



CURRENT CONNECT MAY - 18

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

In News

The Cabinet Committee on Economic Affairs recently approved the proposal for renaming and restructuring of Multi-sectoral Development Programme (MsDP) as Pradhan Mantri Jan Vikas Karyakram (PMJVK).

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PMJVK

- Minority communities fail to cope up with the overall development as they do not have the financial capability to attain proper educational, skill developmental and health facilities. With the help of this program, the central government will offer financial assistance to candidates, belonging to these categories, to get a better footing.
- PMJVK will be implemented in Minority Concentration District Headquarters, Minority Concentration Block(MCBs), Minority Concentration Towns(MCTs) falling in 308 districts of 32 States/UTs.
- It will also be implemented in Backward Clusters of Minority Concentration Villages (CoMCV) which will be identified on proposal of States/UTs as per criteria of the scheme.

PEPPER IT WITH
NCBC, NCM, TRIFED

Key features of the scheme

- Offer better social and financial facilities – The main objective of this scheme is to offer better social as well as financial foundation for the minority communities. It will develop health, medical and job opportunities for them.
- Reduce national average gap – The national gap between the rest of the nation and minority communities is significant. The scheme will lessen this gap significantly.
- Speedy creation and implementation of scheme – Another interesting feature of this scheme is it will not only design developmental programs but will also take steps to implement them faster.
- Use of resources for minority welfare – PM also announced that 80% of all available resources will go into the development of people belonging to minority communities. Apart from this, anything between 33% and 40% will be utilized for development of women reform schemes.
- Identification of potential areas – For offering speedy reform for the minority communities, it is necessary to identify the areas. Thus, the central government will take **necessary steps to pin point “Cluster of villages” and “Minority Concentration Towns.”**
- Spread of the scheme – Till now, around 196 districts were brought under the previous scheme. With the revamping of this program, PM announced that 308 more districts will be brought under the umbrella.

Beneficiaries

The programme aims to address development deficits in the identified minority concentration areas. The identification of minority concentration areas has been done on the basis of presence of substantial population of notified Minority Communities based on Census, 2011. The inclusion of Minority Concentration District Headquarters along with the Minority Concentration Towns having population more than 25,000, Minority Concentration Blocks and Cluster of Villages as per Census, 2011 data, will extend the coverage of population of minority communities.

The PMJVK would now cover five more States/UTs namely Himachal Pradesh, Tamil Nadu, Nagaland, Goa and Pondicherry.

Minority Concentration Areas of 61 districts out of 115 Aspirational districts have been covered under PMJVK.

Criteria for selection

1. An area that had around 50% minority people used to be marked as a potential area. To bring in more areas under this scheme, the central government has lowered this percentage to 25%.
2. The authority was implementing the scheme in those areas which were socially, economically and facility wise backward. In the meeting the PM announced that from now on any area that is identified as lacks any of these aspects will be assimilated in this yojana.

Budget

The Expenditure Finance Committee, Department of Expenditure has recommended for the continuation of the programme as PMJVK at the cost of Rs. 3,972 crore.

Impact:

1. The restructured programme would provide better socio-economic infrastructure facilities to the minority communities particularly in the field of education, health & skill development as compared to the present situation, which would further lead to lessening of the gap between the national average and the minority communities with regard to backwardness parameters. The flexibility introduced in the programme will enable addressing important issues that would result in speedier implementation leading to greater inclusiveness of the minority communities.
2. The criteria for identification of Minority Concentration Towns and Clusters of Villages have been rationalized by lowering the population percentage criteria of Minority Communities and fulfillment of backwardness parameters in the following manners-
3. Earlier only those Towns which were found backward in terms of both in Basic Amenities and Socio-economic parameters were taken up as MCTs. Now, the Towns which were found backward in either or both of the criteria have been taken up as MCT.
4. Earlier only those Cluster of Villages which were having at-least 50% population of Minority Community were taken. Now the population criterion has been lowered to 25%.
5. These rationalization of criteria would facilitate the inclusive growth of communities and social harmony,

Multi-sectoral Development Programme (MsDP) was launched in the year 2008-09 in 90 identified Minority Concentration Districts (MCDs) having at least 25% minority population and below national average with respect to one or both of the backwardness parameters with the objective of developing assets for socio-economic and basic amenities. MsDP has been identified as one of the Core of the Core Schemes under National Development Agenda in the Report of the Sub-Group of Chief Ministers on Rationalization of Centrally Sponsored Schemes, which was constituted by NITI Aayog.

Indian Petroleum & Explosives Safety Service (IPESS)

In News

The Union Cabinet has approved the Cadre review and formation of Group 'A' service of the technical cadre of Petroleum & Safety Organization (PESO) in the name of Indian Petroleum & Explosives Safety Service (IPESS).

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Significance

To remove acute stagnation in all grades and uplift the morale of the workforce and enhance its performance, it has been decided to form **Group 'A' Service of the technical cadre of PESO in the name of IPESS** and restructure the newly-formed service. The measure will enhance the capacity and efficiency of the organization and it will also **enhance career progression of its Group 'A' officers.**

PEPPER IT WITH
DIPP, Guideline for
firecracker by PESO

About PESO

- PESO is a subordinate office under Department of Industrial Policy & Promotion (DIPP).
- The organization is serving the nation since 1898 as a nodal agency for regulating safety of substances such as explosives, compressed gases and petroleum.
- The organization deals with wide range of subjects related to explosives, petroleum, compressed gases, pressure vessels, gas cylinders, cross-country pipelines, Liquefied Natural Gas (LNG), Compressed Natural Gas (CNG), Auto Liquefied Petroleum Gas (Auto LPG) etc.
- Implementation of safety aspects related to manufacture, possession, use, sale, transport, import and export of explosives including compressed gases and storage, transport, production, refining and blending of petroleum as envisaged under the Explosives Act, 1884 and Petroleum Act, 1934 and various rules framed there under with the objective of prevention of accidents.
- Constantly upgrading competence, awareness skills and motivation of the personnel working in the organization to bring about improvement in the physical efficiency and creating a well-trained work force.

DNA profiling Bill

In News

The government informed the Supreme Court that it will introduce a DNA profiling Bill in the Monsoon Session of the Parliament to address the issue of thousands of unclaimed dead bodies reported annually and for the maintenance of DNA profiles of the dead bodies, before their disposal, to aid in their identification by family members.

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Human DNA Profiling Bill, 2015

The Centre's Human DNA Profiling Bill, 2015, was prepared by the Department of Biotechnology and the Hyderabad-based Centre for DNA-Fingerprinting and Diagnostics. Several organisations and individuals, however, raised concerns that the bill gave sweeping powers to government to mine the database and use it for purposes beyond just solving crime.

Key recommendations in ne DNA Profiling Bill to be tabled

1. Volunteer index and future indices removed
2. Data from DNA testing to be restricted
3. Specified offence changed to seven years/death
4. Discretionary powers of database manager removed.
5. collection of samples from private parts of human body for DNA profiling and data preservation with the approval of a regulatory body
6. If a foreign country requests DNA profiling, the DNA Bank will coordinate through CBI or a concerned department.

The definition of 'specified offence', that is offences for which DNA is to be collected and stored, has been changed to any offence punishable with death or with imprisonment exceeding seven years

Law commission viewpoint

- Law Commission of India, in its 271st report, prepared the draft Bill named The DNA Based Technology (Use and Regulation) Bill, 2017 after examining various judicial pronouncements and constitutional provisions.
- It had flagged that privacy concerns and the ethics involved in this scientific collection of data were very high. The Commission said the procedure for DNA profiling, if given statutory recognition, should be done legitimately as per constitutional provisions.

PEPPER IT WITH
CISPR 22, Crispr,
Jumping Gene

DNA Based Technology (Use and Regulation) Bill, 2017

The draft DNA Based Technology (Use and Regulation) Bill, 2017 permits processing of DNA samples and puts in place safeguards against the misuse of data. According to PRS Legislative Research, the key features of the draft Bill include:

1. Only for identification: DNA profiling would be undertaken exclusively for identification of a person and would not be used to extract any other information. Further, no bodily substances will be taken from a person unless consent is given for the same;
2. DNA Profiling Board: A DNA Profiling Board will be constituted as a statutory body which will be responsible for supervising, monitoring, inspecting and assessing DNA laboratories;
3. DNA Data Bank: The Bill proposes a National DNA Data Bank and Regional DNA Data Banks (for the states). The data banks will be responsible for storing DNA profiles received from the accredited laboratories;
4. Penalties: The violators of the provisions would be liable for imprisonment which may extend up to three years and includes a fine.
5. Functions of the Board: The Board shall also be responsible for supervising, monitoring, inspecting and assessing the laboratories. The Board will frame guidelines for training of the police and other investigating agencies dealing with DNA-related matters. Advising on all ethical and human rights issues relating to DNA testing in consonance with international guidelines will be another function of the Board. It will recommend research and development activities in DNA testing and related issues, etc.
6. Security: DNA profiling would be undertaken exclusively for identification of a person and would not be used to extract any other information

Significance

- DNA technology is being increasingly relied upon in investigations of crime, identification of unidentified bodies, or in determining parentage.
- DNA profiling was indeed used for disaster victim identification, investigation of crimes, identification of missing persons and human remains and for medical research purposes.
- A deeper public awareness on the benefits and risks of very large DNA collections need to be built and common ethical and privacy standards for the development and governance of DNA **databases need to be adopted where the citizen’s perspectives are taken into consideration.**

Indian Pharmacopoeia Commission

In News

In a step that would spare animals from suffering due to drug experiments, the Indian Pharmacopoeia Commission has approved modern, animal-free tests for drug manufacturers.

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Key Highlights

In the 2018 edition of Indian Pharmacopoeia, that provides guidelines on tests for drugs manufactured and marketed in India, the IPC has replaced the pyrogen test carried out on rabbits and the abnormal toxicity test carried out on guinea pigs and mice with tests that can be done in test tubes.

The *pyrogen test* is carried out to check impurity of substance that can cause adverse side-effects. For the test, the drug is injected into a rabbit and the animal is closely observed for feverish symptoms.

The *abnormal toxicity* test is carried out to check potential hazardous biological contamination in vaccine formulations.

With the Indian Pharmacopoeia Commission’s new mandate, the pyrogen test will be replaced

by a bacterial endotoxin test or a monocyte activation test which can be carried out in test tubes.

About IPC

- The Indian Pharmacopoeia Commission (IPC) is an Autonomous Body, set up under the Ministry of Health & Family Welfare.
- The goal of IPC is to promote public health by establishing and disseminating officially recognized standards quality for and authoritative information about the use of medicines and health care technologies by health care professionals, patients and consumers.
- It promotes rational use of medicines through generic prescriptions. The IPC is on path of evolving as a modern scientific institution.
- As per the Drugs and Cosmetics Act 1940, the Indian Pharmacopoeia is the legally recognized book of Standards for the quality of drug substances and preparations included therein for India

Maintenance and Welfare of Parents and Senior Citizen Draft Bill, 2018

In News

The Ministry of Social Justice and Empowerment, which is reviewing the Maintenance and Welfare of Parents and Senior Citizens Act, 2007, to expand its scope and provide for more stringent penalties.

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Key Highlights of Bill

1. The Bill expands the definition of children, which currently refers to only biological children and grandchildren, to include daughter-in-law and son-in-law and also adopted/step-children.
2. It extends the definition of maintenance beyond provision of food, clothing, housing, health care to **include “safety and security” of the parent.** Senior citizens can approach a Maintenance Tribunal in case their children neglect or refuse to maintain them.
3. Tribunal can order the children or, in case the person is childless, the relative to pay a monthly maintenance to the senior citizen. The amount would be decided by taking into account the standard of living of the senior citizen and the financial situation of both the parties.
4. The Act currently provides an upper limit of Rs 10,000 per month as maintenance amount. Official sources said the Bill proposes to make this amount variable as people who earn more, can afford to shell out a higher amount for the upkeep of their parents.
5. The Bill, if passed, will require the government to establish and run at least one Senior Citizen Care Home in every district in the country.
6. The Bill enhances the jail term for those found abandoning or abusing their parents, 60 years or older, to six months from the existing three months.
7. The Bill also introduces a punitive measure of up to one-month imprisonment in case the monthly allowance remains unpaid.
8. Bill states that if parents transfer property to their children on the condition that they take **care of them, and this clause is breached, the transfer of property will be deemed to be “made by fraud or coercion or under undue influence”** and a tribunal can order it to be transferred back to the parent.

PEPPER IT WITH
IGNOAPS, Annapurna
Scheme, IGNWPS, APY

Way Ahead

Ageing is a natural process, which inevitably occurs in human life cycle. The senior citizens constitute a precious reservoir of such human resource as is gifted with knowledge of various sorts, varied experiences and deep insights. Rather than putting them aside, physically (and mentally), to

be cared for separately, they should be integrated into the lives of communities where they can make a substantial contribution to improving social conditions.

The government should provide fairer opportunities to its senior citizens underlying with constitutional protections. Older Persons should be able to pursue opportunities for the full development of their potential and have access to educational, cultural, spiritual and recreational resources of society. Older Persons should be able to live in dignity and security and should be free from exploitation and mental and physical abuse.

Directorate General of Trade Remedies (DGTR)

In News

The Government of India carried out an Amendment to the Government of India (Allocation of Business) Rules, 1961 substituting “Directorate General of Trade Remedies” in place of “Directorate General of Anti-Dumping and Allied Duties” in Department of Commerce.

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Key Highlights

1. The DGTR will function as an attached office of Department of Commerce. The recommendation of DGTR for imposition of Anti-dumping, countervailing & Safeguard duties would be considered by the Department of Revenue.
2. The DGTR will be a professionally integrated organisation with multi-spectrum skill sets emanating from officers drawn from different services and specialisations.
3. The DGTR will also bring in substantial reduction of the time taken to provide relief to the domestic industry. The newly constituted body is in consonance with the goal of Minimum Government Maximum Governance of the Prime Minister of India.

DGTR will be the apex national authority for all trade remedial measures including anti-dumping, countervailing duties and safeguard measures. It comes under aegis of Ministry of Commerce.

Need of unified umbrella authority

The trade defence mechanism in India lacks optimality and takes more than a year to complete proceedings in cases pertaining to unfair trade practices.

Currently, the working institution and their functions before amendment:

1. Directorate General of Anti-dumping and Allied Duties (DGAD) deals with anti-dumping and CVD cases,
2. Directorate General of Safeguards (DGS) deals with safeguard measures and
3. DGFT deals with quantitative restriction (QR) safeguards.

DGTR after proposed amendment:

1. The DGTR will bring DGAD, DGS and Safeguards (QR) functions of DGFT into its fold by merging them into one single national entity. DGTR will deal with Anti-dumping, CVD and Safeguard measures.
2. The creation of DGTR will provide a level playing field to the domestic industry. In the last three years, India initiated more than 130 anti-dumping/countervailing duty/safeguard cases to deal with the rising incidences of unfair trade practices and to provide a level playing field to the domestic industry.
3. An Organization to provide Trade Remedy Measures to the domestic industry for effectively competing in the domestic market against dumped goods and articles, by exporting

companies and firms of any country, from any part of the world, under Customs Act and WTO guidelines through an institutional framework.

Significance of move

This has paved way for creation of an integrated single umbrella National Authority to be called the Directorate General of Trade Remedies (DGTR) for providing comprehensive and swift trade defence mechanism in India. The amendment of Allocation of Business Rules has also mandated Department of Commerce with work pertaining to recommendation of Safeguard measures.

Domestic Violence Act for Divorced women too

In News

The Supreme Court has upheld that Domestic Violence Act—meant to punish men who abuse women in a relationship—extends to all man-woman relationships, and also protects divorced women from their former husbands.

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Background

The apex court has upheld Rajasthan High Court's interpretation that 'domestic relationship' is not confined to the "relationship as husband and wife or a relationship in the nature of marriage, but it includes other relationship as well such as sisters, mother, etc."

Supreme Court interpretation

1. A three-judge Bench confirmed a Rajasthan High Court ruling of 2013 that the term 'domestic violence' cannot be restrained to marital relations alone.
2. Domestic relationship includes any relationship between two persons who either live at the present moment or have at any point of time in the past lived together in a shared household. Absence of subsisting domestic relationship in no manner prevents the court from granting certain reliefs specified under the Act.
3. The court held that domestic violence can continue even after divorce and the reach of the Act should not be shackled by confining only for the protection of women living in marriage.
4. It also amounts to domestic violence if the former husband tried to dispossess the woman from a jointly-owned property or refuse to return her '**stridhan**' or valuable security or other property. The Act brings all these acts of violence within its ambit.
5. A woman can lodge a complaint under the domestic violence law against the excesses committed by her ex-husband even after the dissolution of marriage.

Physical abuse: Defined as act or conduct that is of such a nature as to cause *bodily pain, harm, or danger to life, limb or health or impair the health or development of the aggrieved person*. Physical abuse also includes assault, criminal intimidation and criminal force.

Sexual abuse: The legislation defines this as conduct of "sexual nature" that *'abuses, humiliates, degrades or otherwise violates the dignity of a woman.'*

Verbal and emotional abuse: Insults/ ridicule of any form, including those with regard to inability to have a male child, as well as repeated threats

Economic abuse: Categorized as including deprivation of financial resources required for survival of the victim and her children, the disposing of any assets which the victim has an interest/stake in and prohibition/restriction of financial resources which the victim is used to while in the domestic relationship.

Protection of Women from Domestic Violence Act, 2005

(a) Domestic Violence

The term 'domestic violence' has been used in widest sense which covers all forms of physical, sexual, verbal, emotional and economic abuse that can harm, cause injury to, endanger the health safety, life, limb or well-being either mental or physical of the aggrieved person.

(b) ‘Aggrieved person’

The span of the term ‘aggrieved person’ covers not just a wife but a woman who is the sexual partner of the male irrespective of whether she is legal wife or not (includes live-in relationships as well) The daughter, mother, sister, child (male or female), widowed relative, in fact, any woman residing in the household who is related in some way with the respondent is covered by the act.

(c) ‘Respondent’

The term ‘respondent’ implies “any male, adult person who is, or has been, in a doestic relationship with the aggrieved person”. This ensures that the respondent’s mother, sister and other relatives do not go scott free, the case can also be filed against relatives of the husband or the male partner.

PEPPER IT WITH CEDAW, OSC scheme, PWDVA 2005,

It extends to the whole of India except the State Jammu & Kashmir.

The Kerala High Court in Bipin vs. Meera, has dealt with the question whether subsistence of the matrimonial relationship is the sine-qua-non for seeking reliefs under the Protection of Women from Domestic Violence Act, 2005.

What remedies can you avail of?

1. Inform the Protection Officer
2. File an application and make use of govt official’s duties toward her
3. Make use of shelter homes, medical facilities and counselling

Overcrowding in prisons

In News

The Supreme Court has expressed concern about overcrowding in prisons across the country, in some cases beyond 150 per cent of the capacity, and asked all the high courts to consider the issue as it involves “violation of human rights”

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Issue

1. According to the Prison Statistics India 2015 report by the National Crime Records Bureau (NCRB), India’s prisons are overcrowded with an occupancy ratio of 14% more than the capacity. More than two-thirds of the inmates are under trials.
2. Indian prisons face three long-standing structural constraints: overcrowding, thanks to a high percentage of undertrials in the prison population, understaffing and underfunding. The management of prisons falls exclusively under the domain of the state government, as per the seventh schedule of the constitution.
3. Sixty seven percent of the people in Indian jails are undertrials – those detained in prisons during trial, investigation or inquiry but not convicted of any crime in a court of law. The share of the prison population awaiting trial or sentencing in India is extremely high by international standards; for instance, it is 11% in the UK, 20% in the US and 29% in France.

PEPPER IT WITH Nelson Mandela Rules, NALSA, Administration of Open Jails Act and Rules

Supreme Court on issue

- The apex court requested the chief justices of the high courts to take up the matter as a suo-motu (on its own) writ petition and referred to a note given by an advocate, assisting the court as an amicus curiae, in this regard.
- In SC opinion, this matter should be considered by each high court independently with the assistance of the State Legal Services Authority/High Court Legal Services Committee so that there is some sanity in the overcrowding in prisons since it involves violation of human rights.

- The apex court also dealt with the issue of vacancy of staff in jails **and observed that “little interest” was being shown by the authorities** and state governments in recruiting staff in prisons.

Remedies

1. **The Centre apprised the court that steps were being taken to encourage setting up of ‘open prisons’ and a model uniform rules for the administration of open correctional institutions** have already been framed.
2. With regard to open jails, the apex court was informed that the draft "Administration of Open Jails Act and Rules" will be finalised by April 30, 2018.
3. Regarding under trial review committees, the bench was informed by the National Legal Services Authority (NALSA) that a standard operating procedure (SOP) for the committee was ready. These committees, set up in every districts, deliberates and recommends the release of under trials and convicts who have undergone their sentences or are entitled to be released from jail due to bail or remission granted to them.
4. Bureau of Police Research and Development has prepared some training manuals for prison officers and prison warders for better management of prisons.

What are open prisons?

Open prisons have relatively less stringent rules as compared to the controlled jails. They go by many names like minimum-security prison, open air camps or prison without bars. The fundamental rule of an open prison is that the jail has minimum security and functions on the self-discipline of the inmates.

Seventeen states are reported to have functional open jails with Rajasthan having 29 such prisons, the highest that any state has.

National Institute of Mental Health Rehabilitation

In News

The Union Cabinet has approved the establishment of National Institute of Mental Health Rehabilitation (NIMHR) at Bhopal

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About NIMHR

1. NIMHR will be the first of its kind in the country in the area of mental health rehabilitation. It will serve as an institution of excellence to develop capacity building in the area of mental health rehabilitation and also help the Government to develop models for effective rehabilitation of persons with mental illness.
2. The main objectives of the NIMHR are to provide rehabilitation services to the persons with mental illness, capacity development in the area of mental health rehabilitation, policy framing and advanced research in mental health rehabilitation.
3. It is instituted as Society under the Societies Registration Act, 1860 under the aegis of the Department of Empowerment of Persons with Disabilities.
4. The estimated cumulative cost of the project is Rs. 179.54 crore in first three years. This includes non-recurring expenditure of Rs. 128.54 crore and recurring expenditure of Rs. 51 crore.
5. The Institute will have nine Departments/Centres and will conduct 12 courses to offer diploma, certificate, graduate, post graduate and M. Phil degrees in the area of mental health rehabilitation.

PEPPER IT WITH
 Rights of Persons with Disabilities Act, 2016, Accessible India Campaign, National Mental Health Programme

Cauvery Management Scheme

In News

The Supreme Court recently approved the Centre's draft Cauvery Management Scheme for smooth distribution of water among four southern riparian states.

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Background

The SC, in its verdict delivered on February 16, had asked the Centre to frame the Cauvery management scheme, including creation of the Cauvery Management Board, for release of water from Karnataka to Tamil Nadu, Kerala and Puducherry.

The SC had asked the central government on February 16 to frame a scheme under Section 6A of the Inter-State River Water Disputes Act, 1956, for smooth implementation of the Cauvery Tribunal Award as modified by the top court.

Cauvery Management Scheme

- The Cauvery water management scheme will deal with the release of water from Karnataka to Tamil Nadu, Kerala and Puducherry.
- It will be implemented by the Cauvery Management Authority (CMA). CMA will be the sole body to implement the Cauvery Water Disputes Tribunal award as modified by the apex court. The Centre would have no say in it except for issuing administrative advisories to it.

SC verdict

1. The top court had raised the 270 tmcft share of Cauvery water for Karnataka by 14.75 tmcft and **reduced Tamil Nadu's share**, while compensating it by allowing extraction of 10 tmcft groundwater from the river basin, saying the issue of drinking water has to be placed on a **"higher pedestal"**.
2. SC had modified the Cauvery Water Disputes Tribunal (CWDT) award of 2007 and made it clear that it will not be extending time for this on any ground.
3. **The top court had made it clear that it would see that the draft scheme is "in consonance with its judgement only in order to avoid political tug-of-war for faster finalization of the dispute.**

Common Service Centres 2.0

In News

The network of Common Service Centres (CSCs), which act as access points for delivery of various electronic services to villages in India, are set to be expanded to 2.50 lakh gram panchayats by the year end.

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About CSC 2.0

Under CSC 2.0 scheme, at least one CSC will be set up in each of the 2.5 lakh GPs across the country by 2019. CSCs functioning under the existing scheme will also be strengthened and integrated with additional 1.5 lakh CSCs across the country.

CSC 2.0 scheme would consolidate service delivery through a universal technology platform, thereby making e-services, particularly G2C services accessible to citizens anywhere in the country.

Key Features of CSC 2.0 scheme

1. A self-sustaining network of 2.5 lakh CSCs in Gram Panchayats
2. Large bouquet of e-services through a single delivery platform
3. Standardization of services and capacity building of stakeholders
4. Localised Help Desk support

5. Sustainability of VLEs through maximum commission sharing
6. Encouraging more women as VLEs

About CSC

- The CSCs would provide high quality and cost-effective video, voice and data content and services, in the areas of e-governance, education, health, telemedicine, entertainment as well as other private services. They are the access points for delivery of various electronic services to villages in India, thereby contributing to a digitally and financially inclusive society.
- The CSC is a strategic cornerstone of the National e-Governance Plan (NeGP), approved by the Government in May 2006, as part of its commitment in the National Common Minimum Programme to introduce e-governance on a massive scale
- It is also one of the approved projects under the Integrated Mission Mode Projects of the National e-Governance Plan.

ALIMCO

In News

Department of Empowerment of Persons with Disabilities (DEPwD-Divyang jan Shashaktikaran Vibhag), Ministry of Social Justice & Empowerment signed a Memorandum of Understanding (MoU) with Artificial Limbs Manufacturing Corporation of India (ALIMCO) for the Financial Year 2018-19.

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About

1. ALIMCO is a **Schedule 'C' Mini-ratna** Category II Central Public Sector Enterprises, registered under Section 8 (Not for Profit motive) of the Companies Act 2013.
2. ALIMCO is a **"Not ForProfit"** Central Public-Sector Undertaking working under the administrative control of Ministry of Social Justice & Empowerment.
3. For past 40 years, ALIMCO has been relentlessly manufacturing various types of aids and appliances on mass scale to meet the requirements of PwDs including orthopedically, visual and hearing impaired etc.
4. It has been serving on an average around two lakhs of disabled population every year and has supplied 42 lakhs of aids & appliances (approx.)

Samarth- respite care scheme

A scheme to provide respite home for orphans, families in crisis, Persons with Disabilities (PwD) from BPL, LIG families with at least one of the four disabilities covered under the National Trust Act.

This scheme aims at setting up Samarth Centres for providing respite and residential care of the specified categories of Persons with Disability (PwD).

Objectives

To promote, encourage and develop the availability, use, supply and distribution at reasonable cost in the country of Artificial Limbs and accessories and constituents thereof to needy persons particularly disabled Defence personnel, hospitals and such other welfare institutions.

Benefits

- Free of cost distribution of the devices, commensurate with the extent of disability/infirmity that is manifested among the eligible senior citizens.
- In case of multiple disabilities/infirmities manifested in the same person, the assistive devices will be given in respect of each disability/impairment.

PEPPER IT WITH
Rashtriya Vayoshri Yojana,
VIKAAS, DISHA, GHARAUNDA,
NIRAMAYA
Braille-enabled signboards to be
used during Maheshkala bypoll.

- The devices will help the Senior Citizens to overcome their age related physical impairment and to lead a dignified and productive life with minimal dependence on care givers or other members of the family.

Eastern Peripheral Expressway

In News

Eastern Peripheral Expressway was inaugurated by PM recently.

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Background

A debate has ensued after the Gautam Budh Nagar administration sent a letter to National Highways Authority of India (NHAI) highlighting the need for setting up of police chowkis, erecting barricades and speed guns to check crime and speeding on the newly opened Eastern Peripheral Expressway (EPE).

PEPPER IT WITH
Green’ Cricket, OBOR,
 Mission Raftaar, Dr Harsh
 Vardhan App

About

- It is the first smart and green 6-lane highway of India. The expressway, also known as KGP (Kundli-Ghaziabad-Palwal) expressway, is specifically designed to connect Kundli and Palwal in Haryana via Ghaziabad to reduce the congestion on the roads of the NCR region caused by the vehicles going towards Haryana and Uttar Pradesh.
- The 135-km Eastern Peripheral Expressway is a part of the enormous Peripheral Expressway Project that consists of two highways-Eastern Peripheral Expressway and Western Peripheral Expressway.
- **It is India’s first highway to be lit by solar power** besides provisions of rain water harvesting on every 500 metres on both sides and would showcase 36 national monuments and 40 fountains.
- It will be crossing the Yamuna River and three other national highways. It will cross NH-58 at Murad Nagar, NH-24 at Dasna, and NH-91 at Beelakbarpur.

