition, the Chairpersons of four National Commissions (SC, ST, Women and Minorities) serve as ex officio members.

The Chairperson and the Members of the Commission are appointed by the President of India, on the recommendations of a Committee consisting of:

◉ The Speaker of the House of the People;

◉ The Minister-in-Charge of the Ministry of Home Affairs in the Government of India;

◉ The Leader of the Opposition in the House of the People;

◉ The Leader of the Opposition in the Council of States; and

◉ The Deputy Chairman of the Council of States.

➤ **Functions**

The Commission has a wide mandate including civil and political rights, economic, social and cultural rights, and group rights. Section 12 lay down that the Commission shall perform all or any of the following functions, namely:

◉ Inquiring, suomotu, or on petitions, presented to it by victims, or any persons on their behalf, or on a direction or order of any court, into complaints of violation of human rights or abetment thereof, or negligence in the prevention of such violation, by a public servant.

◉ Intervening in any proceeding involving any allegation of violation of human rights pending before a Court, with the approval of such Courts.

- Visiting, notwithstanding anything contained in any other law for the time being in force, any jail or other institution under the control of the State Government, where persons are detained or lodged for purposes of treatment, reformation or protection, for the study of the living conditions of the inmates thereof and making recommendations.

- Reviewing the safeguards provided by, or under, the Constitution, or any law for the time being in force, for the protection of human rights, and recommending measures for their effective implementation.

- Reviewing the factors, including acts of terrorism, that inhibits the enjoyment of human rights, and recommending appropriate remedial measures.

- Studying treaties and other international instruments on human rights, and making recommendations for their effective implementation.

- Undertaking and promoting research in the field of human rights.

- Spreading human rights literacy amongst various sections of society, and promoting awareness of the safeguards available for the protection of these rights, through publications, the media, seminars and other available means.

- Encouraging the efforts of non-governmental organisations, and institutions working in the field of human rights.

- Undertaking such other functions as may be considered necessary for the promotion of human rights.

► **Structural Limitations**

- **Recommendations only:** Commissions make recommendations to government, which include: payment of compensation to the victim or to her/his family; disciplinary proceedings against delinquent officials; the registration of criminal cases against those responsible; instructions to take particular action to protect human rights and/or to refrain from actions that violate human rights. However, they can only make recommendations, without the power to enforce decisions.

  This lack of authority to ensure compliance has unfortunate consequences:

- **Outright rejection of a recommendation:** Governments often ignore the recommendation completely or furnish a long bureaucratic discourse on how compliance with the reommendation is not in the public interest.

- **Partial compliance:** An example of this is a failure to release the full amount of compensation. Another example is to take action on only one recommendation when there were actually dual recommendations, such as to pay compensation and take disciplinary action

- **Delayed compliance:** While recommendations usually obligate governments to take action within 4-6 weeks, compliance is rare within the stipulated time and sometimes action is so delayed that it becomes meaningless.

2
Supreme Court Stand against Khap Panchayat

“ *The Supreme Court has taken a stern stand against interference by khap panchayats in inter-caste, inter-religious marriages of adult men and women.*

Chief Justice Dipak Misra stated that "If people decide to marry, they are adults and you are nobody to interfere," in response to a plea seeking to ban khap panchayats and establish guidelines to check growing instances of honour killing taking place in the name of caste and religion.

The observation came when a counsel representing a khap panchayat said they had been encouraging inter-caste and inter-faith marriages and were not against such marriages. They were, however, wary of marriages among sapinda relationships or close blood relatives among Hindus. The counsel argued that khaps had been performing their duties as conscience keepers of society.

The bench noted that customs were not above human life and rights of persons concerned and even if there were problems between adults in inter-faith/caste marriages, khap panchayats still could not interfere.

Threatening and attacking adults in inter-caste or inter-faith marriages in the name of being "conscience keepers of society is absolutely illegal". 』

Underlined Concepts

➤ **What is Khap?**

- ◎ Khap is a cluster of villages united by caste and geography. It is as old as 14th century, started by upper caste jats to consolidate their power and position. Khap panchayat governs the khap formed by same gotra (clan) families from several neighbouring villages. Khap panchayats are prevalent in Haryana, western Uttar Pradesh and parts of Rajasthan.

- ◎ Khap Panchayat regulates the khap formed under the same gotra [clans or sub-caste] families in the villages it covers. It basically asks for the amendment in the Hindu Marriage Act, 1955 banning marriages within the same gotra or even gotra from the same village. According to this, a boy and a girl belonging to the same gotra are brothers and sisters. Love marriages are considered as taboo in the villages where the khap panchayat operates.

➤ **Khap Violate Human Rights**

- ◎ The main criticism of Khap panchayat is that rights of an individual are not respected. Rights of liberty, dignity, freedom to choose own life partner are jeopardized. Women are abused and their issues are never addressed. Most of the Khap rules are against law. Rule of men rather than rule of law prevails.

➤ **Steps Initiated**

- ◎ Khap Panchayats in North India and Katta Panchayats in Tamil Nadu have been declared as illegal and barbaric by Supreme Court.

- ◎ A judgment by a session's court in Karnal in 2010, for the first time awarded the death penalty to five men for murdering a young couple who had married against the diktats of a Khap panchayat. It gave life sentence to a member of the Khap panchayat who declared the marriage invalid and was present when the killing took place.

- ◎ Overall, the judiciary, executive and legislature have taken somewhat strong steps in dealing with the problem of Khap Panchayats, but government should work for awareness generation and socioe-conomic development of people so that they can understand the lacunas of this alternative dispute redressal system.

➤ **Laws Against Honour Killing**

- ◎ **Sections 299-304:** Penalises any person guilty of murder and culpable homicide not amounting to murder. The punishment for murder is life sentence or death and fine. The punishment for culpable homicide not amounting to murder is life imprisonment or imprisonment for upto 10 years and fine.

- ◎ **Section 307:** Penalises attempt to murder with imprisonment for upto 10 years and a fine. If a person is hurt, the penalty can extend to life imprisonment.

- ◎ **Section 308:** Penalises attempt to commit culpable homicide by imprisonment for upto 3 years or with fine or with both. If it causes hurt, the person shall be imprisoned for upto 7 years or fined or both.

- **Section 120A and B:** Penalises any person who is a party to a criminal conspiracy.

- **Sections 107-116:** Penalises persons for abetment of offences including murder and culpable homicide.

- **Section 34 and 35:** Penalises criminal acts done by several persons in furtherance of common intention.

3
NITI Aayog Health Index

" *NITI Aayog has released Health Index Report titled "Healthy States, Progressive India. It ranks states and union territories based on their year-on-year incremental change in health outcomes and compare their overall performance with respect to each other.*

The index is based on scores from three domains

- *Health Outcomes*

- *Governance and Information*

- *Key Inputs and Processes*

Outcomes of the Report

- *Among the Larger States, Kerala, Punjab, and Tamil Nadu ranked on top in terms of overall performance, while Jharkhand, Jammu & Kashmir, and Uttar Pradesh are the top three ranking States in terms of annual incremental performance.*

- *Among Smaller States, Mizoram ranked first followed by Manipur on overall performance, while Manipur followed by Goa were the top ranked States in terms of annual incremental performance.*

- *Among UTs, Lakshadweep showed both the best overall performance as well as the highest annual incremental performance. Lakshadweep showed the highest improvement in indicators such as institutional deliveries, tuberculosis (TB) treatment success rate, and transfer of National Health Mission (NHM) funds from State Treasury to implementation agency.*

- *Common challenges for most States and UTs include the need to focus on addressing vacancies in key staff, establishment of functional district Cardiac Care Units (CCUs), quality accreditation of public health facilities and institutionalization of Human Resources Management Information System (HRMIS). Additionally, almost all Larger States need to focus on improving the Sex Ratio at Birth (SRB).* *"*

Underlined Concepts

➤ **About NITI AAYOG**

◉ NITI Aayog is the premier policy 'Think Tank' of the Government of India, providing both directional and policy inputs. While designing strategic and long term policies and programmes for the Government of India, NITI Aayog also provides relevant technical advice to the Centre and States.

◉ At the core of NITI Aayog's creation are two hubs – Team India Hub and the Knowledge and Innovation Hub. The Team India Hub leads the engagement of states with the Central government, while the Knowledge and Innovation Hub builds NITI's think-tank capabilities. These hubs reflect the two key tasks of the Aayog.

➤ **About Health Index**

◉ The NITI Aayog and Union Ministry of Health and Family Welfare jointly launched Performance on Health Outcomes index, to rank States on the basis of their performance on measurable health indicators.

◉ The index was developed with inputs from domestic and international experts, including academicians and development partners as well as feedback from states.

◉ It capture the annual incremental improve-ments of the states, rather than focusing on historical achievements.

Significance of the report

◉ The report will aid in effectively addressing the various problems in health sector of the country by:

◉ **Policy Formulation:** State Wise performance report will aid in formulating tailor made policies for states and even at district levels to address the shortcomings than usual one size fits all approach.

◉ **Objective approach:** The objective criteria's will aid in interlinking the objective outcomes with the spending under national health mission. This helps in understanding the efficacy of the mission.

◉ **Co-operative federalism:** The mechanisms also will bring into light the various best practices in various states. Niti Aayog a policy think tank which is also the coordinating agency for the SDGs in India with these objective criteria's can achieve nexus between centre-state, state-state to adopt best practices.

◉ **Competitive federalism:** As the index ranks the states and Union territories it will imbibe competitive spirit among the states to achieve the excellence. The indices show a strong link between health outcomes with HDI and economic development of the state.

◉ Health Index has been developed as a tool to leverage co-operative and competitive federalism to accelerate the pace of achieving health outcomes. It would also serve as an instrument for "nudging" States & Union Territories (UTs) and the Central Ministries to a much greater focus on output and outcome based measurement of annual performance than is currently the practice. With the annual publication of the Index and its availability on public domain on a dynamic basis, it is expected to keep every stakeholder alert to the achievement of Sustainable Development Goals (SDGs) Goal number 3.

Other Indexes launched by NITI AAYOG

◉ **India Innovation Index**

◆ The NITI Aayog, Department of Industrial Policy & Promotion (DIPP) and Confederation of Indian Industry (CII) jointly launched India Innovation Index, to make India an innovation-driven economy.

◆ This will rank states on Innovations through country's first online innovation index portal that will capture data on innovation from all Indian states and regularly update it in real time.

◆ The India Innovation Index Framework will be structured based on the best practices followed in Global Innovation Index (GII) indicators and additionally by adding India-centric parameters those truly reflect the Indian innovation ecosystem.

◉ **Agriculture Marketing and Farm Friendly Reforms Index**

◆ The first-ever index based on initiatives taken by the states in implementing farm sector reforms was issued by the NITI Aayog.

◆ The index ranks states based on their initiatives taken in implementing provision of seven farm sector reforms. These reforms have been proposed under model APMC Act, joining eNAM initiative, special treatment to fruits and vegetables for marketing and level of taxes in mandis.

- The index identifies three major parameters. They are: Agricultural market reforms, Land lease reforms and Reforms related to forestry on private land – felling and transit of trees.

- States are ranked based on score on the scale ranging from 0 to 100. The minimum score of 0 implies no reforms at all and score of 100 means state is friendliest to farmers.

◉ **School Education Quality Index (SEQI)**

- The goal of the State-level 'School Education Quality Index' (SEQI) is to institutionalize a focus on improving education outcomes (learning, access, equity) in India.

- It recognizes that school education is a subject on the Concurrent List and State-level leadership is critical for improving outcomes in cost-effective ways.

- The SEQI will provide insights into each State/UT's strengths, weaknesses, and areas requiring more focused action and resources. Further, it seeks to encourage positive competition and to propel States and UTs to innovate to improve outcomes. It is hoped that calculation and dissemination of the SEQI will:

  - Shift the policy focus to educational outcomes rather than inputs and programs alone.

- Encourage State-led innovation in cost-effective policy approaches to improve outcomes.

- Facilitate sharing of best practices across States and UTs.

- The Index does not use binary indicators since progress on most metrics is a continuous process. Hence, States and UTs would be recognized for continuous improvements on key measures of performance.

◉ **Water Management Index**

- NITI Aayog has developed a Composite Water Management Index as a useful tool to assess and further improve the performance in efficient management of water resources. The index would provide useful information for the States and also for the concerned Central Ministries/ Departments enabling them to formulate and implement suitable strategies for better management of water resources.

- The index would serve as a useful tool to track performance in the water sector and take corrective measures timely for achieving better outcomes thereby meeting the citizens' expectations satisfactorily.

4
PMKVY 2.0

> ❝ *The Union Cabinet has approved the Scheme for another four years (2016-2020) to impart skilling to 10 million youth of the country.*
>
> *Pradhan Mantri Kaushal Vikas Yojana (PMKVY) is the flagship scheme of the Ministry of Skill Development & Entrepreneurship (MSDE). The objective of this Skill Certification Scheme is to enable a large number of Indian youth to take up industry-relevant skill training that will help them in securing a better livelihood. Individuals with prior learning experience or skills will also be assessed and certified under Recognition of Prior Learning (RPL).*

KEY COMPONENTS OF THE SCHEME

| SHORT TERM TRAINING | RECOGNITION OF PRIOR LEARNING | SPECIAL PROJECTS | KAUSHAL AND ROZGAR MELA | PLACEMENT ASSISTANCE | CONTINUOUS MONITORING | STANDARDIZED BRANDING AND COMMUNICATION |
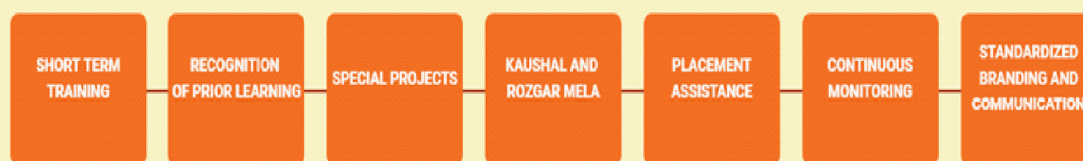
Recent Data

Under the PMKVY, according to latest data from the Ministry of Skill Development and Entrepreneurship, out of the 29.69 lakh people who were trained as on February 1, 2018, only 5.39 lakh have been placed translating into an average of just over one out of six people trained under the scheme having found a job.

Under the relaunched PMKVY, which started October 2, 2016 with an outlay of Rs. 12,000 crore to impart skilling to one crore people over four years (2016-2020), placement tracking has been made mandatory.

Under the scheme, an initiative has also been taken to set up Model Skill Centres called Pradhan Mantri Kaushal Kendras (PMKKs), in districts. As on December 15, 2017, 527 PMKKs have been allocated throughout the country. 🗩

Underlined Concepts

➤ **PMKVY 2.0 Benefits for Students**

◉ The Pradhan Mantri Kaushal Vikas Yojana (PMKVY) scheme has been designed to see the actual condition of the Indian Youths. The age criteria which has been selected for the Indian Youth is 14-35 and requirement for doing Pradhan Mantri Kaushal Vikas Yojana (PMKVY) course is that students must be 10th or 12th pass out or college drop out. The important thing to notice here is that this course is not for the students who are already doing some college studies.

◉ **Benefit:** Pradhan Mantri Kaushal Vikas Yojana (PMKVY) comes with the huge benefit for the students. Those students who has been involved in PMKVY scheme can:

◆ First of all do this course with another course as well.

◆ Secondly, students do not need to pay even a single sum of rupees in the name of fee. PMKVY is totally a free of cost for the students.

◆ Thirdly, those student who engage them self they will get Rs. 8,000 as the monetary reward .

◆ Fourthly, student can get a accidental cover of Prime Minister Insurance Scheme of cost Rs. 60 per person for 5 years.

◆ After the course completion student need to pass a small assessment and those student who will pass the assessment will get a certificate of merit.

◉ Government has decided to pay a special allowance for the girl students and for the disable students as they get Rs. 1,000 for as a convince charge and students who belongs from the Jammu and Kashmir, Ladakh and Leh region, students belongs form the seven sister states, LEW states and from Andaman and Nicobar region will be benefited with the hostel facilitates as well.

➤ **Initiatives for Skill Development**

◉ Skill development and vocational training programs are conceptualized, executed and monitored by various organizations, working closely with the Government of India. There are various plans and schemes for skill development such as:

◆ **Pradhan Mantri Kaushal Vikas Yojana (PMKVY):** It is the flagship outcome-based skill training scheme of MSDE. It is also India's largest skill certification scheme with the objective to enable and mobilize a large number of Indian youth to take up outcome-based skill training and become employable and earn their livelihood. It is being implemented through the National Skill Development Corporation (NSDC).

◆ **National Apprentice Promotion Scheme:** It is a new scheme of Government of India to promote apprenticeship training and increase the engagement of apprentices from present 2.3 lakh to 50 lakh cumulatively by 2020. The scheme focuses on sharing of 25% of prescribed stipend subject to a maximum of Rs. 1,500 per month per apprentice to all apprentices with the employers.

◆ **National Policy for Skill Development and Entrepreneurship 2015:** The National Policy for Skill Development and Entrepreneurship 2015 is a maiden attempt at providing an integrated policy for comprehensive roadmap for growth of skilling as well as entrepreneurship in the country by addressing the needs of job seekers as well as job creators. It aims to create an ecosystem of empowerment by Skilling on a large Scale at Speed with high Standards and to promote a culture of innovation based entrepreneurship which can generate wealth and employment so as to ensure Sustainable livelihoods for all citizens in the country.

