



# CURRENT CONNECT NOVEMBER- 18

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| 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 to 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 judgment, 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 agencies 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/ Governance   | Ethics in international issues                        | Personalities and their teachings                                 | Other important topics  |  |   |   |
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## Companies Amendment (Ordinance), 2018

### In News

The recommendation of the Companies Amendment (Ordinance), 2018 has been assented to by the President of India. The Ordinance is promulgated to review offences under the Companies Act, 2013.

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### Key Amendments

- Shifting of jurisdiction of 16 types of corporate offences from the special courts to in-house adjudication, which is expected to reduce the case load of Special Courts by over 60%, thereby enabling them to concentrate on serious corporate offences. With this amendment the scope of in-house adjudication has gone up from 18 Sections at present to 34 Sections of the Act.
- The penalty for small companies and one person companies has been reduced to half of that applicable to normal companies.
- Instituting a transparent and technology driven in-house adjudication mechanism on an online platform and publication of the orders on the website.
- Strengthening in-house adjudication mechanism by necessitating a concomitant order for making good the default at the time of levying penalty, to achieve the ultimate aim of achieving better compliance.
- Repeat defaulters: Under the Ordinance, if a company, or an officer, or other person commits a default again within three years of the previous case, the entity will be liable to twice the penalty as provided for such default.
- De-clogging the NCLT by:
  - enlarging the pecuniary jurisdiction of Regional Director by enhancing the limit up to Rs. 25 Lakh as against earlier limit of Rs. 5 Lakh under Section 441 of the Act;
  - vesting in the Central Government the power to approve the alteration in the financial year of a company under section 2(41); and
  - vesting the Central Government the power to approve cases of conversion of public companies into private companies.
- Recommendations related to corporate compliance and corporate governance include re-introduction of declaration of commencement of business provision to better tackle the **menace of 'shell companies'**; greater disclosures with respect to public deposits; greater accountability with respect to filing documents related to creation, modification and satisfaction of charges; non-maintenance of registered office to trigger de-registration process; and holding of directorships beyond permissible limits to trigger disqualification of such directors.

PEPPER IT WITH  
NCLT, IT Act 2000,  
Section 66A, CVC

## Enemy Property Act

### In News

Cabinet approves laying down procedure and mechanism for sale of enemy shares.

### Terms Of Sale

- 'In principle'** approval has been accorded for sale of enemy shares under the Custody of Ministry of Home Affairs/ Custodian of Enemy Property of India (CEPI), as per sub-section 1 of section 8A of the Enemy Property Act, 1968.
- Department of Investment and Public Asset Management has been authorized under the provisions of sub-section 7 of section 8A of the Enemy Property Act, 1968, to sell the same.
- Sale proceeds are to be deposited as disinvestment proceeds in the Government Account maintained by Ministry of Finance.
- The mechanism will be supported by a high-level committee of officers co-chaired by the secretary in the Department of Investment and Public Asset Management, Home Affairs

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secretary (with representatives from DEA, DLA, Corporate Affairs and CEPI) that would give its recommendations with regard to quantum, price/price-band, principles/mechanisms for sale of shares.

### About Enemy Property Act 1968

After the Indo-Pakistan War of 1965, the Enemy Property Act was enacted in 1968, to regulate enemy properties and lists the **Custodian's powers**. The act provided for the continuous vesting of enemy property in the custodian. The possession of enemy properties spread across many states in the country vest with the Union Government through the Custodian of Enemy Property for India.

### The Enemy Property (Amendment and Validation) Act, 2017

- Definition of enemy: **The 1968 Act defined an 'enemy' as a country (and its citizens)** that committed external aggression against India (i.e., Pakistan and China). The Act 2107 expands this definition to include: (i) legal heirs of enemies even if they are citizens of India or of another country which is not an enemy, (ii) nationals of an enemy country who subsequently changed their nationality to that of another country, etc.
- Vesting of enemy property: The 1968 Act allowed for vesting of enemy properties with the Custodian, after the conflicts with Pakistan and China. The Act 2107 amends the Act to clarify that even in the following cases these properties will continue to vest with the Custodian: **(i) the enemy's death, (ii) if the legal heir is an Indian, (iii) enemy changes his nationality to that of another country, etc.**
- The Act 2107 further provides that vesting of enemy property with the Custodian will mean that all rights, titles and interests in the property will vest with the Custodian. No laws and customs governing succession will be applicable to these properties.
- Divestment: The 1968 Act provided that the central government may order for an enemy property to be divested from the Custodian and returned to the owner or other person. The Act 2107 replaces this provision, and allows enemy property to be returned to the owner only if an aggrieved person applies to the government, and the property is found not to be an enemy property.
- Power of sale: The 1968 Act permitted sale of enemy property by the Custodian only if it was in the interest of preserving the property, or to secure maintenance of the enemy or his family in India. The Act 2107 expands this power, and allows the Custodian to sell or dispose of enemy property. The Custodian may do this within a time period specified by the central government, irrespective of any court judgements to the contrary.
- Transfers by enemies: The 1968 Act prohibited transfer of enemy property by an enemy if: (i) it was against public interest, or (ii) to evade vesting of property in the Custodian. The Act 2107 removes this provision, and prohibits all transfers by enemies. Further, it renders transfers that had taken place before or after the commencement of the 1968 Act as void.
- Jurisdiction of courts: The Act 2107 bars civil courts and other authorities from entertaining cases against enemy properties. However, it allows a person aggrieved by an order of the central government to appeal to the High Court, regarding whether a property is enemy property. Such an appeal will have to be filed within 60 days (extendable upto 120 days).

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| <p>PEPPER IT WITH<br/>Krishna Kumar Singh v State<br/>of Bihar, Tashkent<br/>Declaration, Article 123,<br/>Defence of India Act, 1939</p> |
|---|

### Major Impact:

1. With the amendment of 2017, an enabling legislative provision was created for the disposal of enemy property.
2. With the approval, now, of the procedure and mechanism for sale of enemy shares an enabling framework has been institutionalized for their sale.
3. The decision will lead to monetization of movable enemy property lying dormant for decades. Sale proceeds from this may be used for development and social welfare programmes.

## Doctrine of Double Jeopardy

### In News

The Supreme Court has held that bar of double jeopardy does not arise if an accused was discharged of a criminal offence, even before the commencement of trial, on the basis of an invalid sanction for prosecution.

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### Supreme Court Verdict

1. When the accused was discharged due to lack of proper sanction, the principles of **“double jeopardy” will not apply, and there is no bar for filing fresh/supplementary charge sheet** after obtaining a valid sanction for prosecution.
2. If an earlier order of sanction was found to be invalid, there is no bar for the competent authority to issue a proper order of sanction for prosecution.
3. **“Under Article 20(2) of the Constitution of India, no person shall be prosecuted and punished for the same offence more than once. Section 300 Cr.P.C. lays down that a person once convicted or acquitted, cannot be tried for the same offence. In order to bar the trial of any person already tried, it must be shown – (i) that he has been tried by a competent court for the same offence or one for which he might have been charged or convicted at that trial, on the same facts; (ii) that he has been convicted or acquitted at the trial; and (iii) that such conviction or acquittal is in force. Where the accused has not been tried at all and convicted or acquitted, the principles of “double jeopardy” cannot be invoked at all.”**

Jeopardy can terminate in four instances:

1. after a jury’s verdict of acquittal
2. after a trial court’s dismissal
3. after a trial court grants a mistrial
4. on appeal after conviction

### Constitution of India on Doctrine of Double Jeopardy

#### • Ex-Post facto Law

Article 20(1) states that no person shall be convicted of any offence except for violation of the law in force at the time of the commission of the act charged as an offence, nor be subjected to a penalty greater than that which might have been inflicted under the law in force at the time of the commission of the offence.

#### • Double Jeopardy In India

A partial protection against double jeopardy is a Fundamental Right guaranteed under Article 20 (2) of the Constitution of India, which states "No person shall be prosecuted and punished for the same offence more than once". This provision enshrines the concept of autrefo is convict, that no one convicted of an offence can be tried or punished a second time. However, it does not extend to autrefo is acquit, and so if a person is acquitted of a crime he can be retried. In India, protection against autrefo acquitis a statutory right, not a fundamental one. Such protection is provided by provisions of the Code of Criminal Procedure rather than by the Constitution.

PEPPER IT WITH  
Art 26, NEMO DEBET BIS  
VEXARI, Jitendra Panchal vs  
Intelligence Officer Case

#### • Self-Incrimination Law

Article 20(3) of the constitution says that no person accused of any offence shall be compelled to be a witness against himself. The privilege against self-incrimination is a fundamental canon of common criminal law jurisprudence.

## President Rule in J&K

### In News

Governor made the dissolution of the Jammu and Kashmir legislative assembly and recommended for **President’s rule**.

### Article 370 section 92 – ‘Provisions in case of failure of constitutional machinery in the State.’

- In other states, President’s Rule is imposed after collapse of the local government under Article 356 of the Constitution. But Jammu

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and Kashmir has its own separate Constitution that provides for an intermediary statutory layer in the state.

- As per Article 370 Section 92 of the Jammu and Kashmir Constitution, Governor's Rule is imposed in the state for a period of six months. Jammu and Kashmir assembly remains under suspended animation during this period. However, the governor may dissolve the assembly.
- Suspended animation of the assembly means the elected MLAs remain in office and legislative assembly continues to exist without the power of legislation. The governor assumes the power of legislation during this period.
- At the expiry of six months of Governor's Rule and if suspension of assembly has not been revoked, Jammu and Kashmir comes under the President's Rule as mandated by the Constitution of India as per Article 356. However, in both the cases, the governor administers as per the Centre's directions.
- Make such incidental and consequential provisions as appear to the Governor to be necessary or desirable for giving effect to the objects of the Proclamation, including provisions for suspending in whole or in part the operation of any provision of this Constitution relating to anybody or authority in the State.
- If the Governor decides to dissolve Legislative Assembly during his own rule or when the state is under the President's Rule, election shall be held within six months. If the Election Commission does not hold polls in Jammu and Kashmir within six months from the date of dissolution of Assembly, it is required to explain reasons for not doing so.
- No Proclamation under this section shall, except where it is a Proclamation revoking a previous Proclamation, be laid before each House of the Legislature as soon as it is convened.

Background

Article 356 is inspired by sections 93 of the Government of India Act, 1935, which provided that if a Governor of a province was satisfied that a situation had arisen in which the government of the province cannot be carried on in accordance with the provisions of the said Act, he could assume to himself all or any of the powers of the government and discharge those functions in his discretion. The Governor, however, could not encroach upon the powers of the high court. This background has imbued this article with a whiff of a 'controlled democracy', which is what the British would have intended then.