Benefits of Eastern Peripheral Expressway

- The expressway will help in reducing the traffic on the Delhi inner roads by offering a direct connectivity to the NCR region.
- It will help in diverting more than 2 lakh vehicles passing through the National Capital to this bypass.
- With a signal free connectivity, the expressway will link all the National Capital Region areas in the east of Delhi and reduce the traveling time to reach Faridabad, Ghaziabad, Greater Noida, Sonipat, and Palwal.
- The diversion of the traffic from NCR to this expressway will reduce the pollution levels in this region.

‘Rail Madad’–a mobile App to register complaints by passengers through mobile phone/web. It relays real time feedback to passengers on the status of redressal of their complaints- the passenger gets an instant ID through SMS on registration of complaint followed by a customized SMS communicating the action taken thereon by Railway.

PRAAPTI App

In News

A Web portal and an App namely PRAAPTI (Payment Ratification and Analysis in Power procurement for bringing Transparency in Invoicing of generators), has been launched by Ministry of Power.

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About App

- PRAAPTI App and web portal has been developed to bring transparency in power purchase transactions between Generators and Discoms.
- The App and Web Portal will capture the Invoicing and payment data for various long term PPAs from the Generators. This will help the stakeholders in getting month-wise and legacy data on outstanding amounts of Discoms against power purchase.
- The app will also allow users to know the details related to the payments made by the Discoms to the power generation company and when they were made.
- PRAAPTI will also enable the consumers to evaluate financial performance of their Discoms in terms of payments being made to the generation companies.
- The portal would facilitate relative assessment of various State DISCOMs **on “Ease of making payments”** to various Generation Companies and will also help make transactions in the power Sector more transparent.

National Consumer Disputes Redressal Commission

Supreme Court Judge R.K. Agrawal has been appointed as the President of the National Consumer Disputes Redressal Commission (NCDRC).

About

- The National Consumer Disputes Redressal Commission (NCDRC), India is a quasi-judicial commission in India which was set up in 1988 under the Consumer Protection Act of 1986.
- Section 21 of Consumer Protection Act, 1986 posits that the National Consumer shall have jurisdiction: - to entertain a complaint valued more than one crore and also have Appellate and Revisional jurisdiction from the orders of State Commissions or the District fora as the case may be.
- Section 23 of Consumer Protection Act, 1986, provides that any person aggrieved by an order of NCDRC, may prefer an Appeal against such order to Supreme Court of India within a period of 30 days.
- Composition of NCDRC - 6 benches with President and 11 members.

Swachh Survekshan 2018

In News

It was organized by the Ministry of Housing and Urban Affairs (MoHUA), under the aegis of the Swachh Bharat Mission (Urban), assessed 4203 Urban Local Bodies.

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About

The on-field survey for Swachh Survekshan was conducted by an independent agency and the data for ranking of the cities collected from 3 sources:

- Service Level Progress: To verify whether systems and processes are in place in Urban Local Bodies (ULBs) to implement Swachh Bharat Mission (Urban) in the most efficient way.
- Direct Observation: To verify and assess general cleanliness in the cities by making random field visits in different parts of the city and public conveniences (Community/Public Toilets).
- Citizens Feedback: To collect feedback directly from citizens and monitor the performance of Swachhata App, a **citizen's** grievance Mobile App.

Modifications in new Survey

1. Huge negative marking has been introduced this time to ensure cities do not make false claims about improvement in sanitation infrastructure.
2. Cities will be ranked based on 71 sanitation-related parameters with different weightage. The cumulative marks will be 4,000.

3. Under 'Service Level Progress', Swachh Surveys-2018 has introduced one more component 'Innovation and Best Practices' in addition to existing five components.

Performance of various cities

- Indore in Madhya Pradesh has been declared the cleanest city in India. Madhya Pradesh's capital Bhopal ranked as India's second cleanest city for two years in a row. Chandigarh is the third cleanest city.
- Jharkhand has been declared as the best performing state, followed by Maharashtra and Chhattisgarh.
- Cleanest State Capital: Greater Mumbai.
- Cleanest Big City (Pop>10Lacs): Vijaywada (Andhra Pradesh).
- **'Fastest Mover' big City: Ghaziabad:** (Uttar Pradesh).
- **Best City in 'Citizens Feedback':** Kota (Rajasthan).
- **Best City in 'Innovation & Best Practices':** Nagpur (Maharashtra).
- **Best City in 'Solid Waste Management:** Navi Mumbai (Maharashtra).
- Cleanest Medium City (Pop3-10Lacs): Mysuru (Karnataka).
- **'Fastest Mover' Medium City:** Bhiwandi (Maharashtra).
- **Best City in 'Citizens Feedback':** Parbhani (Maharashtra).
- **Best City in 'Innovation & Best Practices':** Aligarh (Uttar Pradesh).
- **Best City in 'Solid Waste Management:** Mangalore (Karnataka).
- **India's Cleanest Small City (Pop1-3 Lacs):** New Delhi Municipal Council.
- **'Fastest Mover' Small City:** Bhusawal (Maharashtra).
- **Best City in 'Citizens Feedback':** Giridih (Jharkhand).
- **Best City in 'Innovation & Best Practices':** Ambikapur (Jharkhand).
- **Best City in 'Solid Waste Management:** Tirupati (Andhra Pradesh).
- **India's Cleanest City Zone-Wise:**
 North: Bhalso, Punjab
 East: Bundu, Jharkhand
 North-East: Kakching, Manipur
 South: Siddipet, Telangana
 West: Panchgani, Maharashtra

Pradhan Mantri Swasthya Suraksha Yojana (PMSSY)

In News

In a major boost to the expansion of healthcare infrastructure in the country, the Union Cabinet has approved the continuation of PMSSY beyond 12th Five Year Plan to 2019-20.

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Objectives

The PMSSY, a Central Sector Scheme, aims at correcting the imbalances in the availability of affordable tertiary healthcare facilities in different parts of the country in general, and augmenting facilities for quality medical education in the under-served States in particular.

It was announced in 2003 with objectives of correcting regional imbalances in the availability of affordable/ reliable tertiary healthcare services and also to augment facilities for quality medical education in the country.

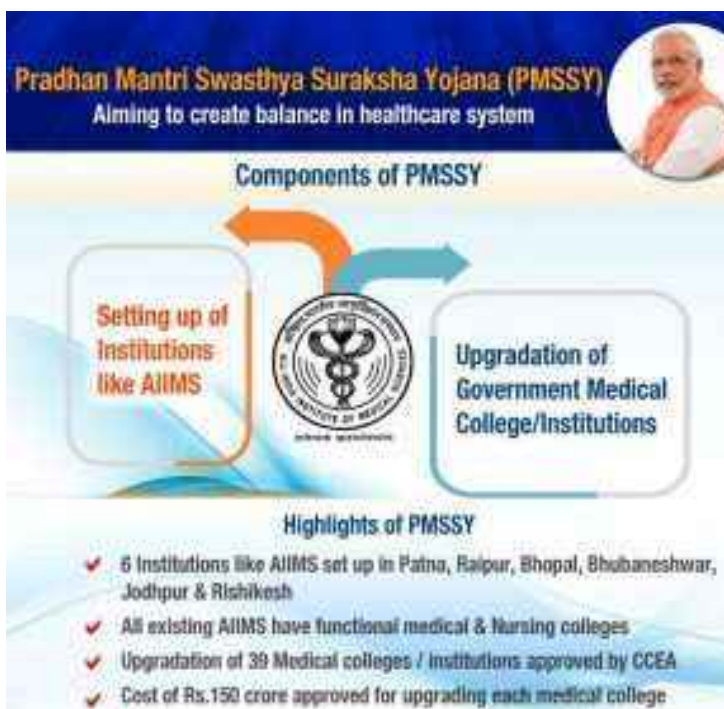
PEPPER IT WITH
 UHS, Ayushman Bharat,
 RSBY, National Health
 Protection Scheme

PMSSY has two components:

- (i) Setting up of AIIMS like Institutions
- (ii) Upgradation of Government Medical College Institutions.

Impact:

1. Setting up of new AIIMS would not only transform health education and training but also address the shortfall of health care professionals in the region. Construction of new AIIMS is fully funded by the Central Government. The Operations & Maintenance expenses on new AIIMS are also fully borne by the Central Government.
2. Upgradation programme broadly envisages improving health infrastructure through construction of Super Specialty Blocks/Trauma Centers etc. and procurement of medical equipment for existing as well as new facilities on Central and State share basis.



Significance

1. Setting up new AIIMS in various states will lead to employment generation for nearly 3000 people in various faculty & non-faculty posts in each of the AIIMS. Further, indirect employment generation will take place due to facilities & services like shopping centre, canteens, etc. coming in the vicinity of new AIIMS.
2. The upgradation programme is carried out in selected Government Medical Colleges (GMCs) by agencies appointed by the Government of India under the direct supervision of the Central Government. Post-Graduate seats and additional faculty posts as per norms will be created and filled up in these GMCs by the respective State/UT Governments.
3. The construction activity involved for creation of the physical infrastructure for the various new AIIMS and Government Medical Colleges' upgradation projects being undertaken under the scheme is also expected to generate substantial employment in the construction phase as well.

Pradhan Mantri VayaVandan Yojana (PMVVY)

In News

The Union Cabinet approved extending the investment limit from Rs 7.5 lakh to Rs 15 lakh under the PMVVY.

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About

Government of India has announced Pradhan Mantri Vaya Vandana Yojana for citizen age 60 years and above. LIC of India has been given the sole privilege to operate this scheme.

Benefits

1. Pension Payment:

On survival of the Pensioner during the policy term of 10 years, pension in arrears (at the end of each period as per mode chosen) shall be payable.

2. Death Benefit:
On death of the Pensioner during the policy term of 10 years, the Purchase Price shall be refunded to beneficiary.
3. Maturity Benefit:
On survival of the pensioner to the end of the policy term of 10 years, Purchase price along with final pension installment shall be payable.

PEPPER IT WITH
Atal Pension Yojana,
Pradhan Mantri Jeevan Jyoti
Bima Yojana, UMANG App

Eligibility Conditions and Other Restrictions:

- Minimum Entry Age: 60 years (completed)
 - Maximum Entry Age: No limit
 - Policy Term: 10 years
 - Minimum Pension: Rs. 1,000/- per month
 - Maximum Pension: Rs. 5,000/- per month
- Ceiling of maximum pension is for a family as a whole i.e. total amount of pension under all the policies allowed to a family under this plan shall not exceed the maximum pension limit. The family for this purpose will comprise of pensioner, his/her spouse and dependents.

Key Highlights

1. Scheme provides an assured return of 8% p.a. payable monthly (equivalent to 8.30% p.a. effective) for 10 years.
2. The scheme is exempted from Service Tax/ GST.
3. The ceiling of maximum pension is for a family as a whole, the family will comprise of pensioner, his/her spouse and dependents.
4. There shall be no exclusion on count of suicide and full Purchase Price shall be payable.

Point to Ponder

The amount is locked-in for 10 years, so the money may not be available if required urgently (other than in case of illness).

The pension is not adjusted in inflation. Assuming inflation at 7%, the purchasing power of Rs. 5,000 would be reduced to Rs. 2,500 in 10 years.

Significance

Government has launched the 'Pradhan Mantri Vaya Vandana Yojana (PMVVY)' to provide social security during old age and to protect elderly persons aged 60 years and above against a future fall in their interest income due to uncertain market conditions. The scheme enables old age income security for senior citizens through provision of assured pension/return linked to the subscription amount based on government guarantee to Life Insurance Corporation of India (LIC).

PNG Sahay subsidy scheme

In News

Gujarat became first in the country to offer subsidized piped natural gas (PNG) to households falling under the below poverty line (BPL) in Bharuch.

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Key Highlights

1. Gujarat is the first state to launch a PNG scheme for the AAY (Antyodaya Anna Yojana) and BPL (below poverty line) category households in select urban areas in the country as domestic fuel to help supply households with clean fuel.
2. As per the scheme, the government will pay Rs. 1,600 as one-time subsidy per connection and Rs. 1,725 as loan to customers opting for a new PNG connection.

3. The state has a good network of gas pipelines which makes it easy for the scheme to cover PNG connected households from Vapi to Dwarka and from Bhuj to Ahmedabad. The state has a pipeline network covering over 25,000 km for city gas distribution.

Advantages of PNG

1. Continuous and uninterrupted supply
2. Easily available
3. Safety 24x7
4. Clutter free and space free
5. Free from any Gas booking worries

Objective Of The PNG Scheme

The new scheme is a type of beneficial scheme for the poor people of the society within the state of Gujarat. As per the details collected by the sources, the state government has set to offer the benefit of the scheme to the BPL families of the state. The new scheme will be run parallel to the similar scheme termed as “Ujjwala Scheme” run by the state and centre government.

Eligibility Criteria

The government will be offering benefit to people belonging to BPL families of the state. it will benefit people living in Urban areas and holding BPL cards, under this scheme.As per the government over 18 lakh registered consumers are expected to get the benefit under this scheme

PEPPER IT WITH Ujjwala yojana, Ujala yojana,

Budget

- The government of Gujarat under the supervision of the CM has announced that the set budget of Rs 71.94 crore for the implementation of the project.
- Under this scheme the government has also announced the sanction of Rs 1600 subsidy that will be offered to each beneficiary under this scheme.

Pilot Project

The Pilot project will also be initiated by the state government for implementation in over twenty-five Districts within the state of Gujarat. The state government has also stated that in the initial stage the programme will also be launched in eight Municipal Corporations with in the state.

SWAYAM

In News

The Ministry of Human Resource Development has launched a major and unique initiative of online professional development of 1.5 million higher education faculty using the MOOCs platform SWAYAM.

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In the first phase, 75 discipline-specific National Resource Centres have been identified which are tasked to prepare online training material with focus on latest developments in the discipline, new & emerging trends, pedagogical improvements and methodologies for transacting revised curriculum.

About SWAYAM

- SWAYAM is a programme initiated by Government of India and designed to achieve the three cardinal principles of Education Policy viz., access, equity and quality.
- The objective of this effort is to take the best teaching learning resources to all, including the most disadvantaged. SWAYAM seeks to bridge the digital divide for students who have hitherto remained untouched by the digital revolution and have not been able to join the mainstream of the knowledge economy.

- The courses hosted on SWAYAM are in 4 quadrants – (1) video lecture, (2) specially prepared reading material that can be downloaded/printed (3) self-assessment tests through tests and quizzes and (4) an online discussion forum for clearing the doubts.
- The UGC has already issued Regulation that allows transfer of credits earned through the courses done through SWAYAM into the academic record of the students.
- SWAYAM platform is indigenously developed by Ministry of Human Resource Development (MHRD) and All India Council for Technical Education (AICTE) with the help of Microsoft.

Ministry of Human Resource Development has some major key initiatives to promote Digital Education, which are as follow:

1. SWAYAM Prabha: SWAYAM Prabha is an initiative to provide 32 high quality educational channels through DTH (Direct to Home) across the length and breadth of the country on 24X7 basis.
2. National Digital Library (NDL): The National Digital Library of India (NDL India) project is to develop a framework of virtual repository of learning resources with a single-window search facility. As on date about 1.5 Crore e-books and documents are available on NDL contributed by 160 Content contributor and 30 lakh users from 9 thousand educational institutions were registered on NDL
3. e-Shodh Sindhu: The main objective of the e-ShodhSindhu: Consortia for Higher Education E-Resources is to provide access to quality electronic resources including full-text, bibliographic and factual databases to academic institutions at a lower rates of subscription.
4. The Free and Open Source Software for Education (FOSSEE): FOSSEE project has been promoting use of open source software in educational institutions.
5. Virtual Lab: The project aims to provide remote-access to virtual laboratories in various disciplines of science and engineering for students at all levels from under-graduate to research.

NABH (Nextgen Airports for Bharat) Nirman initiative

In News

At a meeting between the Civil Aviation Ministry and Airline representatives, proposals for a new urban planning and multi-modal connectivity to the airports was discussed as part of the NABH (NextGen Airports for Bharat) Nirman initiative.

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About NABH Nirman

- The scheme aims to establish about 100 airports in 15 years at an estimated investment of Rs 4 lakh crore – a large percentage of the investment is to come from the private sector.
- Three key aspects of NABH Nirman are (1) fair and equitable land acquisition, (2) long-term master plan for airport and regional development and (3) balanced economics for all stakeholders.
- This scheme constitutes investments to be made in airport upgrade by both the private sector and the state-owned Airports Authority of India (AAI) in the due course of time.
- Propose to expand our airport capacity more than five times to handle a billion trips a year under a new initiative – NABH Nirman.
- Improving passenger amenities, promoting cargo handling facilities and early operationalization of 56 new airports under UDAN scheme will be his focus areas while simultaneously working on improving regional connectivity and improving passenger services in a big way.

PEPPER IT WITH
UDAN 2.0, Regional
Connectivity Scheme

SevaBhojYojna

About

- Ministry of Culture, Government of India has introduced a new scheme namely 'SevaBhojYojna' with a total outlay of Rs. 325.00 Crores for Financial Years 2018-19 and 2019-20.
- The main objective of the scheme is to lessen the financial burden of such charitable religious institutions, which provide free of cost without any discrimination to the general public and devotees.
- The scheme envisages to reimburse the Central Government share of Central Goods and Services Tax (CGST) and Integrated Goods and Service Tax (IGST) so as to lessen the financial burden of such Charitable Religious Institutions who provide Food/Prasad/Langar (Community Kitchen)/Bhandara free of cost without any discrimination to Public/Devotees.
- The Charitable Religious Institutions includes Temples, Gurudwara, Mosque, Church, Dharmik Ashram, Dargah, Matth, Monasteries etc.
- All the eligible institutions should be registered with Darpan portal.

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PEPPER IT WITH
Swasthya Raksha
Programme, SWAJAL
YOJANA, Atal Jyoti Yojana

Criteria for being charitable religious

- which have been in existence for at least five years before applying for financial assistance/grant and who serve free food to at least 5000 people in a month
- such institutions covered under Section 10 (23BBA) of the Income Tax Act or Institutions registered as Society under Societies Registration Act (XXI of 1860) or
- a Public Trust under any law for the time being in force of statutory religious bodies constituted under any Act or institutions registered under Section 12AA of Income Tax Act shall be eligible for grant under the scheme.

Merchandise Exports from India Scheme

In News

The Government of India has introduced Merchandise Exports from India Scheme (MEIS) through the Foreign Trade Policy (FTP) 2015-20.

About

- Merchandise Exports from India Scheme (MEIS) under Foreign Trade Policy of India (FTP 2015-20) is one of the two schemes introduced in Foreign Trade Policy of India 2015-20, as a part of Exports from India Scheme. (The other scheme is SEIS, Service Exports from India Scheme).
- The Government of India has brought in the Merchandise Exports Incentive Scheme (MEIS), replacing five other similar incentive schemes present in the earlier Foreign Trade Policy 2009-14. The schemes that have been replaced by the MEIS scheme include:
 - Focus Product Scheme (FPS)
 - Focus Market Scheme (FMS)
 - Market Linked Focus Product Scheme (MLFPS)
 - Agri. Infrastructure incentive scheme
 - Vishesh Krishi GraminUpaj Yojana (VKGUY)
- With the aim in making India's products more competitive in the global markets, the scheme provides incentive in the form of duty credit scrip to the exporter to compensate for his loss on payment of duties. The incentive is paid as percentage of the realized FOB value (in free foreign

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PEPPER IT WITH
SEIS, Foreign Trade Policy,
'Castle doctrine' in Law

exchange) for notified goods going to notified markets. To determine the quantity of incentive, the countries have been segregated into three groups. Incentives on export of each product at 8-digit level (ITC HS codes), depend on the group in which its destination country belong.

- **There are essentially three country groups. Group A has India's traditional destinations such as the EU countries and USA. Group B has the maximum number of countries and covers almost all of India's major export destinations globally. It is worth mentioning here that Group B has the highest quantum of incentive. Group C on the other hand has no incentive at all. It can be divided into, SAARC, Australia and New Zealand, some EU and African countries.**

Objective of the MEIS Scheme

To offset infrastructural inefficiencies and the associated costs of exporting products produced in **India giving special emphasis on those which are of India's export interest and have the capability to generate employment and enhance India's competitiveness in the world market.**

Green Revolution – Krishonnati Yojana

In News

The Cabinet Committee on Economic Affairs has given its approval for the Umbrella Scheme, "Green Revolution – Krishonnati Yojana" in agriculture sector.

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About

- It is an Umbrella scheme which comprises of 11 Schemes and Missions.
- **The 11 schemes and missions were clubbed together under one umbrella scheme 'Green Revolution – Krishonnati Yojana in 2017-18.**
- The Schemes/Missions focus on creating/strengthening of infrastructure of production, reducing production cost and marketing of agriculture and allied produce. These schemes / missions have been under implementation for varying duration during past few years.

PEPPER IT WITH
Gramin Agricultural
Markets, Operation Greens,
PMFBY, SHC

Budget

The Umbrella scheme comprises of 11 Schemes/Missions. The Schemes will be continued with an expenditure of Rs. 33,269.976 crore for three financial years, i.e., 2017-18, 2018-19 and 2019-20. The amount will be divided accordingly for the better implementation and monitoring of the individual yojanas.

Key objectives of the scheme

1. Betterment of agricultural base – Only with the extension, implementation and proper monitoring of these 11 schemes, it will be possible to develop the overall agricultural condition of the nation and status of farmers as well.
2. **Doubling of farmers' earnings** – The central already has the mission of doubling the net income of all agricultural labors by the end of 2022. The implementation of these missions under the Krishonnati Yojana will help to make this dream a reality.
3. Appropriate agricultural infrastructure – Proper agricultural infrastructure is also necessary for developing the agrarian condition. These missions under the umbrella scheme will offer the required foundation.
4. Adequate market for sale of produce – Production of crops must be adequately supported by markets, where farmers will be able to sell the produce. The development of the umbrella mission makes this possible.

Major programs under the umbrella project

1. Mission for Integrated Development of Horticulture
2. National Food Security Mission and National Mission on Oil Seeds and Oil Palm
3. National Mission for Sustainable Agriculture
4. Submission on Agriculture Extension
5. Submission on Seeds and Planting Material
6. Submission on Agricultural Mechanization
7. Submission on Plant Protection and Plant Quarantine
8. Integrated Scheme on Agriculture Census, Economics and Statistics
9. Integrated Scheme on Agricultural Cooperation
10. Integrated Scheme on Agricultural Marketing
11. National e-Governance Plan

Permanent Residency Status (PRS) scheme

In News

Two years after it was launched by the Union government, the Permanent Residency Status (PRS) scheme providing a host of facilities for foreigners who invest at least ₹10 crore under the Foreign Direct Investment (FDI) route is yet to find a single applicant.

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Key Features

1. The foreign investor will invest a minimum of INR 10 crores which would need to be brought within 18 months or INR 25 crores to be brought within 36 months.
2. The foreign investment should generate employment to at least 20 resident Indians every financial year.
3. PRS will be granted for an initial period of 10 years which may be renewed for another 10 years subject to good conduct of the PRS holder.
4. PRS holders will be allowed to purchase one residential property for dwelling purposes.
5. The spouse/ dependents of the PRS holder will be allowed to take up employment in the private sector with a relaxation of the salary stipulations for Employment Visas (this is presently capped at USD 25,000 per annum), as well as undertake studies in India.
6. Suitable provisions will be incorporated in the Visa Manual to provide for the grant of PRS to foreign investors.
7. PRS will serve as a multiple entry visa without any stay stipulation and PRS holders will be exempted from the registration requirements.

PEPPER IT WITH
FDI, IMPRINT, PESO

Eligibility criteria

- The foreign investor will have to invest a minimum of Rs. 10 crores to be brought within 18 months or Rs.25 crores to be brought within 36 months.
- Further, the foreign investment should result in generating employment to at least 20 resident Indians every financial year.
- Previously all foreign nationals, who are coming into India on a long-term assignment for more than 180 days, are required to register with the FRRO within 14 days of arrival. Now there will be no requirement of registration with the Foreigners Regional Registration Office (FRRO).

What is PRS scheme

A look at the Permanent Residency Status scheme

- The scheme promises facilities for foreigners who invest at least ₹10 crore under the FDI route
- Cleared by the Union Cabinet in 2016 to boost "Make in India"
- Open to foreign investors who pump in a minimum of ₹10 crore within 18 months or ₹25 crore in 36 months, since the date of inception, 2016
- The FDI should result in generating employment to at least 20 Indians in every financial year



- PRS card holders are also eligible to buy residential property in India.
- PRS will be granted for a period of 10 years with multiple entry and can be renewed for another 10 years

Way Ahead

The PRS scheme is yet another welcome step to strengthen the 'make in India' program and encourage more inward movement of foreign investment. It should improve the ease of doing business in India because under the scheme, no visa is required to work in India and there is also an exemption from FRRO registration. However, it remains to be seen if the said scheme applies to the employees of those corporates who intend to set up business in India.

Pandit Madan Mohan Malaviya National Mission on Teachers and Training

In News

The National Institute of Educational Research and Planning (NIEPA) is in the process of rolling out the centre, an initiative that is part of the Pandit Madan Mohan Malaviya National Mission on Teachers and Training (PMMMNMTT).

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About PMMMNMTT

- PMMMNMTT is a Central sector Scheme with All- India coverage launched by the Ministry of Human Resource Development.
- To create and strengthen the institutional mechanisms (Schools of Education, Institutes of Academic leadership and Education Management, Subject based networks, Teaching-learning Centres etc.) at the Centre & in the States, for augmenting training and discipline-wise capacity building of faculty and their periodic assessment for excellence.
- It will try to bridge the gap between teachers and teacher educators and provide opportunities for teachers to become teacher educators.

The Mission components:

1. Schools of Education (in Central Universities).
2. Centres of Excellence for Curriculum and Pedagogy.
3. Inter-**University Centres for Teachers' Education**.
4. National Resource Centre for Education.
5. Centres for Academic Leadership and Education Management.
6. Innovations, Awards, Teaching Resource Grant, including Workshop & Seminar, Subject Networks for Curricular Renewal and Reforms.

Few Initiatives

Several initiatives are currently being undertaken in this direction such as in elementary education, the Right of Children to Free and Compulsory Education (RTE) Act, 2009 and Sarva Shiksha Abhiyan (SSA) programme aims for improvements in school infrastructure and in teaching and learning. Rashtriya Madhyamik Shiksha Abhiyan (RMSA), ICT in Schools, Centrally Sponsored Scheme on Teacher Education (CSSTE), Shaala Siddhi, RashtriyaAvishkar Abhiyan are being implemented to improve the quality of secondary education. In higher education also, various schemes, namely, RashtriyaUchchar Shiksha Abhiyan (RUSA), Global Initiative for Academics Network (GIAN), Impacting Research, Innovation & Technology (IMPRINT), Technical Education Quality Improvement Programme (TEQIP), Study Webs of Active-Learning for Young Aspiring Minds (SWAYAM), National Digital Library, campus connect programme, UchcharAvishkar Abhiyan, Unnat Bharat Abhiyan are being implemented to improve the quality of higher education.

Way Ahead

The proposed Mission is envisaged to address comprehensively all issues related to teachers, teaching, teacher preparation and professional development. The Mission would address, on the one hand, current and urgent issues such as supply of qualified teachers, attracting talent into teaching profession and raising the quality of teaching in schools and colleges. On the other, it is also envisaged that the Teacher Mission would pursue long term goal of building a strong

professional cadre of teachers by setting performance standards and creating top class institutional facilities for innovative teaching and professional development of teachers.

Universal Service Obligation Fund (USOF)

In News

The Union Cabinet has approved the “Universal Service Obligation Fund (USOF)” supported scheme to provide mobile services at 4072 tower locations identified by MHA in inhabited uncovered areas affected by Left Wing Extremism [LWE] of 96 districts in 10 States for Phase-II project.

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Significance of move

- This network would be used by the security personnel deployed in LWE affected areas.
- Project will also provide the mobile services to help the residents in unconnected inhabited villages which would improve the economic activities in the region.
- It will give impetus to the e-Governance activities in the backward and LWE affected area with the availability of digital mobile connectivity.