◆ **National Skill Development Mission:** The National Skill Development Mission is an attempt to consolidate skill initiatives across the country, and standardize procedures and outcomes. The National Skill Development Mission will be implemented through a streamlined institutional mechanism driven by Ministry of Skill Development and Entrepreneurship (MSDE).

◆ **Udaan:** Udaan scheme is targeted at helping the ambitious and progressive youth of Jammu and Kashmir who are seeking global and local opportunities. It aims to make employable 40,000 youth of J&K over a 5 year period in key high growth sectors. The programme is targeted at providing well-paying jobs to the trained manpower.

◆ **Seekho aur Kamao:** The scheme aims at upgrading the skills of minority youth in various modern/traditional skills depending upon their qualification, present economic trends and market potential, which can earn them suitable employment or make them suitably skilled to go for self-employment.

◆ **SANKALP & STRIVE:** MSDE got approval by Cabinet Committee on Economic Affairs chaired by the Prime Minister, on the "Skills Acquisition and Knowledge Awareness for Livelihood Promotion (SANKALP)" and "Skills Strengthening for Industrial Value Enhancement (STRIVE)" which are all set to boost the Skill India Mission in the country. SANKALP is Rs. 4,455 Crore centrally sponsored project including Rs. 3,300 Crore support from World Bank whereas STRIVE is a Rs. 2,200 crore - central sector project, with half of the project outlay as World Bank assistance. SANKALP and STRIVE are outcome focused projects marking a shift in government's implementation strategy in vocational education and training from inputs to results building in a strong shift to an outcome based skill ecosystem.

◆ **Takshashila (Trainers and Assessors Portal):** National Portal for Trainers and Assessors is an initiative by NSDC under Skill Indian Mission. The portal is a dedicated platform towards the management of trainers and assessors training life-cycle and would function as the central repository of information concerning the development of quality Trainers and Assessors in the Indian skill eco-system. It is built in with a feature to search trainers and assessors trained by SSCs across states, sectors and job roles for access to a pool of qualified and skilled professionals.

Snippets

Snippets related to Polity & Governance

A. KUSUM Scheme

➤ The Union Government has announced Rs. 1.4 lakh-crore Kisan Urja Suraksha evam Utthaan Mahaabhiyan (KUSUM) scheme for promoting solar farming, i.e. decentralised solar power production of up to 28,250 MW to help farmers.

➤ KUSUM scheme will start with building 10,000 MW solar plants on barren lands and providing 1.75 million off-grid agricultural solar pumps.

➤ It will provide extra income to farmers, by giving them an option to sell additional power to grid through solar power projects set up on their barren lands.

➤ It will help in de-dieselising the agriculture sector as India had about 30 million farm pumps that include 10 million pumps running on diesel. The surplus electricity generated by farmers will be bought by state electricity distribution companies (discoms).

B. CCEA Approves Proposal for Initiation of 3rd Phase of TEQIP

➤ The Cabinet Committee on Economic Affairs (CCEA) has approved the proposal for initiation of the Third Phase of Technical Education Quality Improvement. (The TEQIP was launched in 2003 with World Bank assistance as a long term programme to be implemented in three phases.)

➤ The project will be implemented as a Central Sector Scheme.

➤ The Focus States in 3rd Phase of TEOIP are:

   ◉ 3 Hill States: Himachal Pradesh, Jammu and Kashmir and Uttarakhand.

   ◉ 6 Low Income States: Bihar, Chhattisgarh, Jharkhand, Madhya Pradesh, Rajasthan and Uttar Pradesh.

   ◉ 8 North-Eastern States: It includes seven sisters plus Sikkim.

   ◉ Besides, Union Territory of Andaman and Nicobar Islands is also focused UT under the 3rd Phase of the Programme.

➤ **The major outcomes of the project are:**

   ◉ Better academic standards, through accreditation, filling up faculty positions, training faculty in better teaching methods, improved research outputs in institution in Focus States/UTs.

   ◉ Better administration of the institutions with improved financial/academic autonomy.

   ◉ Better systems for assessment of Student Learning, higher transition rates.

   ◉ Transparent and expeditious release of funds to institutes by way of Direct Funds Transfer (DFT) System.

➤ An estimated 200 Government/ Government aided engineering institutes and Affiliating Technical Universities (ATUs) including the Centrally Funded Technical Institutions (CFTIs) will be selected.

➤ The project will cover all Government/ Government aided engineering institutes, ATUs and CFTIs from Focus States/UT. High-performing TEQIP-I/ TEQIP-II Government/ Government aided institutes/ATUs across the country would be eligible to participate in twinning arrangements for knowledge transfer, exchange of experience, optimizing the use of resources and developing long-term strategic partnerships.

➤ Further Post-graduates and doctorates from premier institutes are going to teach undergraduates in engineering colleges in backward regions of 11 districts in Bihar, Jharkhand, Odisha, Uttar Pradesh, Uttarakhand and Andaman & Nicobar as part of an HRD Ministry initiative. This is being done under the third phase of Technical Education Quality Improvement Programme (TEQIP).

➤ Under the initiative there will be focus on seven districts which have been called aspirational. They include Gaya and Muzaffarpur in Bihar, Kalahandi in Orissa and Dumka in Jharkhand.

C. Lokniti CSDS Survey

➤ Lokniti is run as an autonomous research programme of the CSDS. Its activities are funded through various project grants.

➤ Lokniti - Programme for Comparative Democracy was established in 1997 as a research programme of the Centre for the Study of Developing Societies (CSDS), New Delhi.

➤ **Lokniti has the following objectives:**

   ◉ Monitoring on a regular basis the working of Indian democracy with special attention to the participation of marginalized people,

- ◉ Developing a comparative understanding of democratic polities in different historical and cultural settings,

- ◉ Engaging with scholars in other parts of the world with a view to creating an alternative to the dominant perspective on democracy in a global context, and

- ◉ Training a new generation of scholars and public intellectuals who can intervene in the discourse on democracy.

D. India Health Fund

- ➤ The India Health Fund (IHF) launched by Tata Trusts in collaboration with Global Fund in August 2016 has come forward to financially support innovation and technologies designed to combat tuberculosis (TB) and malaria.

- ➤ The initiative aims to support new products and strategies that impact entire lifecycle of malaria and TB, from prevention to post-cure recovery. It has recently invited project proposals.

- ➤ TB and malaria pose long-standing health challenges for India. These two diseases account for over 4.23 lakh deaths and around 15 million lab-confirmed cases every year. The IHF initiative will support individuals and organisations with already germinated innovative strategies, services, products, such that they become sustainable and scalable solutions in addressing TB and malaria.

E. LPG Panchayat

- ➤ The President of India, hosted an 'LPG Panchayat' on (February 13, 2018) at Rashtrapati Bhavan.

- ➤ The LPG Panchayat was organised by the Ministry of Petroleum and Natural Gas with an aim to provide a platform for LPG consumers to interact with each other, promote mutual learning and share experiences.

- ➤ Each LPG Panchayat has about 100 LPG customers coming together, near their living areas, to discuss safe and sustainable usage of LPG, its benefits and the link between clean fuel for cooking and women's empowerment. The Ministry of Petroleum and Natural Gas intends to conduct 1 lakh such Panchayats across India before March 31, 2019.

F. Ayushman Bharat Programme

- ➤ "Ayushman Bharat" was recently announced in Budget 2018. This programme has been described by the government as the world's largest government-funded healthcare programme.

- ➤ It is an umbrella scheme which includes two sub schemes, viz. National Health Protection Scheme (NHPS) and Health and Wellness Centre for preventive care.

- ➤ Under the National Health Protection Scheme, government aims to provide healthcare protection for over 10 crore "poor and vulnerable" families, or an estimated 50 crore individual beneficiaries — with coverage of up to Rs. 5 lakh per family per year.

- ➤ Under the Health and Wellness Centre initiative, government aims to establish 1.5 lakh centres for preventive care services.

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Economy

1

RBI keeps Repo Rate Unchanged

> *On the basis of an assessment of the current and evolving macroeconomic situation at its meeting, the Monetary Policy Committee (MPC) decided to:*
>
> • *Keep the policy repo rate under the liquidity adjustment facility (LAF) unchanged at 6.0 percent.*
>
> • *Consequently, the reverse repo rate under the LAF remains at 5.75 percent, and the marginal standing facility (MSF) rate and the Bank Rate at 6.25 percent.*

Underlined Concepts

➤ **Monetary Policy Framework**

- Framework has been signed between Union Government and the Reserve Bank of India (RBI).

- The Reserve Bank of India will aim to bring retail inflation below 6% by January 2016. The target of financial year 2016-17 and all subsequent years shall be four per cent with a band of (+/-) 2 per cent.

- The agreement also requires the RBI to give the government a report in case the target is missed for a specified period.

- The RBI is also required to make public every six months a document explaining the sources of inflation and the inflation forecast for the period between six and eight months. In case of any dispute arising out of interpretation of the agreement, it would be resolved through a meeting between the RBI governor and the government.

- The new monetary policy committee, will set the inflation target.

⊙ **The Monetary Policy Committee will comprise:**

- ◆ The Reserve Bank Chairperson as its chairperson;

- ◆ One executive member of the Reserve Bank Board nominated by the Reserve Bank Board;

- ◆ One employee of the Reserve Bank nominated by the Reserve Bank Chairperson; and

- ◆ There persons appointed by the Central Government.

The objective of monetary policy is to achieve price stability while striking a balance with the objective of the Central government to achieve growth.

The MOC consider all the factors affecting inflation over the year:

- ◆ **Economic growth:** Higher growth causes income and consumption to rise and demand-pull inflation.

- ◆ **Consumption:** An increase in consumption causes demand-pull inflation.

- ◆ **Asset prices:** A rise in house prices induces a wealth effect that increases consumption and causes demand-pull inflation.

- ◆ **Unemployment:** Lower unemployment means income and consumption rise so there is demand-pull inflation.

- ◆ **Exchange Rate:** A fall in the exchange rate causes exports to rise, imports to fall and demand-pull inflation. Also, imports are more expensive so there is cost-push inflation.

- ◆ **Commodity prices:** A rise in commodity prices means imported commodities are more expensive and firms' costs rise so there is cost-push inflation.

- ◉ After considering all the factors affecting inflation, the MPC predict inflation and decide on what should happen to interest rates to keep inflation within its target. If inflation is too low, the MPC will use loose monetary policy to decrease interest rates and increase inflation. If inflation is too high, the MPC will use tight monetary policy to increase interest rates and decrease inflation.

- ► **Measures of Money Supply**

  There are several measures for the money supply, such as M1, M2, and M3.

  - ◉ M1 (also called as the Narrow Money) = Currency with Public (Coins, Currency notes etc.) + Demand Deposits of the Public.

  - ◉ M2 = M1 + Post office Saving Deposits.

  - ◉ M3 (also called as the Broad Money) = M1 + Time Deposits of Public with the Banks.

  - ◉ M4 = M3 + Total Post office Deposits (includes Fixed Deposits with the Post offices).

- ► **Terms Related to Monetary Policy**

  - ◉ **BANK RATE:** Rate at which the central bank lends to commercial banks. In other words, it is the rate at which RBI rediscounts the bill of exchange.

  - ◉ **CASH RESERVE RATIO (CRR):** Every Commercial Bank is required to keep a certain percentage of its demand and time liabilities (deposits) with the RBI (either as cash or book balance).

  - ◉ **STATUTORY LIQUIDITY RATIO (SLR):** Commercial Banks are required to keep (in addition to CRR) a certain percentage of their net demand and time liabilities (NDTL) as liquid assets in the shape of cash, gold or approved securities.

  - ◉ **REPO RATE:** Repurchase Option (REPO) is the rate at which RBI lends to commercial banks. In other words, it is the rate at which our banks borrow from RBI. Whenever, the banks have any shortage of funds they can borrow it from RBI. A reduction in the Repo Rate will help banks to get money at a cheaper rate. When the Repo Rate increases, borrowing from RBI becomes more expensive.

  - ◉ **REVERSE REPO RATE:** The rate at which Reserve Bank of India (RBI) borrows money from banks and hence exact opposite of Repo Rate. An increase in Reverse Repo Rate can cause the banks to transfer more funds to RBI due to its attractive interest.

  - ◉ **MARGINAL STANDING FACILITY (MSF):** Rates at which the Scheduled banks can borrow funds overnight from RBI against government securities. It is a short term borrowing scheme for scheduled commercial banks in case the banks are in severe cash shortage or acute shortage of liquidity.

2

Ujjawala Yojana now to Benefit 8 crore Women

❝ *The Cabinet also approved the increase in the target for the Pradhan Mantri Ujjwala Yojana, meant to provide LPG connections to rural women, to eight crore from the earlier five crore, adding that this has to be achieved by 2020. It also approved an additional allocation for the scheme of 4,800 crore.*

The revised target will be achieved by 2020. In addition to the households identified under the Socio Economic Caste Census, the scheme will cover all SC/ST households, beneficiaries of Pradhan Mantri Awas Yojana (Gramin), and Antyoday Anna Yojana, and forest dwellers, among others. 🔚

Underlined Concepts

➤ **About Ujjwala Yojana**

◉ The Ujjwala Yojana was launched by Prime Minister Narendra Modi in May 2016 from Maldepur Morh, Ballia in Uttar Pradesh.

◉ **Purpose of the scheme:** Empower women and protect their health by shifting them from traditional cooking based on unclean cooking fuels or on fossil fuels to clean cooking gas.

◉ **Beneficiary:** Under the scheme, an adult woman member of a BPL will be given deposit-free LPG connection with financial assistance of Rs. 1,600 per connection by the Centre. Identification of beneficiaries will be through the Socio-Economic Caste Census (SECC) in consultation with state governments and Union territories.

◉ **Why needed?** According to WHO estimates, about 5 lakh deaths in India alone due to unclean cooking fuels. Most of these premature deaths were due to non-communicable diseases such as heart disease, stroke, chronic obstructive pulmonary disease and lung cancer. Indoor air pollution is also responsible for a significant number of acute respiratory illnesses in young children. According to experts, having an open fire in the kitchen is like burning 400 cigarettes an hour.

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

◉ **Tagline for the scheme:** Swachh Indhan, Behtar Jeevan.

➤ **About LPG**

◉ LPG – Liquefied Petroleum Gas – describes flammable hydrocarbon gases including propane, butane and mixtures of these gases.

◉ LPG, liquefied through pressurisation, comes from natural gas processing and oil refining.

◉ LPG is used as heating, cooking and auto fuel.

◉ LPG is one of the cleanest conventional fuels available.

◉ LPG demonstrates lower GHG (Greenhouse Gas) emissions than coal, wood and electricity on an energy-equivalent basis.

◉ LPG produces less air pollutants than diesel, oil, wood or coal.

➤ **Other Initiatives**

◉ **PAHAL**

◆ All consumers using LPG cylinders will get cash subsidy to buy 12 14.2-kg cylinders or 34 5-kg refills. The amount of money which is equal to the difference between the present subsidised rate and the market price is automatically transferred to the bank account of the consumer, when he or she makes the first booking for a cylinder.

◉ **URJA GANGA**

◆ The ambitious "Urja Ganga" gas pipe line project aims to provide piped cooking gas to residents in Varanasi within two years and in another year after that it would cater to needs of people in Jharkhand, Bihar, Odisha, and West Bengal.

◆ It will cater to energy needs of five states, covering 40 districts and 2,600 villages. It will pave way for revival of three large fertilizer plants, enable industrialisation of over 20 cities and development of city gas network in 7 cities, generating a large number of jobs.

3
Government Redefines MSME

> *The Cabinet approved a proposal to redefine micro, small, and medium enterprises (MSMEs), based on their annual turnover. The move, which replaces earlier classification based on investment in plant and machinery. It is expected to improve ease of doing business. Notably, the government announced a cut in the tax rate for MSMEs from 30% to 25% in the Budget.*

Proposed classification of enterprises by turnover limits

Enterprise	2006 Act investment limits		Proposed turnover limits
	Manufacturing	**Services**	
Micro	Rs 25 lakh	Rs 10 lakh	Rs five crore
Small	Rs 25 lakh to Rs 5 crore	Rs 10 lakh to Rs 2 crore	Rs five crore to Rs 75 crore
Medium	Rs 5 crore to Rs 10 crore	Rs 2 crore to Rs 5 crore	Rs 75 crore to Rs 250 crore

Sources: Press Information Bureau, Ministry of Micro, Small and Medium Enterprises, February 7 2018; PRS.

Underlined Concepts

► **Present Definition of MSME**

In accordance with the provision of Micro, Small & Medium Enterprises Development (MSMED) Act, 2006 the Micro, Small and Medium Enterprises (MSME) are classified in two Classes:

◉ **Manufacturing Enterprises:** The enterprises engaged in the manufacture or production of goods pertaining to any industry specified in the first schedule to the industries (Development and Regulation Act, 1951) or employing plant and machinery in the process of value addition to the final product having a distinct name or character or use. The Manufacturing Enterprise are defined in terms of investment in Plant & Machinery.

◉ **Service Enterprises:** The enterprises engaged in providing or rendering of services and are defined in terms of investment in equipment..