PEPPER IT WITH Article 370, Part XXI of the Constitution of India, DPSP, Article 360

Article 356

- The imposition of Article 356 of the Constitution on a State following the failure of **constitutional machinery is called President's Rule in India. Once the President's Rule** has been imposed on a state, the elected state government will be temporarily dissolved, and the Governor, who is appointed by the government at the Centre, will replace the Chief Minister as the chief executive of the State.
- **The imposition of the President's rule requires the sanction of both the houses of Parliament.** If approved, it can go on for a period of six months. However, the imposition cannot be extended for more than three years, and needs to be brought before the two houses every six months for approval.

CBI and general consent

In News

The Andhra Pradesh and West Bengal governments have withdrawn "general consent" to the CBI for investigating cases in their respective states.

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What is general consent?

Unlike the National Investigation Agency (NIA), which is governed by its own NIA Act and has jurisdiction across the country, the CBI is governed by the Delhi Special Police

Establishment (DSPE) Act that makes consent of a state government mandatory for conducting investigation in that state.

There are two kinds of consent:

- 1. case-specific consent
- 2. general consent

**“General consent” is normally given to help the CBI seamlessly conduct its investigation into cases of corruption against central government employees in the concerned state.** Almost all states have given such consent. Otherwise, the CBI would require consent in every case (case-specific consent). For example, if it wanted to investigate a bribery charge against a Western Railway clerk in Mumbai, it would have to apply for consent with the Maharashtra government before registering a case.

What happens in fresh cases?

- Withdrawal of consent will only bar the CBI from registering a case within the jurisdiction of Andhra and Bengal. The CBI could still file cases in Delhi and continue to probe people inside the two states.
- An October 11, 2018, order of the Delhi High Court makes it clear that the agency can probe anyone in a state that has withdrawn **“general consent” if the case is not** registered in that state. The order was given with regard to a case of corruption in Chhattisgarh, which also gives consent on a case-to-case basis. The court ordered that the CBI could probe the case without prior consent of the Chhattisgarh government since it was registered in Delhi.

Does that mean that the CBI can no longer probe any case in the two states?

The CBI would still have the power to investigate old cases registered when general consent existed. Also, cases registered anywhere else in the country, but involving people stationed in Andhra Pradesh and West Bengal would **allow CBI’s jurisdiction to extend to these states.**

PEPPER IT WITH  
CVC, lokpal, NIA, RTI Act

There is ambiguity on whether the agency can carry out a search in either of the two states in connection with an old case without the consent of the state government. However, there are legal remedies to that as well. The CBI can always get a search warrant from a local court in the state and conduct searches. In case the search requires a surprise element, there is CrPC Section 166, which allows a police officer of one jurisdiction to ask an officer of another to carry out searches on his behalf. And if the first officer feels that the searches by the latter may lead to loss of evidence, the section allows the first officer to conduct searches himself after giving a notice to the latter.

Allied and Healthcare Professions Bill, 2018

In News

The Union Cabinet has approved the Allied and Healthcare Professions Bill, 2018 for regulation and standardisation of education and services by allied and healthcare professionals.

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Key Highlights

- 1. Establishment of a Central and corresponding State Allied and Health care Councils; 15 major professional categories including 53 professions in Allied and Healthcare streams.
- 2. The Bill provides for Structure, Constitution, Composition and Functions of the Central Council and State Councils, e.g. Framing policies and standards, Regulation of professional conduct, Creation and maintenance of live Registers, provisions for common entry and exit examinations, etc.
- 3. The Central Council will comprise 47 members, of which 14 members shall be ex-officio representing diverse and related roles and functions and remaining 33 shall be non-ex-officio members who mainly represent the 15 professional categories.

4. The State Councils are also envisioned to mirror the Central Council, comprising 7 ex-officio and 21 non-ex officio members and Chairperson to be elected from amongst the non-ex officio members.
5. Professional Advisory Bodies under Central and State Councils will examine issues independently and provide recommendations relating to specific recognised categories.
6. The Bill will also have an overriding effect on any other existing law for any of the covered professions.
7. The State Council will undertake recognition of allied and healthcare institutions.
8. Offences and Penalties clause have been included in the Bill to check mal-practices.
9. The Bill also empowers the Central and State Governments to make rules.
10. Central Govt. also has the power to issue directions to the Council, to make regulations and to add or amend the schedule.

Major Impact, including employment generation potential:

- Bring all existing allied and healthcare professionals on board during the first few of years from the date of establishment of the Council.
- Opportunity to create qualified, highly skilled and competent jobs in healthcare by enabling professionalism of the allied and healthcare workforce.
- High quality, multi-disciplinary care in line with the vision of Ayushman Bharat, **moving away from a 'doctor led' model to a 'care accessible and team based' model.**
- Opportunity to cater to the global demand (shortage) of health care workforce which is projected to be about 15 million by the year 2030, as per the WHO Global Workforce, 2030 report.
- It is estimated that the Allied and Healthcare Professions Bill, 2018 will directly benefit around 8-9 Lakh existing Allied and Healthcare related professionals in the country and several other graduating professionals joining workforce annually and contributing to the health system.

Targets:

1. An Interim Council will be constituted within 6 months of passing of the Act holding charge for a period of two years until the establishment of the Central Council.
2. The Council at the Centre and the States are to be established as body corporate with a provision to receive funds from various sources.
3. Councils will also be supported by Central and State Governments respectively through Grant-in-aid as needed. However, if the State Government expresses inability, the Central Government may release some grant for initial years to the State Council.

PEPPER IT WITH  
ASHAs, Ayushman Bharat,  
WHO Global Workforce, 2030  
report, Doctors Without  
Borders, FIDF

Way Ahead

Allied and Healthcare Professionals (A&HPs) constitute an important element of the health human resource network. Public healthcare experts claim that skilled and efficient Allied and Healthcare Professionals (A&HPs) in any healthcare system can reduce the cost of care and dramatically improve the accessibility to quality driven healthcare services. The legislation will bring all existing allied and healthcare professionals on board within a few years from the date of establishment of the Council.

Public Authorities under RTI Act purview

In News

The Department of Personnel and Training(DOP&T), which is the nodal department for the Right to Information and Central Information Commission, has so far successfully covered nearly 2000 public authorities under the RTI Act.

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### RTI

Right to Information Act 2005 mandates timely response to citizen requests for government information. It is an initiative taken by Department of Personnel and Training, Ministry of Personnel, Public Grievances and Pensions to provide a- RTI Portal Gateway to the citizens for quick search of information on the details of first Appellate Authorities, PIOs etc. amongst others, besides access to RTI related information / disclosures published on the web by various Public Authorities under the government of India as well as the State Governments.

### Objective of the Right to Information Act:

- ✓ The basic object of the Right to Information Act is to empower the citizens, promote transparency and accountability in the working of the Government, contain corruption, and make our democracy work for the people in real sense.
- ✓ It goes without saying that an informed citizen is better equipped to keep necessary vigil on the instruments of governance and make the government more accountable to the governed. The Act is a big step towards making the citizens informed about the activities of the Government.

## **Private Members' Bills**

### In News

A BJP lawmaker from Karnataka has said he will move a Private Members' Bill during the winter session of parliament to facilitate the construction of a Ram temple at Ayodhya.

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### What are Private Members' Bills (PMBs)?

A Member of the Parliament who is not a Minister (i.e. not a member of the Government) is regarded as a Private Member.

PEPPER IT WITH  
Money Bill, Appropriation bill,

A Bill introduced in either house of Parliament by any such Member of Parliament is called a Private Members' Bill; Bills introduced by Ministers are called Government Bills.

In India, usually, alternate Friday afternoons during session time (generally between 2 pm and 6 pm) are reserved for discussions on Private Members' Bills. PMBs are drafted by MPs themselves, or their offices, and are checked for legal consistency by the Parliament Secretariat.

Only 14 PMBs have become law since India's independence, the last being passed in 1970. More recently, The Rights of Transgender Persons Bill, 2014 introduced by Mr. Tiruchi Siva was passed in the Rajya Sabha after a gap of 45 years since the passing of the last PMB.

### What issues do PMBs address and how are they different from Bills introduced by the government?

In terms of the scope and treatment of Bills in Parliament, there is no material difference between a Government Bill and a Private Members' Bill. PMBs can deal with any issue; they can also be Constitutional Amendment Bills or Money Bills. The only difference is in terms of the process followed outside Parliament. Government Bills are often deliberated upon and approved by the Council of Ministers before being introduced. This is not done for PMBs.

### Saubhagya - 'Pradhan Mantri Sahaj Bijli Har Ghar Yojana'

8 States have achieved 100% saturation in household electrification under Saubhagya namely Madhya Pradesh, Tripura, Bihar, J&K, Mizoram, Sikkim, Telangana and West Bengal.

### How are PMBs introduced in Parliament?

A Private Members' Bill is introduced in the Parliament by giving prior notice of one month along with a copy of the 'Statement of Objects and Reasons' wherein the Private Member explains her/ his rationale for the introduction of the Bill. The final order of introduction is decided by a ballot system to ensure fairness. On the day allotted for such Bills, the Speaker/ Chairman of the Lok Sabha/ Rajya Sabha calls out to individual Members who then introduce their Bills.

There is also a **Parliamentary Committee on Private Members' Bills and Resolutions** which allots time to different PMBs and goes through all of them (particularly those seeking to amend the Constitution). It also helps in classifying these Bills based on their nature, urgency, and importance. This classification, in turn, determines which of the introduced Bills are discussed first.

### **Why Are Private Members' Bills important?**

PMBs were designed to empower MPs to bring attention to issues that were willingly or unwillingly ignored by the party at the helm. In the past, MPs have used PMBs to put forward important issues. For instance, in 1957, Subhadra Joshi, a noted Indian freedom activist, politician and Parliamentarian, introduced a Bill in the Lok Sabha to extend financial support to women looking to fight cases of bigamy against their husbands. **Mr. Tiruchi Siva's PMB on the rights of transgender** people is another great example. These Bills speak volumes of the significance of PMBs in a democracy.

Various countries across the world effectively empower their Private Members and respect their initiative in the law making process. For instance, in the UK, since 1948, as many as 775 Private Members' Bills have received Royal Assent and the Canadian Parliament has passed 290 Private Members' Bills till date.

## IDEVAW

### In News

International Day for the Elimination of Violence against Women (IDEVAW) is observed every year across the world on 25 November.