LWE areas

Bihar, Jharkhand, Andhra Pradesh, Maharashtra, Odisha, Telangana, West Bengal, Madhya Pradesh, Uttar Pradesh and Chhattisgarh — are described as those affected by Left Wing Extremism (LWE) and constitute the ‘Red Corridor.’

LWE Phase I project

The LWE phase-I project for providing the mobile services using 2G technology in LWE Areas with a total sanctioned cost of Rs, 4080.78 crore is on completion.

LWE-Phase-II project

Technology proposed in the Phase-II project has been upgraded according to the requirement of Stakeholders. Now 2G and 4G technology is being deployed in this project for providing the mobile connectivity, the Government informed.

Universal Service Obligation Fund

USOF, established in 2002, provides effective subsidies to ensure telegraph services are provided to everyone across India, especially in the rural and remote areas. It is headed by the USOF Administrator who reports to the Secretary, Department of Telecommunications (DoT). The USOF works through a bidding process, where funds are given to the enterprise quoting the lowest bid. However, the funds for NOFN were made an exception to this process since BBNL was the sole party involved in the implementation having being specifically created for it.

PEPPER IT WITH
Black Panther

Samagra Shiksha scheme

In News

‘Samagra Shiksha’ - an integrated Scheme for school education extending support to States from pre-school to senior secondary levels for the first time in New Delhi was launched by Ministry of Human Report.

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About

Samagra Shiksha - an overarching programme for the school education sector extending from pre-school to class 12 has been, therefore, prepared with the broader goal of improving school effectiveness measured in terms of equal opportunities for schooling and equitable learning outcomes. It subsumes the three Schemes of Sarva Shiksha Abhiyan (SSA), Rashtriya Madhyamik Shiksha Abhiyan (RMSA) and Teacher Education (TE).

PEPPER IT WITH
Padhega Bharat Badhega Bharat,
DIKSHA,Shagun, ShaalaSaarathi

Objectives

The aim of the Scheme are provision of quality education and enhancing learning outcomes of students; Bridging Social and Gender Gaps in School Education; Ensuring equity and inclusion at all levels of school education; Ensuring minimum standards in schooling provisions; Promoting Vocationalisation of education; Support States in implementation of Right of Children to Free and Compulsory Education (RTE) Act, 2009; and Strengthening and up-gradation of SCERTs/State Institutes of Education and DIET as a nodal agencies for teacher training.

Funding

The fund sharing pattern for the scheme between Centre and States is at present in the ratio of 90:10 for the 8 North-Eastern States viz. Arunachal Pradesh, Assam, Manipur, Meghalaya, Mizoram, Nagaland, Sikkim and Tripura and 3 Himalayan States viz. Jammu & Kashmir, Himachal Pradesh and Uttarakhand and 60:40 for all other States and Union Territories with Legislature. It is 100% centrally sponsored for Union Territories without Legislature.

Main outcomes of the Scheme

They are envisaged as Universal Access, Equity and Quality, promoting Vocationalisation of Education and strengthening of Teacher Education Institutions (TEIs).

Significance

This sector-wide development programme/scheme would also help harmonise the implementation mechanisms and transaction costs at all levels, particularly in using state, district and sub-district level systems and resources, besides envisaging one comprehensive strategic plan for development of school education at the district level. The shift in the focus is from project objectives to improving systems level performance and schooling outcomes which will be the emphasis of the combined Scheme along-with incentivizing States towards improving quality of education.

SDG-4.1 states that “By 2030, ensure that all boys and girls complete free, equitable and quality primary and secondary education leading to relevant and effective learning outcomes. SDG 4.5 states that “By 2030, eliminate gender disparities in education and ensure equal access to all levels of Education and vocational training for the vulnerable, including persons with disabilities, indigenous peoples and children in vulnerable situations”.

Bharosa: Integrated Support Centre for Distressed Women and Children

Why in News?

United Nations Development Programme (UNDP) will soon set up a skill development centre at 'Bharosa,' an integrated support centre for distressed women and children in Hyderabad. It is aimed at empowering vulnerable and marginalised women by imparting skills training.

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About Bharosa

- It is an initiative of Hyderabad City Police, is a state-of-the-art centre to support women and children who are victims of violence. Since its inception in 2016, a total of 3,560 victims have approached 'Bharosa' centre with a range of problems.

Last year, the Hyderabad Police had signed an agreement with UNDP under the 'Disha' project to build capacities and skills of women affected by violence to help make them economically self-sufficient. The agreement extends support to enable these women to learn marketable skills and connect with income opportunities.

- Bharosa' provides under one roof, 24X7 services related to police, medical, legal, prosecution, psycho-therapeutic counselling and relief and rehabilitation services in completely private counselling rooms to maintain confidentiality and privacy.
- The centre is equipped with well-trained staff and modern gadgets, including facilities like video conferencing, so that the victims need not go to the court.

PEPPER IT WITH

Sustainable Development Goals, Samarth, National Skills Qualifications framework, Human Development Report

About UNDP

The United Nations Development Programme is the UN's global development network, advocating for change and connecting countries to knowledge, experience and resources to help people build a better life. UNDP's work is concentrated on three main focus areas:

- Sustainable development
- Democratic governance and peace building
- Climate and disaster resilience

UNDP has its headquarters in New York City, but works primarily through its offices in about 170 countries and territories. UNDP is based on the merging of the United Nations Expanded Programme of Technical Assistance, created in 1949, and the United Nations Special Fund, established in 1958. UNDP, as we know it now, was established in 1965 by the General Assembly of the United Nations. The annual Human Development Report (HDR) is published by UNDP.

Green Skill Development Programme

The Green Skill Development Programme (GSDP) of the Ministry of Environment, Forest and Climate Change (MoEF&CC) is an initiative for skill development in the environment and forest sector to enable India's youth to get gainful employment and/or self-employment.

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The programme endeavours to develop green skilled workers having technical knowledge and commitment to sustainable development. It will help in the attainment of the Nationally Determined Contributions (NDCs), Sustainable Development Goals (SDGs), National Biodiversity Targets (NBTs), as well as Waste Management Rules (2016).

Background

- The pilot project of GSDP was launched in June 2017, for skilling Biodiversity Conservationists and Para-taxonomists of 3 months duration each at 10 locations, spread over 9 bio-geographic regions of the country.
- Based on the feedback received from the stakeholders, the GSDP is being scaled up to an all-India level. The GSDP has been conceptualised and developed in MoEF&CC in consultation with the National Skill Development Agency.
- The number of people to be covered under GSDP will be 80,000 during 2018-19, 2.25 lakh during 2019-20 and about 5 lakh people by the year 2021. More than 30 programmes have been identified, which will be conducted in 84 institutions across the country.

Implementation

Realizing the need for developing the green skills, the Ministry of Environment, Forest & Climate Change (MoEF& CC) is utilising the vast network and expertise of Environmental Information System (ENVIS) hubs and Resource Partners (RPs). ENVIS is a decentralized network of 66 centres of which 31 Centres dealing with "State of the Environment and Related Issues" are hosted by State

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Government /UT Administrations called ENVIS Hubs and remaining 35 Centres are hosted by environment-related governmental and non-governmental organisations.

The skilling programmes cover diverse fields. All courses will be National Skills Qualifications Framework (NSQF) compliant. The Ministry will give Certificates indicating the skilling levels to all successful candidates.

NSDA

National Skill Development Agency (NSDA) is an autonomous body under Ministry of Skill Development and Entrepreneurship that anchors the National Skill Qualifications Framework and allied quality assurance mechanisms for synergizing skill initiatives in the country. The NSDA will discharge the following functions:

- Take all possible steps to meet skilling targets as envisaged in the 12th Five Year Plan and beyond.
- Coordinate and harmonize the approach to skill development among various Central Ministries/Departments, State Governments, the NSDC and the private sector.
- Anchor and operationalize the NSQF to ensure that quality and standards meet sector specific requirements.
- Be the nodal agency for State Skill Development Missions;
- Raise extra-budgetary resources for skill development from various sources such as international agencies, including multi-lateral agencies, and the private sector.
- Evaluate existing skill development schemes with a view to assessing their efficacy and suggest corrective action to make them more effective.
- Create and maintain a national data base related to skill development including development of a dynamic Labour Market Information System (LMIS).
- Take affirmative action for advocacy.
- Ensure that the skilling needs of the disadvantaged and the marginalized groups like SCs, STs, OBCs, minorities, women and differently abled persons are taken care of.
- Discharge any other function as may be assigned to it by the Government of India.

PEPPER IT WITH
Geospatial techniques in
Wildlife Management

Central Institute of Higher Tibetan Studies (CIHTS)

Prime Minister of India honoured a prominent institute of Tibetan studies as part of celebrations to mark Buddha Purnima. Government has allocated ₹360 crore for the development of the Buddhist circuit. Indian PM also honoured the All India Bhikshu Sangha of Bodh Gaya.

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CIHTS

It is a centrally funded institute that was started in 1967 following a discussion between Dalai Lama and Prime Minister Jawaharlal Nehru in the early 1960s. This was later turned into an autonomous body under the Ministry of Culture. Though the Central Tibetan Administration, the authority of the Tibetans in exile has several programmes for cultural preservation, CIHTS is unique as it is a unique institution in India.

Buddhist Circuit

The Buddhist Circuit is a route that follows in the footsteps of the Buddha in India. The sites on the route — all over 2,500 years old — are among the most significant and revered for all Buddhists. They include Bodhgaya in Bihar where the Buddha attained enlightenment, and Sarnath and Kushinagar in Uttar Pradesh, where he gave his

PEPPER IT WITH
Ramayana Circuit, Krishna Circuit,
HRIDAY Scheme, PRASAD Scheme

first teachings and died respectively. The Buddhist Circuit is a key pilgrimage destination for 450 million practicing Buddhists.

The tourism ministry will start by focusing on Buddhist trails in Bihar and Uttar Pradesh and gradually move towards Madhya Pradesh, Gujarat and Andhra Pradesh.

5th India CLMV Business Conclave

Why in News?

The Ministry of Commerce & Industry, Government of India along with Ministry of Commerce of Cambodia organized the 5th India-CLMV Business Conclave in Phnom Penh. After four rounds of the Business Conclave in India, this initiative was brought by Department of Commerce of Government of India to Cambodia, for greater participation from the region. The Confederation of Indian Industry (CII) is the institutional partner of the event. Ministerial and business delegations from India, Cambodia, Myanmar, Vietnam and Laos consisting of about 400 delegates participated in the inaugural programme.

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PEPPER IT WITH
 ASEAN, BIMSTEC, BRICS,
 SAARC, Act east policy

CMLV Significance

- The 2015-2016 Indian budget includes a proposal to set up manufacturing hubs in CLMV countries. The CLMV includes four Southeast Asian nations – Cambodia, Myanmar, Laos, and Vietnam, which are seeing the highest foreign direct investment growth in the region, especially in manufacturing.
- As India seeks to deepen economic partnerships with Southeast Asia under an “Act East” policy, it has prioritized CLMV economies.
- India and the CLMV countries share similar economic characteristics when it comes to prospects for manufacturing. All of these countries have a large young labor force and inexpensive operating costs.
- However, CLMV countries have become a major source of competition for India in manufacturing due to their position in integrated value chains in Southeast Asia.
- Along with being a preferred region for manufacturing, CLMV countries are also large potential markets for Indian products. The region has good population, growing incomes, and a rapidly expanding middle class.

US Indo-Pacific Command

In recognition of the increasing connectivity between the Indian and Pacific Oceans, the Trump administration renamed the US Pacific Command to US Indo-Pacific Command. The move is also reflective of the growing importance of the Indian Ocean in US strategic thinking. Henceforth, the storied US Pacific Command, or PACOM, which was formed after World War II, will be known as the Indo-Pacific Command (Indo PACOM).

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US said that it will continue to invest vigorously in Indo-Pacific stability, bolstering the free and open rules-based international order that has enabled this region to grow and thrive for over 70 years.

Countering China

- The US move comes in the wake of a series of measures by China that have raised tensions in the South China Sea. China claims almost all of the South China Sea.

The Indo-Pacific Command is one of the six US geographical combatant commands (there are three functional commands that include special forces and the strategic weapons) and its area of responsibility spans 38 countries including India, China, Australia, Japan, the ASEAN countries and the two Koreas.

Vietnam, Philippines, Malaysia, Brunei and Taiwan have counter claims over the area. The US also rejects China's claims of ownership of the area.

- The 2018 National Defence Strategy which acknowledges Pacific challenges and signals **America's resolve and lasting commitment** to the Indo-Pacific, **America's vision is shared** by most nations in the region.
- Taking dig at China's B&R initiative, US stated that for every state, sovereignty is respected, no matter its size **and it's a region open to investment and free, fair and reciprocal trade not bound by any nation's predatory economics** or threat of coercion, for the Indo-Pacific has many belts and many roads.

PEPPER IT WITH
 Operation Insaniyat, NAFTA, Islamic Cooperation Countries, Gilgit-Baltistan, THAAD, N Korea crisis, TPP, Ring of fire

India

- The Pentagon's move is reflective of the growing importance of India in US strategic thinking. The renaming reflects the existing geographic coverage of the command and the acknowledgement of the increasing connectedness between the two oceans — **what happens in the Pacific, doesn't stay in the Pacific** —, but also, more broadly, the process of India's **re-entry into the U.S. government's 'Asia' orbit**.
- India was granted the 'Major Defence Partner' status by the previous Barack Obama Administration, providing for transfer of technology and deeper cooperation in the defence sector.
- In 2016, India and the US had signed a crucial logistics defence pact enabling their militaries to use each other's assets and bases for repair and replenishment of supplies, making joint operations more efficient. Soon after coming to power, the Trump administration had renamed Asia Pacific as Indo-Pacific and identified India as one bookend of the region.
- The change does not mean more personnel will be sent to the region, but instead recognises the increasing military importance of India as the the US works to assert regional dominance **over China. This demonstrates recognition by America's national security and defence leadership** that Indian military power is essential to the stability of Asia.

Pacific Islands Development Forum

Why in News?

The Pacific Islands Forum has been granted approval to establish a Permanent Observer Office at the United Nations Office at Geneva (UNOG).

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The regional representative's office will now be known as the Permanent Delegation of the Pacific Islands Forum to the United Nations, World Trade Organization, and other international organizations in Geneva. This accreditation will not change the current trade mandate of the Forum Geneva Office; any expansion beyond this mandate remains a matter for Forum Leaders to decide.

PEPPER IT WITH
 Small island developing states, Alliance of small islands state, India-Fiji

Significance

The current mandate of the Pacific Islands Forum's presence in Geneva means that it will initially priorities intensified cooperation with the United Nations Organisations who are active in the area of trade

The island nation of Fiji had failed to hold a general election which had been scheduled for March 2009. After Fiji failed to meet the set deadline, the Forum **suspended Fiji's membership indefinitely. However, after five years, Fiji conducted a general election on September 2014 after which the Forum readmitted Fiji on October 2014.**

development; areas of cooperation may expand in the future based on the determination of its political leadership.

The accreditation to the UNOG strengthens the Pacific’s regional representation in Geneva and provides a foundation for partnership and collaboration between the Pacific Islands Forum Secretariat and the trade-related international agencies based there.

Pacific Islands Forum

- The Pacific Islands Forum is the region’s premier political and economic policy organisation.
- Founded in 1971, it comprises 18 members: Australia, Cook Islands, Federated States of Micronesia, Fiji, French Polynesia, Kiribati, Nauru, New Caledonia, New Zealand, Niue, Palau, Papua New Guinea, Republic of Marshall Islands, Samoa, Solomon Islands, Tonga, Tuvalu, and Vanuatu.
- The Forum’s Pacific Vision is for a region of peace, harmony, security, social inclusion and prosperity, so that all Pacific people can lead free, healthy, and productive lives.
- The Pacific Islands Forum works to achieve this by fostering cooperation between governments, collaboration with international agencies, and by representing the interests of its members.
- Since 1989, the Forum has organised an annual meeting with key Dialogue Partners at Ministerial level. The Forum currently recognises 18 dialogue partners

SCO Cultural Ministers’ Meeting

Why in News?

The Minister of State for Culture led the Indian delegation to the 15th Meeting of the Cultural Ministers of the Shanghai Cooperation Organization(SCO) Member States held in Sanya, Hainan province. India participated for the first time at the Meeting of Cultural Ministers of the SCO.

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Key discussions of the SCO meeting focused on achieving more in-depth and creative multilateral cultural cooperation and promoting regional cultural cooperation and mutual understanding of the people. All participants agreed that cultural cooperation between SCO member states made remarkable progress in the past year, and reports presented at the meeting about diversified exchanges and cooperation clearly showed that bilateral and multilateral cooperation is growing deeper and wider.

PEPPER IT WITH

Kazakhstan uranium bank, Red Sea, Ara Sea, Mediterranean Sea

The two-day meeting concluded with the issuance of the 2018-20 Executive Plan. The representatives also joined in a news release welcoming India and Pakistan into the SCO and encouraging more direct contacts and practical exchanges of cultural organizations within SCO member states, as well as joint creation of cultural products and works.

The next Pravasi Bharatiya Divas will be held in the holy city of Varanasi in January with the Indian diaspora having an option to participate in Kumbha Snan and attend the Republic Day parade in New Delhi.

Significance

- India has a long history of cultural exchanges with China and other SCO member states. Joining the SCO has provided a new platform, greater space and opportunities for exchanges and cooperation.
- Culture is a binding force in the development of peaceful coexistence for humanity. It will be a win-win situation for China and India - both of which have a rich and diversified culture

- to further explore and develop wider cultural exchanges and cooperation that could include tourism, education, science, archaeology, music, drama and even yoga.

SCO

- ✓ The Shanghai Cooperation Organization (SCO) is an eight-member multilateral organization, established on 15 June 2001 in Shanghai, China by the leaders of China, Kazakhstan, Kyrgyzstan, Russia, Tajikistan and Uzbekistan. Pakistan also became the full member of SCO along with India, taking its membership to 8.
- ✓ **After the expansion of membership, SCO represents approximately 42% of the world's population, 20% of its GDP and 22% of the landmass.**
- ✓ The main objectives of the SCO are to strengthen relations among member states; promote cooperation in various fields like political affairs, economics, and education, culture, tourism, environment protection etc. and promote regional peace, security, and stability among others.
- ✓ India became full member of the Shanghai Cooperation Organization (SCO) on 9th June, 2017 during the SCO Heads of State Summit in Astana, Kazakhstan. At this Summit, the Indian Prime Minister had stated that from the regional and global perspective, Shanghai Cooperation Organization is one of the main pillars of peace and security.

PEPPER IT WITH
SCO-UNESCO exhibition

SCO meet on counter-terror

India participated to discuss legal modalities of counter-terrorism for a meeting that Pakistan hosted along with the members of the Shanghai Cooperation Organisation (SCO). Pakistan welcomed legal experts from India, China and other member countries to participate in the Shanghai Cooperation Organisation-Regional Anti-Terrorist Structure (SCO-RATS) held in Islamabad.

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The legal experts discussed terrorist threats facing the region and ways and means to enhance counter-terrorism cooperation between SCO member states. Counter-terrorism has been on the agenda of the SCO since its inception in 2001 but has been boosted since membership was granted to India and Pakistan in 2017.

The first edition of the Global Wind Summit will be held in September, 2018 in Hamburg. The conference on wind is the largest and most important meeting of the wind industry worldwide. India is fourth largest country -- after China, the US and Germany -- in terms of wind energy installation capacity at around 33 GW.

The RATS held its meeting in the first week of April to finalise a draft for counter-terror cooperation for 2019-'21. The organisation also held a discussion in Delhi during January 31 to February 2. The event will be the first such time Pakistan will host India and other members of SCO to discuss a response to terrorism.

SCO

The organisation has two permanent bodies — the SCO Secretariat based in Beijing and the Executive Committee of the Regional Anti-Terrorist Structure (RATS) based in Tashkent. The SCO Secretary-General and the Director of the Executive Committee of the SCO RATS are appointed by the Council of Heads of State for a term of three years. Rashid Alimov (Tajikistan) and Yevgeny Sysoyev (Russia) have held these positions, respectively, since 1 January 2016.

PEPPER IT WITH
FATF, Grey list FATF, Marshall Island, Roopar Atomic Plant

ASEAN India Film Festival

The Directorate of Film Festivals organised ASEAN India Film Festival in Delhi in collaboration with the Ministry of External Affairs (ASEAN Multilateral Division) as part of the series of events to commemorate the 25 years of ASEAN and India relations.

Around 32 films from 11 countries were screened for six days during the ASEAN India Film Festival, which was inaugurated in Siri Fort Auditorium by the minister of information and broadcasting. Jassari Movie Sinjar was the opening film for the festival.

As a vehicle of Cultural Exchange, the Directorate of Film Festival aims to provide access to new trends in filmmaking by providing the platform for an exchange of ideas, culture and experiences in the field of cinema. The ASEAN film festival had countries which have immense and colourful cultural diversity but share common historical thread.

ASEAN

The Association of Southeast Asian Nations (ASEAN) is a regional intergovernmental organization comprising ten Southeast Asian countries (Indonesia, Malaysia, the Philippines, Singapore, Thailand, Brunei, Cambodia, Laos, Myanmar and Vietnam) which promotes Pan-Asianism and intergovernmental cooperation and facilitates economic, political, security, military, educational and socio-cultural integration amongst its members and other Asian countries, and globally. Its principal aims include accelerating economic growth, social progress, and sociocultural evolution among its members, alongside the protection of regional stability and the provision of a mechanism for member countries to resolve differences peacefully.

ASEAN is an official United Nations observer, as well as an active global partner. It also maintains a global network of alliances and is involved in numerous international affairs.

The BRICS ministerial on Environment has agreed to include "Green Good Deeds", a societal movement to protect environment and promote good living, in its official agenda in the next ministerial of the grouping in Brazil and Russia.

PEPPER IT WITH African Development Bank, Asian Development Bank, New Development Bank, EIB, EBRD

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15th Asia Media Summit

The 15th Asia Media Summit (AMS) 2018 was hosted by the Ministry of Information and Broadcasting, Government of India, jointly with the Indian Institute of Mass Communication (IIMC), New Delhi and Broadcast Engineering Consultants India Limited (BECIL). **With the theme, 'Telling Our Stories -**

Asia and More', AMS 2018 aimed to encourage dialogue and cooperation in Media Sector in the Region.

- The AMS 2018, an annual summit of the Asia-Pacific Institute for Broadcasting Development (AIBD) Kuala Lumpur, is a prestigious summit in the Asia Pacific Region and India is hosting the event for the first time.

World TV Awards 2018 were given at the end of the summit.

- ❖ "The Winner Prize" consists of US\$ 5,000.00 cash, a trophy and a certificate presented by AIBD per Award category.
- ❖ Journey on Foot - Homewards, broadcast by KBS1 – Korea and directed by Mr Hang Seok won the Award under Humanity Category for the Best TV Documentary on "Immigration or Migration".
- ❖ "Blueprint for Survival - NEWater" directed by MsMak Ying Kwan and broadcast by Channel NewsAsia (Mediacorp) – Singapore was the winner for the best TV Programme on "Clean Water for Life", under the category Science/Environment.

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- Participants would represent organizations like Ministries responsible for Information and Broadcasting in the Asian region, International Organizations UNESCO, FAO, UN; Regulators; Radio and Television broadcasting companies both national/ public and private broadcasters.

PEPPER IT WITH
 Bidya Devi Bhandari, Happiness Index, ICC, ICJ, PCA, Lalit Kala Academy

Significance

The Summit would encourage regional and bilateral dialogue and cooperation to respond to challenges to the broadcasting sector in the region. It would provide a unique opportunity for broadcasters in the Asian region to share their thoughts on software and hardware aspects of Broadcasting. There are also opportunities for networking, facilities for business to business meetings and prospective translation of these meetings into trade and economic relations after the summit.

WHO Framework Convention on Tobacco Control

The Union Cabinet has given approval to accede to the Protocol under World Health Organization (WHO) Framework Convention on tobacco control to eliminate illicit trade in tobacco products. It will be applicable to both smoking and chewing or smokeless tobacco (SLT) forms as negotiated and adopted under Article 15 of the World Health Organization Framework Convention on Tobacco Control (WHO FCTC). India is a party to WHO FCTC.

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Background

The WHO Framework Convention on Tobacco Control (WHO FCTC) is the first international public health treaty negotiated under the auspices of the WHO. The objective of FCTC is to provide a framework for supply and demand reduction measures for tobacco control at the national, regional and global levels.

Protocol was developed and adopted by the Conference of Parties (COP) which is the governing body of FCTC. The protocol is divided into 10 parts and contains 47 Articles.

Details

The protocol lays down obligations of the parties. It spells out supply chain control measures that must be adopted by the parties viz. licensing of manufacture of tobacco products and machinery for manufacturing of tobacco products, due diligence to be kept by those engaged in production, tracking and tracing regime, record keeping, security; and measures to be taken by those engaged in e-commerce, manufacturing in free-trade zones and duty-free sales.

IIM-Ahmedabad's Centre for Innovation, Incubation and Entrepreneurship (CIIE) has launched the Bharat Inclusion Initiative, with a commitment of \$25 million from The Bill and Melinda Gates Foundation, Omidyar Network and Michael and Susan Dell Foundation. The initiative will focus on incubating and backing startups that work in areas such as financial inclusion, livelihood, education and health.

The protocol lists out offences, enforcement measures such as seizures and disposal of seized products. It calls for international cooperation in information sharing, maintaining confidentiality, training, technical assistance and cooperation in scientific and technical and technological matters.

Significance

Elimination of illicit trade in tobacco products through strengthened regulation will help in strengthening comprehensive tobacco control, leading to reduction in tobacco use which in turn, will result in reduction in disease burden and mortality associated with tobacco use.

KSG – (DELHI VN) 9717380832, (DELHI RN), (JAIPUR) 8290800441, (BHOPAL)7509975361, (PATNA) 7463950774, (INDORE) 7314977441, www.ksgindia.com

Accession to such treaty will provide actionable alternatives against such prevailing practices that are affecting public health at large. India, being at the forefront of tobacco control, would be able to influence the international organizations including World Custom Organization in controlling such illicit trade.

PEPPER IT WITH
World Water Day, African Continental Free Trade Area, Buenos Aires Declaration on women and trade.

Gold Demand Trends

Why in News?

The gold demand in India declined by 12 per cent in the first quarter of this year to 115.6 tonne compared to the same period last year due to high local gold price.

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The total demand stood at 131.2 tonne in the January- March period in 2017, World Gold Council said in its 'Gold Demand Trends' report for Q1 2018. In terms of value, the gold demand fell by 8 per cent to Rs 31,800 crore, compared to Rs 34,440 crore in the same period of 2017.

The first quarter in India is not naturally a dynamic period for gold as people usually settle their other financial commitments for tax purposes. Moreover, there was also no catalyst like duty cut to trigger demand.

Highlights

- The decline in demand can be attributed to a number of reasons, including the rising local gold prices, a substantial drop in the number of auspicious wedding days during the period compared to the previous year, and anticipation of an import duty cut in the Union Budget.
- The transition to GST, especially by the unorganised sector, also affected demand to a certain extent. Also, the trade sentiment was subdued following the (PNB) bank scam, which continued till 'Akshaya Tritiya'.
- The jewellery demand in India for the first quarter dipped by 12 per cent to 87.7 tonne, compared to 99.2 tonne in the same period of 2017.
- The total gold recycled in India also declined by 3 per cent during the first quarter of 2018, to 14.1 tonne from 14.5 tonne in the same period of 2017.
- Meanwhile, the gold imports declined by 50 per cent in the first quarter of this year to 153 tonne compared to 260 tonne in the same period last year.

PEPPER IT WITH
Kimberley Certification, Jerusalem, Two nation theory, Iran sanctions

World Gold Council

- It is the market development organisation for the gold industry. Its purpose is to stimulate and sustain demand for gold, provide industry leadership, and be the global authority on the gold market.
- The gold market has undergone significant change over the past two decades, becoming larger, stronger and more widely understood. The World Gold Council has been a key player in many of the initiatives that have driven that change, such as the liberalisation of the gold market in China and the rapid rise of demand in the East.
- It has also increased recognition of gold as a financial asset across a wide spectrum of market segments, supported by physically-backed gold product innovations.

- Its members are the world’s largest and most forward-thinking gold mining companies. Based in the UK, with operations in India, China, Singapore and the US, it is the lead for the gold industry worldwide.

United Nations Peacekeeping Course for African Partners (UNPCAP)

Why in News?