The limit for investment in plant and machinery/ equipment for manufacturing/ service enterprises, as notified, are as under:

Manufacturing Sector	
Enterprises	**Investment in Plant & Machinery**
Micro Enterprises	Does not exceed twenty five lakh rupees.
Small Enterprises	More than twenty five lakh rupees but does not exceed five crore rupees.
Medium Enterprises	More than five crore rupees but does not exceed ten crore rupees.
Service Sector	
Enterprises	**Investment in Equipments**
Micro Enterprises	Does not exceed ten lakh rupees.

| Small Enterprises | More than ten lakh rupees but does not exceed two crore rupees. |
| Medium Enterprises | More than two crore rupees but does not exceed five core rupees. |

➤ **Importance and Role of MSMEs in Indian Economy**

The Micro, Small and Medium Enterprises occupies a strategic importance in terms of output (about 45% of manufacturing output), exports (about 40% of the total exports) and employment (about 69 million persons in over 29 million units throughout the country) as per the Planning Commission, 2012. It is observed worldwide that as income increases the share of the informal sector decreases and that of the formal SME sector increases.

◎ To generate large scale employment.

◎ To sustain economic growth and increase exports.

◎ Making Growth Inclusive.

The Twelfth Plan has listed the following as the objectives for the MSME sector:

◎ Promoting competitiveness and productivity in the MSME space.

◎ Making the MSME sector innovative, improving technology and depth.

◎ Enabling environment for promotion and development of MSMEs.

◎ Strong presence in exports.

◎ Improved managerial processes in MSMEs.

4
New RBI Norms Related to NPAs

❝ *The Reserve Bank of India (RBI) has tightened norms for bad loan resolution by setting timelines for resolving large NPAs, failing which banks will have to mandatorily refer them for insolvency proceedings. It also withdrew existing debt restructuring schemes such as SDR and S4A.*

According to the new rules, for such accounts, where the banking sector's aggregate exposure is Rs. 2,000 crore or above, lenders must implement a resolution plan within 180 days, starting 1 March 2018.

The central bank has warned banks that they will be penalized for failure to adhering the timelines.

In case, the resolution plan involves change in the ownership structure of the defaulting firm, RBI has mandated that account should not be in default at any point during the specified period.

Specified period is the time between implementation of the plan and the date, where up to 20% of the outstanding principal debt is repaid.

The RBI norms entail proactive resolution of stressed assets with lenders needing to finalise the resolution plan as an account slips into Special Mention Account category. SMA category indicates the time period over which repayment on a loan has not been made.

Banks' gross NPAs and standard restructured advances were estimated at 12.6% as on September 30, 2017.

The overall stress levels of banks including SMA-0 (overdue between 1 and 30 days) and SMA-1 (overdue between 31 and 60 days) borrowers was much higher than the reported GNPA level of 10.3% as on September 30.

The RBI had estimated SMA-2 advances (where repayment is not made for more than 60 days) to be 3.5% of gross advances. **🔾🔾**

Underlined Concepts

➤ **Meaning of NPA**

◉ The definition of an NPA as given by RBI and its various categories is as under:

◉ An asset, including a leased asset, becomes non-performing when it ceases to generate income for the bank. A non performing asset (NPA) is a loan or an advance where;

- ◆ Interest and/or installment of principal remain overdue for a period of more than 90 days in respect of a term loan,

- ◆ The account remains 'out of order' in respect of an Overdraft / Cash Credit (OD/CC).

- ◆ The bill remains overdue for a period of more than 90 days in the case of bills purchased and discounted,

- ◆ The installment of principal or interest thereon remains overdue for two crop seasons for short duration crops.

- ◆ The installment of principal or interest thereon remains overdue for one crop season for long duration crops.

- ◆ The amount of liquidity facility remains outstanding for more than 90 days, in respect of a securitisation transaction.

- ◆ In respect of derivative transactions, the overdue receivables representing positive market-to-market value of a derivative contract, if these remain unpaid for a period of 90 days from the specified due date for payment.

◉ Banks should, classify an account as NPA only if the interest due and charged during any quarter is not serviced fully within 90 days from the end of the quarter.

◉ Banks are required to classify non-performing assets further into the following three categories based on the period for which the asset has remained non-performing and the reliability of the dues:

- ◆ **SUBSTANDARD ASSETS:** A substandard asset would be one, which has remained NPA for a period less than or equal to 12 months. In such cases, the current net worth of the borrower/guarantor or the current market value of the security charged is not enough to ensure recovery of the dues to the banks in full. In other words, such an asset will have well defined credit weaknesses that jeopardize the liquidation of the debt and are characterized by the distinct possibility that the banks will sustain some loss, if deficiencies are not corrected.

- ◆ **DOUBTFUL ASSETS:** An asset would be classified as doubtful if it has remained in the substandard category for a period of 12 months. A loan classified as doubtful has all the weaknesses inherent in assets that were classified as substandard, with the added characteristic that the weaknesses make collection or liquidation in full, on the basis of currently known facts, conditions and values - highly questionable and improbable.

- ◆ **LOSS ASSETS:** A loss asset is one where loss has been identified by the bank or internal or external auditors or the RBI inspection but the amount has not been written off wholly. In other words, such an asset is considered uncollectible and of such little value that its continuance as a bankable asset is not warranted although there may be some salvage or recovery value.

➤ **Reasons for high NPA**

◉ One of the main reasons of rising NPA is the relaxed lending norms especially for corporate honchos when their financial status and credit rating is not analyzed properly. Also,

to face competition, banks are hugely selling unsecured loans which attributes to the level of NPAs.

- Sectors like Textile, aviation, mining, Infrastructure contributes to most of the NPA, since most of the loan given in these sector are by PSB, They account for most of the NPA.

- Public Sector banks provide around 80% of the credit to industries and it is this part of the credit distribution that forms a great chunk of NPA. Last year, when Kingfisher was marred in financial crisis, SBI provided it huge amount of loan which it is not able to recover from it.

- Banks did not conducted adequate contingency planning, especially for mitigating project risk. They did not factor eventualities like failure of gas projects or failure of land acquisition process for highways.

➤ **What is SMA (Special Mention Accounts)?**

- Special Mention Accounts are those assets/ accounts that shows symptoms of bad asset quality in the first 90 days itself.

- NPA has a duration of 90 days. On the other hand, the worst type of special mention account (SMA–2) has less than 90 days' duration.

- The Special Mention Account identification is an effort for early stress discovery of bank loans. It was introduced as a corrective action plan to contain stress. As per the SMA regulations, banks should identify potential stress in the account by creating a new sub-asset category, viz. 'Special Mention Accounts' (SMA).

SMA Sub Category	Classification basis
SMA – NF	Non-financial (NF) signals of stress
SMA-0	Principal or interest payment not overdue for more than 30 days but account showing signs of incipient stress. Delay of 90 days or more in: (a) submission of stock statement / other stipulated operating control statements; or (b) credit monitoring or financial statements; or (c) non-renewal of facilities based on audited financials.
SMA- 1	Principal or interest payment overdue between 31-60 days.
SMA – 2	Principal or interest payment overdue between 61-90 days.

➤ **About RBI**

- **When established?** On April 1, 1935 under RBI Act, 1934 (recommended by Hilton Young Commission).

- **Headquarter–** The Headquarter of the RBI is in Mumbai and it has offices at 31 locations throughout India.

- **Composition–** General superintendence & direction by 21-member Central Board of Directors: the Governor, 4 Deputy Governors, 2 Finance Ministry representatives, 10 government-nominated directors to represent important elements of India's economy, and 4 directors to represent local boards headquartered at Mumbai, Kolkata, Chennai and New Delhi.

- **Role of the RBI**
  - Bank of Issue.
  - Banker to Government.
  - Banker's Bank & Lender of the Last Resort.
  - Controller of Credit.
  - Custodian of Foreign Reserves.
  - Supervisory Functions.
  - Adviser to Government.
  - Monetary Data & Publications.
  - Banking Ombudsman Scheme.
  - Promotional Functions.

5

Merger of Three Public Sector Insurance Firms

❝ *National Insurance Company, United India Insurance Company and Oriental India Insurance Company will be merged, an entity that could be a dominant player in the Rs. 1.5-lakh-crore a-year motor, health and industrial insurance industry, which is seeing intense competition from private players.*

The government plans to merge three of its unlisted general insurance companies to create a behemoth that will control a third of the non-life insurance market and be listed on stock exchanges to fetch better valuation.

Going by the 2016-17 annual report of the Insurance Regulatory and Development Authority of India, New India Insurance Company was the country's biggest general insurer, with gross direct premium (GDP) collection of Rs. 21,598 crore in FY2017. It accounted for 16.50 per cent of the GDP of general and health insurers in FY2017. The GDP of the unlisted three PSGICs put together amounted to Rs. 41,462 crore in FY2017. Collectively, they accounted for 32 per cent of the GDP of general and health insurers in FY2017.

Post merger, a 15% divestment can fetch the government at least Rs. 9,000 crore, as per an equity analyst estimates. The company may be valued at Rs 60,000 crore based on its investment book, net worth and real estate, but the final valuation could be way off the estimate due to market conditions.

Impacts

The merged entity will control about one-third of the total non-life insurance market in India. Such a merger may result in a monopoly-like situation with low focus on customer service. It also leads to concerns about 'too big to fail' due to the continuous operating losses reported by these entities. India is a highly under-penetrated market. Apart from penetration, the non-life insurance industry requires huge transformation in product portfolio and operating models. Currently, crop and health insurance hardly exists; there are very few micro agents and most public non-life insurers rely on individual agents for product sales; and digital penetration is low. In light of these transformation priorities,

concentration of business in the hands of only a couple of public insurance companies may limit customers' options.

Obstacles

However, the biggest challenge in this mega-merger would be technology. All the insurers are currently using different technology platforms, which will have to be brought in sync.

The current technology can be used efficiently to overcome this challenge. Other smaller issues could be the terms and conditions of employment, salaries, and others in the upcoming merged entity. Ensuring a smooth renewal and claim settlement process, keeping in mind the huge database of customers of the merged entity will also pose a challenge. They will have to strive for a complete cultural convergence. **"**

Underlined Concepts

➤ **What is General-Insurance?**

◉ General insurance or non-life insurance policies, including automobile and homeowners policies, provide payments depending on the loss from a particular financial event.

◉ Every business enterprise is exposed to a large number of risks and uncertainties to its premises, plant and machinery, raw materials, finished stock and other things. Goods may be damaged or lost in the process of transportation and may be destroyed due to fire or flood while in storage. As a matter of fact, business means risk and uncertainties. Some of the risks can be avoided by timely precautions but some are unavoidable and are beyond the control of a businessman. For those types of risks, Insurance is the best protection. By providing protection against at least some of these risks, the insurance industry helps them to better manage their risks and contributes to capital formation in the economy.

◉ General insurance can be categorised in to following:

◆ **Motor Insurance:** Motor Insurance can be divided into two groups, two and four wheeled vehicle insurance.

◆ **Health Insurance:** Common types of health insurance includes: individual health insurance, family floater health insurance, comprehensive health insurance and critical illness insurance.

◆ **Travel Insurance:** Travel insurance can be broadly grouped into: individual travel policy, family travel policy, student travel insurance, and senior citizen travel insurance.

◆ **Home Insurance:** Home insurance protects a house and its contents.

◆ **Marine Insurance:** Marine cargo insurance covers goods, freight, cargo, and other interests against loss or damage during transit by rail, road, sea and/or air.

◆ **Commercial Insurance:** Commercial insurance encompasses solutions for all sectors of the industry arising out of business operations.

➤ **About IRDA**

◉ **When established?** Constituted by the Insurance Regulatory and Development Authority Act, 1999.

◉ **Headquarter –** Hyderabad, Telangana.

◉ **Composition –** A Chairman & nine members of whom five are whole-time members and four are part-time members. All the members including the Chairman are appointed by the government of India.

◉ **Objective –** An autonomous, statutory agency to regulate and promote the insurance and re-insurance industry. The key objectives of the IRDA include promotion of competition so as to enhance customer satisfaction through increased consumer choice and lower premiums, while ensuring the financial security of the insurance market.

○ **Role of IRDA:**

- Safeguard the interest of and secure fair treatment to insurance policy holders.

- Bring quick and systematic growth of the insurance industry, to provide long term funds for accelerating growth of the economy.

- To set, promote, monitor and apply high standards of integrity, fair dealing, financial viability and capability.

- To make sure that insurance policy holder receives precise, accurate, clear & correct information about the products & services; make customers aware about their duties & responsibilities.

- To ensure quick settlement of genuine claims, prevent insurance frauds, scams & and put in place a grievance redressal machinery.

- To boost transparency, fairness, and orderly conduct in market & build a trustworthy management information system in order to enforce high standards of financial soundness amongst market players.

○ **Functions of IRDA:**

- Issue a certificate of registration, & renew, modify, withdraw, suspend or cancel such registration.

- Specifying requisite qualifications, code of conduct and practical training for insurance intermediaries and agents.

- Specifying the code of conduct for surveyors and loss assessors.

- Promoting and regulating professional organisations connected with the insurance and re-insurance business.

- Calling for information from, undertaking inspection of, conducting enquiries and investigations including audit of the insurers, insurance intermediaries etc.

- Specifying the form and manner in which books of account shall be maintained.

- Regulating investment of funds by insurance companies.

- Adjudication of disputes between insurers and intermediaries or insurance intermediaries.

6
Startup States and UTs Ranking Framework

" *The Department of Industrial Policy and Promotion unveiled a framework that includes seven pillars with 38 pointers to rank states based on measures the regions have taken to foster entrepreneurship. It was launched by Union Minister of Commerce and Industry.*

The key objective of the Startup States and UTs Ranking Framework is to encourage States and UTs to take proactive steps towards strengthening the Startup ecosystems at the local level. The Ranking Framework will measure the impact of each step initiated at the local level for building a strong Startup ecosystem. The Ranking Framework will also enable continuous learning through the dissemination of good practices.

The State and UT Ranking Framework is based on the feedback collected from Startup ecosystem stakeholders, which include startups, mentors, investors, accelerators, incubators and the government bodies. Areas which should be given greater thrust like seed funding support, women entrepreneurship are given more score.

The parameters of this feedback focus on all the actions and initiatives undertaken by states on or before March 2018. These include having a startup cell or helpline and a mobile or web portal for queries, the size of the startup mentor network created by the state government and the number of key incubators for incubation support to startups. The Startup India Hub portal will provide a platform for the launch of the Ranking Framework. **,,**

Underlined Concepts

➤ **About Startup India Programme**

   ◉ Startup India Programme is a campaign based on the Startup Action Plan by Government of India, aimed to promote entrepreneurship. The programme was officially launched on Jan 16, 2016. But even before that, on 15th August 2015, Prime Minister Narendra Modi urged to 'Startup India, Standup India' from the ramparts of the Red Fort.

➤ **What is a Startup?**

   As per the notification dated February 17, 2016, Ministry of Commerce and Industry has described an entity as a 'Startup':

   ◉ Up to five years from the date of its incorporation/registration, if its turnover for any of the financial years has not exceeded Rupees 25 crore, and

   ◉ It is working towards innovation, development, deployment or commercialization of new products, processes or services driven by technology or intellectual property.

➤ **Startups: Few Important Points**

   ◉ Any such entity formed by splitting up or reconstruction of a business already in existence shall not be considered a 'Startup';

   ◉ In order to obtain tax benefits a startup so identified under the above definition shall be required to obtain a certificate of an eligible business from the Inter-Ministerial Board of Certification consisting of: a) Joint Secretary, Department of Industrial Policy and Promotion, b) Representative of Department of Science and Technology, and c) Representative of Department of Biotechnology.

   ◉ An entity shall cease to be a startup on completion of five years from the date of its incorporation/registration or if its turnover for any previous year exceeds Rupees 25 crore.

   ◉ Entity means a private limited company (as defined in the Companies Act, 2013), or a registered partnership firm (registered under section 59 of the Partnership Act, 1932) or a limited liability partnership (under the Limited Liability Partnership Act, 2002).

Snippets

Snippets related to ECONOMY

A. Inverted Duty Structure

➤ Inverted duty structure is a situation where import duty on finished goods is low compared to the import duty on raw materials that are used in the production of such finished goods.

➤ For example, suppose the tariff (import tax) on the import of tyres is 10% and the tariff on the imports of natural rubber which is used in the production of tyres is 20%; this is a case of inverted duty structure.

➤ When the import duty on raw materials is high, it will be more difficult to produce the concerned good domestically at a competitive price. Several industries depend on imported raw materials and components.

➤ High tax on the raw materials compels them to raise price. On the other hand, foreign finished goods will be coming at a reduced price because of low tax advantage. In conclusion, manufactured goods by the domestic industry become uncompetitive against imported finished goods.

➤ Inverted duty structure make industries at home less protected as the tariff on the imported finished commodities are low.

B. RBI to link Base Rate with MCLR

➤ The Reserve Bank of India (RBI) stated to link the base rate for loans with the marginal cost of funds-based lending rate (MCLR) from 1 April to improve monetary policy transmission.

➤ This is likely to narrow the gap between the base rate and MCLR, and benefit borrowers who are still using the base rate.

➤ The two rates would be "harmonized and not equalized".