Theme: Orange the World: #HearMeToo

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### About

- Orange the World is a drive under UNiTE Campaign on eve of IDEVAW with a calls for global action to increase awareness, galvanise advocacy efforts and share of knowledge and innovations
- It aims to reinforce UNiTE Campaign's commitment to create world free from violence for all women and girls and reaching out to most marginalized people including migrants, refugees, indigenous peoples, minorities and populations affected by natural disasters and conflicts.
- This day is commemorated in memory of Mirabal sisters who were three political activists from Dominican Republic. They were brutally assassinated during the Rafael Trujillo dictatorship (1930-1961) in 1960.

### Global Statistics

- ❖ 1 in 3 women and girls experience physical or sexual violence in their lifetime, most frequently by an intimate partner
- ❖ Only 52% of women married or in a union freely make their own decisions about sexual relations, contraceptive use and health care
- ❖ Worldwide, almost 750 million women and girls alive today were married before their 18th birthday; while 200 million women and girls have undergone female genital mutilation (FGM)
- ❖ 71% of all human trafficking victims worldwide are women and girls, and 3 out of 4 of these women and girls are sexually exploited

### UNiTE

Launched in 2008, United Nations Secretary-General Ban Ki-moon's *UNiTE to End Violence against Women* campaign is a multi-year effort aimed at preventing and eliminating violence against women and girls around the world.

*UNiTE* calls on governments, civil society, women's organizations, young people, the private sector, the media and the entire UN system to join forces in addressing the global pandemic of violence against women and girls.

## Domestic worker & Minimum wages

### In News

A petition has been filed in the Supreme Court seeking its intervention to **bring dignity to “India’s invisible workforce in the informal sector”** — the domestic workers.

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### Issues raise under PIL

- The petition asked the Supreme Court to lay down guidelines to protect the workers’ rights.
- The petition sought the recognition of domestic work under the Minimum Wages Act, 1948.
- Their work hours should be reduced to eight a day and they should be given a mandatory weekly off as a basic right under Article 21.

### Why there is a need of guidelines?

1. Latent classism and lack of education make domestic workers prone to violence and abuse at the hands of their employers and placement agencies.
2. Worsening their vulnerabilities are the absence of proper documentation, which also increases their reliance on employers to access social security benefits.
3. As employment is largely through word of mouth or personal referrals, employment contracts are rarely negotiated, leaving the terms of employment to the whims of the employer.
4. Other issues include- Major incidences of violence (physical and sexual) by employers and the lack of redressal machinery for workers in this rapidly developing domestic services industry.
5. Indian homes have witnessed a 120% increase in domestic workers in the decade post liberalisation. “While the figure was 7,40,000 in 1991, it has increased to 16.6 lakh in 2001.

### Hausla 2018

The Ministry of Women and Child Development has launched the National Festival for Children of Child Care Institutions (CCIs) – Hausla 2018.

Theme: Child Safety

#### Mission:

- ✓ To provide a national platform for the children from CCIs across India to showcase their talent.
- ✓ To make them realize the hidden talent they possess
- ✓ To help take it forward in their life.

### PEPPER IT WITH

The Code on Wages,  
Contractual farming

### ILO on domestic workforce

1. Many domestic workers around the world are excluded from minimum wage coverage

Low remuneration is also due to the frequent exclusion of domestic workers from labour law generally, and from minimum wage coverage specifically. In fact, 22.4 million domestic workers (42.6 per cent of the total worldwide) do not have any protection against unduly low wages and no minimum wage is applicable to them.

2. Domestic workers deserve minimum wage protection equivalent to that enjoyed by workers generally.

Minimum wage provisions are important instruments to protect the most vulnerable and lowest-paid workers – such as domestic workers – from unduly low wages. A minimum wage recognizes the basic contribution of these workers to homes and societies, and is a key means of ensuring the principle of equal pay for work of equal value.

Many of the State Governments like Rajasthan, Kerala, Punjab, Tamilnadu and Tripura have included domestic workers in the schedule of the Minimum Wages Act and the domestic worker are therefore entitled to file cases before the concerned authorities in case of any grievance in this regard.

India is not the signatory of Convention 189.

### Important Conventions By ILO

- C189 - Domestic Workers Convention, 2011 - Convention concerning decent work for domestic workers
- C100 - Equal Remuneration Convention, 1951
- C131 - Minimum Wage Fixing Convention, 1970

### Way ahead:

If the domestic workers are taken as assets & human resource, their standard of living will increase if minimum wage is fixed. It is also important to create awareness about the significant role played by the domestic workers in the wellbeing of the members of family and society as a whole, thereby imparting behavioural change.

## India Health Fund

### In News

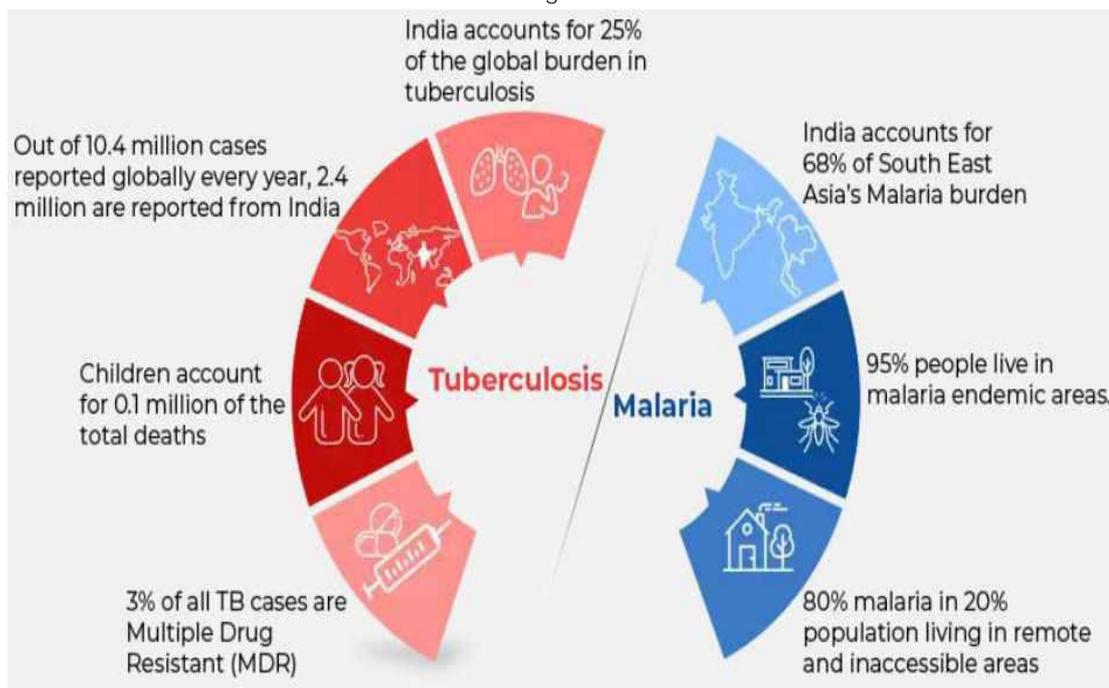
Tata Trust and The Global Fund backed Indian Health Fund (IHF) has chosen four innovators for early detection of tuberculosis (TB), malaria to effectively tackle these eradicate diseases.

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### About IHF

- IHF, a collaborative initiative led by the Tata Trusts, endeavours to leverage the power of collective impact to eradicate tuberculosis (TB) by 2025 and malaria by 2030 from India.
- IHF aims to create a platform for the private and public sector to initiate and scale up innovative solutions, business models and financing mechanisms to engender transformative change in the fight against malaria and TB in India.
- It supports individuals and organisations with already germinated innovative strategies, services, products, such that they become sustainable and scalable solutions in addressing TB and malaria.
- Mobilise and invest up to USD150 million over 5 years in scaling up high impact innovations in India.
- It also aims to supporting national efforts to effectively tackle eradicate these diseases which are crucial health challenges in India.

PEPPER IT WITH  
The Global Fund, National  
Mental Health Policy, MDR-  
TB, XDR-TB



## UNESCO Global Education Monitoring Report 2019

### In News

UNESCO global education monitoring report 2019 has been released.

### Background

The Education 2030 Incheon Declaration and Framework for Action

**specifies that the mandate of the Global Education Monitoring Report is to be ‘the mechanism for monitoring and reporting on SDG 4 and on education in the other SDGs’ with the responsibility to ‘report on the implementation of national and international strategies to help hold all relevant partners to account for their commitments**

### Global Education Monitoring Report 2019: Migration, displacement And education: Building Bridges, Not Walls

- The 2019 Global Education Monitoring Report underscores the huge potential and opportunities of ensuring that migrants and displaced persons have access to quality education.
- This report looks at migration and displacement through the eyes of teachers and education administrators faced with the reality of diverse classrooms, schoolyards, communities, labour markets and societies. It aims to answer questions:
- The 2019 Global **Education Monitoring Report’s specific findings and practical recommendations** on education and migration will make an important contribution to the implementation of the Global Compact for Safe, Orderly and Regular Migration, which will be formally adopted by member states at an intergovernmental conference in Marrakesh on 10 December 2018. The report brings the agenda of the Global Compact and that of SDG 4 closer together and creates clarity for countries now tasked with transforming words into policy and policy into reality.
- This report provides a compelling rationale for the emphasis on education in the Global Compact on Refugees and the imperative of including refugees in national education systems and Education Sector Plans.
- The objectives of the Global Compact for Migration echo many of the targets in the fourth Sustainable Development Goal and give renewed emphasis to the principles of non-discrimination and inclusion, recognizing that effective access to education for migrant children is a fundamental human right.
- The objective is to include refugees fully in the national education system, studying in the same classroom with natives after a short period of accelerated classes, depending on prior access, literacy and language, to prepare them for entry at appropriate age-for-grade levels.

### Migration and Displacement

- Migration is characterized by both order and disorder. Societies often strive to manage population movements but nonetheless may face unpredictable inflows. Such movements may create new divisions, while others have demonstrably benefited both source and destination countries.
- To address the challenges of migration and displacement, all 193 UN member states signed the New York Declaration for Refugees and Migrants in September 2016 to strengthen and refine responsibility-sharing mechanisms. The declaration set in motion processes for two global compacts.
  1. The Global Compact for Safe, Orderly and Regular Migration conveys a generally positive message of education as an opportunity to make the most of migratory flows and addresses a wide range of issues related to access to education, education beyond schooling and skills recognition.
  2. The Global Compact on Refugees renews the commitments made in the 1951 United Nations Convention Relating to the Status of Refugees but goes further to

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There are 87 million displaced people in the world: 25 million refugees, 3 million asylum-seekers, 40 million internally displaced due to conflict and 19 million displaced due to natural disasters. Their vulnerability is exacerbated when they are deprived of education.

promote inclusion of refugees in national education systems, calling for more coherent planning in crises and protracted displacement.