The third edition of the United Nations Peacekeeping Course for African Partners (UNPCAP) was inaugurated in Delhi to build and enhance the capacity of the African Troop Contributing Countries to the UN. The course was conducted by the Centre for United Nations Peacekeeping in India (CUNPK) in partnership with the US. The first and second editions of the course were held in New Delhi in 2016 and 2017, respectively.

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The training incorporates topics on operational and logistical matters, humanitarian issues, thematic topics and table top exercises, and mission briefs, and would be conducted by a rich pool of seasoned instructors from India, the US as well as the alumni instructors from Africa who have attended the previous edition of this course.

PEPPER IT WITH
 US dollar dominated bonds by AIIB, WEF, Global Centre for Cyber Security, Global Forum for Food and Agriculture

Significance

The course is aimed to build and enhance the capacity of the African Troop Contributing Countries to the UN and to further train the trainers from these countries. The course, which revolves around the concept of training the trainers, as stated by the UN, is one of the many steps that India has initiated towards active contribution to peace support activities.

US Pulls out of Iran Deal

The United States has pulled out of the Iran nuclear deal, President Donald Trump announced, upending a key foreign policy achievement of his predecessor Barack Obama.

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The President has directed his administration to immediately begin the process of re-imposing sanctions against Iran that were lifted by the JCPOA. The re-imposed sanctions will target critical sectors of Iran’s economy, such as its energy, petrochemical, and financial sectors.

Reason

- Repeating his long-held views on the deal, the President said JCPOA failed to deal with **the threat of Iran’s missile program and did not include a strong enough mechanism for inspections and verification.**
- Accusing Iran of malign activities in the region, US said that it would not surrender to **“nuclear blackmail by Iran.” US said that the agreement was so poorly negotiated that even if Iran fully complies, the regime could still be on the verge of a nuclear breakout in just a short period of time.**
- **The deal’s sunset provisions are totally unacceptable. US stated that if it allowed this deal to stand, there would soon be a nuclear-arms race in the Middle East.**

PEPPER IT WITH
 UN world food program, UN Development partnership fund, Tanzania and UN Refugee program

JCPOA

- The JCPOA, signed on July 14, 2015, was the result of prolonged negotiations between Iran and P5+1 (U.S., U.K., France, Russia, China, Germany and EU). Talks began in 2003 between Iran and E-3 (Germany, France and U.K.), and in 2005 expanded to the P5+1 format. Negotiations frequently stalled leading to new sanctions on Iran but became **purposeful after Hassan Rouhani's election as President in 2013.**
- In 2004, Iran had around 1000 centrifuges, and by 2015 the number had grown to 20,000. The U.S. concluded that Iran had recovered from the Stuxnet debacle and was barely months away from producing enough highly enriched uranium (20-25 kg) to produce a **nuclear device. Therefore the JCPOA focused exclusively on rolling back Iran's nuclear activities.**
- Under the JCPOA, Iran ended certain activities (converting the underground Fordow enrichment facility into a research centre and dismantling of the Arak heavy water research reactor), accepted restraints on other activities (reducing the number of operational centrifuges to 5060 at Natanz for 10 years, restricting enrichment level to 3.6% for 15 years, limiting the low enriched uranium stocks to 300 kg by shipping out nearly 10 tonnes of extra stocks and refraining from setting up a research reactor for 15 years) and accepted a highly rigorous inspection regime.
- In return, about \$100 billion of Iranian assets were unfrozen and Iran was allowed to resume sales of oil. January 16 last year was declared Implementation Day when the IAEA certified Iranian compliance and sanctions relief kicked in. The UN Security Council (UNSC) unanimously adopted Resolution 2231, endorsing the JCPOA and lifting the UNSC sanctions.

Impact on India

India could face the impact of the U.S. decision on the deal as well as instituting the “highest level of economic sanctions” in several ways:

Oil: The impact on world oil prices will be the immediately visible impact of the U.S. decision. Iran is **presently India's third biggest supplier (after Iraq and Saudi Arabia), and any increase in prices will hit both inflation levels as well as the Indian rupee.**

Chabahar: **India's moves over the last few years to develop berths at the Shahid Beheshti port in Chabahar was a key part of its plans to circumvent Pakistan's blocks on trade with Afghanistan,** and the new U.S. sanctions could slow or even bring those plans to a halt depending on how strictly they are implemented.

INSTC: Beyond Chabahar, India has been a founder of the International North South Transport Corridor (INSTC) since it was ratified in 2002. It starts from Iran and aims to cut right across Central Asia to Russia over a 7,200-km multi-mode network.

Shanghai Cooperation Organisation: This year, Chinese officials say they will consider inducting Iran into the 8-member Eurasian security organisation. If the proposal is accepted by the SCO, which is led by China and Russia, India will become a member of a bloc that will be seen as anti-American.

Rules-based order: **India has long been a proponent of a “rules-based order” that depends on multilateral consensus and an adherence to commitments made by countries on the international stage. By walking out of the JCPOA that was signed by the Obama administration, the U.S.**

government has overturned the precept that such international agreements are made by “States” not just with prevailing governments or regimes. This could also impact all agreements India is negotiating both bilaterally and multilaterally with the U.S., and the government will have to choose its future course factoring in the new U.S. behaviour.

Reactions worldwide

- ✓ France, Germany and the UK - whose leaders had tried to change US mind - have said they "regret" the American decision. The foreign ministry of Russia, another signatory, said it was "deeply disappointed". EU is "determined to preserve" the deal.
- ✓ The United Nations secretary general Antonio Guterres was "deeply concerned" at the announcement and called on the other signatories to abide by their commitments.
- ✓ Israel's Prime Minister Benjamin Netanyahu said that Israel "fully supports" US bold withdrawal from a disastrous deal.
- ✓ And Saudi Arabia, Iran's regional rival, said it supports and welcomes US moves towards pulling out of the deal.

Conclusion

US decision is not about nuclear weapons. If US administration was actually concerned about Iran acquiring them, it would have supported a deal that closes the path towards nuclear weapons for Iran. **Instead, the bigger concern for US as well as Washington's closest allies in West Asia — Israel and Saudi Arabia — is Iran's re-accommodation in the global economic mainstream.** They fear that **if Iran's economic profile rises, it will embolden it to increase its regional presence, posing a strategic threat to the interests of the U.S.-Saudi-Israel axis.**

The U.S. action doesn't necessarily trigger an immediate collapse of the agreement. For now, Europe, Russia and China remain committed to it. Iran has responded cautiously, with the Foreign Minister saying he will engage diplomatically with the remaining signatories. But the challenges will emerge, not only for Europe but also for other nations with strong trade ties with Iran, including India, once American sanctions are in place. The U.S. stands isolated in its decision. But the question is whether Europe and other powers will stick together to respect the mandate of an international agreement, or buckle under American pressure. If they do cave in, West Asia will be a lot more dangerous.

Irish abortion Referendum

Ireland voted by an overwhelming majority to overturn a constitutional ban on abortion in a historic referendum in this traditionally Catholic country. The pro-choice campaign won referendum with 66% of the 2.1 million votes cast.

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The outcome will be the latest milestone on a path of change for a country which only legalised divorce by a razor thin majority in 1995 before becoming the first in the world to adopt gay marriage by popular vote three years ago. Voters were asked if they wish to scrap the amendment, which gives an unborn child and its mother equal rights to life. The consequent prohibition on abortion was partly lifted in 2013 **for cases where the mother's life was in danger.**

In a first, a Post Office Passport Seva Kendra (POPSK) run by an all-woman team has started operations in Phagwara (Punjab). It was 192nd POPSK in the country, but first one to be operated by an all-woman team.

Reform in Ireland also raised the prospect that women in Northern Ireland, where abortion is still illegal, may start travelling south of the border. No social issue has divided Ireland's 4.8 million people as sharply as abortion, which was pushed up the political agenda by the death in 2012 of a 31-year-old Indian immigrant from a septic miscarriage after she was refused a termination.

Direct Democracy

PEPPER IT WITH
World Government
Summit, OPEC, TAPI

- Direct democracy describes those rules, institutions and processes that enable the public to vote directly on a proposed constitutional amendment, law, and treaty or policy decision.
- **The main forms of direct democracy are referendums and citizens' initiatives.**
- Referendums give the people a direct vote, which may be binding or advisory, on a specific political, constitutional or legislative issue that is referred to them by governing institutions (presidents, cabinets, parliaments etc.). The people's role is usually limited to ratifying or repealing decisions that have already been taken by such institutions or to accepting or rejecting propositions that these governing institutions have put forward.
- Citizen's initiatives give the electorate a direct vote, which may be binding or advisory, on a specific political, constitutional or legislative issue that is initiated by the people. They precede the decisions of governing institutions, and in some jurisdictions may even enable new laws or constitutional amendments to be adopted without the consent of the elected legislature. They are typically proposed by a petition with a certain number of signatures.
- Another mechanism that is frequently referred to as a form of direct democracy is the recall vote, which enables citizens, usually following a petition signed by a certain number of constituents, to vote on the removal from office of a representative or elected official. Recall does not, however, enable people to vote on a substantive legislative or policy decision.

ToneTag

Why in News?

ToneTag, a Bengaluru-based financial technology company, is set to introduce sound-based data transfer technology that had already been picked up by the likes of MasterCard and Infosys.

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ToneTag is a technology which is a communication protocol that will enable data transfer using sound waves. A software update can convert the sound around us and the sound that a mobile phone can generate and do a data transfer. There is no hardware dependency like Bluetooth, Wi-fi, NFC and QR.

Near Field Communication

- ❖ It enables short range communication between compatible devices. This requires at least one transmitting device, and another to receive the signal.
- ❖ Just like Bluetooth and WiFi, and all manner of other wireless signals, NFC works on the principle of sending information over radio waves.
- ❖ The technology used in NFC is based on older RFID (Radio-frequency identification) ideas, which used electromagnetic induction in order to transmit information.
- ❖ NFC requires much less power consumption than Bluetooth but has much less transmission range than Bluetooth.

- Users in India may be familiar with the concept of sound-based communication through the Google Tez app, which allows UPI payments between two phones using sound-based communication. However, ToneTag takes this concept a large

step further by enabling this kind of communication even with devices that do not have a microphone or speaker.

- In short, customers will be able to enter a shop that has no other electronic payment mechanism other than a card swiping machine and make payments even if they have left their wallet at home. As with any other QR-based payment system, they will also have the option to choose their mode of payment (UPI, debit card, etc) and approve of the payment before it is made.
- This does not require a smartphone unlike other payment options such as QR or near field communication (NFC) since the software simply requires the microphone and speaker already present in the most basic of phones. This when combined with the fact that it requires no **additional hardware on the merchant’s part, makes such a technology a very attractive proposition in rural India.**

About ToneTag Technology

ToneTag uses inbuilt features of modern and legacy devices to transfer data over sound. This approach makes the entire process device agnostic and completely frictionless, making the user experience intuitive and highly adaptable. ToneTag sound-wave communication platform enables highly secure proximity payments, customer engagement services and on-the-go mobility solutions. In fact, this is just the beginning, future applications could range from toys to robots to hospitals to mining, the possibilities are limitless.

PEPPER IT WITH
 POS, Blockchain Technology,
 Google Tez App, Qi charging

Key Features and Benefits

INTER-OPERABILITY

ToneTag is highly interoperable and completely hardware independent, enabling all phone users, smartphone and feature phone, to experience a wide range of futuristic solutions. ToneTag easily integrates with all the existing mobile phone applications, POS, EDC or any other merchant terminal.

RANGE CONTROL

ToneTag provides out-of-the-box support for audible and inaudible frequency.

SAFETY & SECURITY

ToneTag uses 3 layers of encryption over proprietary protocol, with Blockchain and Tokenization for a fail proof secure transaction.

ADAPTABILITY & SCALABILITY

ToneTag works on existing infrastructure. Only a simple software push is required to enable it in any device or mobile app. Hence, it is highly scalable and can be used to solve several real-world problems.

INVISIBLE PAYMENTS

ToneTag provides a next generation digital payment experience wherein Issuers & Acquirers can enable payments securely without invoking customer intervention. This is especially critical in low value and loyalty-based transactions.

GravityRAT

GravityRAT, a malware allegedly designed by Pakistani hackers, has recently been updated further and equipped with anti-malware evasion capabilities according to Maharashtra cybercrime officials.

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The RAT was first detected by Indian Computer Emergency Response Team, CERT-In, on various computers in 2017. It is designed to infiltrate computers and steal the data of users and relay the **stolen data to Command and Control centres in other countries.** The 'RAT' in its name stands for Remote Access Trojan, which is a program capable of being controlled remotely and thus difficult to trace.

Mask presence

According to Maharashtra cybercrime department officials, the latest update to the program by its developers is part of **GravityRAT's function as an Advanced Persistent Threat (APT)**, which, once it infiltrates a system, silently evolves and does long-term damage.

“GravityRAT is unlike most malware, which are designed to inflict short term damage. It lies hidden in the system that it takes over and keeps penetrating deeper. According to latest inputs, GravityRAT has now become self-aware and is capable of evading several commonly used malware detection techniques. One such technique is 'sandboxing', to isolate malware from critical programs on infected devices and provide an extra layer of security.

The problem, however, is that malware needs to be detected before it can be sandboxed, and GravityRAT now has the ability to mask its presence. Typically, **malware activity is detected by the 'noise'** it causes inside the Central Processing Unit, but GravityRAT is able to work silently. It can also gauge the temperature of the CPU and ascertain if the device is carrying out high intensity activity, like a malware search, and act to evade detection.

Email attachment

- GravityRAT infiltrates a system in the form of an innocuous looking email attachment, which can be in any format, including MS Word, MS Excel, MS Power Point, Adobe Acrobat or even audio and video files.
- The other concern is that the Command and Control servers are based in several countries. The data is sent in an encrypted format, making it difficult to detect exactly what is leaked.

Way ahead

People should follow basic cyber hygiene like watching what they download, updating their anti-virus software and conducting cyber security reviews regularly. CERT-In had issued an alert for it last year, with advisory asking users to review cybersecurity measures and update anti-malware tools.

- ❖ A Distributed Denial of Service (DDoS) attack is an attempt to make an online service unavailable by overwhelming it with traffic from multiple sources.
- ❖ Phishing is the fraudulent practice of sending emails claiming to be from reputable companies to induce individuals to reveal personal information, such as passwords or credit card numbers.
- ❖ Spear Phishing is an email that appears to be from an individual or a business familiar to you. Spear phishers thrive on familiarity.
- ❖ Whaling is spear phishing targeted at an important person, such as a CEO or a senior-level employee in a firm.
- ❖ Just like farming where one plant seeds, in Pharming one is conned to 'voluntarily' plant details. The fraudster modifies the DNS entry to create a fake website and lures users to key in personal details.
- ❖ Tabnapping is similar to pharming, but here the CSS of the real website is copied.

PEPPER IT WITH
CERT-In, Wannacry, Ransomware, Phubbing, Spyware, Phishers

Pokhran II

Twenty years ago, on May 11, 1998, India took a leap into the unknown world of nuclear weapon powers with the tests at Pokhran. Though the decision was taken after great deliberation and with preparation, how the reaction of the

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world would affect the future of India was unknown. But today, it is certain that the action was timely and inevitable.

Gains

India has reason to be satisfied over having accomplished many of the objectives of Pokhran II. Indian diplomacy triumphed in turning a grave crisis into an opportunity by securing legitimacy for its nuclear arsenal and removing obstacles in generating nuclear power. But the hasty enactment of a liability law, which inhibited nuclear trade, and the setback globally to nuclear power on account of the Fukushima disaster stood in the way of India benefitting fully from Pokhran II and the subsequent agreements reached. The fact, however, remains that the 1998 tests and the subsequent nuclear deal have brought India to the nuclear mainstream and opened up the global nuclear market for development of nuclear power without signing the Treaty on the Non-Proliferation of Nuclear Weapons (NPT) or the Comprehensive Nuclear-Test Ban Treaty (CTBT).

The talks between U.S. and India over the next two years were the most comprehensive dialogues India had with the U.S. on its nuclear policy, including the threat perception and future plans for security. India was anxious to have the sanctions lifted. US began by insisting that the objective was to get India to sign the NPT. Then US listed five benchmarks as non-proliferation goals to normalise relations: signing the CTBT, halting production of fissile material, strategic restraint, strengthening export control regimes, and normalisation of relations with Pakistan. These were **strongly rejected by India, but the talks proceeded on the assumption that India's security concerns** should be fully understood, and that India would take certain measures to suit its new status.

But, in effect, India met the U.S. demands more than half way, leading to an understanding, which **led to President Bill Clinton's visit to India and Prime Minister Atal Bihari Vajpayee's visit to the U.S. in 2000.** India refused to sign the CTBT but declared a moratorium on testing; agreed to join the Fissile Material Cut-off Treaty negotiations without halting fissile material production; reaffirmed minimum deterrent without giving any number of warheads; and agreed to strengthen export controls. Additionally, India declared no-first-use and commitment to disarmament. Though no deal could be struck, the foundation was laid for what became the nuclear deal in 2008.

Though India placed its civilian nuclear facilities under perpetual safeguards, its nuclear assets remained fully insulated against external scrutiny and interference. India secured rights to receive uninterrupted nuclear fuel supplies as a trade-off against safeguards. It kept open its right to acquire advanced enrichment and reprocessing technologies, although it would require bilateral **negotiations with the U.S. and others. India's sovereign right to test a nuclear device in the future** has remained intact, although the deal would be in jeopardy in such an eventuality.

Apart from the specific gains in the nuclear area, the new India-U.S. partnership, which promised investment and high technology, was a turning point in Indian foreign policy. On the negative side, the deal generated mistrust in Russia and China, which had to be dealt with in future years.

Way Ahead

Ten years after signing the deal, its gains and losses have proved much less game-changing than it was hoped in 2008. The expectation was that the prospect of nuclear trade with India would be a great attraction, but in 2009 Mr.

Obama gave clear indication to his advisers that he would not sacrifice his non-proliferation agenda for commercial reasons.

The tests shocked the world, particularly because they were done with utmost secrecy and the India-U.S. ties hit rock bottom. For nearly two months, the U.S. refused to have any dialogue with India and implemented the Glenn Amendment for the first time. Newer sanctions were imposed, and at one point it looked that relations would never recover.

Much has happened since then, but the fact remains that there has been no nuclear trade till today. **India’s nuclear liability law, forced on the government by critics of the deal, became a smokescreen** for the U.S. to not supply nuclear material to India. The repeated declarations about a way out of the liability law and plans to set up American reactors in India have not changed the lack of enthusiasm in the U.S. on nuclear trade with India. In any case, the situation has become more volatile after Donald Trump became U.S. President.

Another major event that has shaken confidence in the value of nuclear power in India’s energy mix was the Fukushima disaster. It has changed the global nuclear power scenario beyond recognition, **though India has maintained that it is “business as usual”.** The government’s recent decision to build more indigenous reactors points to the fact that the dream of imported nuclear reactors **dotting India has disappeared.** India’s focus has rightly shifted to solar and other new sources of energy.

Shepard Space Capsule

Blue Origin, the U.S. aerospace company owned by Amazon founder Jeff Bezos, launched the suborbital New Shepard rocket and space capsule. The **mission marked the company’s first** flight of the year and second flight of the New Shepard 2.0 spacecraft.

The first New Shepard 2.0 launch occurred in December 2017, with six other flights launching on a predecessor New Shepard.

New Shepard

- New Shepard is a rocket manufactured by Blue Origin for space tourism. The rocket is designed to take passengers into suborbital space inside of a crew capsule. The capsule features six large observation windows, which Blue Origin says are the largest ever constructed for a spacecraft.
- New Shepard is fully reusable and it has made seven test launches. In November 2015, it was the first reusable rocket to successfully make a soft landing on the ground, beating out the more famous SpaceX Falcon 9 booster by several weeks.
- New Shepard is named after NASA Mercury program astronaut Alan Shepard, who was the first American to fly in space in 1961. Up to six people can fly into space at once; the interior volume is said to be large enough for everyone to float and move around. The large windows will provide a view of Earth.

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PEPPER IT WITH

Gaofen-5 high-resolution Earth observation satellite, GRACE mission, GSAT-6A, Insight probe, Internet of Things, JioCoins, RainCube

IRIDIUM-6/GRACE-FO MISSION

//SpaceX successfully launched five Iridium NEXT satellites and two GRACE-FO satellites at Vandenberg Air Force Base, California.

The twin spacecraft of the Gravity Recovery and Climate Experiment Follow-On (GRACE-FO), a joint NASA/German Research Centre for Geosciences (GFZ) mission, lifted off on a SpaceX Falcon 9 rocket, sharing their ride into space with five Iridium NEXT communications satellites.

GRACE-FO

It is a joint U.S./German space mission to track the continuous movement of water and other changes **in Earth’s mass on and beneath the planet’s surface.** GRACE-FO continues the U.S./German partnership of the original GRACE mission, which operated from 2002 through 2017.

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PEPPER IT WITH

Stem Cells, Leprosy, Ebola, Monkey Fever



Over its five-year mission, GRACE-FO will monitor the movement of mass around our planet by measuring where and how the moving mass changes Earth's gravitational pull. The gravity changes cause the distance between the two satellites to vary slightly. Although the two satellites orbit 137 miles (220 kilometers) apart, advanced instruments continuously measure their separation to within the width of a human red blood cell.

GRACE was the first mission to measure the amount of ice being lost from the Greenland and Antarctic ice sheets. The mission improved our understanding of the processes responsible for sea level rise and ocean circulation, provided insights into where global groundwater resources are shrinking or growing, showed where dry soils are contributing to drought, and monitored changes in the solid Earth, such as from earthquakes.

Iridium-NEXT

It is a low-orbiting communications satellite system operated by Iridium Communications Inc. as the **company's second generation global** communications system for satellite calls and data transfer. Comprised of 66 active satellites in orbit, Iridium-NEXT delivers full global coverage on a 24/7 basis and, through a unique Public-Private Partnership – offers unprecedented access to Earth observation data by flying hosted payloads on each of the constellation spacecraft.

Iridium is a Mobile Satellite Services provider, offering worldwide voice and data communications through satellite phones and other transceiver units with truly global coverage including the polar regions, the vast oceans and airways.

NASA's InSight Mars Lander Left Earth

NASA's InSight Mars lander left for the Red Planet. The spacecraft began its 205-day, 301-million-mile (485 million kilometers) journey to Mars by launching atop a United Launch Alliance Atlas V rocket from southern California. Its liftoff marked the first time in history that an interplanetary mission began from the U.S. West Coast.

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InSight Mars Lander

- Set to study the deep interior of the Red Planet — detecting marsquakes and monitoring subsurface heat flow in an effort to understand how rocky planets are formed—InSight has a plunge into the Martian atmosphere followed by a parachute- and thruster-assisted descent to the lava plains of Elysium Planitia in its future.
- InSight — which is short for Interior Exploration using Seismic Investigations, Geodesy and Heat Transport — will use two science instruments to do this work. One, a seismometer called the Seismic Experiment for Interior Structure (SEIS), will detect and characterize ground-shaking events such as "marsquakes" and meteorite impacts. SEIS' data will help scientists better understand the Red Planet's crust.
- The goal of InSight is nothing less than to better understand the birth of the Earth — the birth of the planet that we live on. The lander is scheduled to touch down on Mars on Nov. 26.

PEPPER IT WITH
Phoenix Mars Lander, Kepler-90, LKW Satellites, NISAR

Apstar-6C Communications Satellite

Why in News?

China has launched the Apstar-6C communications satellite, successfully inserting the 5-metric-ton spacecraft into a geostationary-transfer orbit.

Apstar

Apstar-6C joins a fleet of four fully operational satellites belonging to APT Satellite of Hong Kong, operator of the Apstar constellation, which provide coverage of the Asia-Pacific region and beyond. The satellite will replace the in-orbit Apstar-6 satellite, providing high-power transponder services for video distribution, broadband internet access, and cellular backhaul.

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Bangabandhu Satellite-1

SpaceX successfully launched Bangabandhu Satellite-1 from NASA's Kennedy Space Center in Florida. Falcon 9 delivered Bangabandhu Satellite-1 to a geostationary transfer orbit. The Bangabandhu Satellite-1 mission served as the first flight of Falcon 9 Block 5, the final substantial upgrade to SpaceX's Falcon 9 launch vehicle.

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Bangabandhu Satellite

- The Bangabandhu Satellite-1 (BS-1) will be the first Bangladeshi communication orbiter and is expected to meet the need of a satellite connectivity facility.
- Private TV channel operators and Direct-to-Home (DTH) as alternative of cable television service providers will be the main consumers of the satellite. The weather department as well as the defence sector will also benefit from the satellite.
- The BS-1 will help to bring uninterrupted telecommunication during disasters like cyclone or tornado. It will also play a role in telemedicine, e-learning, research and DTH services. It will be able to count holdings as well as measure population density.
- In the event of unexpected disasters hitting the country, telecommunication system in Bangladesh might be unavailable. During such emergency situations, satellite network can play an important role in ensuring uninterrupted telecommunication services in the country.

SpaceX's CEO Elon Musk named the company's first spaceport drone ship "Just Read the Instructions." The second autonomous boat is called "Of Course I Still Love You".

PEPPER IT WITH WHO-FIC, CARTOSAT, PSLV, Antrix

NASA spacecraft discovers new magnetic process in space

Why in News?

NASA's Magnetospheric Multiscale spacecraft (MMS) have discovered a new type of magnetic event (Magnetic Reconnection) in our near-Earth environment.

MMS orbits through near-Earth space to observe a little-understood process called magnetic reconnection. This process occurs in many places throughout the universe and powers a wide variety of events, including giant explosions on the sun and green-blue auroras shimmering in the night sky. MMS uses four identical spacecraft flying in a pyramid formation to study magnetic reconnection around Earth in three dimensions.

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PEPPER IT WITH Night frogs, Flying Squirrel, Hangul, Panna Tiger Reserve

Magnetic Reconnection

- This fundamental process dissipates magnetic energy and propels charged particles, both of which contribute to a dynamic space weather system.

Reconnection occurs when crossed magnetic field lines snap, explosively flinging away nearby particles at high speeds.

- Magnetic reconnection has been observed innumerable times in the magnetosphere – the magnetic environment around Earth – but usually under calm conditions. The new event occurred in a region called the magnetosheath, just outside the outer boundary of the magnetosphere, where the solar wind is extremely turbulent.

ISRO making green propellant

Scientists at the Indian Space Research Organisation (ISRO) have reported progress in the development of an environment-friendly propellant to power satellites and spacecraft.

Significance

- The effort is to replace the conventional hydrazine rocket fuel, a highly toxic and carcinogenic chemical, with a greener propellant for future missions. Initial tests have shown promising results in the formulation and associated tests of a propellant blend based on hydroxylammonium nitrate (HAN).
- Due to its high-performance characteristics, hydrazine has dominated the space industry as the choice of propellant for over six decades, despite its environment and health hazards and the challenges faced in its manufacturing, storage, ground handling and transportation.
- The in-house formulation consists of HAN, ammonium nitrate, methanol and water. While methanol was added to reduce combustion instability, the choice of AN was dictated by its capacity to control the burn rate and lower the freezing point of the propellant.

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A monopropellant is a chemical propulsion fuel which does not require a separate oxidizer. It is used extensively in satellite thrusters for orbital correction and orientation control.

Thalassemia

Why in News?

Kolkata got a state-of-the art thalassemia clinic that would cater dedicatedly to patients suffering from this blood disorder. Launched by Apollo Gleneagles Cancer Hospital (AGCH), the comprehensive thalassemia clinic will adopt a multi-disciplinary approach to the treatment of thalassemia.

India with about 40 million carriers is being tagged as the thalassemia capital of the world where 10,000 new cases are reported annually.

Thalassemia

Thalassemia is a blood disorder passed down through families (inherited) in which the

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Lassa fever

- ❖ It is an acute viral haemorrhagic illness of 2-21 days duration that occurs in West Africa.
- ❖ The Lassa virus is transmitted to humans via contact with food or household items contaminated with rodent urine or faeces.
- ❖ Person-to-person infections and laboratory transmission can also occur, particularly in hospitals lacking adequate infection prevention and control measures.
- ❖ Lassa fever is known to be endemic in Benin, Ghana, Guinea, Liberia, Mali, Sierra Leone, and Nigeria, but probably exists in other West African countries as well.
- ❖ The overall case-fatality rate is 1%. Early supportive care with rehydration and symptomatic treatment improves survival.

body makes an abnormal form of hemoglobin. Hemoglobin is the protein in red blood cells that carries oxygen. The disorder results in large numbers of red blood cells being destroyed, which leads to anemia.