➤ The MCLR is more sensitive to monetary policy transmission and is closely linked to the actual deposit rates. MCLR is calculated on the basis of incremental cost of funds, making it a more reliable benchmark rate as compared to the base rate, usually calculated by taking into account average cost of funds. For instance, since April 2016, while the repo rate has been reduced by 75 basis points, State Bank of India's base rate has come down by 65 basis points but the one-year MCLR by as much as 1.25 percentage points. One basis point is one-hundredth of a percentage point.

Marginal Cost of Funds based Lending Rate (MCLR) is the internal benchmark lending rates. Based upon this MCLR, interest rate for different types of customers is fixed in accordance with their riskiness.

MCLR is calculated using different components such as:

➤ **Marginal cost of funds:** The marginal cost of funds comprises of Marginal cost of borrowings and return on net-worth.

➤ **Negative carry on account of Cash Reserve Ratio (CRR):** It is the cost that the banks have to incur while keeping reserves with the RBI. The RBI is not giving an interest for CRR held by the banks. The cost of such funds kept idle can be charged from loans given to the people.

➤ **Operating Costs:** It is the operating expenses incurred by the banks.

➤ **Tenor Premium:** It denotes that higher interest can be charged from long term loans.

C. CriSidEx, India's First MSE Sentiment Index

➤ CriSidEx is India's first sentiment index for micro and small enterprises (MSEs) developed jointly by CRISIL & SIDBI.

➤ CriSidEx is a composite index based on a diffusion index of 8 parameters and measures MSE business sentiment on a scale of 0 (extremely negative) to 200 (extremely positive). The parametric feedback was captured through a survey of 1,100 MSEs.

➤ CriSidEx will have two indices, one for the 'survey quarter' and another for the 'next quarter'. Once a trend emerges after few rounds of the survey, provide independent time series data.

➤ The crucial benefit of CriSidEx is that its readings will flag potential headwinds and changes in production cycles and thus help improve market efficiencies. And by capturing the sentiment of exporters and importers, it will also offer actionable indicators on foreign trade.

D. Directorate of Revenue Intelligence

➤ The Directorate of Revenue Intelligence (DRI) is an Indian intelligence agency. It is India's chief anti-smuggling intelligence, investigations and operations agency.

➤ DRI is the major intelligence agency which enforces the prohibition of the smuggling of items including drugs, gold, diamonds, electronics, foreign currency, and counterfeit Indian currency.

➤ The Directorate of Revenue Intelligence functions under the Central Board of Excise and Customs in the Ministry of Finance, Department of Revenue. Headed by Director General (Chief Commissioner Rank) in New Delhi.

E. Tax Buoyancy

➤ Tax buoyancy is an indicator to measure efficiency and responsiveness of revenue mobilization in response to growth in the Gross domestic product or National income. A tax is said to be buoyant if the tax revenues increase more than proportionately in response to a rise in national income or output.

➤ A simple example in the context of our economy indicates the power of this concept. In 2007-08, everything was fine for the economy. GDP growth rate was nearly 9 per cent.

Tax revenue of the government, especially, that of direct taxes registered a growth rate of 45 per cent in 2007-08. We can say that the tax buoyancy was five (45/9).

Now in the next year, in the wake of the global financial crisis impact, GDP growth came down to six percent. Tax revenue growth also fell steeply; to 18 per cent. This means tax buoyancy was 3 for the year. We can imagine that had the GDP growth came down further in the next year, to say 4 per cent, tax revenue growth would have fell to 8 per cent; indicating a tax buoyancy of 2.

Hence, tax buoyancy shows the association between economy's performance and the government's 'happiness' (tax revenue). It indicates the high sensitiveness of tax revenue realisation to GDP growth.

F. Kisan Kalian Pradhikaran

➤ In an attempt to increase farm productivity and farmers' income, the Haryana government announced the setting up of 'Haryana Kisan Kalyan Pradhikaran', an authority which will undertake measures to make agriculture remunerative.

➤ The Pradhikaran will undertake all possible measures to enhance farm productivity and mitigate the physical, financial and psychological distress of farm households and landless workers. It will also maintain close liaison with line departments for implementation and monitoring of schemes, programmes and projects thorough the Agriculture Advisory Council and issue necessary guidelines from time to time.

➤ The body will oversee regulations, guidelines and procedures for farmers' welfare and suggest amendments in the statute governing farmers' welfare in the State in consonance with Central Acts.

G. PPF Account Close: Government may Allow Premature Closure

➤ The government has proposed to allow premature closure of Public Provident Fund (PPF) accounts and permit opening of small savings accounts in the name of minors. These changes are part of the proposed merger of the separate Acts on small savings, PPF and government savings banks.

➤ The government has proposed merger of Government Savings Certificates Act, 1959, and Public Provident Fund Act, 1968 with the Government Savings Banks Act, 1873.

➤ The main objective in proposing a common Act is to make implementation easier for the depositors as they need not go through different rules and Acts for understanding the provision of various small savings schemes, and also to introduce certain flexibilities for investors.

➤ The Bill also proposes permitting depositor to close a PPF account before five years in exigencies. At present, such accounts cannot be closed prematurely before completion of five financial years.

➤ The amendments proposed would also allow the government to put in place a mechanism for redressal of grievances and for amicable and expeditious settlement of disputes relating to Small Savings.

★★★★★★★★★★

Science & Technology

1

Scorpine Submarine Programme

❝ *The Navy's third state-of-the-art Scorpene class submarine, INS Karanj, was launched.*

Miffed with inordinate delays in the delivery of six Scorpene-class submarines to the Indian Navy under the $3.75-billion P75 programme, the Prime Minister's Office (PMO) has rapped the Defence Ministry for not taking stringent action against Naval Group of France (formerly DCNS) and Mazagon Dock Shipbuilders Ltd (MDL).

The P-75 programme was approved in 2005 and the first submarine was orignially scheduled to be delivered to the Navy in 2012, and final and the sixth one, by 2016. **❞**

Underlined Concepts

► **What is a Submarine?**

- A submarine is a special vessel or ship that can go underwater. Inside, it has huge tanks that hold water, which are called, ballasts. The submarine comes equipped with a power source. These can be an engine, nuclear power, batteries or a combination of the three. To find its way through the dark oceans, submarines use sonar equipment. This puts out a sound wave. When a sound wave hits an object it bounces back a signal to the submarine. Other equipment inside the submarine provides clean water and air for the crew members.

► **Why are Submarines so Important?**

- A submarine is the quietest military platform and extremely tough to detect. Their main

cover is their ability to move stealthily under water and keep an eye on movement of enemy vessels. Submarines are the most potent military platforms currently available even ahead of aircraft carriers which need a large entourage to protect it.

- The nations which possess nuclear weapons, base their second strike capability (ability to strike back after being hit first by nuclear strike) on nuclear powered ballistic missile submarines.

- Operational Stealth is afforded to the submarine because it operates below the sea surface in a medium generally unfavourable to counter-detecting sensors. Once fully submerged, a submarine remains virtually invisible to all but the most capable Anti

Submarine Warfare (ASW) forces. Operational stealth provides the submarine command with three very significant military advantages; covertness, initiative and survivability.

◉ Operational survivability is the ability to operate in hostile environments with little or no risk. To avoid most threats, submarines just need to submerge. While surface ships have to be concerned with defence against attack from sub-surface, surface and air launched weapons, submarines rarely do. This relative immunity also allows them to work unassisted. While a surface ship relies on escorts and auxiliaries whenever they put to sea, whereas submarines can operate alone.

◉ Stealth provides protection for the submarine 24 hours a day and contributes greatly to the probability of mission success.

◉ Submarines are also characterised by their operational endurance, i.e. the number of days they can remain at sea unsupported. They have an ability to deploy and remain within an area of operation for a lengthy period of time without the need for re-supply.

◉ A submarine's wide range of sensor and communication payloads, its effectors and its ability to operate covertly and independently across the area of operations provides a Force Commander with an ability to task a submarine with a number of different mission types as the strategic, operational or tactical situation changes.

➤ **Scorpene Submarines**

◉ Scorpene is a conventional powered submarine weighing 1,500 tonnes and can go up to depths of 300m. It is built by DCNS of France. India had signed a USD 3.75 bn deal for six of submarines to be built by Mazgaon Dock Limited (MDL) in Mumbai with transfer of technology from French shipbuilder DCNS in October 2005.

The different submarines are:

◉ **INS Kalvari:** The first submarine in the programme is the Kalvari. It is the most modern non-nuclear submarine in the Navy and is powered by an extremely silent diesel-electric motor making it very difficult to detect underwater. The submarine is armed with heavy weight torpedoes and Exocet anti-ship missiles. The submarine can launch torpedoes both while submerged or on the surface. The heart of the Kalvari's weapons system is SUBTICS or Submarine Tactical Integrated Combat System suite which processes

information from the sonars onboard the submarine in detecting targets which can then be engaged with torpedoes or missiles.

◉ **INS Khanderi:** The second Scorpene submarine is INS Khanderi. The submarine's features include superior stealth and the ability to launch a crippling attack on the enemy using precision guided weapons.

The attack can be launched with torpedoes, as well as with tube-launched anti-ship missiles, while underwater or on surface.

The submarine is designed to operate in all theatres, including the tropics. All means and communications are provided to ensure interoperability with other components of a naval task force.

It can undertake multifarious types of missions, i.e anti-surface warfare, anti-submarine warfare, intelligence gathering, mine laying, area surveillance, etc.

◉ **INS Karanj:** It is designed to operate in all theatres, including the tropics. It is provided with all means and communications to ensure interoperability with other components of a naval task.

It can launch a crippling attack on the enemy using precision guided weapons. Such attacks can be launched with both torpedoes and tube launched anti-ship missiles, whilst underwater or on surface.

➤ **About INS Arihant**

◉ Arihant's design is based on the Russian Akula-1 Class submarine.

◉ It weighs 6,000 tonnes At a length of 110m and breadth of 11m, Arihant is the longest in the Indian Navy's fleet of submarines and can accommodate a crew of 95.

◉ It can reach a speed of 12kt-15kt on surface and up to 24kt when submerged.

◉ Arihant can stay under water for long periods undetected due to the nuclear-powered 80MW Pressurised Water Reactor (PWR).

◉ Arihant is capable of carrying all types of missiles and is have underwater ballistic missile launch capability. It can carry 12 K-15 SLBMs that can be launched even under ice caps.

◉ Apart from the K-15s, the submarine can carry a range of anti-ship and land-attack cruise missiles and torpedoes.

Salient Features

Technology used ensures superior stealth features such as advanced acoustic silencing techniques, low radiated noise levels and hydro-dynamically optimized shape, says MDL

Submarines have the ability to launch a crippling attack on the enemy using precision guided weapons.

A Shore Integration Facility developed for various equipment of the Scorpene submarine combat system
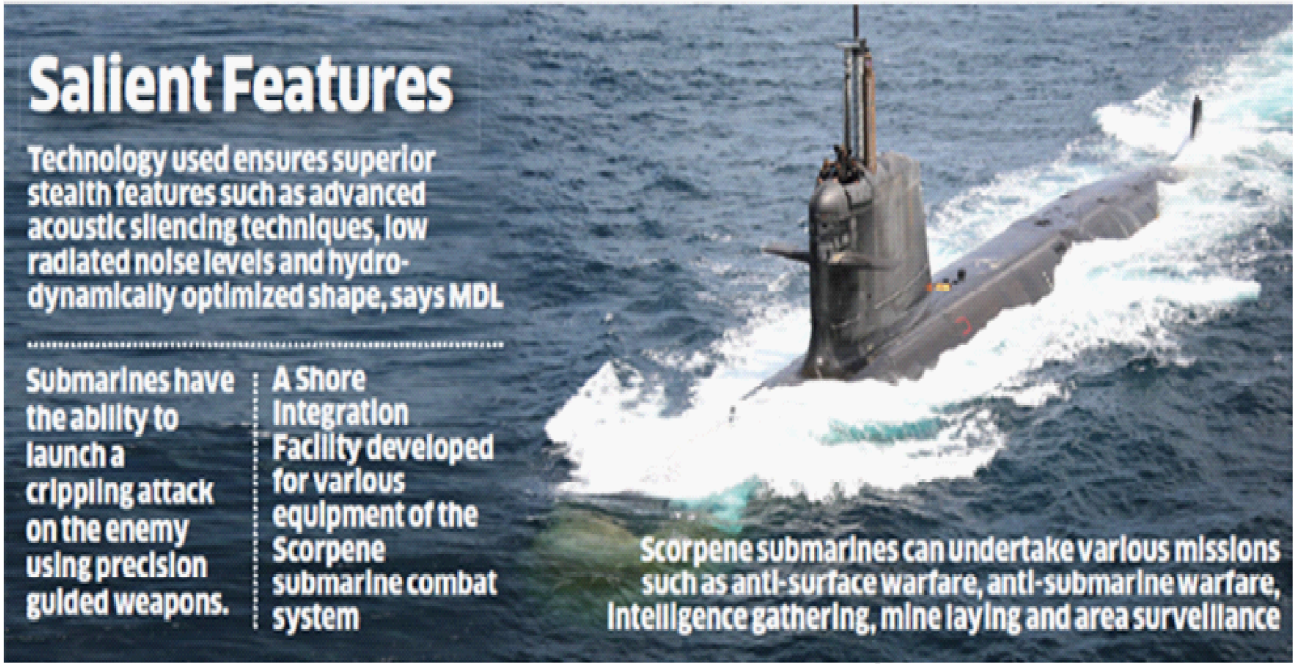
Scorpene submarines can undertake various missions such as anti-surface warfare, anti-submarine warfare, intelligence gathering, mine laying and area surveillance

⊙ Arihant is fitted with a combination of 2 sonar systems - Ushus and Panchendriya.

2
Three-Parent Babies Permitted in U.K

❝ *In a move aimed at preventing passage of incurable genetic diseases from mothers to offsprings, authorities in the UK have permitted doctors to create the country's first three-parent babies.*

The babies are still conceived from two parents, but genetic material from one woman is inserted into another's egg to prevent the child from being born with an inherited disease.

The procedure will use mitochondrial donation therapy for the women, who know that any children they have could inherit a neurodegenerative disorder, which causes problems with movement or mental functioning. ❞

Underlined Concepts

▶ **About Three Parent Babies**

⊙ A number of children each year are born with faults in their mitochondrial DNA which can cause diseases. Due to it, the parts of the body that need most energy are worst affected: The brain, muscles, heart and liver. Faulty mitochondria have also been linked to more common medical problems, including

Parkinson's, deafness, failing eyesight, epilepsy and diabetes. Thus 3-parent babies mechanism has been evolved to decrease the number of children born with diseases.

⊙ 3-parent babies are human offspring with 3 genetic parents. The procedure replaces a small amount of faulty DNA in a mother's egg with healthy DNA from a second woman,

so that the baby would inherit genes from 2 mothers and 1 father.

◉ The procedure is intended to prevent mitochondrial diseases including diabetes, mellitus and deafness and some heart and liver conditions.

◉ *The world's first three-parent baby has been born in Mexico, second in Ukraine.*

How pronuclear transfer works

Step 1
Parents' embryo

Unhealthy mitochondria

Mother's nucleus

Donor's embryo

Healthy mitochondria

Donor's nucleus

Step 2
Parents' nucleus removed

Donor's nucleus removed and destroyed

Step 3
Parents' nucleus now in donor embryo

Source: HFEA
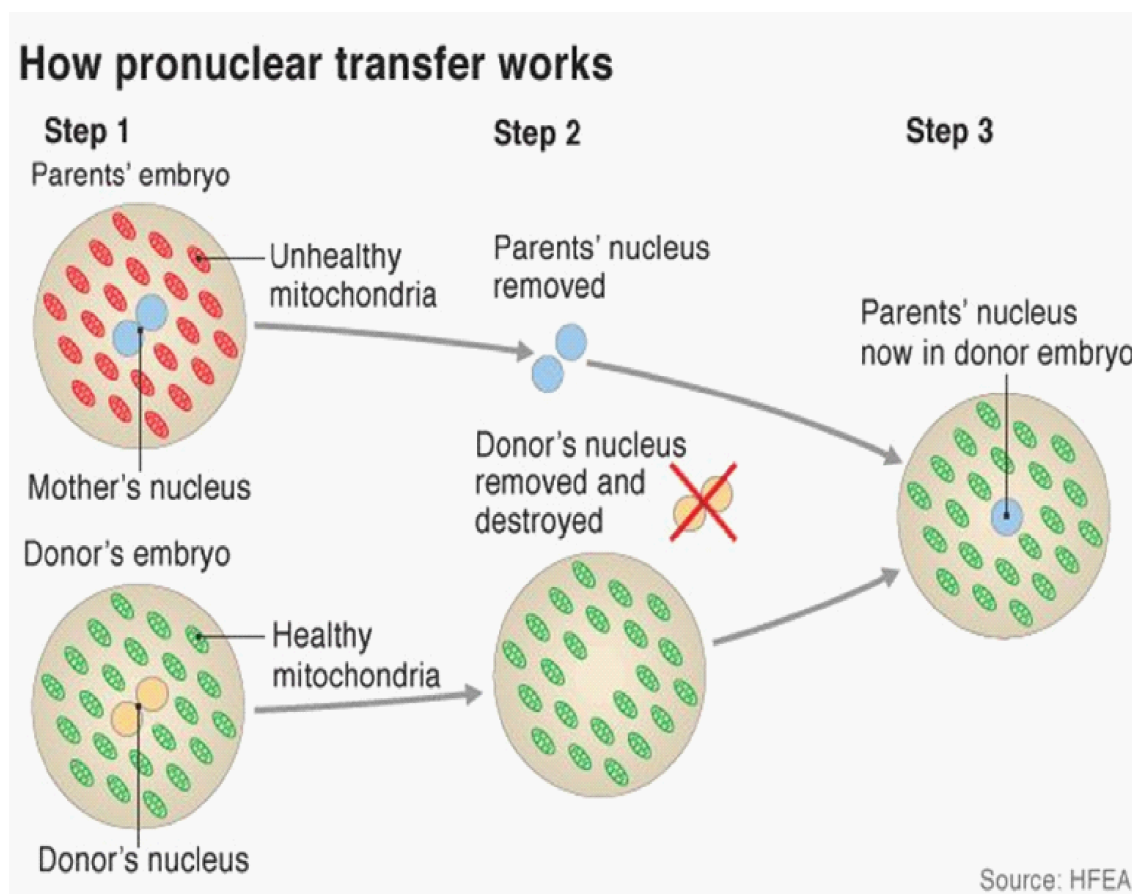
Pros of THREE-PARENT BABIES

◉ Reduces risk of genetic diseases.