- International migration is a global phenomenon, with major economic, social and cultural implications. Education is a driver of migratory flows but is also significantly affected by movement of people. Depending on the context, migration can be a bridge to improve the education status of children and youth from low and middle income countries. While they may struggle and fall behind native peers, most eventually catch up, fulfilling the dream of a better life.
- Nevertheless, many immigrant children and youth face several serious obstacles that exclude them from national education systems and prevent them from making the most of opportunities in their new environment.

### Effect of Migration and Displacement

1. Migration and displacement interact with education in many ways. These links affect those who move, those who stay and those who host immigrants, refugees or other displaced populations. Internal migration mainly affects many rapidly urbanizing middle income countries, such as India, where more than one in three rural children are left behind by migrating parents. International migration mainly affects high income countries, where immigrants make up at least 15% of the student population in half of schools. It also affects sending countries: More than one in four witness at least one-fifth of their skilled nationals emigrating. Displacement mainly affects low income countries, which host 10% of the global population but 20% of the global refugee population, often in their most educationally deprived areas. More than half of those forcibly displaced are under age 18.
2. Migration and displacement affect education. They require systems to accommodate those who move and those left behind. Countries are challenged to fulfil the international commitment to respect the right to education for all. They need to address the needs of those cramming into slums, living nomadically or awaiting refugee status. Teachers have to deal with multilingual classrooms and traumas affecting displaced students. Qualifications and prior learning need to be recognized to make the most of **migrants' and refugees' skills**.
3. In many conflict-affected countries, refugees and internally displaced people strain already struggling education systems.
4. Natural disasters can also cause displacement that disrupts education, even if the consequences are relatively short-lived.
5. Major displacement poses challenges for teacher recruitment, retention and training.
6. Faced with crises, most governments did not provide education for refugees. This was left to the international humanitarian sector, which reflexively set up parallel systems for refugees. Efforts should be made for the National Integration of these displaced people in education system.

### Scenario in India

- Internal migration is also challenging inclusion in education. In India, inter-state migration rates doubled between 2001 and 2011 (World Economic Forum, 2017). An estimated 9 million migrated between states annually from 2011 to 2016 (India Ministry of Finance, 2017).
- About 80% of seasonal migrant children in seven cities lacked access to education near work sites, and 40% are likely to end up in work rather than education, experiencing abuse and exploitation.

#### Initiatives taken by India

- ❖ The Right to Education Act in 2009 made it mandatory for local authorities to admit migrant children.
- ❖ National-level guidelines were issued, allowing for flexible admission of children, providing transport and volunteers to support with mobile education.
- ❖ The policies were attempted to create seasonal hostels and aiming to improve coordination between sending and receiving districts and states.
- ❖ Some State governments have also taken steps for **migrant children's education**.

- In India, 10.7 million children aged 6 to 14 lived in rural households with a seasonal migrant in 2013. About 28% of youth aged 15 to 19 in these households were illiterate or had not completed primary school, compared to 18% of the cohort overall.
- The construction sector absorbs the majority of short-term migrants. A survey in Punjab state of 3,000 brick kiln workers in 2015-16 found that 60% were inter-State migrants. Between 65% and 80% of all children aged five to 14 living at the kilns worked there seven to nine hours per day. About 77% of kiln workers reported lack of access to early childhood or primary education for their children.

Conclusion

Education is also a critical path to integration into society and the best investment in sustainable development. It provides migrant children with opportunities for their own advancement as well as a chance to contribute both to their country of residence and, in many cases, eventually also to their country of origin.

**Global IT Challenge for Youth with Disabilities 2018**

In News

The Global IT Challenge for Youth with Disabilities, 2018 was inaugurated recently by the Minister of State for Social Justice & Empowerment, Department of Empowerment of Persons with Disabilities (DEPwD), in association with Rehabilitation International Korea and their associated partner LG Electronics.

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The objective of the event is to leverage IT skills among youth with disabilities and also to spread awareness about the application of Information and Computer Technology (ICT) in enhancing the quality of life of persons with disabilities especially in Asia-Pacific region.

Significance

1. Global IT challenge annually has certainly made an impact on promoting the use of ICT among the youth with disabilities. DEPwD holding National IT Competition yearly in concert with GITC.
2. The use of ICT can reduce digital divide and expand social integration of persons with disabilities across communities and counties by creating an accessible global information network.
3. It is being used for improving the life skills of persons with disabilities to enable them to lead the dignified life.
4. There is a need to create deeper and wider awareness about the application of ICT at the grass root level for empowering the person with disabilities.

PEPPER IT WITH  
Nai Manzil, Nai Roshni.  
MUSK, USTTAD

**LEAP & ARPIT**

In News

Ministry of Human Resource Development launched two new initiatives; Leadership for Academicians Programme (LEAP) and Annual Refresher Programme In Teaching (ARPIT).

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About LEAP

- LEAP is a three weeks Flagship leadership development training programme for second level academic functionaries in public funded higher education institutions.
- The main objective is to prepare second tier academic heads who are potentially likely to assume leadership roles in the future.
- The programme would provide senior faculty, with high academic credentials, the required leadership and managerial skills including skills of problem-solving, handling stress, team building work, conflict management, developing communication skills, understanding and coping with the complexity and challenges of governance in HEIs, financial & general administration.

- The implementation of LEAP Programme will be through 15 NIRF top ranked Indian Institutions.

About ARPIT

- ARPIT, a major and unique initiative of online professional development of 15 lakh higher education faculty using the MOOCs platform SWAYAM.
- For implementing ARPIT, 75 discipline-specific institutions have been identified and notified as National Resource Centres (NRCs) in the first phase, 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.
- ARPIT will be an ongoing exercise so that every year NRCs will continuously develop new refresher module in their earmarked discipline each year. The training materials will be uploaded and made available through SWAYAM.

Young Champions Awards  
 NITI Aayog's Atal Innovation Mission (AIM) and UNICEF India, have come together this **Children's Day**, to provide an open platform to young children of India, to contribute towards sustainable development.

The awards were presented to the top six most innovative solutions from across the country, which were shortlisted through the Atal Tinkering Marathon.

PEPPER IT WITH  
 IMPRINT, GIAN, HEFA,  
 NAD, SWAYAM, e-Pathshala

**Yuva Sahakar-Cooperative Enterprise Support and Innovation Scheme**

In News

To cater to the needs and aspirations of the youth, the National Cooperative Development Corporation (NCDC) has come up with a youth-friendly scheme **Yuva Sahakar-Cooperative Enterprise Support and Innovation Scheme** for attracting them to cooperative business ventures.

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Key Highlights

- The scheme has objective of encouraging cooperatives to venture into new and innovative areas.
- The scheme will be linked to Rs 1000 crore 'Cooperative Start-up and Innovation Fund (CSIF)' created by the NCDC.**
- It would have more incentives for cooperatives of North Eastern region, Aspirational Districts and cooperatives with women or SC or ST or PwD members. Under this scheme, around 80 percent of the project cost will be provided to these special categories while others will be given 70 percent of the total project cost.
- The scheme envisages 2% less than the applicable rate of interest on term loan for the project cost up to Rs 3 crore including 2 years moratorium on payment of principal.

PEPPER IT WITH  
 Hamari Dharohar, Pradhan Mantri Jan Vikas Karyakram, Padho Pardes, Learn and Earn Scheme

About NCDC

- NCDC has a unique distinction of being the sole statutory organisation functioning as an apex financial and development institution engaged exclusively for the cooperative sector in the country.
- It is under Ministry of Agriculture & Farmers Welfare.
- The objectives of NCDC are planning and promoting programmes for production, processing, marketing, storage, export and import of agricultural produce, foodstuffs, industrial goods, livestock and certain other notified commodities.
- Activities by NCDC
  - MSP
  - ICDP
  - Establishment and development of Sugar industry

4. Storage and coldchain storage
5. Power Loom
6. Computerisation

## Aadi Mahotsav

### In News

Aadi Mahotsav a National Tribal Festival is being organized by the Ministry of Tribal Affairs and TRIFED to celebrate, cherish and promote the spirit of tribal craft, culture, cuisine and commerce.

Theme: A celebration of the spirit of Tribal Culture, Craft, Cuisine and Commerce.

### About Aadi Mahotsav

- The name Aadi Mahotsav suggests that the **'adi' factor** is important about them. The greatness of tribes lies in the way they have managed to retain primal skills, the natural simplicity. This quality gives their arts and crafts a timeless appeal. So, this festival seeks to channelize and promote their natural skills and provide them source of income.
- The festival will feature exhibition-cum-sale of tribal handicrafts, art, paintings, fabric, jewellery and much more through 100 stalls. Over 200 tribal artisans and artists from different States creating a Mini-India will be participating in the festival.
- The Government has formed the Tribal Cooperative Marketing Development Federation of India (TRIFED) for achieving this. TRIFED has also entered into e-commerce transactions and TRIFED in future could sell the products through Amazon, Snapdeal, Flipkart and GEM.
- A special scheme to provide loans from National Scheduled Tribes Finance and Development Corporation (NSTFDC) was also introduced during the Aadi Mahotsav

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Ministry for Tribal Affairs launched TAM Squash- a non-alcoholic drink developed by TRIFED & IIT-Delhi. The non-alcoholic drink is made up of Tamarind, Mahua & Aawla. It is refreshing and good for overall health.

PEPPER IT WITH  
Sangai festival Festival,  
TRIFED, District Kambala  
Committee, Thang Ta

## NIPUN

### In News

New delhi Police launched an e-learning portal NIPUN to impart training and provide up to date information to police officers. "Through the website, Delhi Police will be using advanced technology in imparting in-service training to its personnel.

### About NIPUN

- NIPUN is an e-learning portal aiming to give online training and information to police personnel through specialised courses designed by experts in the field. Through NIPUN, Delhi Police officers can now access information by just logging on the portal. They can take course from anywhere at any time.
- The online courses on this portal have been designed in collaboration with University Grant Commission (UGC), FICCI, NHRC, NCPDR and Janaki Devi Memorial College, Delhi University under project CLAP "The Collaborative Learning and Partnership.
- With resources such as law, standing orders, investigation checklists, forms for case files, latest High Court and Supreme Court rulings being made available online through the e-learning portal, it is envisioned that the investigating officers will be able to take the benefit of this information during the course of their duty.