Hemoglobin is made of 2 proteins:

- 1) Alpha globin
- 2) Beta globin

Thalassemia occurs when there is a defect in a gene that helps control production of 1 of these proteins.

There are 2 main types of thalassemia:

- i. Alpha thalassemia occurs when a gene or genes related to the alpha globin protein are missing or changed (mutated).
- ii. Beta thalassemia occurs when similar gene defects affect production of the beta globin protein.

PEPPER IT WITH
Zika Virus, Michibiki Satellite,
Antibiotic Resistance

Alpha thalassemias occur most often in people from Southeast Asia, the Middle East, China, and in those of African descent while Beta thalassemias occur most often in people of Mediterranean origin. To a lesser extent, Chinese, other Asians, and African Americans can be affected.

Frozen Semen Station

Why in News?

Foundation stone of the frozen semen station in Maranga, Purnea (Bihar) was laid by agriculture ministry. The frozen semen station is being set up at a cost of Rs 64 crore under the Rashtriya Gokul Mission with 100% contribution from the Central Government.

Artificial insemination techniques can increase milk production and productivity. Currently, the artificial insemination is being done by CMOFED (Sudha) in Bihar. For artificial insemination, semen from high genetic merit bulls is needed.

Significance

Frozen semen station in Purnea will be the first state-of-the-art semen production center of the country. The center will develop highly modern bull shade, semen processing lab, feed and godown, agricultural equipment, and other facilities. In this, 300 high genetic merit bulls will be kept and 50 lakhs of semen dose will be produced per year. Red Sindhi, Bachaur, Gangatiri, Sahiwal breeds will also be kept. With the establishment of this semen station, milk productivity of cows and buffaloes will increase rapidly in the state.

Rashtriya Gokul Mission

- The “Rashtriya Gokul Mission” aims to conserve and develop indigenous breeds in a focused and scientific manner.

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National Dengue Day is observed in India on May 16 with the recommendation of Ministry of Health and Family Welfare, Government of India to create awareness about dengue; and to intensify preventive measures and preparedness for the control of disease in the country before transmission season starts.

PEPPER IT WITH
CarbFix project, NCCRD, Dawn Mission, Gecko, Svalbard global seed vault

- Rashtriya Gokul Mission is a focused project under National Programme for Bovine Breeding and Dairy Development, with an outlay of Rs 500 crore during the 12th Five Year Plan.
- The Mission objectives are to:
 - a) development and conservation of indigenous breeds
 - b) undertake breed improvement programme for indigenous cattle breeds so as to improve the genetic makeup and increase the stock;
 - c) enhance milk production and productivity;
 - d) upgrade nondescript cattle using elite indigenous breeds like Gir, Sahiwal, Rathi, Deoni, Tharparkar, Red Sindhi and
 - e) distribute disease free high genetic merit bulls for natural service.

Rashtriya Gokul Mission is implemented through the “State Implementing Agency (SIA viz Livestock Development Boards). State GausevaAyogs are given the mandate to sponsor proposals to the SIA’s (LDB’s) and monitor implementation of the sponsored proposal. All Agencies having a role in indigenous cattle development are the “Participating Agencies” like CFSPTI, CCBFs, ICAR, Universities, Colleges, NGO’s, Cooperative Societies and Gaushalas with best germplasm.

Nipah Virus

Why in News?

The Health Department has confirmed Nipah virus (NiV) infection for the first time in the Kerala with the blood and body fluid samples of two persons who died of viral fever in Kozhikode district indicating the presence of the zoonotic disease.

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About the virus

- According to WHO, the Nipah virus infection is a newly emerging zoonosis, that is, a disease transmitted from animals to humans. The virus belongs to a new genus termed Henipavirus (subfamily Paramyxovirinae).
- The natural host of the virus are fruit bats belonging to the family Pteropodidae. In 2004, humans were affected after eating the date palm contaminated by infected fruit bats. Pigs can also act as intermediate hosts.
- It was first identified in 1998 at Kampung Sungai Nipah village, Malaysia. The virus is named after this village.
- The symptoms of Nipah are similar to that of influenza: fever, muscle pain, and respiratory problems. Inflammation of the brain can also cause disorientation. Late onset of Encephalitis can also occur. Sometimes a person can have an asymptomatic infection and be a carrier of Nipah and not show any symptoms.
- The Nipah virus is classified as a biosecurity level (BSL) 4 agent and the tests should be carried out in special labs to prevent its spread. Currently, there are no vaccines for both humans and animals. Intensive supportive care is given to humans infected by Nipah virus.

A new software, ‘Nidaan’, has been launched in Rajasthan for presumptive diagnosis and monitoring of seasonal and non-communicable diseases as well as the trends of ailments found in specific areas. It is expected to help in formulation of specific action plans for control of diseases.

PEPPER IT WITH
Gokul Gram, Gopalan
Sangh, Kamdhenu

- According to WHO, ribavirin can reduce the symptoms of nausea, vomiting, and convulsions associated with the disease. Individuals infected need to be hospitalised and isolated. Special care should be taken to prevent human-to-human transmission. Surveillance systems should be established to detect the virus quickly and to initiate appropriate control measures.

Nepal first country in south-east Asia to eliminate trachoma

Nepal has become the first country in south-east Asia to eliminate trachoma, world's leading cause of preventable blindness of infectious origin, according to World Health Organisation (WHO).

In 2002, the Government of Nepal had stepped up the efforts to eliminate trachoma with the establishment of a national trachoma programme. The prevalence of active (inflammatory) trachoma in the country fell by 40 per cent following the implementation of sustained control activities from 2002 to 2005.

The Nepal government, through the ministry of water supply and sanitation, provided incentives to local communities and districts to build and maintain latrines, measures that were crucial to improve sanitation and reduce the disease carrying flies. The national trachoma programme in the country also collaborated with the ministry of education to include a module on trachoma in the school curriculum.

Trachoma

Trachoma was the second leading cause of preventable blindness in the Himalayan nation in the 1980s. In 1998, the World Health Assembly had resolved to eliminate trachoma as a public health problem.

Trachoma is a chlamydial infection which happens due to lack of hygiene, unclean water supply and can spread by contact with eye, nose, or throat secretions of a person suffering from the disease or indirectly via flies. The infection is particularly common among children. The disease puts more than 190 million people in 41 countries at the risk of blindness. It is responsible for the blindness or visual impairment of around 1.9 million people worldwide.

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PEP PER IT WITH

Hydrogen fuel, CSIR, M2M Communication, Hyperloop technology

Device to detect and remove arsenic from water

The Indian Institute of Science Education and Research (IISER) in collaboration with a private company has developed a new device 'Arsenic Sensor and Removal Media' which can be used to detect and remove arsenic content from water and make it safe and usable by households.

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Arsenic in water

- In recent years, the number of areas reporting arsenic contamination has gone up drastically with over 20 countries from different parts of the world reporting arsenic contamination of groundwater.
- With the constantly increasing number of occurrences,

- ❖ The guideline value or maximum contaminant level (MCL) for arsenic in drinking water is 10 ppb (according to WHO) followed by most of the developed countries. In developing countries including India and Bangladesh, 50 ppb is considered as the accepted level for arsenic in drinking water.
- ❖ Arsenic cannot be removed by boiling as it is not a volatile substance. Rather, its concentration increases as water evaporates during boiling.

especially in the South Asian region, it is now recognized as a major public health concern affecting a large number of people around the world.

- In South Asia, arsenic contamination in groundwater in the Ganga- Brahmaputra fluvial plains in India and Padma-Meghna fluvial plains in Bangladesh has been found to have a huge impact on human health.
- In India, West Bengal, Jharkhand, Bihar, Uttar Pradesh in the flood plains of the Ganga, Assam and Manipur in the flood plains of the Brahmaputra and Imphal rivers and Rajnandgaon village in Chhattisgarh state have been reported to be affected by arsenic contamination in groundwater.

PEPPER IT WITH

Optical Polarisation,
Subrahmanyam Chandrashekar,
CRISPR-Cas9

- **Arsenic (As) is an odourless and tasteless metalloid widely distributed in the earth's crust.** The exposure sources of arsenic in the environment include natural and anthropogenic sources:

Natural – Leaching of ambient arsenic in groundwater from sediments containing arsenic bearing minerals; leaching and percolation of arsenic in soils.

Anthropogenic – Agrochemicals, wood preservatives, industrial sources, mineral processing, acid mine drainage, burning of fossil fuels etc.

Arsenicosis is the medical word for arsenic poisoning, which occurs due to accumulation of large amounts of arsenic in the body. Arsenicosis leads to adverse health effects through inhibition of essential enzymes, which ultimately leads to death from multi-system organ failure. Arsenic causes or increases the risk of numerous illnesses. It leads to skin damage including keratosis and skin cancer, internal cancers such as that of the lung and bladder, and diseases of the vascular system. Other health problems, such as diabetes, cancers of the other organs and adverse reproductive outcomes have been observed, but the evidence is not yet conclusive, although it keeps increasing.

WHO draft guidelines on daily calorie intake

The World Health Organisation (WHO) has recommended that adults and children should consume a maximum of 10% of their daily calorie intake in the form of saturated fat (found in meat and butter) and 1% in trans fats.

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These draft recommendations, the first since 2002, are aimed at controlling non-communicable diseases (NCDs), which are responsible for an estimated 39.5 million death (72%) of the 54.7 million deaths worldwide in 2016.

Key recommendations:

- Saturated fatty acids should not comprise more than 10% of your daily calorie intake.
- Trans fatty acids should not comprise more than 1% of your daily calorie intake.
- Use heart-healthy polyunsaturated fatty acids (PUFAs) as replacement.

PEPPER IT WITH

Orisis-Rex, IISER, Bioglue

Significance

- Dietary saturated fatty acids and trans-fatty acids are of particular concern because high levels of intake are correlated with increased risk of cardiovascular diseases.
- Of the major NCDs, cardiovascular diseases (CVD) were the leading cause of NCD mortality in 2016 and were responsible for nearly half of all NCD deaths.

- The recommendations in these guidelines can be used by policymakers and programme managers to assess current intake levels of these fatty acids in their populations relative to a benchmark, with a view to develop measures to decrease the intake of saturated fatty acids and trans-fatty acids, where necessary, through a range of policy actions and public health interventions.
- The WHO had earlier released updated guidance on the intake of sodium, potassium and sugars, and is now looking at finalising a similar scale for the intake of saturated fatty acids and trans-fatty acids.

What is worrisome is that even poor have started landing up at hospitals and clinics with symptoms of heart diseases. A recent survey of about 500 healthy people in a Delhi slum found one in two to be overweight.

Fatty Acids

- Saturated fatty acids are found in foods from animal sources such as butter, milk, meat, salmon, and egg yolks, and some plant-derived products such as chocolate and cocoa butter, coconut, palm and palm kernel oils.
- Trans-fatty acids can be industrially produced by the partial hydrogenation of vegetable and fish oils, but they also occur naturally in meat and dairy products from ruminant animals (for example, cattle, sheep, goats and camels).
- Industrially-produced trans-fatty acids can be found in baked and fried foods (doughnuts, cookies, crackers, pies, etc.), pre-packaged snacks and food, and in partially hydrogenated cooking oils and fats that are often used at home, in restaurants, or by the informal sector, such as street vendors of food.

WHO List of Essential Diagnostic Tests

- WHO published its first Essential Diagnostics List, a catalogue of the tests needed to diagnose the most common conditions as well as a number of global priority diseases.
- The list concentrates on in vitro tests - i.e. tests of human specimens like blood and urine. It contains 113 products: 58 tests are listed for detection and diagnosis of a wide range of common conditions, providing an essential package that can form the basis for screening and management of patients. The remaining 55 tests are designed for the detection, **diagnosis and monitoring of “priority” diseases** such as HIV, tuberculosis, malaria, hepatitis B and C, human papillomavirus and syphilis.
- For each category of test, the Essential Diagnostics List specifies the type of test and intended use, format, and if appropriate for primary health care or for health facilities with laboratories. The list also provides links to WHO Guidelines or publications and, when available, to prequalified products.
- WHO will update the Essential Diagnostics List on a regular basis. In the coming months, WHO will issue a call for applications to add categories to the next edition.

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Essential diagnostics are defined as diagnostics that satisfy the priority health-care needs of the population and are selected keeping in mind the disease burden and public health relevance, evidence of efficacy and accuracy and comparative cost-effectiveness.

PEPPER IT WITH
Combustible Ice, Neuroblastoma Cancer, Satellite Venus,

Significance

- Similar to the WHO Essential Medicines List, which has been in use for four decades, the Essential Diagnostics List is intended to serve as a reference for countries to update or develop their own list of essential diagnostics. In order to truly benefit patients, national governments will need to ensure appropriate and quality-assured supplies, training of health care workers and safe use. To that end, WHO will provide support to countries as they adapt the list to the local context.
- An accurate diagnosis is the first step to getting effective treatment. Today, many people are unable to get tested for diseases because they cannot access diagnostic services. Many are incorrectly diagnosed. As a result, they do not receive the treatment they need and, in some cases, may actually receive the wrong treatment.

India

- ✓ India is in the process of rolling out its Free Diagnostics Service Initiative in 29 states with a goal at ensure the availability of a minimum set of diagnostics appropriate to the level of care to reduce out-of-pocket expenditure on diagnostics and encourage appropriate treatment based on accurate diagnosis.
- ✓ Technological advancements have led to the diagnostic sector growing and evolving very rapidly. India must grab the opportunity to use this resource to its advantage and strengthen the diagnostics component in the health care system and make it available at affordable prices to improve outcomes.

World Health Assembly

In a first, the Indian government has pushed for a yoga session ahead of the 71st World Health Assembly (WHA) in Switzerland to propagate Ayush globally.

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Yoga got space amid an African dancing session, and Thai and Dutch workout as the WHO set the floor open for its global event Walk The Talk. The 30-minute session saw an excited turnout from various countries, with hundreds participating in an 8-km walk before stretching on yoga mats. In February, the WHO set up an Ayush department under its traditional medicine unit.

PEPPER IT WITH
ICMR, WHO essential medicine list

WHA

The World Health Assembly is the decision-making body of WHO. It is attended by delegations from all WHO Member States and focuses on a specific health agenda prepared by the Executive Board. The main functions of the World Health Assembly are to determine the policies of the Organization, appoint the Director-General, supervise financial policies, and review and approve the proposed programme budget. The Health Assembly is held annually in Geneva, Switzerland.

Mission Innovation Ministerial

Union Minister for Science & Technology, Earth Sciences, Environment, Forests and Climate Change lead the Indian delegation for participation in the Mission Innovation Ministerial held at Malmo-Sweden. Mission innovation countries launched Mission Innovation Champions Programme to felicitate clean energy innovators.

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India announced setting up of First International Incubator for clean energy in public-private partnership at a total investment of around US \$ 5 million in Delhi. This incubator will foster entrepreneurship and promote innovations in the area of clean energy and provide opportunities to innovators across the MI countries to test their technologies in the local market. India also announced participation in global cooling innovation challenge to design a more efficient cooling solution catering to the typical housing unit in a highly populous city in India. India announced research programmes emanating out of MI centric funding opportunities in smart grids and off-grid access at a total investment of US \$ 10 million which has participation of large number of Indian institutions and foreign entities.

Arunachal Pradesh found a place on the aviation map of the country as the state's first commercial flight with Chief Minister Pema Khandu among 25 passengers on board, landed at Pasighat Advance Landing Ground in East Siang district.

India announced its plan for hosting MI clean energy materials Workshop in October-November 2018 at New Delhi. India also announced the launch of Joint Virtual Clean Energy Centre with United Kingdom and Indian Government funding of UK £ 5 million each. An Indo US Joint Clean Energy Research and Development Centre on energy storage and smart grids with a total investment of US\$ 30 million with matching share of both the Governments and the Consortia has been launched. India also announced 3 dedicated MI funding opportunities on sustainable Bio-fuels, Carbon capture and Sunlight innovation challenge with a total investment of US \$ 11 million.

MI

In 2015, leaders of 20 countries came together to launch Mission Innovation (MI), a landmark 5-year commitment to accelerate the pace of innovation and make clean energy widely affordable and accessible worldwide. MI now comprises 23 economies and the European Commission, representing the European Union, and collectively accounts for more **than 80 percent of the world's total public financing of clean energy R&D.**

PEPPER IT WITH
ISTRAC, NAVIC, Carbon Monoxide, HySiS

Mission Innovation is a global platform of 23 countries and European Union aimed at accelerating clean energy innovations through enhanced Government funding, greater public-private sector partnership and enhanced global cooperation. India is founding member of Mission Innovation and part of the Steering Committee besides co-lead of innovation challenges on smart grids, off grids and sustainable bio-fuels.

AI ecosystem in India

Why in News?

Aiming to foster growth for India's nascent artificial intelligence (AI) and machine learning (ML) ecosystem, NITI Aayog and Google have come together to work on a range of initiatives to help build the AI ecosystem across the country. A Statement of Intent (Sol) was signed to this effect.

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The NITI Aayog has been entrusted to setup a national programme to conduct research and development in frontier technologies such as AI. In furtherance of this mandate, NITI Aayog has been **developing India's national strategy on AI along with the National Data and Analytics Portal** to enable the wide deployment and use of AI.

PEPPER IT WITH
Task Force on AI, Superconductivity, IVF, Sepsis, Versius

Highlights

- Under the aegis of this program, Google will train and incubate Indian AI startups in an accelerator program. These startups will be mentored and coached by Google and its affiliates to enable them to better leverage AI in their respective business models.
- To help bolster the research ecosystem, one of the initiatives includes funding Indian researchers, scholars and university faculty for conducting AI-based research. Further, Google will also bring its online training courses on AI to students, graduates and engineers to numerous cities across India.
- NITI Aayog and Google will organize a AI/ML hackathon that will be focused on solving key challenges within agriculture, education, healthcare, financial inclusion, transportation/mobility and more.
- Google through the NITI Aayog, will conduct hands-on training programs that aim to sensitize policymakers and technical experts in governments about relevant AI tools, and how they can be used to streamline governance.

Significance

Artificial Intelligence is going to disrupt the way business is done and India, in particular, is uniquely poised in utilising AI to innovate for social and inclusive good. India is embracing future technologies such as machine learning and AI to augment its capacity in healthcare, improve outcomes in education, develop innovative governance systems for our citizens and improve overall economic productivity of the nation. NITI's partnership with Google will unlock massive training initiatives, support startups and encourage AI research through PhD scholarships, all of which contributes to the larger idea of a technologically-empowered New India.

Atal Tinkering Marathon

Why in News?

In an effort to identify India's best student innovators, Atal Tinkering Labs of the Atal Innovation Mission (AIM) of NITI Aayog, organized an Atal Tinkering Marathon, a six month long nationwide challenge across six different thematic areas, namely, clean energy, water resources, waste management, healthcare, smart mobility and agri-tech.

On the eve of the National Technology Day, **ATL Marathon's Top 30 Innovations** were showcased through a booklet compiling the work done by the children, the mentors, teachers and schools. The Top 30 teams are being awarded with several prizes including a three month-long ATL Student Innovator Program (ATL SIP) in partnership with industry and start-up incubator. The goal of the Student innovator program is to test the innovations in the community. Students will be trained on business and entrepreneurship skills, including intellectual property, effective communication, making an elevator pitch and so on.

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- ❖ National Technology Day is observed every year on 11th of May in India, acting as a reminder of the anniversary of Shakti.
- ❖ Shakti is the Pokhran nuclear test which was held on 11th of May, 1998.
- ❖ The day highlights the important role of Science in our daily lives and encourages students to embrace Science as a career option.
- ❖ National Technology Day, 2018 was celebrated in India on 11th of May. Theme: Science and Technology for a Sustainable Future

Additionally, ATL schools will be offered a participation voucher to World Robotics Olympiad (WRO), which is a global innovation challenge.

Atal Innovation Mission

Atal Innovation Mission (AIM) including Self-Employment and Talent Utilization (SETU) is **Government of India’s endeavour to promote a culture of innovation and entrepreneurship.** Its objective is to serve as a platform for promotion of world-class Innovation Hubs, Grand Challenges, Start-up businesses and other self-employment activities, particularly in technology driven areas.

The Atal Innovation Mission have two core functions:

- i. Entrepreneurship promotion through Self-Employment and Talent Utilization, wherein innovators would be supported and mentored to become successful entrepreneurs
- ii. Innovation promotion: to provide a platform where innovative ideas are generated

PEPPER IT WITH
National Centre for disease control, Malpelo Plate, TDRS-M

Atal Tinkering Labs under the Atal Innovation Mission of NITI Aayog, is based on the philosophy that incentives and prize awards are a great beginning to create an exponential wave of innovation and entrepreneurship amongst school children. The ATL Student Innovator Program is an effort to institutionalize a mechanism, where high school students can work with university incubators to pursue their innovative and entrepreneurial ideas along with their education. Our goal is to drive extensive forward and backward linkages within the stakeholders in India, to create a paradigm shift in the student mindset and prepare them to become young innovators and entrepreneurs.

IP Nani

Why in News?

The Ministry of Commerce and Industry launched the Intellectual Property (IP) mascot – IP Nani – at the conference on National Intellectual Property Rights Policy in New Delhi.

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Mascot IP Nani is a tech-savvy grandmother who helps the government and **enforcement agencies in combating IP crimes with the help of her grandson “Chhotu”** aka Aditya. The IP mascot will spread awareness about the importance of Intellectual Property Rights (IPRs) among people, especially children, in an interesting manner. This character is also **in line with the World Intellectual Property Organization’s (WIPO) campaign for the World IP Day** which celebrates the brilliance, ingenuity, curiosity and courage of the women who are driving change in our world and shaping our common future. It also highlighted that how a strong IP system can support innovative and creative women and indeed everyone in their quest to bring their amazing ideas to the market.

PEPPER IT WITH
WIPO, New IPR policy, IPR Competition

Significance

IPRs are increasingly becoming crucial drivers of social and economic growth by encouraging creativity and innovation. Realizing the importance of IPRs, the National IPR Policy was approved by the Union Cabinet on 12th May 2016.

The first and foremost objective of the Policy is “IPR Awareness: Outreach and Promotion”. Under this objective, one of the key focus areas is awareness on IPR for school children, as it is essential to nurture creativity and the ability to innovate starting out from a young age. The protection of Intellectual Property Rights is critical for building a knowledge-based society. Mere legal provisions are not sufficient for protection of Intellectual Property Rights but their

strict implementation is equally required. Piracy is a serious crime which should not go unpunished. There should be effort for creating awareness against stealing Intellectual Property Rights.

CIPAM

- It is a professional body under the aegis of Department of Industrial Policy and Promotion (DIPP) which ensures focused action on issues related to IPRs and addresses the 7 identified objectives of the policy. CIPAM assists in simplifying and streamlining of IP processes, apart from undertaking steps for furthering IPR awareness, commercialization and enforcement.
- It coordinates with State level agencies and Ministries/ Departments of the Government of India, industry bodies as well as international agencies.
- CIPAM collaborated with the European Union Intellectual Property Office (EU-IPO) to produce a series of animated videos on IPRs for children with IP Nani as their central character.
- Additionally, CIPAM also engaged with the National Council of Educational Research & Training (NCERT) to curate content on IPRs. As a result, for the first time ever IPRs have been exclusively included in the NCERT textbook for Class 12 school syllabus. These efforts are aimed at inspiring the next generation of creators and innovators to become proud IP owners.

GOBAR-DHAN

Union Ministry for Drinking Water and Sanitation, launched the GOBAR (Galvanizing Organic Bio-Agro Resources) - DHAN scheme. The scheme aims to positively impact village cleanliness and generate wealth and energy from cattle and organic waste. The scheme also aims at creating new rural livelihood opportunities and enhancing income for farmers and other rural people.

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- The scheme envisages the implementation of 700 bio-gas units in different states of the country in 2018-19.
- GOBAR-Dhan shall cover 700 districts in 2018-19. The scheme will be implemented in 350 districts on pilot basis. Remaining districts would be covered in second half of the financial year 2018-19.
- The programme will be implemented using SLWM (Solid and Liquid Waste Management) funding pattern of SBM-G Guidelines. The total assistance under SBM (G) for SLWM projects is worked out on the basis of total number of households in each GP. Funding for SLWM project under SBM (G) will continue to be provided by the Central and State Government in the ratio of 60:40 as per the existent formula
- Only those Gram Panchayats which have not availed SLWM funds under SBM(G) are eligible to receive the financial assistance under GOBAR-Dhan scheme, subject to the limits of guidelines. However, States have the flexibility to provide additional funds to any GP based on viability under the scheme.

PEPPER IT WITH
Global Environment Compact,
GM Crops, Bharat Inclusion
Initiative

Gujarat is set to emerge as the first state to offer subsidized piped natural gas (PNG) to poor households. If successful, the scheme that promotes cleaner cooking fuel will be rolled out nationally.

Significance

With over 3.5 lakh villages, 374 districts and 16 States/UTs of the country being declared ODF, the stage is set for ODF-plus activities, including measures to enhance solid and liquid waste

management. The GOBAR-DHAN scheme, with its focus on keeping villages clean, increasing the income of rural households, and generation of energy from cattle waste, is an important element of this ODF-plus strategy.

Global Urban Ambient Air Pollution Database

This database was released by WHO in Geneva. **WHO’s global urban air** pollution database measured the levels of fine particulate matter (PM10 and PM2.5) from more than 4,300 cities in 108 countries, according to which ambient air pollution alone caused some 4.2 million deaths in 2016, while household air pollution from cooking with polluting fuels and technologies caused an estimated 3.8 million deaths in the same period.

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Highlights

- More than 80% of people living in urban areas that monitor air pollution are exposed to air quality levels that exceed the World Health Organization (WHO) limits. While all regions of the world are affected, populations in low-income cities are the most impacted. 9 out of 10 people in the world breathe air containing high levels of pollutants.
- According to the latest air quality database, 97% of cities in low- and middle-income countries with more than 100 000 inhabitants do not meet WHO air quality guidelines. However, in high-income countries, that percentage decreases to 49%.
- 7 million people die every year from exposure to fine particles in polluted air that penetrate deep into the lungs and cardiovascular system, causing diseases including stroke, heart disease, lung cancer, chronic obstructive pulmonary diseases and respiratory infections, including pneumonia.
- According to the report, more than 90% of air pollution-related deaths occur in low- and middle-income countries (including India), mainly in Asia and Africa, followed by low- and middle-income countries of the Eastern Mediterranean region, Europe and the Americas.
- “Around 3 billion people — **more than 40% of the world’s population** — still do not have access to clean cooking fuels and technologies in their homes, the main source of household air pollution.
- It said the WHO recognises air pollution is a critical risk factor for non-communicable diseases (NCDs), causing an estimated 24% of all adult deaths from heart disease, 25% from stroke, 43% from chronic obstructive pulmonary disease and 29% from lung cancer.

Major things from the database

1. Urban air is unsafe almost everywhere.
2. Beijing is not the global capital of smog it once was.
3. Poland has a serious pollution problem
4. There is a staggering lack of air quality monitoring in Africa and south and southeast Asia.

India

- Delhi and Varanasi are among the 14 Indian cities that figure in a list of 20 most polluted cities in the world in terms of PM 2.5 levels in 2016.
- Other Indian cities that registered very high levels of PM 2.5 pollutants were Kanpur, Faridabad, Gaya, Patna, Lucknow, Agra, Muzaffarpur, Srinagar, Gurgaon, Jaipur, Patiala and Jodhpur.

- In terms of PM10 levels, 13 cities in India figure among the 20 most polluted cities of the world in 2016.
- Southeast Asia region which includes India has the double burden of household and ambient (outdoor) air pollution, accounting for 34% or 2.4 million of the seven million premature deaths every year. Of the 3.8 million deaths caused by household air pollution globally, the region accounts for 1.5 million or 40% deaths, and of the 4.2 million global deaths due to ambient air pollution, 1.3 million or 30% are reported from the region.
- The report, however, stated countries are making efforts and taking measures and in this context, referred **to India's Pradhan Mantri Ujjwala Yojana**, which it said, in just two years, has provided 37 million women living below the poverty line with free LPG connection to support them to switch to clean household energy use.

The PM 2.5 includes pollutants like sulfate, nitrate and black carbon, which pose the greatest risk to human health.