◉ Reduces risk of inherited medical conditions.

◉ Better chance of the child to succeed in life.

◉ Better understanding of genetics.

◉ Increased life span.

◉ It can give, the child genes that the parents do not carry.

◉ Prevent next generation of family from getting characteristics/diseases.

Cons of THREE-PARENT BABIES

◉ Termination of embryos.

◉ Could create a gap in society.

◉ Possibility of damage to the gene pool.

◉ Baby has no choice in the matter.

◉ Genes often have more than one use.

◉ Geneticists are not perfect.

◉ Loss of Individuality.

◉ Other children in family could be affected by parent's decision.

◉ Only the rich can afford it.

Snippets

Snippets related to SCIENCE & TECH.

A. Agni 1 Test Fired

➤ It is 15-metre-long, weighing 12 tonnes, can carry payloads up to 1,000 kg.

➤ It is surface-to-surface, single stage missile, powered by solid propellants.

➤ The missile was inducted into service in 2004.

➤ It is propelled by a solid rocket propellant system and is equipped with a specialised navigation system that ensures it reaches the target with a high degree of precision.

➤ It was 18th version of Agni-I, which could achieve all parameters within the stipulated time period.

➤ The indigenously developed surface-to-surface missile was launched as a part of a periodic training activity by the Strategic Forces Command (SFC) of the Army to consolidate operational readiness.

➤ The Agni-I was developed by the Advanced Systems Laboratory (ASL) in collaboration with the Defence Research Development Laboratory (DRDL) and the Research Centre Imarat (RCI). All the three are located in Hyderabad. The missile was integrated by the Bharat Dynamics Limited, Hyderabad.

B. INS Chakra

➤ INS Chakra is a Russia-made, nuclear-propelled, hunter-killer submarine.

➤ Unlike conventional submarines that India operates which need to surface to charge their batteries often - sometimes as frequently as 24 hours - INS Chakra can stay under as long as it wants. Its ability to stay underwater is restrained only by human endurance to stay underwater.

➤ The Akula Class submarine carry conventional weapons. The vessel is armed with four 533mm torpedo tubes and four 650mm torpedo tubes. It will be used to hunt and destroy enemy ships.

➤ It was inducted into service as INS Chakra (formerly known as K-152 Nerpa) in April 2012. Its lease expires in 2021.

➤ The only other nations possessing nuclear-powered submarines are - US, Russia, UK, France and China.

C. Prithvi II

➤ First night trial of nuclear-capable surface-to-surface short-range ballistic Prithvi-II missile was successfully conducted from a defence facility off Odisha coast.

➤ Prithvi-II is India's first indigenously developed and indigenous inducted surface-to-surface strategic missile by DRDO under India's prestigious Integrated Guided Missile Development Program (IGMDP).

➤ The tactical missile is capable of attacking targets at range of 350 km.

➤ It is capable of carrying 500 to 1,000 kg of nuclear as well as conventional warheads and is thrusted by liquid propulsion twin engines.

D. Down Syndrome

➤ Down's syndrome, also known as trisomy 21.

➤ It is a genetic disorder caused by the presence of all or part of a third copy of chromosome 21.

➤ Down's syndrome is the most common chromosome abnormality in humans. It is typically associated with a delay in cognitive ability (mental retardation, or MR) and physical growth, and a particular set of facial characteristics.

➤ An 18-month-old boy with Down syndrome has been named by baby food maker Gerber as its "Spokesbaby" for 2018.

E. Raman Effect

➤ Raman effect is change in the wavelength of light that occurs when a light beam is deflected by molecules. When a beam of light traverses a dust-free, transparent sample of a chemical compound, a small fraction of the light emerges in directions other than that of the incident (incoming) beam. Most of this scattered light is of unchanged wavelength. A small part, however, has wavelengths different from that of the incident light; its presence is a result of the Raman effect.

➤ The Raman effect is feeble; for a liquid compound the intensity of the affected light may be only 1/100,000 of that incident beam. The pattern of the Raman lines is characteristic of the particular molecular species, and its intensity is proportional to the number of scattering molecules in the path of the light. Thus, Raman spectra are used in qualitative and quantitative analysis.

➤ The energies corresponding to the Raman frequency shifts are found to be the energies associated with transitions between different rotational and vibrational states of the scattering

molecule. Pure rotational shifts are small and difficult to observe, except for those of simple gaseous molecules. In liquids, rotational motions are hindered, and discrete rotational Raman lines are not found. Raman work is concerned with vibrational transitions, which give larger shifts observable for gases, liquids, and solids. Gases have low molecular concentration at ordinary pressures and therefore produce very faint Raman effects; thus liquids and solids are more frequently studied.

➤ It was discovered by C. V. Raman and K. S. Krishnan (who was a student of C.V. Raman) in liquids, and independently by Grigory Landsberg and Leonid Mandelstam in crystals. The effect had been predicted theoretically by Adolf Smekal in 1923.

About C.V. Raman

➤ Chandrasekhara Venkata Raman was an Indian scientist who was born in Madras, Tamil Nadu on November 7, 1888.

➤ He completed Bachelor of Arts with a gold medal in physics in 1904.

➤ He held a Master of Science degree from the University of Madras.

➤ Besides winning the Nobel in 1930, he was awarded Bharat Ratna in 1954.

F. Li-Fi

➤ Li-Fi (Light Fidelity) is a high-speed wireless communication technology that uses visible light to transmit information.

➤ Wi-Fi and Li-Fi are similar because both technologies are wireless, but also very different, because unlike Wi-Fi, which relies on radio waves, Li-Fi uses visible light communication (VLC) or infrared and near-UV spectrum waves.

Working of Li-Fi

➤ Li-Fi is a Visible Light Communications (VLC) system. This means that it accommodates a photo-detector to receive light signals and a signal processing element to convert the data into 'stream-able' content.

➤ Here, data is fed into an LED light bulb (with signal processing technology), it then sends data (embedded in its beam) at rapid speeds to the photo-detector (photodiode).

➤ The tiny changes in the rapid dimming of LED bulbs is then converted by the 'receiver' into electrical signal.

➤ The signal is then converted back into a binary data stream that the user would recognise as web, video and audio applications that run on internet enables devices.

Potential applications

➤ RF Spectrum Relief: Excess capacity demands of cellular networks can be off-loaded to Li-Fi networks where available. This is especially effective on the downlink where bottlenecks tend to occur.

➤ Smart Lighting: Any private or public lighting including street lamps can be used to provide Li-Fi hotspots and the same communications and sensor infrastructure can be used to monitor and control lighting and data.

➤ Mobile Connectivity: Laptops, smart phones, tablets and other mobile devices can interconnect directly using Li-Fi. Short range links give very high data rates and also provides security.

➤ Hazardous Environments: Li-Fi provides a safe alternative to electromagnetic interference from radio frequency communications in environments such as mines and petrochemical plants.

➤ Hospital & Healthcare: Li-Fi emits no electromagnetic interference and so does not interfere with medical instruments, nor is it interfered with by MRI scanners.

➤ Aviation: Li-Fi can be used to reduce weight and cabling and add flexibility to seating layouts in aircraft passenger cabins where LED lights are already deployed. In-flight entertainment (IFE) systems can also be supported and integrated with passengers' own mobile devices.

➤ Underwater Communications: Due to strong signal absorption in water, RF use is impractical. Acoustic waves have extremely low bandwidth and disturb marine life. Li-Fi provides a solution for short-range communications.

➤ Vehicles & Transportation: LED headlights and tail-lights are being introduced. Street lamps, signage and traffic signals are also moving to LED. This can be used for vehicle-to-vehicle and vehicle-to-roadside communications. This can be applied for road safety and traffic management.

➤ RF Avoidance: Some people claim that they are hypersensitive to radio frequencies and are looking for an alternative. Li-Fi is a good solution to this problem.

➤ Location Based Services (LBS): Highly accurate location-specific information services such as advertising and navigation that enables the recipient to receive appropriate, pertinent information in a timely manner and location.

➤ Toys: Many toys incorporate LED lights and these can be used to enable extremely low-cost communication between interactive toys.

G. Falcon Heavy

➤ Falcon Heavy is a partially reusable super heavy-lift launch vehicle designed and manufactured by SpaceX.

➤ Falcon Heavy was designed to carry humans into space beyond low Earth orbit, especially to the Moon, Mars, and potentially to asteroids for mining.

➤ Its first stage is powered by three core boosters based on SpaceX's Falcon 9 rockets, with 27 engines (nine per booster) firing in unison to produce about 5 million lbs. of thrust (22,819 kilonewtons) at liftoff.

★★★★★★★★★★

Environment

1
Dust Mitigation Plan

> *The Environment Ministry has made it mandatory for companies seeking environment clearance to ensure that they put in place a dust mitigation plan.*
>
> *Dust is a generic term for a vast mix of metals and non-metals — silicon, aluminum, titanium, manganese, copper, barium, antimony, selenium and zinc.*
>
> *Road dust contributed 56% of all PM10 pollution, while it was 38% for PM2.5. Another estimate by the Indian Institute of Tropical Meteorology, Pune had different numbers but still ranked dust as the major contributor 52% to the city's PM10 load.*
>
> ### Standards Notified by the Government
>
> *The requirements, specified in a gazette say that roads leading to or at construction sites must be paved and black-topped. There could be no soil excavation without adequate dust mitigation measures in place. No loose soil, sand, construction waste could be left uncovered. A water sprinkling system is mandatory, and the measures taken should be prominently displayed at the construction site. Moreover, the grinding and cutting of building materials in open area has been prohibited and no uncovered vehicles carrying construction material and waste would be permitted.*
>
> *The standards are developed by the Central Pollution Control Board as part of the National Ambient Air Quality Standards (NAAQS), and will now empower the organisation to fine companies and agencies for not complying with norms.*

Underlined Concepts

► **Concept of Dust Pollution**

Dust in homes and offices consists of plant pollen, human and animal hairs, textile fibers, paper fibers, minerals from outdoor soil, human skin cells, burnt particles and many other materials. Dust kicked up by vehicles moving on roads make upto 33% air pollution. These all lead to dust pollution.

Natural sources: The natural erosion of soil, sand and rock is the most common source of dust. Pollen, microscopic organisms, plant material and dander (dead skin cells shed by animals) are also part of the dust in the environment.

Man-made dust is common in urban areas. It is created by a range of activities from personal hobbies, such as gardening, to large scale industrial activities, such as electricity generation at power stations.

Dust particles small enough to be inhaled may cause:

⊙ Irritation of the eyes.

⊙ Coughing.

⊙ Sneezing.

⊙ Hayfever.

⊙ Asthma attacks.

► **Particulate Matter**

⊙ Particulate matter is the sum of all solid and liquid particles suspended in air many of which are hazardous. This complex mixture includes both organic and inorganic particles, such as dust, pollen, soot, smoke, and liquid droplets. These particles vary greatly in size, composition, and origin.

⊙ **Particle pollution includes:**

◆ **PM10:** Inhalable particles, with diameters that are generally of 10 micrometers and smaller.

◆ **PM2.5:** Fine inhalable particles, with diameters that are generally of 2.5 micrometers and smaller.

⊙ Particulate matter contains microscopic solids or liquid droplets that are so small that they can be inhaled and cause serious health problems. Particles less than 10 micrometers in diameter pose the greatest problems, because they can get deep into lungs, and some may even get into bloodstream.

► **Central Pollution Control Board**

⊙ The Central Pollution Control Board (CPCB) of India is a statutory organization under the Ministry of Environment, Forest and Climate Change (MoEF&CC). It was established in 1974 under the Water (Prevention and Control of Pollution) Act, 1974.

⊙ CPCB is also entrusted with the powers and functions under the Air (Prevention and Control of Pollution) Act, 1981. It serves as a field formation and also provides technical services to the Ministry of Environment and Forests under the provisions of the Environment (Protection) Act, 1986.

⊙ It co-ordinates the activities of the State Pollution Control Boards by providing technical assistance and guidance and also resolves disputes among them. It is the apex organization in country in the field of pollution control, as a technical wing of MoEF. The board is led by its chairman, who is nominated by the Central Government.

► **National Ambient Air Quality Standards (NAAQS)**

⊙ National Ambient Air Quality Standards are the standards for ambient air quality set by the Central Pollution Control Board (CPCB) that is applicable nationwide. The CPCB has been conferred this power by the Air (Prevention and Control of Pollution) Act, 1981.

Ambient Air Quality Standards in India

⊙ The Air (Prevention and Control of Pollution) Act, 1981, was enacted by the Central Government with the objective of arresting the deterioration of air quality. The Air (Prevention and Control of Pollution) Act, 1981, describes the main functions of the Central Pollution Control Board (CPCB) as follows:

⊙ To advise the Central Government on any matter concerning the improvement of the quality of air and the prevention, control and abatement of air pollution.

⊙ To plan and cause to be executed, a nation-wide programme for the prevention, control and abatement of air pollution.

⊙ To provide technical assistance and guidance to the State Pollution Control Board.

⊙ To carry out and sponsor investigations and research related to prevention, control and abatement of air pollution.

◉ To collect, compile and publish technical and statistical data related to air pollution.

◉ To lay down and annul standards for the quality of air.

The mandate provided to the CPCB under the Air (Prevention and Control of Pollution) Act empowers it to set standards for the quality of air.

➤ **Indian Institute of Tropical Meteorology**

◉ The Indian Institute of Tropical Meteorology (IITM) is a scientific institution based in India for expanding research in Tropical Indian Ocean of the tropics in general with special reference to monsoon meteorology and air sea interaction of India monsoon.

2

Bhutan, Nepal Bangladesh to be Part India Tiger Census

For the first time, India, Nepal and Bangladesh will be conducting the 2018 tiger census in close coordination in their respective territories at the same time.

While India has engaged with Nepal and Bangladesh in previous tiger counts, this is the first time all countries are uniting in arriving at tiger numbers, particularly in regions with shared borders.

The National Tiger Conservation Authority (NTCA), which is responsible for conducting the exercise in India, has proposed major changes including uniformity in counting of big cats in all tiger reserves, national parks and wildlife sanctuaries in the country at the same time.

This will also be the first time when field directors, divisional forest officers and range officers from UP, Uttarakhand, Rajasthan and Himachal Pradesh will be given expert training for the census in all six forest zones of the country in the second week of November. The census will be held under the supervision of NTCA and the Wildlife Institute of India.

Underlined Concepts

➤ **Significance of Tiger**

◉ The tiger is a unique animal which plays a pivotal role in the health and diversity of an ecosystem. It is a top predator which is at the apex of the food chain and keeps the population of wild ungulates in check, thereby maintaining the balance between prey herbivores and the vegetation upon which

they feed. Therefore, the presence of tigers in the forest is an indicator of the well being of the ecosystem. The extinction of this top predator is an indication that its ecosystem is not sufficiently protected, and neither would it exist for long thereafter.

◉ If the tigers go extinct, the entire system would collapse.

➤ **Project Tiger**

  ◉ Project Tiger is a tiger conservation programme launched on 1 April 1973 by the Government of India. The project aims at ensuring a viable population of Bengal tigers in their natural habitats and also to protect them from extinction, and preserving areas of biological importance as a natural heritage forever represented as close as possible the diversity of ecosystems across the tiger's distribution in the country.

➤ **Tiger Census Methodology**

  ◉ **Pugmark technique:** It has been one of the most popular ways of counting tigers. Each tiger is known to leave a distinct pugmark on the ground and these are different from the others in the big cat family. Photographs or plaster casts of these pugmarks are then analysed to assess the tiger numbers.

  Study of pugmarks can provide the following information reliably if analyzed skillfully:

  ◆ Presence of different species in the area of study.

  ◆ Identification of individual animals.

  ◆ Sex ratio and age (young or adult) of large cats.

  ◉ **Installation of cameras:** Cameras could be left in dense forests for several days to capture images of individual tigers. But it is not possible to install cameras at every place that is likely to have tigers, and even in places where they are installed, there is no certainty that the tiger would walk into a camera's range.