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Witness protection scheme

In News

The Supreme Court of India has directed all the states to implement the draft witness protection scheme framed by the Centre in consultation with the National Legal Services Authority (NALSA).

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Objective of the Scheme

- The ability of a witness to give testimony in a judicial setting or to cooperate with law enforcement and investigations without fear of intimidation or reprisal is essential in maintaining the rule of law.
- The objective of this Scheme is to ensure that the investigation, prosecution and trial of criminal offences is not prejudiced.
- To give witnesses the confidence to come forward to assist law enforcement and Judicial Authorities with full assurance of safety.
- It is aimed to identify series of measures that may be adopted to safeguard witnesses and their family members from intimidation and threats against their lives, reputation and property.
- It aims to promote law enforcement by facilitating the protection of persons who are involved directly or indirectly in providing assistance to criminal law enforcement agencies and overall administration of Justice.

PEPPER IT WITH  
NALSA, UN migration pact

The Rights to witness endorsed by the scheme:

1. Right to give evidence anonymously
2. Right to protection from intimidation and harm
3. Right to be treated with dignity and compassion and respect of privacy
4. Right to information of the status of the investigation and prosecution of the crime
5. Right to secure waiting place while at Court proceedings
6. Right to transportation and lodging arrangements

Emergency Response Support System (ERSS)

- Himachal Pradesh is the first state to launch pan-India single emergency number **'112' under ERSS**.
- It will connect to Police, Fire, Health and other helplines through an Emergency Response Centre in the State.
- To ensure safety of women, a SHOUT feature has been introduced in 112 India mobile app to seek immediate assistance from registered volunteers in the vicinity apart from the immediate assistance from Emergency Response Centre.

Need and justification for the scheme:

- ✓ **Jeremy Bentham** has said that **“Witnesses are the eyes and ears of justice.”** In cases involving influential people, witnesses turn hostile because of threat to life and property.
- ✓ Malimath Committee on Reforms of Criminal Justice System, 2003 said in its report that **“By giving evidence relating to the commission of an offence, witness performs a sacred duty of assisting the court to discover the truth”**.
- ✓ Victims and witnesses of serious crimes are particularly at risk when the perpetrator is powerful, influential, or rich and the victims or witnesses belong to a socially or economically marginalised community. Girls and women who report sexual violence are often even more vulnerable and face extreme pressure or direct threats from the accused.
- ✓ Hence, legislative measures to emphasize prohibition against tampering of witnesses have become the imminent and inevitable need of the day. Even Law Commission of India has recommended that witnesses should be protected from the wrath of the accused in any eventuality.

### 'Institution's Innovation Council (IIC)' Program

#### In News

Union HRD Ministry through video conferencing launched the 'Institution's Innovation Council (IIC) program under Innovation cell of MHRD recently.

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#### About

- The aim of formation of network of IICs is to encourage, inspire and nurture young students by exposing them to new ideas and processes resulting in innovative activities in their formative years.
- The program aims to institutionalize innovation and develop a scientific temperament in the country.
- More than 1000 Higher Education Institutions (HEIs) have already formed IICs in their campuses and enrolled for the IIC network **managed by MHRD's Innovation cell** to promote innovation through multitudinous modes leading to an innovation promotion eco-system in their campuses.

#### Open Transit Data

- To increase transparency and build transport solutions, the transport department of the Delhi government has launched the Open Transit Data platform which provides real-time datasets free of cost.
- The portal was designed and developed by IIT Delhi on behalf of the Delhi government.
- Through this the government aims to provide real-time data which can be used by third party app developers and researchers. This includes geo-coordinates of all bus stops, route maps, timetables as well as the real time GPS feeds of bus locations which will be updated every 10 seconds.

Major focus of IIC

1. To create a vibrant local innovation ecosystem.
2. Start-up supporting Mechanism in HEIs.
3. Prepare institute for Atal Ranking of Institutions on Innovation Achievements Framework.
4. Establish Function Ecosystem for Scouting Ideas and Pre-incubation of Ideas.
5. Develop better Cognitive Ability for Technology Students.

#### Benefits

- No major capital investment required for establishing IIC as it will make use of existing local ecosystem.
- Students/Faculty associated with IIC will get exclusive opportunity to participate in various Innovation related initiatives and competitions organized by MHRD.
- Opportunity to nurture and prototype new ideas.
- Mentoring by Industry Professionals.
- Experimentation with new/latest technologies.

PEPPERIT WITH ARIIA, Smart India Hackathon, AICTE

#### MIC ('MHRD's Innovation Cell)

Ministry of Human Resource Development has established an "Innovation cell" at AICTE with a purpose to systematically foster the culture of Innovation in all Higher Education Institutions (HEIs) across the country.

### Atmosphere & Climate Research-Modelling Observing Systems & Services (ACROSS) scheme

#### In News

The Cabinet Committee on Economic Affairs has approved continuation of the nine sub-schemes of the umbrella scheme "Atmosphere & Climate Research-Modelling Observing Systems & Services (ACROSS)" during 2017-2020 at an estimated cost of Rs. 1450 crore.

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### Key Highlights

1. ACROSS scheme pertains to the atmospheric science programs of the Ministry of Earth Sciences (MoES) and addresses different aspects of weather and climate services, which includes warnings for cyclone, storm surges, heat waves, thunderstorms etc.
2. Each of these aspects is incorporated as nine sub-schemes under the umbrella scheme "ACROSS" and is implemented in an integrated manner through the aforesaid four institutes.
3. It will be implemented by the Ministry of Earth Sciences through its institutes namely India Meteorological Department (IMD), Indian Institute of Tropical Meteorology (IITM), National Centre for Medium Range Weather Forecasting (NCMRWF), and Indian National Centre for Ocean Information Service(INCOIS).
4. The ACROSS scheme consists of nine sub-programmes which are multi-disciplinary and multi institutional in nature and will be implemented in an integrated manner through IMD, HIM, NCMRWF and INCOIS.
5. As the objective of the ACROSS scheme is to provide a reliable weather and climate forecast for betterment of society, the scheme will aim at improving skill of weather and climate forecast through sustained observations, intensive R & D etc.

Operation Greens

- 'Operation Greens' programme to boost production and processing of tomato, onion and potato as part of an objective to check price volatility.
- Operation Greens aims to promote farmer producers organisations, agri-logistics, processing facilities and professional management. The operation aims to aid farmers and help control and limit the erratic fluctuations in the prices of onions, potatoes and tomatoes.
- The idea behind Operation Greens is to double the income of farmers by the end of 2022.
- The MSP regulation has a key role to play.

### Impacts

- The scheme will provide improved weather, climate and ocean forecast and services, thereby ensuring transfer of commensurate benefits to the various services like Public weather service, disaster management, Agro-meteorological Services, Aviation services, Environmental monitoring services, Hydro-meteorological services, climate services, tourism, pilgrimage, power generation, water management, Sports & adventure etc.
- It will also provide a sizable number of scientific and technical staff along with requisite administrative support, thereby generating employment.
- To ensure last-mile connectivity of the weather based services to the end -user, a large number of agencies like the Krishi Vigyana Kendras of ICAR, Universities and local municipalities are roped in thus generating employment opportunities to many people.

## Stressed thermal power projects

### In News

High Level Empowered Committee (HLEC) set up by Government of India came out with its report on stranded thermal power projects identifying the various reasons that have contributed to the stressed thermal projects.

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### Reasons

The HLEC identified several critical reasons that have contributed to the crisis, which has been festering for more than two years now. While the Twelfth Five Year Plan had envisaged a capacity addition requirement of 88 GW, 99 GW capacity was added during the corresponding period — this led to a glut of supply, causing plants to perform below their rated capacities.

1. A significant chunk of the problem has been caused by the erratic coal supply and the uncertainty of coal supplies due to scrapping of mine auctions by the Supreme Court.
2. In the case of the Ultra Mega Power Projects (UMPP), for which bidding took place, several players quoted very aggressively, a decision they have since come to regret.
3. Issues related to coal supply
4. Slow growth in power demand
5. Delayed payments by DISCOM's
6. Slow implementation of project by the developers
7. Banks/ Financial Institutions (FI's) related Issues
8. Regulatory and contractual disputes

PEPPER IT WITH  
PAiSA, SHAKTI, PRAAPTI,  
Khan Prahari App

Step taken by Gol to curb stress

- Fuel linkages under SHAKTI
- Pilot scheme for procurement of 2500 MW power
- Rationalization of Coal Escalation Index
- Additional cost implication to meet the new environment norms
- DISCOM Payment Monitoring App PRAAPTI
- Reduction in the generation cost is likely to improve the ability of DISCOMs to purchase more power and thus create more demand for power generators.

Suggestion by HLEC

1. Coal Linkage for short term PPA
2. Procurement of bulk power by a nodal agency against pre-declared linkages.
3. PSU to act as an aggregator of power.
4. Closing down of old, inefficient thermal power units make for good economics and good environmental sense.
5. Further, suggestion on payment security mechanism—all PPAs have a support for a **letter of credit (LoC) for one month's purchase equivalent to guarantee it. It would rather be prudent to increase the value of the LoC instead of seeking a separate mechanism, and ensure that it can trigger automatically against a payment default or delay.**

City Gas Distribution (CGD) Projects

In News

CGD projects across 129 districts to boost availability of gas supply for half of the country's population in 26 states will be launched recently.

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About Project

- The City Gas Distribution (CGD) projects in India are emerging as an important driver for overall natural gas value chain development. The new bidding parameters, diversity & vastness of the notified geographical areas and government's push for a natural gas fuelled nation are indicating towards an enhanced enthusiasm in the upcoming bidding round.
- **The share of gas in the country's energy mix is just over 6% and the aim is to reach the 15% figure, while the world average is 24%.**
- The projects, recently awarded by the Petroleum and Natural Gas Regulatory Board (PNGRB) would cover 65 Geographical Areas (GAs) under the ninth round of bidding.
- Development of CGD networks, part of a larger plan to shift towards a gas-based economy, will increase the availability of clean cooking fuel or Piped Natural Gas (PNG) and transportation fuel Compressed Natural Gas (CNG) for consumers.
- At an impressive 5.1% CAGR (2010-2016), India's primary commercial energy growth testifies the need for energy (actual ~724 MTOE, 2016). Natural Gas (actual ~45 MTOE,

PEPPER IT WITH  
TAPI Pipeline, Afghan-India  
Friendship Dam, COP 21

2016) has a number of economic & environmental merits and is also endorsed the government.

Why Natural Gas?