PEPPER IT WITH
World Wetland Day, Ramsar Convention, Ghodazari Wildlife Sanctuary

Way Forward

- ✓ Major sources of air pollution from particulate matter include inefficient use of energy by households, industry, agriculture and transport sectors, and coal-fired power plants. In some regions, sand and desert dust, waste burning, and deforestation are additional sources of air pollution.
- ✓ **Many of the world's megacities exceed WHO's guideline levels for air quality by more than 5 times, representing a major risk to people's health. There is an acceleration of political interest to deal with this global public health challenge.**
- ✓ Air pollution threatens us all, but the poorest and most marginalised people bear the brunt of the burden. It is unacceptable that over 3 billion people — most of them women and children — are still breathing deadly smoke every day from using polluting stoves and fuels in their homes.
- ✓ Air pollution needs to be brought under control with urgent and effective action. Non-communicable diseases are the leading cause of deaths globally and in the region, and air pollution contributes significantly to NCDs such as cardiovascular disease, respiratory disease and lung cancer.
- ✓ Air pollution does not recognise borders. Improving air quality demands sustained and coordinated government action at all levels.

National Water Informatics Centre

Why in News?

The government has set up a central body - National Water Informatics Centre (NWIC) - to maintain a comprehensive water resources data. It will be a single window source of updated data on water resources in India.

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The NWIC will also collaborate with leading national and international research institutes to provide technical support to central and state organisations dealing with water emergency response of hydrological extremes. The NWIC will work under the Union water resources ministry as its subordinate office.

PEPPER IT WITH
National Wildlife action plan 2017-2031, Global Wildlife Program, SECURE Himalaya

It'll be headed by a joint secretary level officer.

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Significance

- Since scientific data is needed to take any decision, the Union cabinet had recently approved setting up such a body which can provide value-added products and services to all stakeholders for management and sustainable development of water resources in the country.
- Once we have a single window source of updated data on water resources, it will be easier to take a decision even on settling inter-state river water sharing dispute. The absence of such updated data currently presents a roadblock in the decision-making process in such disputes as states always counters claims of each other while seeking a share of water in a particular river.
- Availability of updated data is, in fact, a prerequisite for scientific assessment, monitoring, modelling, Decision Support System (DSS) and integrated water resource management in the country.

Way Forward

The management of water resources is a highly complex and tedious task that involves the expertise in multi-disciplinary domains. It also depends on historical and real-time reliable data and information. For this, the first requirement is to develop, maintain and update regularly a **comprehensive ‘Water Resources Information System’ (WRIS) in public domain for awareness and involvement of all concerned for effective integrated water resources management.**

Noctiluca algae

The Noctiluca algae, commonly known as sea tinkle, is a parasite and occurs in patches or **‘blooms’ in the Northern Arabian Sea**. They glow at night **due bioluminescence and have earned them the nickname ‘sea sparkle’**.

However, these patches are a sign of decline because they compete with fish for food and choke their supply. Noctiluca devours one of the most important planktonic organisms at the base of the fish-food chain, namely diatoms, and also excretes large amounts of ammonia, which is linked with massive fish mortalities.

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Recent Progress

- Earlier, the increase in algal patches was linked to coastal pollution from major Indian cities along west coast. However, researchers from the Indian National Centre for Ocean Information Services (INCOIS)—a Ministry of Earth Sciences (MoES) body and the US’ National Oceanic and Atmospheric Administration (NOAA) said that global warming conditions may be instead be responsible.
- A warming ocean means greater temperature differences among layers of the sea water and this slows the upward transport of nutrients like silicate from the ocean bottom, lowering its concentration at the surface.
- Diatoms growing in surface water need both sunlight and silicate to build their glass skeletons and thus, will fail to thrive when silicate becomes less available. On the other hand, Noctiluca remains unaffected by these changes and additionally will prey on the remaining diatoms.
- Remarkably, the waters in the study area were observed to have sufficient oxygen clearly opposing any linkage between low oxygen and Noctiluca growth. Intensifying global-warming

ESSO-INCOIS
 ESSO-INCOIS was established as an autonomous body in 1999 under the Ministry of Earth Sciences (MoES) and is a unit of the Earth System Science Organization (ESSO). ESSO- INCOIS is mandated to provide the best possible ocean information and advisory services to society, industry, government agencies and the scientific community through sustained ocean observations and constant improvements through systematic and focussed research.

PEPPER IT WITH
 UNDP, Sawfish, Global Burden of disease, Green Platinum awards

conditions thus may be expected to disrupt the fish-food chain and cause a decline of fisheries in the region, the researchers observed.

First Organised census for Indus Dolphins

Why in News?

For the conservation of Indus dolphins - **one of the world's rarest mammals** - the Punjab government along with WWF-India are conducting the first organised census on their population.

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Indus Dolphins

- Indus river dolphins are one of only four river dolphin species and subspecies in the world that spend all of their lives in freshwater. They are believed to have originated in the ancient Tethys Sea. It has been categorised as Endangered.
- A blind species that communicates through echo like bats do, Indus dolphins are one of the seven freshwater dolphins found across the world.
- Found only in India and Pakistan, the Indus dolphins are confined to only a 185 km **stretch between Talwara and Harike Barrage in India's Beas river in Punjab.**
- The most flourishing population of the Indus dolphin, *platanistagangetica* minor, is found across Pakistan where their numbers are estimated to be around 1,800 over a stretch of 1,500 km of the Indus river.
- In India, a tiny population survives in this small stretch of the Beas river. Experts say they were also found in Sutlej decades back, however, river pollution is believed to be a major cause of their extinction from the habitat.
- Dolphins are a key indicator of river health- if a river is healthy the dolphins will be there and if not, we have the example of Sutlej.
- According to the International Union for Conservation of Nature (IUCN), construction of critical barrage is associated with the large-scale **decline in the area of occupancy**, **“which have not ceased”**. IUCN suspects the population size of the Indus river dolphins has reduced by more than 50% since 1944.

PEPPER IT WITH
ADB, Pet Coke, Dirty Furnace Oil, Tethys Sea

Green License Plates for e-Vehicles

To promote electric vehicles in India, the government has approved green license plates bearing numbers in white fonts for private e-vehicles and yellow for taxis. The purpose behind distinctive number plates is their easy identification for preferential treatment in parking, free entry in congested zones besides other proposed benefits like concessional toll.

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The measure is aimed at promoting **e-vehicle's use** and the government is considering exemption from permits for such vehicles.

The government also plans to allow youth in the age bracket of 16-18 years to drive electric scooters, besides mandating taxi aggregators to have a certain percentage of e-vehicle fleet.

Significance

Exemption from permit will be a game changer as restricted permit regime is a major concern. E-rickshaw growth is attributable to the permit exemption and there is scope to extend the exemption to the e-buses, e-taxis, e-autos and e-bikes. E-auto and e-buses may have a big impact since getting a new permit is extremely difficult. Similarly, e-bikes also should see a considerable impact since it is a new area.

PEPPER IT WITH
Convention on conservation of migratory birds, Manilla Summit on CMS, Asian Vultures

Number plates in India

India currently has four kinds of number plates — white license plates with numbers on black font for private cars, yellow plates with fonts in black for commercial vehicles, black plates with yellow font letters for self-driven rental vehicles and blue plates with white font letters for Embassies and High Commissions.

Army vehicles on the other hand follow a different registration system given by the Defence Ministry, while vehicles of the President and governors have red licence plates with the national emblem.

World Migratory Bird Day

May 12 is observed as the World Migratory Bird Day, which reinforces education and awareness-raising about the need to protect migratory birds and their habitats.

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For this year (2018), the theme is “Unifying our Voices for Bird Conservation” — focusing on the need for people celebrating the day to communicate and learn from each other, **across borders, within and between the world’s flyways. WMBD 2018 is unifying the planet’s major migratory bird corridors: the African-Eurasian flyway, the East Asian-Australasian flyway, and the Americas flyways.**

Fact Sheet

- 2,000 species of bird — 20% of all known species — make regular seasonal movements.
- Before they set off on their journeys, many migratory birds enter a state of hyperphagia, where hormone levels compel them to put on weight, so they can use the stored fat for energy while traveling.
- With an average weight of 1/8 of an ounce, Hummingbirds are the smallest migrating bird.
- Neotropical birds are birds migrating from neotropical areas in central America and South America. Birds that are considered neotropical migrators include the Northern Oriole, the Baltimore Oriole, the Indigo Bunting, the Rose-Breasted Grosbeak, and the Ruby-Throated Hummingbird.

PEPPER IT WITH Blackbuck, GEF, Minmata Convention, Olive ridley turtles

South Asia Wildlife Enforcement Network (SAWEN)

WhyinNews?

The South Asia Wildlife Enforcement Network (SAWEN), an inter-governmental wildlife law enforcement agency, held its first ever meeting in India, and adopted many resolutions to curb wildlife crime in the region.

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At the two-day conference, representatives of seven out of eight countries participated, and the members agreed on having an operational framework for strengthening the regional body to combat wildlife crime. Members of all participant countries — India, Bangladesh, Bhutan, Nepal, Sri Lanka and Afghanistan —except Pakistan participated in the meeting.

Significance

Wildlife crime is one the major conservation challenges for the world. During the meet six proposals, including tracking of wildlife smuggling route, review of existing laws and a structure for the organisation were tabled. India is

PEPPER IT WITH Chilika Lake, IUCN, COP23, Kyoto Protocol

a source country for smuggling of species of both plants and animals. Most of these wildlife products are smuggled to South East Asia and China and the route goes through the country along with neighbouring countries.

SAWEN

South Asia Wildlife Enforcement Network (SAWEN) is an inter-governmental wildlife law enforcement support body of South Asian countries. It was officially launched in January, 2011 in Paro Bhutan. It promotes regional cooperation to combat wildlife crime in South Asia. It focuses on policy harmonization; institutional capacity strengthening through knowledge and intelligence sharing; and collaboration with regional and international partners to enhance wildlife law enforcement in the member countries. SAWEN operates its activities from the Secretariat based in Kathmandu, Nepal.

Elephant Tusk

Why in News?

The Supreme Court has ruled that tusks are the property of the government. A three-judge Bench led by Chief Justice of India Dipak Misra filled a half-a-century vacuum in law, with its interpretation that **“there cannot be an iota of doubt” about government having the right.**

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The court was examining the Kerala Forests Act of 1961 and the Wildlife (Protection) Act of 1972 in a case dealing with the alleged unauthorised collection and storage of elephant tusks, possession of an unlicensed gun and other accessories by an individual in Wayanad two decades ago. The Supreme Court observed that there is a clear

‘Forest produce’ under the 1961 Act defines many things, including timber, charcoal, wood oil, gum, resin, natural varnish, flowers and fruits, but does not mention tusks.

“declaration” in the 1972 Act on elephant tusks being government property.

Significance

Conservationists campaigning to curb ivory-trafficking and poaching got a boost with the order. India prohibits import and export of ivory. Anything from the forest is government property.

PEPPER IT WITH
Operation Save Kurma,
CITES, Heat waves, Heat island effect

The ruling, however, would not affect individuals who have ownership certificates for declared ivory. Even in the case of captive elephants, either the government keeps custody of tusks or owners are permitted to retain them if they give an undertaking that they would not be traded.

National Policy on Biofuels - 2018

The Union Cabinet has approved National Policy on Biofuels – 2018. In order to promote biofuels in the country, a National Policy on Biofuels was made by Ministry of New and Renewable Energy during the year 2009.

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Globally, biofuels have caught the attention in last decade and it is imperative to keep up with the pace of developments in the field of biofuels. Biofuels in India are of strategic importance as it augers well with the ongoing initiatives of the Government such as Make in India, Swachh Bharat Abhiyan, Skill Development and offers great opportunity to integrate with the ambitious targets of doubling of Farmers Income, Import Reduction, Employment Generation, Waste to Wealth Creation.

Salient Features:



- The Policy categorises biofuels as "Basic Biofuels" viz. First Generation (1G) bioethanol & biodiesel and "Advanced Biofuels" - Second Generation (2G) ethanol, Municipal Solid Waste (MSW) to drop-in fuels, Third Generation (3G) biofuels, bio-CNG etc. to enable extension of appropriate financial and fiscal incentives under each category.
- The Policy expands the scope of raw material for ethanol production by allowing use of Sugarcane Juice, Sugar containing materials like Sugar Beet, Sweet Sorghum, Starch containing materials like Corn, Cassava, Damaged food grains like wheat, broken rice, Rotten Potatoes, unfit for human consumption for ethanol production.
- The Policy allows use of surplus food grains for production of ethanol for blending with petrol with the approval of National Biofuel Coordination Committee to take away risk of farmers of not getting appropriate price for their produce.
- With a thrust on Advanced Biofuels, the Policy indicates a viability gap funding scheme for 2G ethanol Bio refineries of Rs.5000 crore in 6 years in addition to additional tax incentives, higher purchase price as compared to 1G biofuels.
- The Policy encourages setting up of supply chain mechanisms for biodiesel production from non-edible oilseeds, Used Cooking Oil, short gestation crops.
- Roles and responsibilities of all the concerned Ministries/Departments with respect to biofuels has been captured in the Policy document to synergise efforts.

PEPPER IT WITH NGT, Talley Valley wildlife sanctuary, ZSI, Stubble burning

Significance

Reduce Import Dependency: One crore lit of E10 saves Rs.28 crore of forex at current rates. The ethanol supply year 2017-18 is likely to see a supply of around 150 crore litres of ethanol which will result in savings of over Rs.4000 crore of forex.

Cleaner Environment: One crore lit of E-10 saves around 20,000 ton of CO2 emissions. By reducing crop burning & conversion of agricultural residues/wastes to biofuels there will be further reduction in Green House Gas emissions.

Health benefits: Used Cooking Oil is a potential feedstock for biodiesel and its use for making biodiesel will prevent diversion of used cooking oil in the food industry.

MSW Management: It is estimated that, annually 62 MMT of Municipal Solid Waste gets generated in India. There are technologies available which can convert waste/plastic, MSW to drop in fuels.

One ton of such waste has the potential to provide around 20% of drop in fuels.

Infrastructural Investment in Rural Areas: It is estimated that, one 100klpd bio refinery will require around Rs.800 crore capital investment. At present Oil Marketing Companies are in the process of setting up twelve 2G bio refineries with an investment of around Rs.10,000 crore. Further addition of 2G bio refineries across the Country will spur infrastructural investment in the rural areas.

- ❖ Indonesia's most active volcano-Mount Merapi erupted spewing sand and pyroclastic material and sending an ash column as high as 5,500 metres into the sky.
- ❖ The 2,968-metre mountain between Yogyakarta and Central Java provinces is the most active of 500 Indonesian volcanoes.
- ❖ Indonesia, an archipelago of more than 250 million people, is prone to earthquakes and volcanic activity because it sits along the Pacific "Ring of Fire," a horseshoe-shaped series of fault lines.

Employment Generation: One 100klpd2G bio refinery can contribute 1200 jobs in Plant Operations, Village Level Entrepreneurs and Supply Chain Management.

Additional Income to Farmers: By adopting 2G technologies, agricultural residues/waste which otherwise are burnt by the farmers can be converted to ethanol and can fetch a price for these waste if a market is developed for the same. Also, farmers are at a risk of not getting appropriate price for their produce during the surplus production phase. Thus conversion of surplus grains and agricultural biomass can help in price stabilization.

Concern

Biofuels programme in India has been largely impacted due to the sustained and quantum non-availability of domestic feedstock for biofuel production which needs to be addressed.

Biofuels

- Biofuel is a type of energy derived from renewable plant and animal materials. Many in the energy industry view Biofuel as vitally important to future energy production because of its clean and renewable properties.
- The two most common types of biofuels are ethanol and biodiesel. Ethanol is an alcohol, the same found in beer and wine. It is made by fermenting any biomass high in carbohydrates (starches, sugars, or celluloses) through a process similar to brewing beer.
- Biodiesel is made by combining alcohol (usually methanol) with vegetable oil, animal fat, or recycled cooking greases. It can be used as an additive to reduce vehicle emissions (typically 20%) or in its pure form as a renewable alternative fuel for diesel engines. Other biofuels include methanol and reformulated gasoline components.
- However, biofuels also have shortcomings. For example, it takes more ethanol than gasoline to produce the same amount of energy, and critics contend that ethanol use is extremely wasteful because the production of ethanol actually creates a net energy loss while also increasing food prices.
- Biofuels have also become a point of contention for conservation groups that argue bio-crops would go to better use as a source of food rather than fuel. Specific concerns center around the use of large amounts of arable land that are required to produce bio-crops, leading to problems such as soil erosion, deforestation, fertilizer run-off and salinity.
- To help mitigate the problem of large arable land use, companies like ExxonMobil are turning to water-based solutions in the form of algae production. Exxon claims that **algae can be cultivated on land unsuitable for other purposes with water that can't be used for food production.**

Dedicated Micro Irrigation Fund

Why in News?

In line with the government's '**per drop more crop**' initiative, the government approved a corpus of Rs 5,000 crore for the setting up of a dedicated micro irrigation fund (MIF) under the National Bank for Agriculture and Rural Development (Nabard).

- The government estimates the area that can come under micro irrigation at 69.5 million hectares, compared with the current coverage of only about 10 million hectares. The allocation, under the Pradhan Mantri Krishi Sinchayee Yojana, will be made in instalments of Rs 2,000 crore and Rs 3,000 crore in 2018-19 and 2019-20.

- ❖ Slovenia proposed that the UN proclaim 20 May as World Bee Day. On 20 December 2017, following three years of efforts at the international level, the UN Member States **unanimously approved Slovenia's proposal**, thus proclaiming 20 May as World Bee Day.
- ❖ In addition to being one of the major pollinators, thus ensuring food and food security, sustainable agriculture and biodiversity, bees significantly contribute to the mitigation of climate change and environmental conservation.
- ❖ In the long-term, the protection of bees and the beekeeping sector can help reduce poverty and hunger, as well as preserve a healthy environment and biodiversity.

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- Under the programme, Nabard will extend loans to state governments during this period. The loans can be paid back in 7 years, including a grace period of two years. The total financial implication on interest subvention on the loans will be about Rs 750 crore.
- **The government expects farmer producers' organisations, cooperatives and state agencies** to also access the funds with state government guarantee or equivalent collateral.
- The fund will also help states mobilise resources for their own initiatives, including additional subsidy, to bring about 2 million hectares under micro irrigation each year during the remaining period of the 14th Finance Commission, as recommended by a group of secretaries in 2017.

Micro Irrigation

Micro irrigation is defined as the frequent application of small quantities of water directly above and below the soil surface; usually as discrete drops, continuous drops or tiny streams through emitters placed along a water delivery line.

The micro irrigation encompasses several ways of water application to plants: drip, spray, subsurface and bubbler irrigation.

Drip Irrigation: Drip irrigation is sometimes called trickle irrigation and involves dripping water onto the soil at very low rates (2-20 litres/hour) from a system of small diameter plastic pipes fitted with outlets called emitters or drippers. Water is applied close to plants so that only part of the soil in which the roots grow is wetted, unlike surface and sprinkler irrigation, which involves wetting the whole soil profile. With drip irrigation water, applications are more frequent (usually every 1-3 days) than with other methods and this provides a very favourable high moisture level in the soil in which plants can flourish. Drip irrigation application uniformity is very high, usually over 90%.

Benefits

- Increase in yield up to 230 %.
- Saves water up to 70% compare to flood irrigation. More land can be irrigated with the water thus saved.
- Crop grows consistently, healthier and matures fast.
- Early maturity results in higher and faster returns on investment.
- Fertilizer use efficiency increases by 30%.
- Cost of fertilizers, inter-culturing and labour use gets reduced.
- Fertilizer and Chemical Treatment can be given through Micro Irrigation System itself.
- Undulating terrains, Saline, Water logged, Sandy & Hilly lands can also be brought under productive cultivation.

PEPPER IT WITH

Center pivot irrigation, PMKSY
More Crop per Drop, Bamboo
drip irrigation system

Sprinkler irrigation: This system allows application of water under high pressure with the help of a pump. It releases water similar to rainfall through a small diameter nozzle placed in the pipes. Water is distributed through a system of pipes, sprayed into air and irrigates in most of the soil type due to wide range of discharge capacity.

Advantages

- Eliminates water conveyance channels, thereby reducing conveyance loss.
- Suitable in all types of soil except heavy clay.
- Water saving up to 30% - 50 %.
- Suitable for irrigation where the plant population per unit area is very high.

- Helps to increase yield.
- Reduces soil compaction.
- Mobility of system helps system operation easy.
- Suitable for undulating land.
- Saves land as no bunds required.
- Soluble fertilizers and chemicals use are possible.
- Provides frost protection & helps in alteration of micro climate.
- Reduces labour cost.

Cyclone Sagar

The India Meteorological Department issued an advisory to Tamil Nadu, Kerala, Karnataka, Goa, Maharashtra and the Lakshadweep archipelago over cyclonic storm 'Sagar'. The cyclonic storm lay centered over the Gulf of Aden, about 390 km east-northeast of Yemen's Aden city and 560 km west-northwest of Socotra Islands.

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Tropical Cyclone Sagar, which made a landfall in north-western Somaliland and Djibouti, has left at least 16 dead, affecting thousands in Middle East and East Africa. It is the strongest tropical storm ever recorded in Somalia and also the strongest storm to venture so far west in the Gulf of Aden since 1885. While tropical cyclones moving from the Arabian Sea into the Gulf of Aden are not rare, only a few tropical cyclones venture so deep into the western Gulf of Aden. Since satellite surveillance began in 1966, only two other tropical cyclones had penetrated into the western Gulf of Aden.

Cyclones

- Cyclones, Hurricanes and Typhoons are powerful storms that have winds in excess of 119 kilometres per hour (74 MPH).
- These wind storms can develop either as a result of a confluence of warm and cold winds over the ocean following a thunderstorm or when differing areas of wind pressure conflict. Due to this, they most commonly occur during the summer months between June and November.
- On an average there are between 80-100 of these storms each year, and while only a fraction of these approach land they can cause devastation once they do.
- Since the 1950s, storms that approach land are given official names so that meteorologists can track them. The names alternate between male and female and in ascending alphabetical order from the start of each season.
- A storm is generally referred to as a Cyclone, Hurricane or Typhoon based on where the storm takes place.
 - Cyclones take place over the Indian Ocean
 - Hurricanes take place over the North Atlantic Ocean
 - Typhoons take place over the Pacific Ocean

PEPPER IT WITH

Blue flag project, Flemingo festival, PVTG, Pulicat Lake, Mankidia tribe, Cyclone formation

Asita

Why in News?

The Director General of the National Mission for Clean Ganga (NMCG) inspected the Yamuna River Front Development (RFD) project being implemented by Delhi Development Authority (DDA).

Yamuna RFD project aims to restore, revive and rejuvenate the river's floodplains and make them accessible to the people of Delhi. River Front "walks", a major component of the project, will enable people to develop a relationship with river Yamuna. A special focus of the project is on reviving the river's bio-diversity in the National Capital.

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Asita

- The comprehensive project to restore, rejuvenate and revive Yamuna floodplains was approved by the Principal Committee constituted by the NGT. **The project is given the name "Asita" which is another name of river Yamuna.**
- The project envisages creating a green buffer area approx. 300mts wide along the river edge with species of riverine ecology. Besides, a wide belt of 150mts along the peripheral roads will be developed as greenways for public amenities that will include a continuous trail of pathways and cycle tracks.
- To revive the ecosystem of the floodplains, wetlands will be created to store the flood waters and also to improve the groundwater recharge which will eventually result in flourishing of biodiversity in the floodplains.
- An environmentally conscious approach for integration of the river into the urban fabric of the city has been adopted. A people-friendly bio-diversity zone will be created for people to **interact freely with the river's eco-system.**

The latest addition to India's frog fauna is the Mangaluru narrow-mouthed frog, which has been found in a small industrial region in coastal Karnataka.

PEPPER IT WITH

Chiru, Xian smog tower, World tourism organisation, Environmental performance index

NMCG

National Mission for Clean Ganga(NMCG) was registered as a society on 12th August 2011 under the Societies Registration Act 1860. It acted as implementation arm of National Ganga River Basin Authority (NGRBA). NGRBA has since been dissolved with effect from the 7th October 2016, consequent to constitution of National Council for Rejuvenation, Protection and Management of River. The Director General (DG) of NMCG is a Additional Secretary in Government of India.

The Act envisages five tier structures at national, state and district level to take measures for prevention, control and abatement of environmental pollution in river Ganga and to ensure continuous adequate flow of water so as to rejuvenate the river Ganga as below;

- **National Ganga Council under chairmanship of Hon'ble Prime Minister of India.**
- **Empowered Task Force (ETF) on river Ganga under chairmanship of Hon'ble Union Minister of Water Resources, River Development and Ganga Rejuvenation.**
- National Mission for Clean Ganga (NMCG).
- State Ganga Committees and
- District Ganga Committees in every specified district abutting river Ganga and its tributaries in the states.

Clean Air India Initiative

Why in News?

Prime Minister of Netherlands Mark Rutte, who was in India on a two-day visit, launched the ‘Clean Air India Initiative’. The campaign aims to curb air pollution in Indian cities by promoting partnerships between Indian start-ups and Dutch companies and build a network of entrepreneurs working on business solutions for cleaner air.

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- The Clean Air India Initiative is a collaborative project between Get In The Ring, a platform for start-ups, the government of the Netherlands, Start-up India, and INDUS Forum, an online matchmaking platform of Indian and Dutch businesses.
- A major business opportunity for Dutch firms that was highlighted included the potential for sale of equipment (such as sensors), data, and solutions concerning air quality monitoring (AQM), with experts estimating that 80% of India is not covered by AQM data collecting which is the first step toward monitoring and combating air pollution.
- Also under focus was the severe air pollution in Delhi caused by the burning of paddy straw in neighbouring Haryana and Punjab. **An ‘INDUS impact’ projects aims to halt the hazardous burning of paddy stubble by promoting business partnerships that “upcycle” it.** This entails using paddy straw as feedstock to make materials that would find use in construction and packaging — a technology and expertise that Dutch companies are keen to market in India.

PEPPER IT WITH
 BS VI norms, bharat stage norms, NABARD, Green climate fund

Significance

Governments need to be articulate about the problems they want to solve, bring together the right partners, and channelise entrepreneurs in the right direction to find solutions to global problems. Sustainable businesses present an opportunity to do social good, as they represent a for-profit orientation in the right framework. They advance the U.N.’s Sustainable Development Goals [SDGs] in a smartly profitable way.

National conservation award

The SingchungBugun Community Reserve won the India Biodiversity Award 2018. The community reserve in Arunachal Pradesh has been awarded the India Biodiversity Award on the occasion of the International Day for Biological Diversity for its effort to conserve the critically endangered bird - Bugunliocichla. India Biodiversity award is conferred annually by the National Biodiversity Authority.

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Majority of Arunachal Pradesh’s forests are owned by the tribal communities, apart from the “preserved” or “notified” forests identified by the government. However, in January 2017, the tribal members of the Bugun community of Singchung Village joined hands with the Forest Department to launch the Singchung Bugun Community Reserve (SBVCR) — a 17 square kilometre hotspot for biodiversity. The NGO won the India Biodiversity Award 2018 in the “Conservation of wildlife species” category conferred by the National Biodiversity Authority (NBA) and presented by the Union Ministry of Environment, Forest & Climate Change in association with the United Nations Development Programme in Hyderabad. There were nine winners and 14 special mentions spread across four categories.

PEPPER IT WITH
 Namdapha national park, Mauling National park, Kane wildlife sanctuary, Mehao wildlife sanctuary

The Reserve was instituted under a clause of the Wildlife (Protection) Act, 1972 that enables any state government to declare a community-owned forest area as a “community reserve” if the locals are willing to participate in conservation efforts for the same. Under it, the Community Reserve receives the same legal protection as National Parks and Wildlife Sanctuaries.

The Reserve lies right next to the Eaglesnest Wildlife sanctuary, a biodiversity hotspot, which is also home to the BugunLiocichla — a new bird species that has no reported sighting anywhere else in the world. It is reportedly the only new bird species to have been discovered in India since 1947. “Because of their conservation efforts, the bird has been named after the Bugun tribe. According to IUCN, the Liocichla is classified as Critically Endangered (CR). Today there are about 20-24 pairs which live in the area.

Gaj Yatra

- In 2014, villagers in Meghalaya’s Garo Hills set aside a part of their community-owned land to create village reserve forests, giving right of passage to elephants. In acknowledgement of that gesture, the Ministry of Environment, Forest and Climate Change and the Wildlife Trust of India (WTI) rolled out the ‘Gaj Yatra’ from Tura, the principal town of Garo Hills.
- ‘Gaj Yatra’, a “journey celebrating India’s national heritage animal”, aims at securing 100 elephant corridors across India. Four of these are in Meghalaya, including the Siju-Rewak corridor that some 1,000 elephants use to travel between the Balpakram and Nokrek National Parks in the State.
- Nokmas, traditional custodians of the land, played important role towards co-existence between man and animal and helping conservationists for the success of the initiative.