  ◉ **Double-sampling method:** This is the new method adopted by Wildlife Institute of India in Tiger Census 2015. The first stage involved ground survey by the forest department. Under this, forest department staff collect evidences of tiger presence such as pugmarks, scat, scratches on trees or other such unmistakable signs of tiger presence.

  The next stage involved camera trapping. Based on the ground surveys locations are chosen for installing cameras. These cameras are heat and motion sensitive. They lie idle till they detect any motion or a sudden change in temperature which means, they capture just about anything that moves — other animals, even birds. All these get captured by the camera.

➤ **M-STrIPES**

  ◉ M-STrIPES, short for Monitoring System for Tigers - Intensive Protection and Ecological Status is a software-based monitoring system launched across Indian tiger reserves by the Indian government's National Tiger Conservation Authority (NTCA) in 2010. The system's objective is to strengthen patrolling and surveillance of the endangered Bengal tiger. Forest guards in tiger reserves are equipped with personal digital assistants and GPS devices to capture data relating to tiger sightings, deaths, wild life crime and ecological observations while patrolling. The software system maps the patrol routes of forest guards, and the resulting data are then analyzed in a geographic information system. This is intended to enhance the effectiveness and spatial coverage of patrols.

➤ **National Tiger Conservation Authority**

  ◉ The National Tiger Conservation Authority (NTCA) was established in December 2005 following a recommendation of the Tiger Task Force, constituted by the Prime Minister of India for reorganised management of Project Tiger and the many Tiger Reserves in India.

➤ **Wildlife Institute of India**

  ◉ The Wildlife Institute of India (WII) is an autonomous institution under the Ministry of Environment Forest and Climate change, Government of India.

  ◉ WII carries out wildlife research in areas of study like Biodiversity, Endangered Species, Wildlife Policy, Wildlife Management, Wildlife Forensics, Spatial Modeling, Eco-development, Habitat Ecology and Climate Change. The institute is based in Dehradun, India.

3
Adapting Better to Climate Change Mitigation Plan

❝ *While there are ongoing efforts to reduce greenhouse gas emissions and restrict global warming to below 2°C or even below 1.5°C,*

projects on adaptation have been funded or implemented in a number of countries, either by individual governments or with the help of external donor funds.

It has been concluded that adaptation projects were not helping the most vulnerable communities, and benefits were simply reaching those who had been assisted earlier. 🗭

Underlined Concepts

➤ **Meaning of Climate Change Mitigation and Adaptation**

Mitigation – reducing climate change – involves reducing the flow of heat-trapping greenhouse gases into the atmosphere, either by reducing sources of these gases (for example, the burning of fossil fuels for electricity, heat or transport) or enhancing the "sinks" that accumulate and store these gases (such as the oceans, forests and soil). The goal of mitigation is to avoid significant human interference with the climate system, and "stabilize greenhouse gas levels in a timeframe sufficient to allow ecosystems to adapt naturally to climate change, ensure that food production is not threatened and to enable economic development to proceed in a sustainable manner".

Adaptation – adapting to life in a changing climate – involves adjusting to actual or expected future climate. The goal is to reduce our vulnerability to the harmful effects of climate change (like sea-level encroachment, more intense extreme weather events or food insecurity). It also encompasses making the most of any potential beneficial opportunities associated with climate change (for example, longer growing seasons or increased yields in some regions).

Sector	Adaptation option/strategy	Underlying policy framework	Key constraints and opportunities to implementation (Normal font = constraints; *italics = opportunities*)
Water	Expanded rainwater harvesting; water storage and conservation techniques; water re-use; desalination; water-use and irrigation efficiency	National water policies and integrated water resources management; water-related hazards management	Financial, human resources and physical barriers; *integrated water resources management; synergies with other sectors*
Agriculture	Adjustment of planting dates and crop variety; crop relocation; improved land management, e.g. erosion control and soil protection through tree planting	R&D policies; institutional reform; land tenure and land reform; training; capacity building; crop insurance; financial incentives, e.g. subsidies and tax credits	Technological and financial constraints; access to new varieties; markets; *longer growing season in higher latitudes; revenues from 'new' products*
Infrastructure/settlement (including coastal zones)	Relocation; seawalls and storm surge barriers; dune reinforcement; land acquisition and creation of marshlands/wetlands as buffer against sea level rise and flooding; protection of existing natural barriers	Standards and regulations that integrate climate change considerations into design; land-use policies; building codes; insurance	Financial and technological barriers; availability of relocation space; *integrated policies and management; synergies with sustainable development goals*
Human health	Heat-health action plans; emergency medical services; improved climate-sensitive disease surveillance and control; safe water and improved sanitation	Public health policies that recognise climate risk; strengthened health services; regional and international cooperation	Limits to human tolerance (vulnerable groups); knowledge limitations; financial capacity; *upgraded health services; improved quality of life*
Tourism	Diversification of tourism attractions and revenues; shifting ski slopes to higher altitudes and glaciers; artificial snow-making	Integrated planning (e.g. carrying capacity; linkages with other sectors); financial incentives, e.g. subsidies and tax credits	Appeal/marketing of new attractions; financial and logistical challenges; potential adverse impact on other sectors (e.g. artificial snow-making may increase energy use); *revenues from 'new' attractions; involvement of wider group of stakeholders*
Transport	Realignment/relocation; design standards and planning for roads, rail and other infrastructure to cope with warming and drainage	Integrating climate change considerations into national transport policy; investment in R&D for special situations, e.g. permafrost areas	Financial and technological barriers; availability of less vulnerable routes; *improved technologies and integration with key sectors (e.g. energy)*
Energy	Strengthening of overhead transmission and distribution infrastructure; underground cabling for utilities; energy efficiency; use of renewable sources; reduced dependence on single sources of energy	National energy policies, regulations, and fiscal and financial incentives to encourage use of alternative sources; incorporating climate change in design standards	Access to viable alternatives; financial and technological barriers; acceptance of new technologies; *stimulation of new technologies; use of local resources*

► **Mitigation and Adaptation Strategy Adopted by India**

  ◉ The adaptation strategy is directed towards sustainable use of land and water resources. The implementation of soil heath cards across the country, watershed and use of water efficient irrigation programme will pave way towards risk proofing agriculture. The coverage of agricultural insurance of crops though climate change disasters is another initiative that comes to the rescue of farmers.

  ◉ The mitigation strategies involves generation of clean and green energy by increasing renewable energy capacity from 35 GW (Giga Watt) to 175 GW by 2022. In addition to the National Solar Mission that targets fivefold increase in solar power to 1,000 GW, it also aims to develop smart power grids to enhance the efficiency of power transmission and distribution across the country. To cap the wastage of energy consumption a nationwide campaign for energy conservation is launched to save 10 per cent energy consumption.

  ◉ While these are macro level policies to address the issue of climate change, the government of India has initiated micro projects that have direct benefits accruing to the poorest groups while contributing to saving energy.

  ◉ Under the Ministry of Renewable Energy, UJALA scheme is launched in which 22.66 crore LED bulbs are distributed that will save Rs. 11,776 crores while reducing carbon emission up to 24 metric tons per year.

  ◉ Similarly, under the Ministry of Petroleum, free LPG connections are given to women holding BPL cards. The Prime Ministers Ujjwala Yojana has already reached 2 crore households and it aims to reach the target of 5 crores households by 2019 with an outlay of Rs. 8,000 crores.

  ◉ This has direct impact on rural women empowering them by providing easy access to clean energy source that improves their health and reducing the pressure on forest resources as well as reducing the carbon emissions.

  ◉ The Swaach Bharat Mission is another strategy under which there are initiatives to create energy from the waste in urban areas. Similarly recycling and reuse of waste water is another initiative under which 23,277 millions litre of water per day is trested in 816 sewage treatment plants across the country.

  ◉ Green India Mission is another initiative to reforest barren land with the annual target of increasing the forest quality and cover in 5 million hectares that will sequester 100 million tons of carbon annually.

4
India State of Forest Report 2017

" *Forest Survey of India (FSI), an organisation under the ministry of Environment and Forest prepares report on the state of India's forest, providing the detailed information about National, State and District wise forest cover assessment. The report is being prepared biennially since 1987; this is the 15th report in the regular series of publication.*

Key Findings of the Report

• *Forest and Tree Cover of the country has increased by 8,021 sq km (1%) as compared to assessment of 2015. The very dense forest has increased by 1.36% as compared to last assessment. This is very heartening as VDF absorbs maximum carbon dioxide from the atmosphere.*

- *The increasing trend of forest and tree cover is largely due to the various national policies aimed at conservation and sustainable management of our forests like Green India Mission, National Agro-Forestry Policy (NAP), REDD Plus Policy, Joint Forest Management (JFM), National Afforestation Programme and funds under Compensatory Afforestation to States.*

- *Successful agro-forestry practices, better conservation of forests, improvement of scrub areas to forest areas, increase in mangrove cover, conservation and protection activities have also led to increase in the forest and tree cover.*

- *Green Highways (Plantations & Maintenance) Policy to develop 1,40,000 km long tree line with plantation along with both sides of national highways will go a long way in enhancing the forest & tree cover.*

- *Top 5 states where maximum forest cover has increased are Andhra Pradesh (2,141 sq kms), Karnataka (1,101 sq kms), Kerala (1,043 sq kms), Odisha (885 sq kms) and Telangana (565 sq kms).*

- *Top 5 states where forest cover has decreased are Mizoram (531 sq km), Nagaland (450 sq km), Arunachal Pradesh (190 sq km), Tripura (164 sq km) and Meghalaya (116 sq km). It is important to mention here that these states are in the North Eastern region of the country where the total forest cover is very high, i.e. more than 70% in each state.*

- *The main reasons for the decrease are - shifting cultivation, other biotic pressures, rotational felling, diversion of forest lands for developmental activities, submergence of forest cover, agriculture expansion and natural disasters.*

Water bodies inside forests have increased over a decade

- *Forests play a vital role in water conservation and improve the water regime in the area.*

- *State Forest Departments besides plantation and protection also undertake steps to improve water conservation through different interventions such as building Check dams, vegetation barriers, percolation ponds, contour trenches etc. under various Central & State Government schemes.*

- *As per the latest assessment, water bodies inside forest cover have increased by 2,647 sq kms during the last decade. Maharashtra (432 sq kms), Gujarat (428 sq kms), Madhya Pradesh (389 sq kms) are top three states showing increase in*

water bodies within forest areas. Overall, almost all the states have shown a positive change in water bodies.

Mangrove cover of the country has shown a positive change

- *As per ISFR 2017, mangrove forests have increased by 181 sq kms. Maharashtra (82 sq kms), Andhra Pradesh (37 sq kms) and Gujarat (33 sq kms) are the top three gainers in terms of mangrove cover. 7 out of the 12 mangrove states have shown an increase in mangrove cover and none of them show any negative change.*

- *Mangrove eco-systems are rich in biodiversity and provide a number of ecological services. They also play a major role in protecting coastal areas from erosion, tidal storms and tsunamis.*

Striving towards achieving NDC Goal

- *India is striving towards achieving its NDC goal of creating additional carbon sink of 2.5 to 3.0 billion tonnes of CO2 equivalent through additional forest and tree cover by 2030.*

- *As per present assessment total carbon stock in forest is estimated to be 7,082 million tonnes. There is an increase of 38 million tonnes in the carbon stock of country as compared to the last assessment.*

Bamboo

- *The extent of bamboo-bearing area in the country has been estimated at 15.69 million ha. In comparison to the last assessment done in 2011, there has been an increase of 1.73 million ha in bamboo area.*

- *The growing stock of the bamboo in forest has been estimated to be 189 million tonnes. There is an increase of 19 million tonnes in the bamboo-growing stock as compared to the last assessment done in 2011. The total annual potential production of timber from trees outside forest has been estimated at 74.51 million cum.*

- *The Government has recently enacted a Bill in the Parliament for taking out bamboo from the tree category, where it is grown outside forest areas. This will encourage people to grow bamboo on private lands, which will be helpful in increasing the livelihood opportunities for farmers and also enhance the green cover and carbon stock of the country.* **"**

Underlined Concepts

➤ **Various Key Terms:**

◉ **Tree cover:** Tree cover is defined as small tree patches and isolated trees outside the recorded forest area which are less than one hectare in extent. These trees are generally found in village woodlots, homestead, urban areas, compact block, along road, canal, railway line etc and as scattered trees.

◉ **Canopy and Canopy Density**: The branches cover and foliage formed by the crown of trees is called Canopy. The percentage area of land covered by the canopy of trees is called Canopy Density.

◉ **Recorded Forest Area and Forest Blank:** The region recorded as 'forest' in the Government document/report (Legal Forest) is called Forest Area or Recorded Forest Area. The empty spaces or the patches within the forest area with little or no trees are called Forest Blank.

◉ **Forest Cover:** All the land area of more than one hectare and with canopy density of more than 10% (both under the government and private) is called Forest Cover.

Types of Forest Cover:

◆ **Scrubs:** The degraded forest land with canopy density of less than 10% is called scrubs.

◆ **Open Forest:** The lands with canopy density of 10-40% are called open forest.

◆ **Moderately Dense Forest (MDF):** The lands with canopy density of 40- 70% are called MDF.

◆ **Very Dense Forest (VDF):** The lands with canopy density of 70% and above are called VDF.

◉ **Carbon Sink:** It is defined as the carbon stored in the ecosystem of the forest especially in living biomass and soil.

◉ **Tree Outside Forest:** It refers to all trees growing outside the recorded forest areas irrespective of size of patch.

5
Solar City Programme

" *The Ministry of New and Renewable Energy under its scheme "Development of Solar Cities" has approved/sanctioned 60 Cities including 13 Pilot and 5 Model Cities.*

The Ministry provides Central Financial support up to Rs.5 lakh for preparing Master Plan for development of green campus in the educational institutions, office complexes, residential and commercial complexes etc.

In 2014, the government had approved the implementation of MNRE's Solar Cities Program. Cities selected for the program are required to submit biannual reports on the details given in their master plans. An evaluation of the program's implementation will be undertaken at the end of the 12th Five-Year Plan, and it will then be decided whether to extend the program further.

In Delhi to promote the use of renewable energy, BSES Rajdhani Power Limited (BRPL), in partnership with United States Agency

for International Development (USAID)-PACE-D and Indo-German Collaboration (GIZ), launched a 'solar city initiative'.

Under this programme, rooftop solar installations will be provided at a single point for the entire apartment complex. **"**

Underlined Concepts

► **Estimated Potential of Renewable Energy**

The increased use of indigenous renewable resources is expected to reduce India's dependence on expensive imported fossil fuels. India has an estimated renewable energy potential of about 1,096 GW from commercially exploitable sources, viz.:

- ⊙ Wind – 302 GW (at 100-meter mast height);

- ⊙ Small Hydro – 21 GW;

- ⊙ Bio-energy – 25 GW; and

- ⊙ Solar Power-750 GW, assuming 3% wasteland.

► **About Solar City Programme**

- ⊙ The Solar City aims at minimum 10% reduction in projected demand of conventional energy at the end of five years, through a combination of enhancing supply from renewable energy sources in the city and energy efficiency measures. The basic aim is to motivate the local Governments for adopting renewable energy technologies and energy efficiency measures. In a Solar City, all types of renewable energy based projects like solar, wind, biomass, small hydro, waste to energy etc. may be installed alongwith possible energy efficiency measures depending on the need and resource availability in the city.

- ⊙ **Objectives of the Solar City Programme**

  - ◆ To enable and empower Urban Local Governments to address energy challenges at City-level.

  - ◆ To provide a framework and support to prepare a Master Plan including assessment of current energy situation, future demand and action plans.

  - ◆ To build capacity in the Urban Local Bodies and create awareness among all sections of civil society.

  - ◆ To involve various stakeholders in the planning process.

  - ◆ To oversee the implementation of sustainable energy options through public-private partnerships.

- ⊙ **Assistance to Urban Local Governments**

  The program assists Urban Local Governments by providing financial assistance and technical help for:

  - ◆ Preparation of a master plan for increasing renewable energy supply and energy efficiency measures in the city.

  - ◆ Setting-up institutional arrangements for the implementation of the master plan.

  - ◆ Awareness generation and capacity building activities.

  - ◆ Implementation of projects as per financial incentives under various programmes of MNRE.

► **About MNRE**

The Ministry is mainly responsible for research and development, intellectual property protection, and international cooperation, promotion, and coordination in renewable energy sources such as wind power, small hydro, bio-gas, and solar power. The broad aim of the ministry is to develop and deploy new and renewable energy for supplementing the energy requirements of India.

► **Solar Rooftop Programme**

- ⊙ Ministry is implementing Grid Connected Rooftop and Small Solar Power Plants Programme which provides for installation of 2100 MW capacity through CFA/incentive in the residential, social, Government/PSU and Institutional sectors.

- ⊙ Under the programme, central financial assistance upto 30% of bench mark is being provided for such projects in Residential, Institutional and Social sectors in General Category States and upto 70% of the benchmark cost in Special Category States. For Government sector, achievement linked incentives are being provided. Subsidy/CFA is not applicable for commercial and industrial establishments in private sector.

⊚ **Advantages of Grid Connected Rooftop Solar System**

- ◆ Electricity generation at the consumption center and hence Savings in transmission and distribution losses.

- ◆ Low gestation time.

- ◆ No requirement of additional land.