- ✓ Natural gas is a superior fuel as compared with coal and other liquid fuels being an environment friendly, safer and cheaper fuel. Natural Gas is supplied through pipelines just like one gets water from the tap.
- ✓ There is no need to store cylinders in the kitchen and thus saves space.
- ✓ Natural Gas (as CNG) is cheaper by 60% as compared with petrol and 45 % w.r.t. Diesel. Similarly, Natural Gas (as PNG) is cheaper by 40 % as compared with market price LPG and price of PNG almost matches with that of subsidised LPG (based on prices in Delhi).
- ✓ India made a commitment in COP21 Paris Convention in December 2015 that by 2030, it would reduce carbon emission by 33% of 2005 levels. Natural gas, as domestic kitchen fuel, as fuel for transport sector as well as a fuel for industries and commercial units, can play a significant role in reducing carbon emission.

Way Ahead

India's commitment towards clean energy and carbon reduction offers a tremendous adoption potential for natural gas by targeting Oil (multiple drivers & incentives for switching over to gas) and Coal (mostly policy push) - Both having major share in India's total primary commercial energy consumption.

India has been registering a sustained growth in terms of demand for natural gas and its outlook towards sourcing LNG from global supply destinations has been nothing less than promising. The positive sentiments around India's LNG adoption and a key market received a significant push when India (at COP 21, Paris) committed to reduce its carbon intensity by a third from 0.37kg per capita of GDP in 2005.

Ganga Gram

Why in News?

'Ganga Gram' – a project for sanitation based integrated development of all 4470 villages along the River Ganga.

Ministry of Drinking Water and Sanitation is the nodal agency for implementation of the Ganga Gram Project.

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Objective:

To develop model village, that will exhibit itself as comprehensive and harmonious package of economic, historic, cultural and sanitized unit, on banks of Ganga, which is self – sustaining. Promoting brand "Ganga" in its handicraft, organic farm produce and tourism will be other spin offs.

Components of Ganga Grams:

1. Making village ODF
2. Proper management of village waste draining into river Ganga
3. Proper disposal of solid waste
4. Water conservation activities including rain water harvesting/ground

7th International Tourism Mart

- The Ministry of Tourism, Government of India, in association with the Department of Tourism, Government of Tripura and the North Eastern States is organizing the 7th "International Tourism Mart" in Agartala, Tripura.
- The International Tourism Marts are organised in the North Eastern States on rotation basis. The earlier editions of this mart have been held in Guwahati, Tawang, Shillong, Gangtok and Imphal.
- According to the UN World Tourism Organization (UNWTO), Indian outbound tourists account for 22.5 million of worldwide tourists in 2018. According to estimates, even this figure of tourists flogging abroad will increase by 122 per cent by 2022.
- The World Tourism Organization (UNWTO) is the United Nations agency responsible for the promotion of responsible, sustainable and universally accessible tourism.

- water recharge/maintain of well and ponds, promotion of sprinkler irrigation
- 5. Encourage plantation of medicinal plants and promotion of organic farming
- 6. Construction of crematorium
- 7. Promotion of tourism
- 8. Coordination between various Central and State Governments sponsored schemes and their implementation on priority in Ganga Grams

Challenges

- 1. Cost overruns
- 2. Sludge control
- 3. Restoring the flow
- 4. Sewage treatment

Saura Jalanidhi

The Odisha Renewable Energy Development Agency (OREDA) will spend `9 crore for implementation of the recently launched dug well-based solar pump irrigation scheme ‘Saura Jalanidhi’ which aims to provide solar pumps to farmers at a subsidised rate.

Key Highlight

- The Odisha government on October 30, 2018 launched ‘Saura Jalanidhi’ project for farmers.
- Under this scheme, one thousand pump sets shall be provided with 50% subsidy limited to a maximum of Rs. 15,000.
- Added to it, 1,000 solar pump sets (0.5 HP) will be provided to the affected farmers at 90% subsidy limited to Rs. 54,000 per pump set under ‘Saura Jalanidhi’ project.
- In the first phase, this scheme will be available in those areas where electricity is not available for running the pump set.
- The beneficiary of this scheme will be farmers who have valid farmer identity cards and have minimum 0.5 acres of agricultural land.

PEPPER IT WITH  
CPCB, NGT, National  
Ganga Council

SWIFT

In News

The Head of the US Treasury has announced that Washington wants the world-wide payment network to cut off its services to the entities that were affected by Iran sanctions and warned that otherwise SWIFT might be sanctioned as well.

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Background

- Humanitarian transactions from non-designated entities will be allowed on SWIFT, but warned banks to still be careful since they can turn out to be "disguised transactions, which could be subject to certain sanctions."
- The US announced it will re-impose sanctions against Iran, previously lifted by the JCPOA promising to impose secondary sanctions against any entity that deals with Iran in the sphere of energy, banking, and shipping.
- The US has also released a list of 12 demands that Tehran must meet in order to lift the sanctions once again.

Mahatma Gandhi statue in Sydney

Indian President unveiled a bronze statue of Mahatma Gandhi in the Australian city of Sydney, marking the ongoing celebrations of the 150th anniversary year of the Mahatma.

SWIFT

- The Society for Worldwide Interbank Financial Telecommunication (SWIFT) is a secure Belgium-based network used by banks around the world for safe financial transactions. Without access to SWIFT, banks in any country will have difficulties in paying or receiving payments for goods and services from abroad.

- It is a messaging network that financial institutions use to securely transmit information and instructions through a standardized system of codes. SWIFT assigns each financial organization a unique code that has either eight characters or 11 characters. The code is called interchangeably the bank identifier code (BIC), SWIFT code, SWIFT ID, or ISO 9362 code.
- Although there are other message services like Fedwire, Ripple, and CHIPS, SWIFT continues to retain its dominant position in the market. Its success is attributed to how it continually adds new message codes to transmit different financial transactions.

PEPPER IT WITH  
 Global payment system survey, Rupay, National payment system, National Payments Corporation of India, JCPOA, CAATSA

**China supports Pakistan’s quest for peace through dialogue with India**

In News

In a joint statement issued after Pakistani Prime Minister first bilateral visit to China, Beijing said that it supported *Pakistan’s “quest for peace through dialogue”* to settle the outstanding disputes with India as it backed Islamabad’s “engagement” with the Nuclear Suppliers group (NSG).

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Background

- The ties between India and Pakistan had strained after the terror attacks by Pakistan-based groups in 2016 and India’s surgical strikes inside Pakistan-occupied Kashmir. In recent years, China has refrained from taking a public stance on the India-Pakistan ties, expressing hope for resolution of the disputes through dialogue.
- On the Kashmir issue, China’s repeated stand was that it should be resolved peacefully through dialogue. India too supports dialogue as the way to resolve the issue with Pakistan but maintains that the talks and terrorism cannot go together.
- For its part, Pakistan supported active participation of China at the platform of the South Asian Association for Regional Cooperation (SAARC). Also significantly, China tacitly expressed its backing for Pakistan’s efforts to secure the NSG membership.
- India has also been seeking entry into the 48-member elite nuclear club, which controls nuclear trade, but China has repeatedly stonewalled its bid.
- While India, which is backed by the US and a number of western countries has garnered the support of a majority of the group’s members, China has stuck to its stand that new members should sign the Nuclear Non-Proliferation Treaty (NPT), making India’s entry difficult as the group is guided by the consensus principle. India is not a signatory to the NPT.

World Customs Organisation’s regional meet

- ❖ Four-day regional meeting of the World Customs Organisation was held in Jaipur with representatives of 33 member countries of Asia attending it.
- ❖ The meeting is slated to deliberate upon various issues including the steps required for the capacity building and reforms in customs.
- ❖ The participants also discussed and deliberate upon the amended Kyoto protocol, digital customs, e-commerce among other issues.

Chevalier del la Legion d’Honneur  
 French Ambassador to India will confer global software major Wipro Chairman Azim Premji with the highest French civilian award Chevalier del la Legion d’Honneur (Knight of the Legion of Honour).  
 The award is in recognition of Premji’s contribution to developing the IT (Information Technology) industry in India, his economic outreach in France and his contribution to society as a philanthropist through the Azim Premji Foundation and University.

- China's repeated stonewalling on India's membership bid in the NSG has become a major stumbling block in bilateral relations.

Outcomes of the visit

- The two sides reaffirmed their commitment to multilateral, non-discriminatory arms control and non-proliferation endeavours. They noted with concern the continued pursuit of double standards in the application of non-proliferation norms and procedures and called for policies upholding rule of law and long-standing rules.
- China also heaped praise on Pakistan for its efforts to counter terrorism and said it recognised Islamabad's efforts in actively strengthening financial regulations to combat terrorism financing, and called on all relevant parties to view Pakistan's counter-terrorism efforts in an objective and fair manner.
- But at the same time China is pressing Pakistan to crackdown on Uygur Islamic militants crossing in and out of the volatile Muslim-majority Xinjiang province bordering Pakistan-occupied Kashmir.
- The Pakistani side reaffirmed its support to the Chinese side in safeguarding its sovereignty and security, and combating separatism, terrorism and extremism including East Turkistan Islamic Movement (ETIM). China blames the separatist ETIM, an al-Qaeda linked group, for the violent attacks in Xinjiang and elsewhere in the country.
- Both sides underscored the need for all states to avoid "politicisation" of the UN sanctions regime and the work of the Financial Action Task Force (FATF). The FATF has placed Pakistan in its grey list for not doing enough to counter terror financing.
- All-weather friends, China and Pakistan also agreed to enhance their defence cooperation. Both sides agreed to make full use of the China-Pakistan Defence and Security Consultation mechanism, deepen cooperation in areas such as military exercises, training cooperation, personnel exchanges, and equipment and technology cooperation.
- The two sides reaffirmed their complete consensus on the future trajectory of the CPEC, timely completion of its ongoing projects and joint efforts for realisation of its full potential with a focus on socio-economic development.

First India-Nepal passenger train on broad gauge  
 The train will run from Jayanagar in Bihar to Kurtha in Dhanusa district in Janakpur Zone of south-eastern Nepal, which is a 34 km stretch. No visa will be required for Indian and Nepalese nationals crossing the border through this stretch.

PEPPER IT WITH  
 CPEC, Xinjiang Uyghur Autonomous Region, Gwadar Port, FATF, ETIM, SAARC, NPT

**RCEP**

In News

"With just about 40% of the agenda items having been resolved, there is still a long way to go before the Regional Comprehensive Economic Partnership (RCEP) talks are concluded", it was agreed during the recently-concluded Singapore Ministerial meeting that the deadline for an agreement be shifted to 2019.