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PEPPER IT WITH

NMCG, West antarctic rift system, Ken-Betwa inter-linking, Project Elephant

Significance

The event involves taking an elephant mascot across districts frequented by jumbo herds for generating awareness among the people. ‘Gaj Yatra’ could go a long way in providing space for elephants to move. There have been 14,700 cases of man-animal conflicts that may have occurred due to space constraint and less food available.

BCCI goes Green

- The Board of Control for Cricket in India (BCCI) and UN Environment signed an agreement to promote ‘green’ cricket in India.
- BCCI acting secretary Amitabh Choudhary and Erik Solheim, Executive Director of UN Environment, signed a letter of intent at the BCCI headquarters ahead of the recently played IPL final.
- The partnership aims to spread greater awareness about key environmental challenges facing the country and highlight alternate and more sustainable solutions. The BCCI will endeavor to reduce its environmental impact by greening operations and engaging cricketers and fans in green initiatives.

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PEPPER IT WITH

Hope island, Biomedical waste, Irrawaddy dolphins, salt water crocodiles

- The partnership will also focus on phasing out single-use plastic across stadiums in the country and due to this at the four matches played at the Holkar Stadium (Indore), a Green Protocol based on the concept of 3Rs – to reduce, reuse and recycle was implemented. A plastic audit is being undertaken there to assess the types and volumes of single-use plastic generated and chart a course to implement waste management system.
- Similarly, at the M Chinnaswamy stadium in Bengaluru, the Karnataka State Cricket Association replaced plastic cups and bottles with environment-friendly alternatives for over 32,000 fans.

NGT issues notices on plea to halt road through Corbett

Why in News?

A plea seeking a stay on the construction of a link road linking Kotdwar to Ramnagar through the Corbett Tiger Reserve has led the National Green Tribunal to seek responses from the Uttarakhand government and the Centre.

The plea alleged that the construction of the road was in violation of previous Supreme Court orders that prohibited the construction of any road through the Corbett Tiger Reserve.

Corbett Tiger Reserve

- Jim Corbett National Park, which is a part of the larger Corbett Tiger Reserve, a Project Tiger Reserve lies in the Nainital district of Uttarakhand. The magical landscape of Corbett is well known and fabled for its tiger richness. Established in the year 1936 as Hailey National Park, Corbett has the glory of being India's oldest and most prestigious National Park. It is also being honored as the place where Project Tiger was first launched in 1973.

- ❖ The brown peach aphid – an insect that attacks temperate fruit trees – has been recorded in J & K for the first time.
- ❖ The spread of the aphid could affect the local economy which is dependant on fruit trees to a large extent.
- ❖ Aphids feed on the saps of plants, attacking plant tissues that transport food to all different plant parts.
- ❖ The brown peach aphid *Pterochloroides persicae* is a notorious pest of peach and almond trees in the Mediterranean regions.
- ❖ In India, the aphid was recorded for the first time in the 1970s from Himachal Pradesh and Punjab.

- Sheltering a healthy population of tigers and rare species like Otters and the endemic fish-eating crocodile, the national park is one of the most sought-after destinations for the wildlife buffs.
- Dhikala, situated at the border of the extensive Patil Dun valley, is the most popular destination in Corbett because of its superb location and sheer abundance of wildlife present. Corbett and its adjoining area is a home to more than 650 species of residents and migratory birds. Particularly Dhikala is fine place to look for birds of prey, more than over 50 species of raptors alone shows the healthy biodiversity of the area.

PEPPER IT WITH

Bandhavgarh National Park, Fossil National Park, Kanha National Park, Madhav National Park, Panna National Park, Pench (Priyadarshini) National Park, Sanjay National Park, Satpura National Park, Van Vihar National Park

Uttarakhand Wildlife

National Parks & Wildlife Sanctuaries of Uttarakhand:

- ✓ Corbett National Park & Tiger Reserve (CTR)
- ✓ Gangotri National Park
- ✓ Govind National Park
- ✓ Nanda Devi National Park
- ✓ Rajaji National Park
- ✓ Valley of Flowers National Park
- ✓ Askot Musk Deer Wildlife Sanctuary
- ✓ Nandhaur Wildlife Sanctuary
- ✓ Binsar Wildlife Sanctuary
- ✓ GovindPashuVihar Wildlife Sanctuary
- ✓ Kedarnath (Musk Deer) Wildlife Sanctuary
- ✓ Benog Wildlife Sanctuary Mussoorie
- ✓ Assan Barrage Bird Sanctuary

State Animal of Uttarakhand is Alpine Musk Deer. The Alpine musk deer is native to the eastern Himalayas in Nepal, Bhutan and India to the highlands of central China. The Alpine musk deer recorded in the Himalayan foothills is now considered a separate species by itself and called as the Himalayan musk deer (aka White-bellied musk deer).

National wind-solar hybrid policy

Why in News?

With an aim to boost renewable power generation, the government announced a national wind-solar hybrid policy, which seeks to promote new projects as well as hybridisation of the existing ones.

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Background

The government has set an ambitious target of achieving 175 gigawatt (gw) of installed capacity from renewable energy sources by 2022, which includes 100 gw of solar and 60 gw of wind power capacity. The total renewable power installed capacity in the country stood at about 70 gw last financial year.

Highlights

- The policy provides for a comprehensive framework to promote large grid-connected wind-solar photovoltaic (PV) hybrid system for optional and efficient utilisation of transmission infrastructure and land, thereby reducing the variability in renewable power generation and achieving better grid stability.
- Besides, the policy also aims to encourage new technologies, methods and way-outs involving combined operation of wind and solar PV plants.
- The policy provides for procurement of power from a hybrid project on tariff-based transparent bidding process for which government entities may invite bids.
- It also permits use of battery storage in hybrid projects for optimising output and further reduce variability.
- The policy also mandates the regulatory authorities to formulate necessary standards and regulations for wind-solar hybrid systems.

PEPPER IT WITH
 Loktak lake, Nilambur teak, National biodiversity congress, ICAR, Neutrino project, Earth hour

Significance

- Solar and wind power being variable in nature pose certain challenges on grid security and stability and therefore suitable policy interventions are required not only for new wind-solar hybrid plants, but also for encouraging hybridisation of existing plants.

- Under the policy which is first, the government will extend all fiscal and financial incentives available to wind and solar power projects to hybrid projects. It will also support technology development projects in the field.
- On the technology front, the policy provides for the integration of both the energy sources, wind and solar, at AC as well as DC levels.

Andhra Pradesh gets new state bird, state flower

Four years after the bifurcation of Andhra Pradesh, the government of the residual state has announced its state symbols. The notable change is the state bird. The state bird of undivided Andhra Pradesh was Indian Roller (*coracias benghalensis*) or Palapitta. This has been changed to Rama Chiluka (*psittaculakrameri*) or rose ringed parakeet. Palapitta is now the state bird of Telangana, Odisha and Karnataka.

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The government of residual AP has retained blackbuck (*antilope cervicapra*) or Krishna Jinka as the state animal. After the bifurcation, Telangana had dropped Krishna Jinka of undivided AP and adopted Jinka or spotted deer as its state animal. Neem (*azadirachta indica*) or Vepa Chettu, which was the state tree of undivided AP, has been retained in the divided state. The Telangana government had dropped vepa and adopted Jammi Chettu (*prosopis cineraria*), which has cultural significance in the region, as the state tree after the bifurcation.

Though undivided AP had water lily or Kaluva (*nymphaeaceae*) as the state flower, both divided AP and Telangana have dropped it. The Andhra Pradesh government has opted for jasmine as the state flower. Telangana government has adopted native Tangidi Puvvu (*senna auriculata*) as the state flower as it is widely used in the state's famous Bathukamma festival.

State/UT	Animal	Bird	Tree	Flower
Andhra Pradesh	Blackbuck	Indian Roller	Neem	Water lily
Arunachal Pradesh	Mithun	Great Hornbill	Hollong	Lady Slipper Orchid
Assam	Indian Rhino	White Winged Duck	Hollong	Foxtail Orchid
Bihar	Gaur	Indian Roller	Peepal	Kachnar
Chattisgarh	Wild Buffalo	Hill Myna	Sal	
Delhi	Nilgai	House Sparrow		
Goa	Gaur	Yellow throated Bulbul	Matti	
Gujarat	Asiatic Lion	Greater Flamingo	Banyan	Marigold
Haryana	Blackbuck	Black Francolin	Peepal	Lotus
Himachal Pradesh	Snow Leopard	Western Tragopan	Deodar	Rhododendron
Jammu & Kashmir	Hangul	Black necked Crane	Chinar	Lotus
Jharkhand	Elephant	Koel	Sal	Palash
Karnataka	Elephant	Indian Roller	Sandal	Lotus
Kerala	Elephant	Great Hornbill	Coconut	Kanikonna
Madhya Pradesh	Barasingha	Paradise Flycatcher	Banyan	Sacred Tree

Maharashtra	Giant Squirrel	Green Pigeon	Imperial	Mango	Jarul
Manipur	Sangai	Mrs. Pheasant	Hume's	Uningthou	Shiroy Lilly
Meghalaya	Clouded Leopard	Hill Myna		Gamari	Lady Slipper Orchid
Mizoram	Hillock Gibbon	Mrs. Pheasant	Hume's	Iron Wood	Red Vanada
Nagaland	Mithun	Blyth's Tragopan		Alder	Tree Rhododendron
Odisha	Sambar Deer	Indian Roller		Peepal	Ashok Flower
Punjab	Blackbuck	Northern Goshawk		Sheesham	
Rajasthan	Chinkara	Indian Bustard		Khejri	Rohira
Sikkim	Red Panda	Blood Pheasant		Rhododendron	Nobile Orchid
Tamil Nadu	NilgiriTahr	Emerald Dove		Palmera Palm	Gloriosa Lily
Tripura	Phayre's Langur	Green Pigeon	Imperial	Agar	Nageshwar
Uttrankhand	Musk Deer	Himalayan Monal		Burans	Brahma Kamal
Uttar Pradesh	Swamp Deer	Sarus Crane		Ashok	Brahma Kamal
West Bengal	Fishing cat	White-throated King Fisher		Chatian	Night-flowering jasmine
Andaman & Nicobar Islands	Dugong	Andaman Pigeon	Wood	Andaman Padauk	Pyinma
Chandigarh	Indian mongoose	grey Indian Hornbill	Grey	Magnifera Indica	Sacred Tree
Dadar & Nagar Haveli					
Daman & Diu					
Lakshwadeep	Butterfly Fish	Brown Noddy		Bread Fruit	
Pondicherry	Indian squirrel	palm Koel		Indian Bael	Cannonball Tree

National Institute of Food Entrepreneurship and Management (NIFTEM)

Why in News?

Food Processing Ministry will collaborate with multiple international laboratories testing various food products so that the food products approved by laboratories at NIFTEM get worldwide acceptability.

About NIFTEM

- NIFTEM is a national institute focusing on an integrated program on food technology and management education for developing a pool of professional managers with deeper understanding of the food and business to serve the processed food industry.
- NIFTEM also is spearheading the task of creating new entrepreneurs who are expected to venture into the processed food industry after identifying the opportunity areas. It may also lead to creation of Indian food markets worldwide.

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PEPPER IT WITH FSSAI, Village adoption programme, Deemed to be University

- NIFTEM was conceptualized by Government of India on persistent demand of the food industry to have an apex body as a "One Stop Solution Provider" for the various problems of the sector.
- Ministry of Food Processing Industries, Government of India has set up this institute with an initial investment of Rs. 500 crore. The institute intends to act as a centre of excellence and an apex world class centre of global standards in the area of food technology and management.
- It will cater to the needs of various stakeholders such as entrepreneurs, industries, exporters, policy makers, government and existing institutions.

FDI Confidence Index

Why in News?

India has slipped by three notches to 11th position, reversing its two-year streak of rising in the rankings in the FDI Confidence Index 2018 of global consultancy firm A T Kearney. India fell out of the top 10 for the first time since 2015.

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- The top five countries on the Index have not changed in the past three years, but their relative positions have shifted. The United States has topped the Foreign Direct Investment (FDI) Confidence Index for the sixth year in a row.
- The Foreign Direct Investment Confidence (FDI) Index prepared by A.T. Kearney is an annual survey which tracks the impact of likely political, economic, and regulatory changes on the foreign direct investment intentions and preferences of CEOs, CFOs, and other top executives of companies.
- The report includes detailed commentary on the markets and the impact of a variety of global trade issues have on their FDI attractiveness, as well as a ranking of the top 25 countries.
- The index ranks countries on a scale from 0 to 3 based on their attractiveness for foreign direct investments. A score of 3 represents the highest level of confidence.
- **The fall in India's rankings may be due to the problems** faced in the implementation of Goods and Services Tax (GST) and Demonetisation.
- Reforms that have had a positive impact on India's attractiveness include the elimination of the Foreign Investment Promotion Board, a government agency responsible for reviewing all potential foreign investment, and the liberalisation of overseas investment thresholds for the retail, aviation, and biomedical industries, the report said.

PEPPER IT WITH
FIPB, Demonetisation,
GST, FATF, NAFTA, WEF

Security Clearance for Overseas Investment Proposals

Why in News?

Home Ministry has given security clearance to more than 5,000 investment proposals, including for Foreign Direct Investment, in the last four years. The objective of the National Security Clearance is to evaluate potential threats in proposals received by the home ministry and to provide a national risk assessment.

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Background

- The Ministry had formulated a new national security clearance policy in 2015 after the government decided to speed up projects, which were stuck for lack of approval by Intelligence Bureau (IB) or other agencies including the State police.

- The policy has 15 parameters on which inputs from security agencies are sought. Once it has got an application from an investor, the Ministry decides on the status of security clearance to the company within 4-6 weeks.
- As per the policy, the promoters, owners and directors of the company are mandated to give self-declarations regarding any criminal history on their part, which reduced the period required to give security clearance from 2-3 months earlier to just 4-6 weeks now.
- Security inputs from the Intelligence Bureau, the CBI, the Enforcement Directorate and other agencies are sought only in cases of serious crimes and not in case of minor offences.
- At present, only 11 sectors, including defence and retail trading, require government approval for foreign direct investment. Over 90% of FDI proposals have come through the automatic route.
- Among the foreign countries, U.S., China (including Hong Kong), Mauritius, U.K. has received the green signal for the maximum number of projects at 10 each. FDI in India grew by a marginal 0.27 per cent to USD 35.95 billion during April-December 2017.

PEPPER IT WITH
Ease of Doing Business,
Make in India Initiative,
Foreign Portfolio Investment,
FPI, FII

Appellate Authority for Advance Ruling (AAAR)

Why in News?

The GST Council has asked the Centre and States to expedite setting up of appellate authorities for aggrieved entities to appeal against orders of the Authority for Advance Rulings (AAR).

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With AARs in different States having started to give rulings since March, it has become imperative to set up the Appellate Authority for Advance Ruling (AAAR).

About AAAR

Appellate Authority for Advance Ruling (AAAR) will hear appeal against advance ruling given by the Authority for Advance ruling (AAR). It will comprise of 2 members namely chief commissioner of CGST designated by the CBEC and commissioner of SGST having jurisdiction over the applicant. There will be one AAR and one AAAR for each state.

If the applicant is aggrieved with the findings of AAR then he can file an appeal with the AAAR. Similarly, if the prescribed or jurisdictional officer of CGST/SGST does not agree with the findings of AAR then he/she can also file an appeal with AAAR. Any appeal must be filed within 30 days from the receipt of the advance ruling. The appellate authority must pass an order after hearing the parties to the appeal within a period of 90 days of the filling of an

- Advance ruling can be sought on the following matters:
- Classification of any goods or services under the model CGST/SGST act.
 - Applicability of a notification issued under provisions of the act having a bearing on the rate of tax.
 - The principles to be adopted for the purposes of determination of value of the goods and services under the provisions of the act.
 - Admissibility of input tax credit of tax paid or deemed to have been paid.
 - Determination of the liability to pay tax on goods and services under the act.
 - Whether applicant is required to be registered under the act.
 - Whether any particular thing done by the applicant with respect to any goods or services amounts to or results in supply of goods or services, within the meaning of that term.

appeal. If members of AAAR differ on any point referred to in appeal, it shall be deemed that no advanced ruling is issued in respect of the question under appeal.

AAR and AAAR can also amend their order to rectify any mistake apparent from the record within a period of 6 months from the date of the order.

About Authority for Advance Ruling (AAR)

It shall comprise of 1 member from CGST and 1 member from SGST. They will be appointed from central and state governments respectively. The AAR constituted under the GST law aims to help taxpayers avoid long drawn litigation by planning their activities that attract GST, well in advance. The AAR framework also brings certainty in determining the tax liability.

An advance ruling shall be held to be ab initio void if the AAR or AAAR finds that the advanced ruling was obtained by the applicant by fraud or suppression of material facts or misrepresentation of facts. An order declaring advance ruling to be void can be passed only after hearing the applicant.

PEPPER IT WITH
GST council, CBIC, CBEC, ITAT

What is Advance Ruling

Advance Ruling means written opinion or authoritative decision by an Authority empowered to render it with regard to the tax consequences of a transaction or proposed transaction or an assessment in regard thereto. The scheme of Advance Rulings has been introduced under the Income-tax Act, 1961. It was reinforced by the Finance Act, 1993.

The broad objective of setting up mechanism of advance ruling is:

- Provide certainty in tax liability in advance in relation to an activity proposed to be undertaken by the applicant;
- Attract Foreign Direct Investment (FDI);
- Reduce Litigation;
- Pronounce ruling expeditiously in transparent and inexpensive manner.

Network for Spectrum

The Cabinet Committee on Infrastructure approved increasing the budget for laying of alternative communication network for defence services at a cost of ₹11,330 crore. This takes the total budget for the project — Network for Spectrum (NFS) project to ₹24,664 crore. The alternative communications network is being set up in lieu of airwaves vacated by the Defence Ministry for civilian use.

The project, which is being implemented by state-run Bharat Sanchar Nigam Limited (BSNL), will be completed in a period of 24 months.

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Significance

The NFS project will boost the communication capabilities of the Defence Forces in a major way leading to enhanced national operational preparedness. The project will also have forward linkages to other related industries such as telecom equipment manufacturing and other telecommunication related services.

Telecom Commission

The Telecom Commission was set up by the Government of India vide the Resolution with administrative and financial powers of the Government of India to deal with various aspects of Telecommunications. It is the highest decision-making body in the DoT.

The Telecom Commission consists of a Chairman, four full time members, who are ex-officio Secretaries to the Government of India in the Department of Telecommunications and four part time members who are the Secretaries to the Government of India in the concerned

Departments. The Secretary to the Government of India in the Department of Telecommunications is the ex-officio Chairmen of the Telecom Commission.

Freight villages

Why in News?

The government has asked the Inland Waterways Authority of India (IWAI) to develop so-called freight villages, a concept borrowed from European countries. The state-run IWAI will also provide inland waterways connectivity to these logistic hubs.

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Freight villages

A freight village is an area where all activities relating to transport, logistics and the distribution of goods both for national and international transit are carried out by various operators. The concept has been widely used in European countries and is completely new to Asia. In fact, India will be the first country in Asia to come up with a freight village.

It is planned to build the first freight village in Varanasi in Uttar Pradesh. The village will provide connectivity through all three modes of transportation. Road, rail connectivity through Eastern Dedicated Freight Corridor, and water connectivity through the **country's longest waterway NW1. Another freight village is** also coming up at Sahibganj in Jharkhand.

Engineering marvels in India's inland waterways

The whole Jal Vikas Marg project is worth Rs5,369 crore or \$800 million. Half of it will be borne by World Bank and the rest by the government of India. Under the National Waterway 1, there are several engineering marvels that are coming up. But the best one is the navigation lock at Farakka which would be **India's Suez or Panama Canal**. It is a challenging engineering project which will be inland waterway's engineering marvel.

Significance

Government will just develop basic infrastructure. Private sector would be asked to establish their units where they can manufacture, pack and export or transport their products. It will reduce last-mile connectivity cost substantially. India already has several FMCG players, including Patanjali, many logistics companies and international companies who are keen to develop their units in freight villages. In fact, freight villages will change the logistic narrative of India.

PEPPER IT WITH Inland Waterways, Sagarmala Project, Project Mausam, Suez canal, Panama canal, SEZ, GIFT city

Bombay Stock Exchange (BSE)

Why in News?

BSE, Asia's oldest stock exchange, has become the first Indian exchange to be recognised as a designated offshore securities market (DOSM) by the U.S. Securities and Exchange Commission (SEC).

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While only a few exchanges globally enjoy the DOSM recognition, some of the notable ones are London Stock Exchange, Bourse de Luxembourg, Tokyo Stock Exchange and Toronto Stock Exchange.

Highlights

- The DOSM status allows sale of securities to U.S. investors through the trading venue of BSE without registration of such securities with the U.S. SEC and thus eases the trades

by U.S. investors in India, and it will primarily benefit securities issued in US private placements to institutional investors.

- This is expected to primarily benefit securities issued in US private placements to institutional investors. The availability of a liquid resale market is expected to make exempt offerings by BSE-listed companies more attractive to US investors.
- The recognition will also enhance the attractiveness of Indian Depository Receipts (IDRs) amongst US investors while providing additional benefits to companies whose securities are traded both in the US and on BSE.
- Certain directors and officers of dual-listed companies will be permitted to resell their securities on BSE, regardless of any restrictions or holding periods that may apply under US securities laws.

Significance

This is an important recognition of our endeavours not only to be the most modern platform technologically, but to also provide a globally recognised, well-regulated and well-governed venue for global investors who are looking at India with even more interest. With this status, India will continue its growth of listings and also aim to become an even better place to enable investments into India by US investors.

India's financial inclusion suffers from a gender gap

Why in News?

The World Bank recently published the results of its Global Findex Survey (2017), the third in the series from 2011. Findex surveys provide valuable information on financial inclusion and behaviours across countries.

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Highlights

- For India, the acceleration in account ownership (Jan Dhan Yojana) has already been highlighted, as has the extremely low utilisation: 80% Indian adults now have a bank account—27 points higher than the 53% estimated in Findex 2014 round.
- The fast progress is accompanied by higher inactivity as 48% of accounts saw no deposits or withdrawals in 2017, compared to 44% in 2014. This gap in access and usage is even more telling for females, where evidence indicates inclusion policies providing entry to formal finance fail to bridge gender inequalities, for which specific, broader intervention efforts are needed.
- Findex 2017 estimates that 77% of Indian women now own a bank account against respective 43% and 26% in 2014 and 2011. On this basic measure of financial inclusion, females are more financially included than before.
- This is the best it gets, however. A bank account is the gateway to other financial services but **doesn't automatically** translate into actual use of or access to these.
- The evidence on broader inclusion of women into formal finance is disappointing. They score disproportionately low on ordinary functions such as savings and borrowings: of more than three-fourths who have a bank account, less than a fifth (16.7%) save formally, i.e., at banks; 10% did so in 2014. The low preference for formal savings compares unfavourably with 30% of their Chinese and 26% global peers who save at a financial institution.
- Women trail behind even more in access to formal credit markets. The extent of their access to bank loans and dependence upon informal sources remained unchanged between 2014

and 2017 as per two Findex rounds in these years. Only 5% took out a loan—less than half their Chinese counterparts (11%) and below the global 9%; while 30% continue to borrow informally (family and friends), the same as in 2014.

- The gender gap in bank borrowings widened somewhat (3.3 against 2.8 in 2014). There is a hint of further marginalisation in this regard as the percentage borrowing to start/operate/expand a farm or business halved to 3% in 2017, and higher proportion (7.3%) saved for these purpose than before (3.6%, 2014).

Gender inequalities in access to formal credit have long manifested in India's scarce gender-wise financial statistics. In its financial inclusion report (2015), RBI noted the All-India Debt and Investment Survey suggests interest rates paid by female household heads are on average higher than their male counterparts; the gender differential reduces with per capita income improvements, showing poverty accentuates gender divisions.

Considering that about 10% of India's total entrepreneurs are women, and that 98% of women are concentrated in micro-enterprises and informal (99%) segments, the virtual lack of access to formal credit is a huge constraint. Indian women are less financially included than men by other metrics as well. They are half as likely to own debit cards. Account usage for remittances, including digitally, by women is low (22%) while credit-card ownership (2%) and use (6%) abysmal.

Reasons

- Numerous demand and supply-side constraints apply specifically to women. Findex surveys repeatedly establish the unbanked and low use of financial services correspond to low incomes and regions, low educational attainment, non-participation in the labour force as well as gender.
- In India, most factors unite to accentuate gender inequalities in finance: gender gaps are large and persistent in unemployment, wages, average years of schooling, unpaid care work; **female labour force participation rates are amongst the world's lowest, falling; safety concerns, socio-cultural restrictions prevent their empowerment, bargaining and decision-taking strength; lack of collateral (title or formal ownership of material assets) makes many of them high-risk borrowers; these inherent disadvantages discourage many from approaching banks, who in turn, do not often inspire their confidence.**
- An overall lack of empowerment therefore reflects in low awareness and demand for financial inclusion. The evidence emphasises that gender-inclusive financial sector policies have to gear in several dimensions for broader, deeper inclusion of women in formal financial markets. Even leveraging of digital technologies via mobile/smartphones—a low-cost, effective means for scaling-up—proves difficult for women (only 28% owned a mobile phone in 2015, estimated the GSMA, and 81% had never used internet on mobile).

Way ahead

Broader interventionist efforts are required to enhance female presence in finance, which must be prioritised if only because of more and more proof that this has positive growth and employment effects. But to even orient policies so, India has to fill numerous data and information gaps that exist, including at national-level official statistics.

Financial inclusion of women was specifically integrated into the G20's global development agenda (2012) and features in its action plan to achieve its commitment to reduce the gender workforce participation gap by 25% by 2025 (25 by 25); it figures indirectly in gender equality and female empowerment goals of the UN's Sustainable Development Goals; while the World Bank and IMF have actively gathered evidence and promoted research to help formulate appropriate

policies in recent years. India can complement these beyond what achieved through opening bank accounts through complementary policies and actions to promote access and usage by women.

Draft National Digital Communication Policy-2018

Why in News?

The Department of Telecommunication had released the draft National Digital Communication Policy (NDCP) in May 2018 for public comments.

The policy seeks to unlock the transformative power of digital communications networks - to achieve the goal of digital empowerment and wellbeing of the people of India; and towards this end, attempts to outline a set of goals, initiatives, strategies and intended policy outcomes.

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- One of the key strategies in the draft talks of recognising spectrum as a key natural resource for public benefit to achieve India's socio-economic goals, optimise availability and utilisation by making adequate spectrum available to be equipped for the new broadband era.
- On spectrum pricing, it said there should be optimal pricing of spectrum to ensure sustainable and affordable access to digital communications and simplifying the process of obtaining permissions from various agencies such as Wireless Planning and Coordination (WPC) and Standing Advisory Committee on Radio Frequency Allocation (SACFA) in order to promote efficiency.

Draft NDCP also talks about establishing a National Digital Grid by:

- Creating National Fibre Authority
- Establishing Common Service Ducts and utility corridors in all new city and highway road projects, and related elements
- Creating a collaborative institutional mechanism between Centre, States and Local Bodies for Common Rights of Way, standardisation of costs and timelines; and removal of barriers to approvals
- Facilitating development of Open Access Next Generation Networks

Vision

To fulfil the information and communication needs of citizens and enterprises by establishment of a ubiquitous, resilient, secure and affordable Digital Communications Infrastructure and Services; and in the process, support India's transition to a digitally empowered economy and society.

The National Communications Policy aims to accomplish the following Strategic Objectives by 2022:

- Broadband for all;
- Creating 4 million additional jobs in the Digital Communications sector;
- Enhancing the contribution of the Digital Communications sector to 8% of India's GDP from around 6% in 2017;
- Propelling India to the Top 50 Nations in the ICT Development Index of ITU from 134 in 2017;
- Enhancing India's contribution to Global Value Chains; and
- Ensuring Digital Sovereignty of the country.