- ◆ Improvement of tail end grid voltages and reduction in system congestion with higher self consumption of solar electricity.

- ◆ Local employment generation.

- ◆ Less GHG Emissions: Government has planned to generate 40 GW from rooftop solar systems which will result in abatement of about 60 million tonnes of CO2 per year and will help to fulfill the commitment of India towards its contribution in mitigating the effect of Climate Change.

- ◆ Today, it is possible to generate solar power from the solar rooftop systems at about Rs. 6.50/kWh. This is cheaper than the diesel based electricity generation. It is also cheaper than the cost at which most DISCOMs would make power available to the industrial, commercial and high-end domestic consumers.

Snippets

Snippets related to SCIENCE & TECH.

A. Neknampur Lake (Tulsi and Ashwagandha)

➤ The Floating Treatment Wetland (FTW) was inaugurated on World Wetlands Day (February 2) in Neknampur Lake in Hyderabad to clean and purify the polluted waterbody.

➤ Plants planted on FTW can clean the lake by absorbing nitrates and other pollutants in the water.

➤ FTW is joint effort of NGO Dhruvansh, Hyderabad Metropolitan Development Authority (HMDA), district administration and other organisations.

➤ It measures around 3,000 sq. ft and comprises four layers viz. floatable bamboo at base, styrofoam cubicles above it. The third layer consists of gunny bags and gravels on final layer to support cleaning agents (plants). Cleaning agents planted on FTW include vetivers, cattalis, canna, bulrush, citronella, hibiscus, fountain grass, flowering herbs, tulsi and ashvagandh.

➤ FTW's working is based on soil-less hydroponics technique.

➤ Micro-organisms growing on FTW and plant root systems of cleaning agents break down and consume organic matter in water through microbial decomposition.

➤ The root systems filter out sediments and pollutants, reduce content of these chemicals from waterbody.

About Hydroponics

➤ Hydroponics permits plants to grow only on sunlight and water. There is no need of soil. The roots may be in a nutrient solution only or with gravel, perlite, mineral wool, or coconut husk.

Advantages

➤ No soil is needed.

➤ The water stays in the system and can be reused - thus, a lower water requirement.

➤ It is possible to control the nutrition levels in their entirety - thus, lower nutrition requirements.

➤ No nutrition pollution is released into the environment because of the controlled system.

➤ Stable and high yields.

➤ Pests and diseases are easier to get rid of than in soil because of the container's mobility.

➤ Ease of harvesting.

➤ No pesticide damage.

Disadvantages

Without soil as a buffer, any failure to the hydroponic system leads to rapid plant death. Other disadvantages include pathogen attacks such as damp-off due to Verticillium wilt caused by the high moisture levels associated with hydroponics and over watering of soil based plants. Also, many hydroponic plants require different fertilizers and containment systems.

B. Kaziranga national park

➤ **Why in News?**

◉ Frontline wildlife protection guards in the world-famous Kaziranga National Park are now better equipped with INSAS (Indian Small Arms System) and Ghatak rifles apart from 9-mm pistols and 12-bore pump-action guns. It has been procured under a special scheme for modernisation of arms and equipments for protection of rhino-bearing areas and tiger reserves.

About Kaziranga National Park

◉ Kaziranga National Park is a national park in the Golaghat and Nagaon districts of the state of Assam, India. The sanctuary, hosts two-thirds of the world's great one-horned rhinoceroses, is a World Heritage Site.

◉ Covering an approximate area of 430 square kilometers, Kaziranga was declared as a World Heritage Site by UNESCO for its unique natural environment in the year 1985.

◉ Declared as a Tiger Reserve in 2006.

◉ The park is also a domicile for large breeding inhabitants of Elephants, wild water buffaloes and Swamp Deer.

C. "Green Good Deeds" Campaign

➤ The Union Ministry of Environment, Forests and Climate Change (MoEFCC) has launched Green Good Deeds campaign.

➤ The purpose of the people-oriented campaign is to sensitise people and students, in particular about climate change and global warming.

➤ Under this the government has asked teaching community to join a campaign to sensitise all about climate change and global warming, which is a matter of concern for the world.

➤ The government also underlined need for 'Green Sainiks' on the lines of 'Polio Sainiks' to broaden the 'Green Good Deeds' campaign and take it to the grassroots level. The campaign aims to broaden its base with involvement of teachers, students and other voluntary organisations.

D. New Wildlife Sanctuary at Ghodazari

➤ The Maharashtra Government has approved Ghodazari in Chandrapur district as new wildlife sanctuary in the state.

➤ The sanctuary, located in the North East of Tadoba, will include 159 sq km of Brahmapuri forest. The wildlife sanctuary located North East of Tadoba Tiger Reserve will be carved out in total of 159 sq km area covering Nagbhir, Talodhi and Chimur forest areas. It will include hilly terrain, Saatbahini hills, Ghodazari lake, Muktai Deosthan, waterfall etc. The area is rich with flora and fauna.

➤ This will help in saving the forest, and will also improve tourism in nearly 40 villages in the area.

★★★★★★★★★★

Indian Culture

1
Jallikatuu Plea goes to Constitution Bench

❝ *Recently, the Supreme Court has referred to a Constitution Bench to decide whether the people of Tamil Nadu can preserve Jallikattu as their cultural heritage under Article 29 (1) of the Constitution and demand its protection.*

It is for the first time the Supreme Court is considering the question of granting constitutional protection to Jallikattu as a collective cultural right under Article 29 (1), Article 29(1) is a fundamental right guaranteed under Part III of the Constitution to protect the educational and cultural rights of citizens.

Though commonly used to protect the interests of minorities, Article 29(1) mandates that "any section of the citizens residing in the territory of India or any part there of having a distinct language, script or culture of its own shall have the right to conserve the same". ❞

Underlined Concepts

► **About JALLIKATTU**

  ◉ Jallikattu is a bull taming sport played in Tamil Nadu as a part of Pongal celebrations on Mattu Pongal day.

  ◉ Jallikattu is derived from the words 'calli' (coins) and 'kattu' (tie), which means a bundle of coins is tied to the bull's horns. In older times, the tamer sought to remove this bundle from the animal's head to win gold or silver.

Arguments Favouring Ban of Jallikattu

  ◉ Cruelty is not limited to slaughter but includes unnecessary suffering and torture induced on animals for the purpose of human entertainment.

  ◉ Bulls are deliberately placed in a terrifying situation in which they are forced to run away from a mob of men. The bulls are so frightened that in desperation they jump off barriers which result in fatal injuries. The participants and spectators are also at risk.

  ◉ Bulls are often provoked with alcohol, sticks, knives, sickles and even chilli powder in the eyes.

  ◉ Betting on the bulls is another problem.

Arguments Against Ban of Jallikattu

- Jallikattu is an ancient sport which has continued since colonial times. So it is an ancient tradition which should be preserved and not banned.

- In Jallikattu, the objective is to obtain a pouch which contains the reward coins called 'Jalli' tied to the horns of the bulls. While the players are not allowed to carry weapons of any kind or wear protective gears, the bulls on the other hand will not have nose rings or ropes.

- It is not just cultural event, but it is also aimed at preserving the native cattle breeds. Hence they argue that ban imposed on Jallikattu goes against cultural as well economic interest of the people.

➤ **Disputed Animal Sports in India**

- **Kambala Kannada** is an annual Buffalo Race (he-buffalo) held traditionally under the auspices of local landlords and households or Patel of the village, in coastal Karnataka, India.

- **Bulbul fight-** Every Makar Sankranti, which coincides with Assam's harvest festival Bhogali Bihu, bulbul fights are organised in the Hayagriva-Madhava Temple in Hajo, 30 km from Guwahati.

➤ **Constitution Bench:** It is the name given to the benches of the Supreme Court of India which consist of at least five judges of the court which sit to decide any case "involving a substantial question of law as to the interpretation" of the Constitution of India. This provision has been mandated by Article 145 (3) of the Constitution of India. The Chief Justice of India has the power to constitute a Constitution Bench and refer cases to it.

Snippets

A. Attirampakkam (Lower to Middle Paleolithic Cultures)

◎ Attirampakkam is an open-air Palaeolithic site situated near a meandering tributary stream of the river Kortallaiyar, north-west of Chennai, Tamil Nadu, along the southeast coast of India.

◎ Based on over 7,200 stone artefacts, collected from the archaeological site at Attirampakkam, researchers suggest that hominins in India may have developed a Middle Palaeolithic culture phase around 3,85,000 years ago and continued up to around 1,72,000 years ago.

◎ According to earlier evidences, the Middle Palaeolithic culture in India was dated to around 1,25,000 years ago. The findings could prompt a re-examination of the conventional view of early human migration out of Africa.

Middle Paleolithic Era

◎ The Paleolithic Age in India has been divided into three phases according to the nature of stone tools used by the people and also according to the nature of change in the climate – Early or lower Paleolithic, Middle Paleolithic and Upper Paleolithic.

♦ The Early Paleolithic Age covers the greater part of the Ice Age. Its characteristic tools are hand axes, cleavers and choppers. Such tools have been found in Soan and Sohan river valley (now in Pakistan) and in the Belan Valley in the Mirzapur district of UP. In this period climate became less humid.

♦ Middle Paleolithic Phase is characterized by the use of stone tools made of flakes mainly scrapers, borers and blade like tools. The sites are found in the valleys of Soan, Narmada and Tungabhadra rivers. During this phase, Pithecanthropus or Homo erectus evolved.

♦ In the Upper Paleolithic Phase, the climate became warm and less humid. This stage is marked by burins and scrapers. Such tools have been found in AP, Karnataka, Maharashtra, Bhopal and Chhota Nagpur plateau.

◎ The Middle Palaeolithic is an important cultural phase, associated as it is globally with both modern humans and Neanderthals or other archaic hominins, with complex histories of interaction, cultural transitions and change, and dispersals.

◎ Based on stone tools and fossil studies, the Middle Palaeolithic culture (called the Middle Stone Age in Africa) is associated with modern humans in Africa, while it is associated with both modern humans and Neanderthals in Israel. But in Europe, the Middle Palaeolithic culture is associated only with Neanderthals.

B. Pre Christian era Artefacts

◎ The Archaeological Survey of India (ASI) has discovered pottery pieces, and tools made of stones and bones from a mound in Jalalpur village of Cuttack district.

◎ These are believed to be of the pre-Christian era.

◎ Discoveries of ancient artefacts indicate that a rural settlement might have thrived in that period.

◎ A continuity has been found in the progress of rural culture from a pre-historic era.

◎ Rich materials found from excavation sites indicate that the people had a subsistence economy and they largely relied on agriculture, fishing and hunting.

◎ Discovery of tortoise shell, dolphin and shark teeth and fish bones indicated that the settlement could have been closer to the sea coast.

◎ Some rice grains have also been detected.

◎ The people here could not have lived in isolation and they could have had cultural and trade ties with other settlements in the Prachi Valley that had come up around the Prachi river.

> **Prachi Valley Civilisation**
>
> The Prachi Valley Civilization too flourished on the banks of a river. Even though the Prachi is a small river compared to the other rivers of Odisha, it contains hidden treasures of a magnificent past. The Prachi originates about 10 kms from Bhubaneswar. It is a tributary of the Mahanadi

and flows through the districts of Puri, Khurda, Cuttack and Jagatsinghpur, and the entire region of the river is termed as the Prachi Valley. Originating from the river Kuakhai and covering approximately 60 kilometers, it falls into the sea near Keutajanga village of Kakatpur.

It is considered to be the holiest river of Odisha and is rightly called the Eastern Saraswati. Archaeological evidence reveals that the Prachi Valley Civilization predates both Harappa and Mohenjo-Daro.

Prachi valley civilization has contributed a lot towards amalgamation, assimilation and proliferation of different religious faiths and cults.

C. Mahamastakabhisheka

- President Ram Nath Kovind has inaugurated 88th Mahamastakabhisheka of Lord Gomateshwara by unveiling an idol of Bahubali at Shravanabelagola in Hassan district, Karnataka.

- Mahamasthakabhisheka is the head anointing ceremony, performed once in 12 years, of 57 feet tall monolithic statue of Lord Bahubali Gommateshwara at Shravanabelagola.

- It is one of biggest festivals for Jain community and it honors Lord Bahubali, a revered Jain icon. According to Jain texts, Bahubali had attained liberation from cycle of births and deaths (moksha) at Mount Kailash and is revered as a liberated soul (Siddha) by Jains.

- Bahubali is also called Gommateshwara because of Gommateshwara statue dedicated to him and as lord Kammateswara from an inscription.

- Gommateshwara statue was built by Ganga dynasty minister and commander Chavundaraya in around 981 AD. It is a 57-foot monolith, making it one of largest free-standing statues in the world.

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3 Jewels of Jainism-

1. Right faith
2. Right knowledge
3. Right conduct

The principles of Jainism as preached by Mahavir-

1. Rejected the authority of Vedas & Vedic rituals
2. Did not believe in the existence of god.
3. Believed in karma & the transmigration of soul.
4. Lead great infancies on equality.

D. Separate State Flag Karnataka

- Nine member committee constituted by Karnataka government has recommended separate state flag. It submitted report on designing separate flag for the state and providing a legal standing for it. It has discounted any constitutional or legal hurdles for it.

- The committee has recommended new tricolour having yellow (at top), white (in middle) and red (at bottom) colours, with state's emblem Gandaberunda (a two-headed mythological bird) in centre.

- After getting formal State Cabinet approval, state government will make a formal application to Union Ministry of Home Affairs (MoHA) under whose purview the issue falls to amend the Flag Code 2002. The amendment will add provisions of including Karnataka flag as one of the symbols in the Flag Code.

- At present, there is no provision allowing or disallowing state to have separate flag, even there has been no precedent. Jammu and Kashmir is only state having its own flag as it enjoys special powers under Article 370 of Constitution. It had adopted its own flag in 2015.

Constitutional & Statutory Provisions related to National flag

Art 51A(a)- To abide by the Constitution and respect its ideals and institutions, the National Flag and the National Anthem.

Statutes Governing Use of Flag

- Emblems and Names (Prevention of Improper Use) Act, 1950

- Prevention of Insults to National Honor Act, 1971

- Flag Code of India, 2002

There is no restriction on the display of the National Flag by members of general public, private organisations, educational institutions, etc., except as provided for by the above statutes.

E. Katasraj temple

- Pakistan's Supreme Court is hearing a suo motu case relating to the Katas Raj temple complex in Chakwal district of Punjab province.

- Katas Raj, also known as Qila Katas, is a Hindu pilgrimage site comprising several temples linked to one another by walkways. The pond

is named Katas (Raj temple) after Kataksha, a Sanskrit word meaning 'tearful eyes'. According to a legend, the pond was formed as Lord Shiva wept upon the death of wife Satti. The site is considered the second most sacred for Hindus in Punjab.

- Katas Raj's history reflects Pakistan's evolving attitude towards its Hindu heritage. After Partition, while ancient Buddhist sites were preserved, and promoted, as part of the country's rich history, the Hindu heritage was ignored as the trauma of Partition and the quest for shaping an identity distinct from Hindu India animated the national narrative. During the wars of 1965 and 1971 with India, members of the Hindu and Sikh communities were attacked. In 1992, after the demolition of the Babri Masjid in Ayodhya in India, many Hindu temples in Pakistan were destroyed.

- The temples play a role in the Hindu epic poem, the Mahābhārata, where the temples are traditionally believed to have been the site where the Pandava brothers spent a significant portion of their exile. It is also traditionally believed by Hindus to be the site where the brothers engaged in a riddle contest with the Yakshas, as described in the Yaksha Prashna. Another tradition states that the Hindu deity Krishna laid the foundation of the temple, and established a hand-made shivling in it.

F. Maramon Convention

- The Maramon Convention, one of the largest Christian convention in Asia, is held at Maramon, Pathanamthitta, Kerala, India annually during the month of February on the vast sand-bed of the Pampa River next to the Kozhencherry Bridge. It is organised by Mar Thoma Evangelistic Association, the missionary wing of the Mar Thoma Church.

- The Maramon Convention displays co-operation and union between different sections of Church in Kerala. It fosters an ecumenical outlook. It is also a source of spiritual inspiration and enlightenment for thousands.

★★★★★★★★★★

International Affairs

1
Ashgabat Agreement

" *India recently joined the Ashgabat Agreement, which was instituted in April 2011 to establish an international multimodal transport and transit corridor between Central Asia and the Persian Gulf.* "

Underlined Concepts

➤ **About Ashgabat Agreement**

⊙ The Ashgabat Agreement is a multimodal transport agreement between India, Iran, Kazakhstan, Oman, Turkmenistan and Uzbekistan for creating an international transport and transit corridor facilitating transportation of goods between Central Asia and the Persian Gulf. The agreement came into force in April, 2016.

⊙ Ashgabat Agreement envisages facilitation of transit and transportation of goods between Central Asia and the Persian Gulf. Accession to the Agreement would diversify India's connectivity options with Central Asia and have a positive influence on India's trade and commercial ties with the region.

⊙ **The Connected Projects:**

◆ **North–South Transport Corridor:** For enhanced connectivity, the Ashgabat agreement will also synchronize with the International North–South Transport Corridor encompassing ship, rail including Trans-Caspian railway, and road route for moving freight between India, Russia, Iran, Europe and Central Asia. The route primarily involves moving freight from India, Iran, Azerbaijan and Russia via ship, rail and road.