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During the meeting, two more chapters were resolved, taking the total to seven. However, the core of the talks is about market access for goods, services and investment, and those talks are still ongoing.

India and RCEP

- The RCEP is an ambitious proposal which intends to bring in the three largest economies of Asia — China, India and Japan — into a regional trading bloc, along with ASEAN member-countries, Australia, South Korea and New Zealand.
- The trade area will be the largest in terms of population (3.4 billion or 49 per cent of world population), with a combined GDP of around \$22 trillion and a trade share of 30 per cent. When fully established, it will become the largest trade bloc in the world.

- As per conservative estimates, once implemented, RCEP would bring large income gains, of \$260-644 billion, to the world economy in a decade or so. The RCEP can help regionalize the sophisticated global production networks that **make Asia the world's factory** and will also integrate the **region's markets and production centers**. It will also reduce the overlap among Asian FTAs, lest Asia becomes a confusing **'noodle bowl'** of multiple trade rules.
- India joined this mega grouping to advance its own trade integration. Although the country has entered into trading and investment agreements with ASEAN, Japan and Korea, its presence in the vibrant global supply-chains in the region is not commensurate with its manufacturing potential.
- India certainly cannot afford to be excluded from new regional trade chains and hence, its participation in RCEP is an imperative. However, legitimate concerns of Indian trade and commerce have to be addressed with a progressive look.
- Government think tank NITI Aayog, in a note on free trade agreements (FTAs) and their costs for India, has argued that the country needs to rethink joining the Regional Comprehensive Economic Partnership (RCEP) as it will be disastrous to provide more market access to China, which is a key player in the grouping.
- India's exports to RCEP account for about 15% of its total exports and imports from RCEP comprise 35% of total imports. India's trade deficit with RCEP has risen from \$9 billion in FY05 to \$83 billion in FY17, of which China alone accounts for over 60% of the deficit.**
- India already has bilateral FTAs with Asean, Korea and Japan and negotiations are underway with Australia and New Zealand.

International Telecommunications Union

- ❖ India has been elected as a Member of the International Telecommunications Union (ITU) Council for another 4-year term (2019-2022).
- ❖ The elections to the Council were held during the ongoing ITU Plenipotentiary Conference 2018 at Dubai, UAE. The ITU has 193 member states that elect representatives to the Council.
- ❖ The International Telecommunication Union (ITU) was founded in Paris as the International Telegraph Union.
- ❖ The ITU is an inter-governmental organization that brings together governments and industry to coordinate the establishment and operation of global telecommunication networks and services.

PEPPER IT WITH

|          |              |               |
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| ASEM     | conference,  | BIMSTEC       |
| military | exercise,    | International |
| women    | entrepreneur | summit,       |
| FOCAC    |              |               |

Way forward

It is vital for India to ensure that the RCEP is truly comprehensive and does not just focus on market access for goods. Keeping these benefits in mind, India will need second-generation reforms of its domestic economic policies, including those that reform its factor markets, to make its trade more competitive. These reforms will help India better access other markets, and will mitigate some of the repercussions for the Indian economy of the other two mega regionals.

U.N. approves \$9 million in aid for crisis-stricken Venezuela

In News

The United Nations announced \$9.2 million in health and nutritional aid for crisis-stricken Venezuela, where hunger and preventable disease **are soaring amid the collapse of the country's socialist economic system.**

The U.N. Central Emergency Response Fund (CERF) will support projects to provide nutritional support to children under five years old, pregnant women and lactating mothers at risk, and emergency health care for the vulnerable.

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UNCERF

- CERF is one of the fastest and most effective ways to ensure that urgently needed humanitarian assistance reaches people caught up in crises.
- Established by the United Nations General Assembly in 2005 as the United Nations global emergency response fund, CERF enables humanitarian responders to deliver life-saving assistance whenever and wherever crises strike.
- **CERF’s window for Underfunded Emergencies helps scale-up** and sustain protracted relief operations to avoid critical gaps when no other funding is available.
- The Emergency Relief Coordinator manages CERF on behalf of the UN Secretary-General and is supported by the CERF secretariat, which ensures that funds are allocated properly, disbursed in a timely manner, and that the use of funds is reported appropriately and transparently.
- The fund is replenished annually through contributions from governments, the private sector, foundations and individuals.

PEPPER IT WITH  
SAARC, G20, FATF, Blockchain technology, Iran Action Group, World custom organisation, 2+2 dialogue

Asian Development Bank

In News

The Asian Development Bank (ADB) and the Government of India signed a \$200 million loan to finance widening and upgrading of about 230 Kilometers State Highways in Bihar to all-weather standards with road safety features.

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New Loan will continue ADB's support in the development of the road sector in Bihar. The improved roads under the Project will contribute to savings in vehicle operating cost and travel time, reduce vehicle emissions, and improve road safety. The Project will also establish a State-level Road Research Institute to improve technical and management capacity of the Road Agency Staff.

Background

ADB has provided four loans to Bihar, amounting to \$1.43 billion, to upgrade about 1,453 km of State Highways and to construct a New Bridge over the Ganga River near Patna.

PEPPER IT WITH  
BRICS RATING AGENCY, New development bank, Asia pacific trade agreement, OPCW, Australian group, AIIB

ADB

- ADB is committed to achieving a prosperous, inclusive, resilient, and sustainable Asia and the Pacific, while sustaining its efforts to eradicate extreme poverty. In 2017, ADB operations totaled \$32.2 billion, including \$11.9 billion in co-financing. It is headquartered in Manila, Philippines.
- ADB is an official United Nations Observer. As of 2017, Japan and United States hold the largest proportion of shares at 15.607%. China holds 6.444%, India holds 6.331%, and Australia holds 5.8%.

Dire strait: on Russia-Ukraine sea clash

In News

The crisis began when Russia accused the Ukrainian ships of illegally entering its waters. The Russians placed a tanker under a bridge in the Kerch Strait - the only access to the Sea of Azov, which is shared between the two countries. Two gunboats and a tug were captured by Russian forces. A number of Ukrainian crew members were injured. Each country blames the other for the incident.

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Tension between Russia and Ukraine has been building for months off Crimea. Under a 2003 treaty between Moscow and Kiev, the Kerch Strait and the Sea of Azov are shared territorial waters. But recently there, Russia began inspecting all vessels sailing to or from Ukrainian ports. The use of force by Russia to seize Ukrainian vessels - with casualties - is a major escalation.



Reactions

- The European Union called on Russia to "restore freedom of passage at the Kerch Strait" and urged "all to act with utmost restraint".
- Nato said it "fully supports Ukraine's sovereignty and its territorial integrity, including its navigational rights in its territorial waters". It said Russia should "ensure unhindered access to Ukrainian ports in the Azov Sea".
- Kiev has declared martial law and demanded that the sailors be treated as prisoners of war. A court in Russian-annexed Crimea, meanwhile, has ordered many of them to be held in pre-trial detention, charging them with illegally entering its territorial waters.
- Ukraine insists that the patrol of the Kerch Strait, where the vessels were impounded, was authorised under a bilateral agreement with Moscow. A new bridge over the strait that connects mainland Russia with Crimea has raised concerns about **Moscow's greater control and influence in the region.**

Bus service from Lahore to China's Xinjiang  
 Despite objections raised by the Indian Ministry of External Affairs (MEA), the private bus service between Pakistan and China, which is operated under CPEC (China Pakistan Economic Corridor), was launched.

PEPPER IT WITH  
 VOSTOK 2018, FIFA world cup, SIPRI, Rooppur atomic plant, SAMRAT missile, IAEA, ICC, MiG aircraft

The Kerch Strait

It is a strait connecting the Black Sea and the Sea of Azov, separating the Kerch Peninsula of Crimea in the west from the Taman Peninsula of Russia's Krasnodar Krai in the east.

US exempts India from certain sanctions for development of Chabahar port

In News

The United States has exempted India from imposition of certain sanctions for the development of the strategically-located Chabahar port in Iran, along with the construction of the railway line connecting it with Afghanistan.

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Impact

- The decision is seen as recognition by Washington of **India's role in development of the port on the Gulf of Oman**, which is of immense strategic importance for the development of war-torn Afghanistan.

PEPPER IT WITH  
 Gwadar port, B&R initiative, CPEC, INSTC, Gulf of Oman, Mediterranean Sea, South China Sea

- The decision to give India exemption from imposition of certain sanctions for the development of the port is driven by the South Asian strategy too, which was announced by US President. It states that India has a major role in bringing peace and development in Afghanistan.
- **The US earlier imposed “the toughest ever” sanctions on a defiant Iran aimed at altering the Iranian regime’s “behaviour”. The sanctions cover Iran’s banking and energy sectors and reinstate penalties for countries and companies in Europe, Asia and elsewhere that do not halt Iranian oil imports.**

Chabahar port

- Chabahar Port is a seaport in Chabahar located in southeastern Iran, on the Gulf of Oman. It serves as Iran's only oceanic port.
- India, Iran and Afghanistan had signed a pact which entailed establishment of a transit and transport corridor among the three countries using Chabahar Port as one of the regional hubs. The port would open a transit route to Afghanistan and Central Asia for Indian goods and products, avoiding the land route through Pakistan.

Global Digital Content Market 2018

In News

The Department of Industrial Policy and Promotion (DIPP), Ministry of Commerce and Industry, is hosting a conference on Global Digital Content Market 2018.

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About

- The conference will feature sessions on music, film, broadcasting and publishing, as well as collective management, emerging models and the implications for the market and policy makers.
- India has been chosen as a host nation for the conference by World Intellectual Property Organization (WIPO) due to the strong creative industry in the country in films, music and media.
- **The focus for this year’s conference is the Asia Pacific region. GDCM 2018 is the second edition of the conference.**
- The aim of GDCM 2018 is to give industry stakeholders a platform to come together and discuss new avenues in the films, music, gaming and creative industry along with points of challenge that is presented due to the changing creative landscape because of the disruption brought about by digital technologies.
- It is hoped that through the GDCM 2018 an exchange of knowledge, culture and good practices amongst the nations of the Asia Pacific region will take place.

**India’s rank in the Global Innovation Index 2018 has improved by 24 places from that of 2015 and now ranks 57th. India is the top-ranked economy in Central and Southern Asia and has now outperformed on innovation relative to its GDP per capita for seven years in a row.**

**PEPPER IT WITH  
WIPO, WIPO Copyright Treaty (WCT), WIPO Performances and Phonograms Treaty (WPPT), TRIMS**

DIPP

The Department of Industrial Policy & Promotion is under the Ministry of Commerce & Industry, and has been reconstituted in the year 2000 with the merger of the Department of Industrial Development.