PEPPER IT WITH fourth industrial revolution (Industry 4.0), 5G, AI, IoT, Innovation and IPR, SACFA, Indian Telegraph Act 1885

The draft talks of establishing a 'National Broadband Mission – Rashtriya Broadband Abhiyan' to secure universal broadband access for implementation of broadband initiatives, to be funded through USOF and Public Private Partnerships:

- i. BharatNet – Providing 1 Gbps to Gram Panchayats upgradeable to 10 Gbps
- ii. GramNet – Connecting all key rural development institutions with 10 Mbps upgradeable to 100 Mbps
- iii. NagarNet – Establishing 1 Million public Wi-Fi Hotspots in urban areas
- iv. JanWiFi – Establishing 2 Million Wi-Fi Hotspots in rural areas

Bharat Inclusion Seed Fund

In News

The incubation centre at the Indian Institute of Management, Ahmedabad, has launched a \$25 million (Rs 169 crore) initiative to back social-impact startups looking to harness the next half billion Indians coming onto the internet.

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Objective

The Bharat Inclusion Initiative supports all entrepreneurs working on problems for the Bharat Market. All startups part of the initiative is expected to be using technology as leverage to increase reach and should be serving the underserved. Actively encouraging startups in the spaces of Financial Services for the Poor, Skill Development & Livelihood Generation.

The 192nd Post Office Passport Seva Kendra, opened recently in Phagwara in Punjab, will be the first in the country to have all-women staff.

Bharat Inclusion Initiative project

1. The Bharat Inclusion Initiative project started by the Centre for Innovation, Incubation, and Entrepreneurship will mentor startups over the next three to four years across areas such as financial inclusion, livelihood, education and health.
2. The project has received an initial pledge of \$12.5 million from the Bill and Melinda Gates Foundation, the Michael and Susan Dell Foundation, Omidyar Network and Tata Trusts.
3. This amount includes a \$5 million commitment for providing support to startups through acceleration programmes, research, workshops and partnerships.
4. The remaining amount has been earmarked for the Bharat Inclusion Seed Fund, which will invest in seed and pre-Series A startups. The seed fund has marked its initial closing at \$7.5 million.
5. Omidyar Network, set up by eBay founder Pierre Omidyar and his wife, said its support to the initiative will help tech entrepreneurs across the pre-incubation, seed and scale-up stages.

Model Contract Farming Act, 2018

In News

The agriculture ministry recently released the Model Contract Farming Act, 2018, which lays emphasis on protecting the interests of farmers, considering them as weaker of the two parties entering into a contract.

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What is the existing regulatory structure?

Currently, contract farming requires registration with the Agricultural Produce Marketing Committee (APMC) in few states. This means that contractual agreements are recorded with the APMCs which can also resolve disputes arising out of these contracts. Further, market fees and levies are paid to the APMC to undertake contract farming. The Model APMC Act, 2003 provided for contract farming and was released to the states for them to use this as reference while enacting their respective laws. Consequently, 20 states have amended their APMC Acts to provide for contract farming, while Punjab has a separate law on contract farming. However, only 14 states notified rules related to contract farming, as of October 2016.

PEPPER IT WITH
APMC Act, PMFBY, Green Good
Deeds, Paramparagat Krishi Vikas
Yojana

Issue in previous regulatory structure

Over the years, expert bodies have identified issues related to the implementation of contract farming. These include: (i) role of APMCs which are designated as an authority for registration and dispute settlement in most states, (ii) provisions of stockholding limits on produce under contract farming, and (iii) poor publicity of contract farming among the farmers about its benefits.

Salient features of Model Contract Farming Act, 2018 are:

1. The Act lays special emphasis on protecting the interests of the farmers, considering them as weaker of the two parties entering into a contract.(i)
2. In addition to contract farming, services contracts all along the value chain including pre-production, production and post-production have been included.
3. **“Registering and Agreement Recording Committee” or an “Officer” for the purpose at district/block/ taluka level for online registration of sponsor and recording of agreement provided.**
4. Contract framing to be outside the ambit of APMC Act.
5. **No permanent structure can be developed on farmers’ land/premises**
6. No right, title of interest of the land shall vest in the sponsor. Promotion of Farmer Producer Organization (FPOs) / Farmer Producer Companies (FPCs) to mobilize small and marginal farmers has been provided.
7. FPO/FPC can be a contracting party if so authorized by the farmers.No rights, title ownership or possession to be transferred or alienated or vested in the contract farming sponsor etc.
8. Ensuring buying of entire pre-agreed quantity of one or more of agricultural produce, livestock or its product of contract farming producer as per contract.
9. Contract Farming Facilitation Group (CFFG) for promoting contract farming and services at village / panchayat at level provided.
10. Accessible and simple dispute settlement mechanism at the lowest level possible provided for quick disposal of disputes.
11. It is a promotional and facilitative Act and not regulatory in its structure

What is contract farming?

Under contract farming, agricultural production (including livestock and poultry) can be carried out based on a pre-harvest agreement between buyers (such as food processing units and exporters), and producers (farmers or farmer organisations). The producer can sell the agricultural produce at a specific price in the future to the buyer as per the agreement. Under contract farming, the producer can reduce the risk of fluctuating market price and demand. The buyer can reduce the risk of non-availability of quality produce. The cultivation of commercial crops like cotton, sugarcane, tobacco, tea, coffee, rubber and dairy have had some elements of informal contract farming for a long time.

Rustom 2 drone

Why in News?

The Rustom-II Unmanned Aerial Vehicle (UAV), which is being developed by the Defence Research and Development Organisation (DRDO), will be delivered to the armed forces by 2020.

Rustom 2 is part of the Rustom line of Unmanned Aerial Vehicles (UAVs) that includes Rustom-I, Rustom-H and Rustom-C. The manufacturing will be done by Hindustan Aeronautics Ltd and Bharat Electronics Ltd, as per the contract.

About Rustom 2

- The drone is being developed for use by all three services of the Indian Armed Forces, primarily for intelligence, surveillance and reconnaissance (ISR) operations. The medium-altitude prototype can fly at over 22,000 ft and is a long-endurance (MALE) UAV that has an approximate flight time of 20 hours.

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- It can fly at around 280 km/h and carry a variety of payloads like Medium Range Electro Optic (MREO), Long Range Electro Optic (LREO), Synthetic Aperture Radar (SAR), Electronic Intelligence (ELINT), Communication Intelligence (COMINT) and Situational Awareness Payloads (SAP) that help in performing missions even during the night.
- MREO and LREO sensors are placed inside a modular payload under the nose for capturing imagery and video.
- **The drone's data link developed** by Defence Electronics Application Laboratory (DEAL) transmits the ISR data to the **armed forces' ground control station** in realtime allowing prompt action.
- Rustom 2 can fly missions on manual as well as autonomous modes. The onboard way-point navigation system allows the drone to conduct missions autonomously.
- Several critical systems and components of the drone, like its airframe, avionics sub-systems, flight control, landing gear etc. have been made indigenously and some in collaboration with private manufacturers.

The government of India has drafted the rules for drones according to the size of the drone being flown:

- Barring nano drones—those that weigh under 250 **grams and can't fly at higher than 50 feet**—all others must be registered with the DGCA and acquire a Unique Identification Number;
- Drones that weigh over 2kgs will require an air defence clearance.
- The remote pilot for any drone must be at least 18 years old and have gone through a prescribed training process;
- The government has also specified certain areas that will be out of reach for drones.

PEPPER IT WITH
OA-X Experiment, F-35B fighter jets, DEAL, ELINT, DRDO, Vijay Prahar

Drones, also known as unmanned aerial vehicles (UAVs) or remotely piloted aircraft system (RPAS), are used in several parts of the world to monitor crop production and infrastructure, assess damage following natural calamities, and carry out surveys, commercial photography, aerial mapping, and package delivery.

Exercises Surya Kiran

- The 13th edition of bilateral annual military Exercise Surya Kiran, between India and Nepal Army commenced at Pithoragarh recently.
- The exercise will ensure better coordination between armies of both the countries in disaster management, anti-terrorism operations and strengthening of the bilateral relations.
- The aim of the exercise is a joint training of troops in counter-insurgency, counter-terrorism operations in both jungle and mountainous terrain and disaster management.
- Surya Kiran can be termed as the facade of long-standing strategic ties between India and Nepal.

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Sadharan Brahmo Samaj

Why In News?

Sadharan Brahmo Samaj (SBS), **the party funded by Rabindranath Tagore's** father in the initial years, has entered into a legal battle with the State government over its decision to dissolve the governing bodies of eight colleges in Kolkata run by the organisation.

About SBS

The Brahmo Samaj was formed by Raja Rammohan Roy as an alternative to the prevalent trends of Hinduism on August 20, 1828. Due to ideological differences, Keshab Chandra Sen, one of its key

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PEPPER IT WITH
Arya Samaj, PrarthanaSamaj, Servants of India Society, Shuddi movement, Bhoodan movement, Tattvabodhini Sabha

leaders, formed a separate organisation called the BramhoSamaj of India in 1866. The SBS was formed at a public meeting in May 15, 1878, at the Town Hall in Kolkata, following differences between its founders and Mr. Sen.

Ananda Mohan Bose, Shibchandra Deb and Umeshchandra Datta were the key leaders of SBS. Debendranath Tagore, father of Rabindranath Tagore was actively involved with the organisation.

TholuBommalata

In News

TholuBommalata, the shadow puppet theatre tradition, has lost lustre with only a handful of families fighting against odds to nurture the art-form practised by their ancestors for centuries, in the wake of the western cultural onslaught.

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Background

Years ago, the art was active in the four districts of Rayalaseema, especially in the border villages of Karnataka and Andhra Pradesh. Currently, there are only 6-8 troops left in all those areas that are still taking up the leather puppetry as the prime livelihood.

About

- TholuBommalata is the shadow puppet theatre tradition of the state of **Andhra Pradesh in India**. **TholuBommalata literally means “the dance of leather puppets”** (tholu – leather and bommalata – puppet dance).
- TholuBommalata is a composite art containing all the elements of fine arts: music, sculpture, poetry and painting, both traditional and folk.
- During performance, a thin white cloth measuring 12 x 9 feet lit from the back with a bulb or oil lamp functions as a screen. Both sides of the puppet are painted to enhance projection of the figure.
- The puppeteers make up some of the various entertainers who perform all night and usually reenact various stories from Hindu epics such as the Ramayana and Mahabharata.

PEPPER IT WITH
Kondapalli Toys,
Kalamkari, Kollattum,
Etikoppaka Toys

MP Gets India's First Smart Cities Control Centre

In News

Madhya Pradesh launched the Smart City Control Centre or Integrated Control and Command Centre (ICCC) in Bhopal for all the seven smart cities in the state Bhopal, Indore, Gwalior, Ujjain, Satna, Jabalpur, and Sagar.

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ICCC

- ICCC is a cloud-based Universal Internet of Things (UIoT) platform which will enable authorities to monitor the real-time status of various civic utilities like the traffic cameras, solid waste management units, meteorological department centres, street lights, water supply centres and various other things.
- ICCC would enable the authorities to remotely control various citizen services like smart lighting (street lights), smart parking (parking lights), smart traffic (traffic lights) and transport along with waste management, waste supply etc. through a single platform.
- Developed by the HP Enterprise (Hewlett Packard Enterprise), the ICCC is located at the Bhopal Smart City development Corporation Ltd (BSCDCL) facility in the Berkheda area.

PEPPER IT WITH
Star rating of garbage free cities,
City Challenge Competition

4. HPE has provided an end-to-end solution for BSCDCL that combines the HPE Universal IoT platform, industry leading servers, Edge compute systems, HPEPointnext services and a broad ecosystem of partners.
5. It will not only save the money of the government but also provide a direct interface with citizens.
6. The command centre will have a proactive customer centric approach for efficient city **management which would help city become a 'smarter' city. These services include Smart Lighting, Smart Parking, Smart Traffic and Transport, Smart Waste Management and Smart Water.**

Smart City Scheme keys

Selection of cities: The selection is based on the scores cities get for carrying out urban reforms in areas including sanitation and governance. Cities that score the highest will be picked for the project, to be implemented over a 10-year period.

Implementation: The implementation of the Mission at the City level will be done by a Special Purpose Vehicle (SPV) created for the purpose. Each smart city will have a SPV which will be headed by a full time CEO and have nominees of Central Government, State Government and ULB on its Board.

Funding: Under the scheme, each city will get Rs 500 crore from the Centre for implementing various projects.

Indian National Trust for Art and Cultural Heritage (INTACH)

In News

A trove of more than pages of rare Tibetan manuscripts with his teachings written in gold letters has been restored by INTACH at a 100-year-old **monastery in Alubari in West Bengal's Darjeeling district.**

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About Manuscript

- The manuscripts contain the ancient Tibetan text called *Gyetongba*, which contains teachings of Buddhism. The manuscripts are in the Tibetan script Sambhota, named after its inventor.
- Restoration of the gold-inlaid manuscripts in two volumes at the MakDhog Monastery started earlier this year.
- Each volume contains 8,000 verses. As per experts one volume contained 322 pages, the other had 296 pages.

Intach organised a conference on **April 7** titled '**Economics of Urban Heritage: Conservation, Hurdles and Opportunities**', which brought together government officials, conservationists, investors, homeowners and urban planners to discuss the tourism potential of built heritage.

INTACH

- ❖ INTACH is an autonomous non-governmental Indian non-profit society that seeks to preserve Indian culture and heritage. It was founded in 1984.
- ❖ In 2007, the United Nations awarded INTACH a special consultative status with United Nations Economic and Social Council.

PEPPER IT WITH
Revised Master Plan (RMP)
2031, Adopt a Heritage,
EkamraKshetra, HRIDAY,
HamariDharohar, Sambhota

Objective

- Sensitize the public about the pluralistic cultural legacy of India
- **Instill a sense of social responsibility towards preserving India's common heritage**

- **Protect and preserve India's living, built, and natural heritage** by undertaking necessary actions and measures

Zojila Tunnel


In News

Prime Minister will be attending the commencement of work on Zojila Tunnel on the Srinagar-Leh National Highway at an event in Jive-tsal in Leh.

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Zojila pass tunnel

- It is all-weather connectivity between Srinagar, Kargil and Leh and, at 14.2 km, **will also be the country's longest road tunnel**.
- The tunnel will cut down the time taken to cross the Zojila pass from the 3.5 hours to 15 minutes.
- The pass is situated at an altitude of 11,578 ft on the Srinagar-Kargil-Leh National Highway and remains closed during winters due to heavy snowfall, which cuts off Ladakh region from Kashmir.
- The tunnel will have a transverse ventilation system, uninterrupted power supply, tunnel emergency lighting, CCTV monitoring, pedestrian cross passages at every 250 metres, as well as emergency telephones and fire-fighting cabinets at every 125 metres.
- The project will be implemented by the ministry of road transport and highways (MoRT&H) through the National Highways and Infrastructure Development Corporation Limited (NHIDCL).
- The Cabinet Committee on Economic Affairs had approved the construction, operation and maintenance of this 2-lane bi-directional tunnel with Parallel Escape (Egress) tunnel between Baltal and Minamarg on the Srinagar-Leh section of NH-1A at a total cost of Rs 6800 crore earlier this year.



KEY FEATURES

- The longest bi-directional single tube road tunnel in Asia
- Length: 14.15 km
- Open all days
- All-weather accessibility
- To be built at Zojila pass on Srinagar-Kargil-Leh NH-1 situated at an altitude of 11,578 feet
- Cost: ₹6,809 crore
- Will reduce time taken to cross Zojila pass from three hours and 30 minutes to 15 minutes
- Expected time of completion: 5 years

snowfall, cutting off Ladakh region from Kashmir

Other Projects underscope

- PM will dedicate the 330 MW Kishanganga Hydropower Station to the Nation, at the Sher-i-Kashmir International Conference Centre (SKICC) in Srinagar. He will also lay the Foundation Stone of the Srinagar Ring Road.
- Prime Minister will lay the Foundation Stone of the PakulDul Power Project, and the Jammu Ring Road.
- Tarakote Marg and Material Ropeway of the Shri Mata Vaishno Devi Shrine Board. The Tarakote Marg will facilitate pilgrims visiting the shrine.

Banihal-Qazigund tunnel

1. It is 8.45 km road tunnel in the PirPanjal range in Jammu and Kashmir connecting Banihal and Qazigund.
2. It is a double tube tunnel consisting of two parallel tunnels – one for each direction of travel.
3. **It is 400 m lower than the existing Jawahar tunnel's elevation, which would make it less prone to avalanches.**

Country's First National sports University

- The Union cabinet recently approved an ordinance to set up the country's first national sports university in Imphal, Manipur.
- It will be a specialised University, first of its kind, would provide a boost to sports activities in the country, and also improve the country's sports performance at the national and international levels.
- The proposal was formally announced by the finance minister in his budget speech of 2014-15 in 2014. The proposed University has also considerable employment generation potential.
- A void exists in the sports environment of the country in various areas such as sports science, sports technology, high performance training. The proposed university is expected to bridge this gap.
- India has its fair share of sports courses, but these are in state universities—the Lakshmi Bai National Institute of Physical Education, the Tamil Nadu Physical Education and Sports University, and the Swarnim Gujarat Sports University are a few of them.

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Concept Clearing Assignment

1. Bring out the key feature of Pradhan Mantri Jan Vikas Karyakram. Discuss the socio-economic impact of this scheme.
2. Briefly discuss DNA Based Technology (Use and Regulation) Bill, 2017. How will this Bill tackle privacy concerns and the ethics involved in this scientific collection of data? Critically analyse.
3. Ageing is a natural process, which inevitably occurs in human life cycle. How will Maintenance and Welfare of Parents and Senior Citizen Draft Bill, 2018 ensure Rights to live with dignity to our senior citizens? How can we use the untapped resource in the form of senior citizens for the growth of socio-economic aspect of society? Comment.
4. Enumerate the provisions available for divorced spouse to combat against domestic violence. Support your answer in light of SC judgments/recommendations.
5. Briefly discuss key aspects of PRS scheme. How will this initiative help in building FDI for India?
6. In the last few decades we have seen major changes in agricultural technologies and these have led to agricultural development. Some of the agricultural developments have also led to environmental un-sustainability. How can we strike a balance between agricultural development and environmental un-sustainability?
7. Technological advancements are changing human lives in numerous ways – be it the way wars are fought, or businesses are conducted. Drones, also known by various other names, reflect this change most aptly. The evolution of these technologies could create an impact on any **country's security in multiple ways**. Do you think India needs to play a more proactive role in shaping global norms around the use of drones?
8. In the recent times contract farming is being highlighted in India. Do you think contract farming can be done in all types of crops? Also, critically analyse the recent model contract farming Act.
9. Inclusive growth in India is highlighted by almost every government and the last 2 five-year **plans clearly mentioned about it. What according to you is the level of India's inclusive growth in the financial sector? Do you think India's financial sector lacks gender parity?**
10. **Bombay stock exchange became India's first stock exchange to be recognized as a designated offshore securities market. What is the importance of this recognition?**
11. Appellate Authority for Advance Ruling hears appeal against advance ruling given by the Authority for Advance ruling. What are the matters on which advance rulings can be sought? What is advance pricing agreement and how it avoids potential in a cooperative manner?

12. Food management is an extensive course of action that involves the appropriate supervision of food assortment, preparation, arrangement, and conservation. What are the main elements of **the Government's food management policy in India?**
13. In May 1998, India detonated five nuclear devices in the Thar Desert, crossing the threshold from a nuclear-capable to a nuclear-armed state. 20 Years After Pokhran-II: Have Nuclear Weapons Made India More Secure?
14. Briefly discuss the ToneTag technology. How the ToneTag will revolutionise the payment method in Indian Market?
15. What is Frozen Semen Station? How will it boost the Milk economy in India? Elucidate.

P.T Oriented Questions

1. National Institute of Disaster Management (NIDM) is a premier institute of the Government under which Ministry?
 - (a) Home Ministry
 - (b) Ministry of Environment, Forest and Climate Change
 - (c) Ministry of Earth Sciences
 - (d) HRD (UGC)
2. New Shepard a rocket designed for space tourism has been manufactured by:
 - (a) SpaceX
 - (b) ISRO
 - (c) Blue Origin
 - (d) NASA
3. Consider the following statements about probiotic food: (UPSC 2008)
 1. Probiotic food contains live bacteria which are considered beneficial to humans.
 2. Probiotic food helps in maintaining gut flora.
 Which of the statements given above is/are correct?
 - (a) 1 only
 - (b) 2 Only
 - (c) Both 1 and 2
 - (d) Neither 1 nor 2
4. Which schedule of the Constitution of India contains special provisions for the administration and control of Scheduled Areas in several States? (UPSC 2008)
 - (a) Third
 - (b) Fifth
 - (c) Seventh
 - (d) Ninth
5. In India, how many States Share the coastline? (UPSC 2008)
 - (a) 7
 - (b) 8
 - (c) 9
 - (d) 10
6. Which one among the following has the maximum number of National Parks? (UPSC 2008)
 - (a) Andaman and Nicobar Islands
 - (b) Arunachal Pradesh
 - (c) Assam
 - (d) Meghalaya
7. Where was the First Session of the Indian National Congress held in December 1885? (UPSC 2008):
 - (a) Ahmadabad
 - (b) Bombay
 - (c) Calcutta
 - (d) Delhi
8. Consider the following about Directorate General of Civil Aviation (DGCA) and choose the correct one/s:

1. It is a regulatory body for civil aviation.
 2. It promotes safety and efficient air transportation.
 3. It decides air fares
- Code:
- (a) 1 and 2 (b) 1 and 3
(c) 2 and 3 (d) All the above
9. Consider the following statements about National Dairy Development Board and choose the correct one/s:
1. It is an autonomous body under ministry of agriculture.
 2. It seeks to strengthen farmer cooperatives and support national policies that are favourable to the growth of such institutions.
- Code:
- (a) 1 only (b) 2 only
(c) 1 and 2 (d) None
10. Consider the following about Indian Council of Agricultural Research (ICAR) and choose the correct one/s:
1. It is an autonomous organisation under the Ministry of Agriculture and Farmers Welfare
 2. The ICAR has played a pioneering role in ushering Green Revolution.
- Code:
- (a) 1 only (b) 2 only
(c) 1 and 2 (d) None
11. Consider the following about National Commission for Minority Educational Institutions and choose the correct one/s:
1. It is a quasi-judicial body and has been endowed with the powers of a Civil Court.
 2. The Commission can make recommendations to the Central Government and the State Governments regarding any matter which directly or indirectly deprives the minority community of their educational rights enshrined in Article 30.
 3. It is to be headed by a Chairman who has been a chief justice of the High Court and three members are to be nominated by Chief Justice of India.
- Code:
- (a) 1 and 2 (b) 1 and 3
(c) 2 and 3 (d) All the above
12. Consider the following about Rashtriya Gram Swaraj Abhiyan and choose the correct one/s:
1. It is a scheme to make rural local bodies self-sustainable and financially stable.
 2. It will be fully funded by the Government of India.
 3. This scheme will extend to all States and UTs of the country and will also include institutions of rural local government in non-Part IX areas, where Panchayats do not exist.
- Code:
- (a) 1 and 2 (b) 1 and 3
(c) 2 and 3 (d) All the above
13. Consider the following about 15th Finance Commission and choose the correct one/s:
1. N K Singh is the head of this commission:
 2. It will use 2011 census to calculate population for tax allocation.
- Code:
- (a) 1 only (b) 2 only
(c) 1 and 2 (d) None

14. Consider the following about Competition Commission of India and choose the correct one/s:
1. CCI consists of a Chairperson and 6 Members appointed by the Central Government.
 2. It is the only cross sector regulator in India.
 3. It is an autonomous body under ministry of finance.
- Code:
- | | |
|-------------|-------------------|
| (a) 1 and 2 | (b) 1 and 3 |
| (c) 2 and 3 | (d) All the above |
15. The first India-Nordic summit took place in:
- | | |
|-------------|---------------|
| (a) Oslo | (b) Helsinki |
| (c) Iceland | (d) Stockholm |
16. Panmunjeom Declaration was signed between:
- (a) India and Vietnam
 - (b) USA and North Korea
 - (c) China and Myanmar
 - (d) N Korea and S Korea
17. Consider the following about CLOUD Act and choose the correct one/s:
1. It is an act of US government.
 2. It creates platform for negotiations with N Korea
- Code:
- | | |
|-------------|------------|
| (a) 1 only | (c) 2 only |
| (d) 1 and 2 | (d) None |
18. Consider the following about GreenCo rating system and choose the correct one/s:
1. It is a rating system by UNDP.
 2. Indian Railways has implemented GreenCo rating in 42 production units and workshops
- Code:
- | | |
|-------------|------------|
| (a) 1 only | (b) 2 only |
| (c) 1 and 2 | (d) None |
19. Consider the following about Swell Waves and choose the correct one/s:
1. They are massive ripples that form on the sea due to winds coming from far away.
 2. They have characteristics similar to tsunami waves
- Code:
- | | |
|-------------|------------|
| (a) 1 only | (b) 2 only |
| (c) 1 and 2 | (d) None |
20. Consider the following about Gaia Satellite and choose the correct one:
1. It is a Billion Star surveyor satellite of NASA.
 2. It will develop the most precise 3D map of Milky Way Galaxy
- Code:
- | | |
|-------------|------------|
| (a) 1 only | (c) 2 only |
| (c) 1 and 2 | (d) None |
21. Consider the following about Van Dhan Scheme and choose the correct one/s:
1. It is the scheme of Ministry of Tribal Affairs and TRIFED.
 2. The scheme will facilitate skill upgradation and capacity building training and setting up of primary processing and value addition facility
- Code:
- | | |
|-------------|------------|
| (a) 1 only | (b) 2 only |
| (c) 1 and 2 | (d) None |

22. Consider the following about Madhubani Paintings and choose the correct one/s:
1. It is practiced in the Mithila region of Andhra Pradesh.
 2. The colors used in Madhubani paintings are usually derived from plants and other natural sources.
 3. Sita Devi is credited for bringing this art form under the limelight
- Code:
- (a) 1 and 2 (b) 1 and 3
(c) 2 and 3 (d) All the above
23. Consider the following about ESSO - Indian National Centre for Ocean Information Services and choose the correct one/s:
1. It is an autonomous body under the Ministry of Earth Sciences (MoES).
 2. It is tasked with the duty to issue tsunami warnings.
 3. It is the permanent member of the Indian delegation to IOC of UNESCO
- Code:
- (a) 1 and 2 (b) 1 and 3
(c) 2 and 3 (d) All the above
24. Silent Valley National Park is located in:
- (a) Tamil Nadu
(b) Karnataka
(c) Uttarakhand
(d) Kerala
25. Consider the following statements about Nilgiri Tahr and choose the correct one/s:
1. It is endemic to eastern Ghat in India.
 2. Eravikulam National Park is home to the largest population of this specie
- Code:
- (a) 1 only
(b) 2 only
(c) 1 and 2
(d) None
26. Global Findex report is published by:
- (a) World Bank
(b) WTO
(c) IMF
(d) WEF
27. Consider the following about fame India scheme and choose the correct one/s:
1. This scheme is being administered by ministry of transport.
 2. It aims to promote ecofriendly vehicles in the country:
- Code:
- (a) 1 only (b) 2 only
(c) 1 and 2 (d) None
28. Consider the following about angel tax and choose the correct one/s:
1. It is a 30.9 % tax levied on investments made by external investors in startups or companies.
 2. **Investments made by Indian residents in companies certified as 'innovative' startups** have been exempted from Angel Tax
- Code:
- (a) 1 only (b) 2 only
(c) 1 and 2 (d) None

29. Consider the following statements and choose the correct one/s:
1. Cash Reserve Ratio is the amount which banks have to keep with RBI in form of gold or government bonds.
 2. The marginal cost of funds-based lending rate (MCLR) refers to the maximum interest rate a bank can lend money with.
- (a) 1 only (b) 2 only
(c) 1 and 2 (d) None
30. Consider the following statements:
1. The Accelerated Irrigation Benefits Programme was launched during 1996-97 to provide loan assistance to poor farmers.
 2. The Command Area Development Programme was launched in 1974-75 for the development of water-use efficiency.
- Which of the statements given above is/are correct?
- (a) 1 only (b) 2 only
(c) Both 1 and 2 (d) Neither 1 nor 2

ANSWERS

1(a), 2(c), 3(c), 4(b), 5(c), 6(a), 7(b), 8(a), 9(b), 10(c), 11(a), 12(b), 13(c), 14(a), 15(d), 16(d), 17(a), 18(b), 19(a), 20(b), 21(c), 22(c), 23(d), 24(d), 25(b), 26(a), 27(b), 28(c), 29(d), 30(b)