◆ **Eurasian Railway Connectivity:** This agreement will also leverage the Turkmenistan-Afghanistan-Tajikistan (TAT) rail line, Afghanistan-Turkmenistan-Azerbaijan-Georgia-Turkey transportation corridor, Iran-Turkmenistan-Kazakhstan railroad and TRACECA (Transport Corridor Europe-Caucasus-Asia) comprising the EU and 14 Eastern European, South Caucasus and Central Asian states.

➤ **Benefits for India**

⊙ Its accession to the Ashgabat Agreement would enable India to utilise the existing transport and transit corridor to facilitate trade and commercial interactions with the Eurasian region. Further, this would synchronise with India's efforts to implement the INSTC for enhanced connectivity.

⊙ Joining the Ashgabat Agreement would make it easier for India to reach out to Central Asia which houses strategic and high-value minerals including uranium, copper, titanium, ferroalloys, yellow phosphorus, iron ore, rolled metal, propane, butane, zinc, coking coal, etc. Kazakhstan alone wants to increase its non-oil exports by 50 per cent by 2025. And, without direct transport access, India cannot procure the Central Asian riches needed for its manufacturing economy.

➤ India's current trade with Central Asia is minimal at a little over $1 billion and is not growing much. The volume of trade with the region accounts for a mere 0.11 per cent of India's total trade. And, India's share in Central Asia's total trade is only about one per cent. Only by improving transport connectivity can the prospect of commercial ties with the region be enhanced.

2
Maldives Declare Emergency

The Maldives government had announced the 15-day state of emergency after a deadlock on the Supreme Court's landmark ruling. In addition to the release of nine political prisoners, the verdict ordered the reinstatement of 12 legislators that were unseated for defecting from the ruling party and annulled the apex court's previous ban on floor-crossing.

Maldives President Abdulla Yameen said, in his first public statement after clamping emergency and jailing the country's Chief Justice, that he had taken the move as the top judge and another Supreme Court judges were involved in corruption and also alleged a "coup" by them - in directly disobeying his orders, including making moves to impeach him.

Parliament in the Maldives has approved a 30-day extension of a state of emergency sought by President Abdulla Yameen.

The move gives sweeping powers to security forces to arrest and detain suspects as Yameen refuses to comply with a Supreme Court order to release political prisoners.

Detail of the sequence of events which led to the declaration of the state of emergency:

• *The Supreme Court's landmark order to free nine prominent "political leaders". It came as an "incredulous shock" to the government as they included prisoners convicted of major offences such as terrorism and corruption.*

• *Cabinet ministers question authenticity of the court order. Yameen fires the police commissioner.*

- *Attorney general challenges the Supreme Court, saying authorities will not obey a potential order to impeach Yameen.*

- *However, the Supreme Court had refused to accept the legal concerns filed by the Prosecutor General and Attorney General.*

- *The top court had also in a recent ruling decided that the judicial watchdog, Judicial Commission Services (JSC), cannot investigate the court's justices. Thus the JSC could also not convene.*

- *Yameen declares a state of emergency for 15 days. His chief legal advisor announces the suspension of 20 constitutional rights, the Criminal Procedures Act and parts of the Judges Act.* **"**

Underlined Concepts

➤ **About Maldives**

◉ The Maldives archipelago is located atop the Chagos-Maldives-Laccadive Ridge, a vast submarine mountain range in the Indian Ocean, which also forms a terrestrial eco-region, together with the Chagos and the Lakshadweep.

◉ Maldives has more than 1,190 low-lying coral islands that are gathered into 26 atolls, which can be seen in 200 inhabited islands of Maldives along with 80 islands that have tourist resorts. Archipelago enjoy a wonderful location along and across the main sea lines of the Indian Ocean. Maldives' atolls are actually a part of a larger structure called the Laccadives-Chagos Ridge, expanding over 2,000 km. 99% of Maldives is water.

◉ The ground level of Maldives Island on an average is at 1.5 meters, that is 4 feet 11 inches, and the highest point is at a particular spot in the Villingili Island, that is at 2.3 meters- 7 feet 7 inches, which is the lowest on the earth.

◉ The Maldives is a founding member of the South Asian Association for Regional Cooperation (SAARC). It is also a member of the United Nations, the Organization of Islamic Cooperation, and the Non Aligned Movement.

◉ The World Bank classifies the Maldives as having an upper middle income economy.

◉ The Maldives has a tropical monsoon climate (Am category) under the Köppen climate classification, which is affected by the large landmass of South Asia to the north. The presence of this landmass causes differential heating of land and water. These factors set off a rush of moisture-rich air from the Indian Ocean over South Asia, resulting in the southwest monsoon.

➤ **Emergency Provisions**

◉ The proclamation of Emergency does not preclude citizens' right to free-speech and freedom of expression, including media rights, at least on paper, but it does prevent Parliament from 'impeaching' President Yameen and Vice-President Abdulla Jihad. Unlike a simple majority required to remove the Speaker and any or all of the Cabinet ministers, a Presidential impeachment requires a two-thirds majority, or 57 MPs in an 85-seat Parliament.

Snippets

Snippets related to International Affairs

A. Winter Olympics Facts

➤ Once every four years since 1924, the Winter Olympics have been held in various cities around the globe. (The Summer Olympics has been in existence since 1896).

➤ This is the first time South Korea has hosted the Winter Olympics. The 1988 Summer Olympics were held in Seoul, South Korea.

➤ Soohorang is the official mascot of the 2018 Winter Olympics.

B. India gets Access to Strategic Oman Port

➤ India has secured access to key strategic Port of Duqm in Oman in Arabian sea for military use and logistical support.This was one of the key takeaways of Prime Minister Narendra Modi's visit to Oman.

➤ During this visit, annexure to Memorandum of Understanding (MoU) on Military Cooperation was signed between the two countries. Following this pact, the services of Duqm port and dry dock will be available for maintenance of Indian military vessels.

➤ The Port of Duqm is strategically located on south-eastern seaboard of Oman, overlooking Arabian Sea and Indian Ocean. It is straddled along critical sea lanes in Arabian Sea and Gulf of Aden. It is located in close proximity to Chabahar port in Iran (being developed by India to open a trade route to Afghanistan and Central Asia, bypassing Pakistan) and Gwadar Port in Pakistan which is developed by China as part of CPEC (China–Pakistan Economic Corridor).

➤ The port also has special economic zone, where about $1.8 billion investments are being made by Indian companies.

C. USA Sanctions on China

➤ The United States has slapped new sanctions on Chinese and North Korean firms and individuals supporting the Pyongyang regime of Kim Jong-un and his nuclear weapons programme.

➤ The move comes as the US seeks to choke the flow of goods and materials crucial to North Korea's economy such as oil, electronics and metals, and pressurize Kim to halt the development of nuclear weapons that threaten the region and potentially the US mainland.

➤ The US government is targeting illicit actors in China, Russia, and elsewhere who are working on behalf of North Korean financial networks, and calling for their expulsion from the territories where they reside.

➤ Five North Korean shipping companies and six vessels were also blacklisted, as the US targets efforts by Pyongyang to obtain needed materials like oil and coal via ship to ship transfers from foreign vessels on the high seas.

➤ The sanctions also included the North Korean Ministry of Crude Oil Industry, which could affect any foreign oil supplier doing business with the ministry.

➤ The new US sanctions target 10 representatives of Korea Ryonbong General Corporation, a North Korean trading company that sources military components, who are based in China, Russia and Georgia.

D. Sherin's Law

➤ US state of Texas has made it a felony to leave a child alone at home.

➤ Felony - A crime regarded in the US and many other judicial systems as more serious than a misdemeanour.

★★★★★★★★★★

Miscellaneous News

A. Assam, NBCC Sign MoU for Twin Tower Trade Centre in Guwahati

➤ The Assam government signed a MoU with National Building Construction Corporation (India) Ltd. for setting up a Twin Tower Trade Centre in Guwahati at projected cost of Rs. 1.950 crore in self-financing mode.

➤ The Twin Tower Trade centre has enacted a pro-active Act East Policy to elevate and harness the strengths of North-East India and reduce the isolation of the region by improving all round connectivity and civic infrastructure. This trade centre once established and made operational, will connect N-E with South East Nations and being a major trading hub thereby will increase economic inter linkages.

➤ The headquarters of NBCC is located in New Delhi.

National Building Construction Corporation

➤ NBCC (India) Limited (formerly National Buildings Construction Corporation Limited), a Navratna organisation under category I, is a Central Public Sector undertaking which trades publicly in the market and is largely owned by Government of India. It engages in the Real Estate Development & Construction business and also provides Project Management Consultancy.

➤ Headquartered in New Delhi, NBCC has 10 regional/zonal offices across India. The projects undertaken by the company are spread across 23 states and 1 Union Territory in India. In addition, NBCC has also undertaken overseas projects in countries like Iraq, Libya, Nepal, Mauritius, Turkey, Botswana, Republic of Maldives, Republic of Yemen et al.

➤ NBCC is also designated as the implementing agency for executing projects under Pradhan Mantri Gram Sadak Yojna (PMGSY), Solid Waste Management (SWM) and developmental work in North Eastern Region.

B. Geospatial World Excellence Award-2018

➤ Odisha Government has won 'Geospatial World Excellence Award-2018' for successful IT application for tracking of mineral production, dispatch and value accrued on real-time basis through its i3MS web-based software.

➤ The award was presented at the Geospatial World Forum Meeting held at Hyderabad, Telangana.

➤ i3MS is GPS-linked web-based software designed by scientists of Odisha Space Applications Centre (ORSAC), Bhubaneswar. This system has enabled for first time in India to fix GPS devices on large number of moving objects in the mining sector.

C. Places in News

➤ **Bomja**

  ◎ Villagers in Bomja in Arunachal Pradesh's Tawang district have turned crorepatis five years after the Army acquired their land to set up key location plan units for the Tawang Garrison.

  ◎ The Army's presence in Arunachal Pradesh, specifically the western section leading to Tawang, had been scaled up since the Chinese aggression in 1962. This led to a land acquisition spree.

  ◎ These villages are close to Sela, a mountain pass at 13,700 feet, where Rifleman Jaswant Singh Rawat of 4 Garhwal Rifles single-handedly kept 300 Chinese soldiers at bay during an attack in the 1962 war before being killed. Rifleman Rawat is worshipped as a soldiers' deity in a temple at Jaswantgarh beyond Sela on the road to Tawang.

➤ **Galapogas**

  ◎ The Galápagos Islands is a volcanic archipelago in the Pacific Ocean.

  ◎ It's considered one of the world's foremost destinations for wildlife-viewing. A province of Ecuador, it lies about 1,000 km off its coast. Its

isolated terrain shelters a diversity of plant and animal species, many found nowhere else.

- Charles Darwin visited in 1835, and his observation of Galápagos' species later inspired his theory of evolution.

- The flow of tourists has risen to 2,45,000 per year and authorities say that's pretty much the limit: the maximum the islands can withstand without harming their various ecosystems.

- Preyed on in the past by pirates and whaling ships, the Galapagos these days confront illegal fishing, the effects of climate change and the arrival of intrusive species such as dogs, cats and rats brought over from the mainland.

- In 1978 UNESCO classified the archipelago as a World Heritage Site.

► **River Pampa**

- Researchers have discovered new species of edible freshwater fish in Pampa river in Pathanamthitta, Kerala. It has been named as Labeo filiferus (L.filiferus) and belongs to Labeo genus.

- *Facts about River Pampa*

  ◆ The Pamba River (also called Pampa river) is the third longest river in the South Indian state of Kerala after Periyar and Bharathappuzha and the longest river in the erstwhile princely state of Travancore.

  ◆ Sabarimala temple dedicated to Lord Ayyappa is located on the banks of the river Pamba. In old Hindu Epics, Pampa was Lord Brahma's daughter, who was later married to Lord Shiva.

  ◆ The river is also known as 'Dakshina Bhageerathi' and 'River Baris'.

  ◆ Recently, the Pampa Parirakshana Samiti (PPS) and its founder general secretary N.K. Sukumaran Nair have received the maiden Paristhithi Mithram Environmental Awards of the Kerela State government.

  ◆ The Pamba is considered as the Dakshina Ganga (Southern Ganges) due to its association with Kerala's Largest Pilgrim Centre - Sabarimala.

D. Personalities in News

► **Asma Jahangir**

- Asma Jilani Jahangir was a Pakistani human rights lawyer and social activist who co-founded and chaired the Human Rights Commission of Pakistan. She was known for playing a prominent role in the Lawyers'

Movement and served as the United Nations Special Rapporteur on Freedom of Religion or Belief and as a trustee at the International Crisis Group.

- Jahangir was the recipient of several awards including the 2014 Right Livelihood Award (along with Edward Snowden), 2010 Freedom Award, Hilal-i-Imtiaz in 2010, Sitara-i-Imtiaz, Ramon Magsaysay Award, 1995 Martin Ennals Award for Human Rights Defenders, and the UNESCO/Bilbao Prize for the Promotion of a Culture of Human Rights. She was awarded an Officier de la Légion d'honneur by France.

- Her prominent writings include, "The Hudood Ordinance: A Divine Sanction and Children of a Lesser God".

► **Demetrios Galanos**

- The International Conference on 'Demetrios Galanos and His Legacy' was inaugurated at Indira Gandhi National Centre for the Arts (IGNCA) in New Delhi.

- Demetrios Galanos was the earliest recorded Greek Indologist. His translations of Sanskrit texts into Greek made knowledge of the philosophical and religious ideas of India available to many Europeans.

- Demetrios Galanos (1760–1833) has a special place among the foreign scholars who came to India to study in the nineteenth century. He was the only one who stayed in India for 47 years, for the first seven years when he lived in Calcutta, and for 40 years in the city of Varanasi. He translated the Bhagvad Gita into Greek among many other Sanskrit texts. His major contribution was the compilation of a Sanskrit-English-Greek lexicon of about 9,000 words.

► **Atal Doctrine**

- A.B. Vajpayee was the Prime Minster of India between 1998 and 2004. His approach towards addressing the Kashmir issue came to be called Vajpayee Doctrine. It also included improving relations with neighbouring Pakistan.

- *The Vajpayee Doctrine*

  ◆ The Vajpayee doctrine on Kashmir called for peace, progress and prosperity in the Valley by imbibing the spirit of Insaniyat (Humanity) , Jamhuriyat (Democracy) and Kashmiriyat (Identity of the people of Kashmir).

  ◆ The doctrine was universally acclaimed by all segments across the political spectrum in

- the state, including the extremist elements in the Valley.

- Vajpayee's mantra included resolving all outstanding issues with Pakistan, including that of Jammu and Kashmir issue in a peaceful manner through bilateral dialogue without any third party intervention.

- He carried his message of peace to Pakistan during a bus journey to Lahore on February 19, 1999.

- Vajpayee made it a point to visit to Minar-e-Pakistan where he re-affirmed India's commitment to the existence of Pakistan.

- He reached out to the people of Pakistan in a passionate speech at the governor's house in Lahore, telecasted live both in Pakistan & India.

- Vajpayee extended a hand of friendship on the basis of reciprocity and mutual trust and called for collective fight against poverty in the Indian subcontinent devoid of terrorism and drug-trafficking.

- Vajpayee also signed a Lahore Declaration with Prime Minister Nawaz Sharif on February 21, 1999. As part of the declaration, Pakistan agreed to resolve all bilateral issues between the two countries, including the issue of Jammu and Kashmir in a peaceful manner and through dialogue and to promote people to people contact.

- The Delhi-Lahore Bus Service Sada-e-Sarhad (Call of the Frontier) was launched as a symbol of the efforts of the Vajpayee government to promote peaceful and friendly relations with Pakistan on the basis of reciprocity.

- Vajpayee did not allow the bus service to be terminated even when Pakistan army chief Parvez Musharraf launched an attack in Kargil between May and July, 1999, which the Indian armed forces successfully repulsed forcing the Pakistani army to vacate the occupied hills in the region.

- However, the service had to be suspended during the heightened tension between the two neighbours in the aftermath of the Pakistan-ISI sponsored terrorist attack on the Indian Parliament on December 13, 2001. It was restored on July 16, 2003 when Pakistan assured the Indian government as well as the international community that Islamabad would not allow its territory to be used for terrorists' activities.

- All the setbacks to his dialogue initiatives, including Kargil conflict, hijacking of an Indian Airlines plane to Kandhar and terrorist attack on the Indian Parliament, notwithstanding, Vajpayee did not allow the peace process to derail despite serious provocations by the Pakistan army and the ISI.

★★★★★★★★★★

GS SCORE

IAS 2018

Prelims
TEST SERIES 2018

(🏫 CLASSROOM) & (💻 ONLINE)

Programme 1

Sectional + Mock

Total 18 Tests

- ➤ 6 GS Sectional, 3 CSAT Sectional, 5 Current Affairs & 4 Mock Test

  Value Addition Material

- ➤ All India Ranking

Batch Starts: **24**th **March, 2018**

Test Timings: 9:00 AM to 11:00 AM

Programme 2

Mock Test

Total 12 Tests

- ➤ 8 Mock Tests for GS and 4 Mock Tests for CSAT

- ➤ Value Addition Material

- ➤ All India Ranking

Batch Starts: **31**st **March, 2018**

Test Timings: 9:00 AM to 11:00 AM