## Indian Ocean Naval Symposium

### Why in News?

The Indian Ocean Naval Symposium (IONS) celebrated its 10th anniversary at Kochi. Primarily created as an open and inclusive forum for the navies of the Indian Ocean states to initiate discussion and cooperation on regionally relevant maritime security issues.

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### Background

The event was organized on the theme of SAGAR (Security and Growth for All in the Region), an acronym coined by Indian Prime Minister. The idea not only puts the Indian Ocean Region (IOR) as a top **priority for New Delhi's security and economic prosperity**, but also seeks to project India as a benign maritime power initiating multilateralism and inclusivity in the region.

### World Toilet Day

World Toilet Day, celebrated on 19th November, is about taking action to ensure that everyone has a safe toilet by 2030. This is part of Sustainable Development Goal (SDG) 6: sanitation and water.

### IONS Significance

1. **Under the aegis of the Indian Navy, IONS fits into India's three-fold ambitions** in the region: strengthening and deepening the relations with the Indian Ocean littoral states; establishing its leadership potential and aspirations of being a net-security **provider; and fulfilling India's vision of a rules-based and stable maritime order** in the IOR.
2. Consisting of 32 nations, including eight observer states, grouped into four categories, the wide and inclusive membership of IONS provides India with a platform that can be used to reach out to a range of IOR states and at the same time strengthen and deepen its existing partnerships in the region.
3. As India seeks to consolidate its sphere of influence from the Straits of Malacca to Hormuz, a platform like IONS would ensure that India has the scope to cooperate with the littoral states on issues of maritime security and awareness in the region.
4. Being a technical forum with a broad membership, unlike the politically driven Quad, India can use IONS to unite the regional states on shared principles and strategies without antagonizing any state at the cost of block politics.
5. **IONS' productivity as a non-controversial platform** for the management of security issues in the region has been further advanced by the jointly held Search and Rescue naval drill by India and China at the height of the Doklam crisis, under the aegis of the Bangladesh Navy.
6. As India punches above its weight and seeks to counter-balance the increasing presence of China alongside owning more responsibilities in the region, IONS can help India to project itself as a net-security provider. This idea also emanates from a legacy that the Indian Ocean is the natural theatre for the Indian Navy and it should, by the virtue of its history and geographic centrality, enjoy a primacy.
7. **IONS can be a facilitator for India's vision of a rules-based maritime order** in the region. **While India's security apprehensions partly arise due to a growing Chinese footprint** in

### Members

- ✚ South Asian Littorals: Bangladesh, India, Maldives, Pakistan, Seychelles, Sri Lanka and United Kingdom (British Indian Ocean Territory)
- ✚ West Asian Littorals: Iran, Oman, Saudi Arabia and United Arab Emirates
- ✚ East African Littorals: France (Reunion), Kenya, Mauritius, Mozambique, South Africa, and Tanzania.
- ✚ South East Asian and Australian Littorals: Australia, Indonesia, Myanmar, Singapore, Thailand and Timor-Leste.

### PEPPER IT WITH

SAGAR, Indian Ocean Region, South China Sea, Strait of Malacca and Homruz, IOWave, Assumption island

the region, it also encapsulates protection of its vital sea lines of communication from maritime terrorism and piracy.

Way forward

As India turns gradually more to the sea, its strategies and policies should be more carefully and closely watched in the region. While IONS provides multiple possibilities of **showcasing and fulfilling India's ambitions in the region**, it also suffers from lack of coordination and sufficient political will. The security dynamics of the Indian Ocean would also stand in the way of India and its ambitions being pushed through a multilateral domain.

Multilateral initiatives like IONS may be relegated to diplomatic niceties, but they can be an **enabling factor in India's roadmap for IOR in areas of institution building, agenda-setting and power projection, without which India's IOR ambitions would ring hollow. IONS can be India's platform to showcase that India can be an effective and benign power in the region** with diplomatic potential and might along with bringing a structural change that has the possibility of ensuring stability for the Asian balance of power.

WFP, Alibaba join forces to fight hunger

In News

The UN World Food Programme and Chinese e-commerce giant Alibaba Group have formed a strategic partnership to support efforts eliminate hunger globally by 2030.

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About

- Under the accord, Alibaba will lend its cutting-edge technology and resources to support the digital transformation of WFP's operations. In particular, Alibaba Cloud, the cloud computing arm of Alibaba, will work with WFP to develop a digital "World Hunger Map".
- The map will monitor global hunger and operations to end the scourge by 2030 - one of the UN's key Sustainable Development goals - and aims to boost the efficiency of interventions and shorten emergency response times.

PEPPER IT WITH  
FAO, United States Agency for International Development, Human development index, MMR, Trans fatty acid

World Food Program

- Assisting 91.4 million people in around 83 countries each year, the World Food Programme (WFP) is the leading humanitarian organization saving lives and changing lives, delivering food assistance in emergencies and working with communities to improve nutrition and build resilience.
- As the international community has committed to end hunger, achieve food security and improved nutrition by 2030, one in nine people worldwide still do not have enough to eat. Food and food-related assistance lie at the heart of the struggle to break the cycle of hunger and poverty.
- **WFP's efforts focus on emergency assistance, relief and rehabilitation, development aid and special operations.** Two-thirds of our work is in conflict-affected countries where people are three times more likely to be undernourished than those living in countries without conflict.

UN migration pact

In News

Austrian government decided to withdraw from the new migration pact of the United Nations. The U.S., Hungary, the Czech Republic and, most recently, Australia and Poland, had done the same.

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The global compact

- **The UN's Global Compact for Safe, Orderly and Regular Migrations is aiming to make migration all over the world safer.**

- The General Assembly decided, through the adoption of the New York Declaration for Refugees and Migrants, to develop a global compact for safe, orderly and regular migration.
- The Global Compact for Migration is the first-ever UN global agreement on a common approach to international migration in all its dimensions.
- The global compact is non-legally binding. It is grounded in values of state sovereignty, responsibility-sharing, non-discrimination, and human rights, and recognizes that a cooperative approach is needed to optimize the overall benefits of migration, while addressing its risks and challenges for individuals and communities in countries of origin, transit and destination.

The global compact comprises 23 objectives for better managing migration at local, national, regional and global levels:

1. Aims to mitigate the adverse drivers and structural factors that hinder people from building and maintaining sustainable livelihoods in their countries of origin;
2. Intends to reduce the risks and vulnerabilities migrants face at different stages of migration by respecting, protecting and fulfilling their human rights and providing them with care and assistance;
3. Seeks to address the legitimate concerns of states and communities, while recognizing that societies are undergoing demographic, economic, social and environmental changes at different scales that may have implications for and result from migration;
4. Strives to create conducive conditions that enable all migrants to enrich our societies through their human, economic and social capacities, and thus facilitate their contributions to sustainable development at the local, national, regional and global levels

PEPPER IT WITH  
New york declaration, INDIAN OCEAN RIM ASSOCIATION, Interpol, Media bias/Fast checker, The act east forum, International cooperation and convention centre

**India votes against UNGA draft resolution on use of death penalty**

In News

India has voted against a UN General Assembly draft resolution on the use of death penalty, saying it goes against the statutory law of the **country where an execution is carried out in the “rarest of rare” cases.**

The draft resolution, taken up in the Third Committee (Social, Humanitarian, Cultural) of the General Assembly, was approved with a recorded vote of 123 in favour, 36 against and 30 abstentions.

By its terms, the Assembly would reaffirm the sovereign right of all countries to develop their own legal systems, including determining appropriate legal penalties, in accordance with their international law obligations.

Death penalty in India

- In India, the death penalty is **exercised in ‘rarest of rare’ cases**, where the crime committed is so heinous that it shocks the conscience of the society.
- Indian law provides for all requisite procedural safeguards, including the right to a fair trial by an independent Court, presumption of innocence, the minimum guarantees for defence, and the right to review by a higher court.
- Indian laws have specific provisions for commutation of death penalty in

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UN postal agency

- ❖ UN Postal Administration issued special postal stamps to commemorate Diwali, the Indian festival of lights.
- ❖ The sheet in the denomination of USD 1.15 contains ten stamps and tabs featuring festive lights and the symbolic lamps known as diyas. The background of the sheet features the United Nations Headquarters building illuminated with the message of "Happy Diwali" to celebrate the spirit of the festival.
- ❖ The United Nations Postal Administration (UNPA) is the postal agency of the United Nations. It issues postage stamps and postal stationery. Postage rates charged are identical to those of the host nation.

the case of pregnant women and have rulings that prohibited executions of persons with mental or intellectual disabilities, while juvenile offenders cannot be sentenced to death under any circumstances.

- Death sentences in India must also be confirmed by a superior court and an accused has the right to appeal to a High Court or the Supreme Court, which has adopted guidelines on clemency and the treatment of death row prisoners.
- Poverty, socio-economic, psychic compulsions, undeserved adversities in life, constituted new mitigating factors to be considered by courts in commuting a death sentence to life imprisonment.
- President of India in all cases, and the Governors of States under their respective jurisdictions, have the power to grant pardons, reprieves, respites or remissions of punishment or, to suspend, remit or commute the sentence of death penalty.

Death Penalty

- The death penalty is the ultimate cruel, inhuman and degrading punishment. Many groups and institutions opposes the death penalty in all cases without exception - regardless of who is accused, the nature or circumstances of the crime, guilt or innocence or method of execution.
- In 2017, most known executions took place in China, Iran, Saudi Arabia, Iraq and Pakistan – in that order.

Reasons to abolish the death penalty

- ✓ It is irreversible and mistakes happen: Execution is the ultimate, irrevocable punishment: the risk of executing an innocent person can never be eliminated.
- ✓ It does not deter crime: Countries who execute commonly cite the death penalty as a way to deter people from committing crime. This claim has been repeatedly discredited, and there is no evidence that the death penalty is any more effective in reducing crime than life imprisonment.
- ✓ It is often used within skewed justice systems: In many cases people were executed after being convicted in grossly unfair trials, on the basis of torture-tainted evidence and with inadequate legal representation. In some countries death sentences are imposed as the mandatory punishment for certain offences.
- ✓ It is discriminatory: The weight of the death penalty is disproportionately carried by those with less advantaged socio-economic backgrounds or belonging to a racial, ethnic or religious minority. This includes having limited access to legal representation, for example, or being at greater disadvantage in their experience of the criminal justice system.
- ✓ It is used as a political tool: The authorities in some countries, for example Iran and Sudan, use the death penalty to punish political opponents.

PEPPER IT WITH International conference on primary health care, UN day, Gulf of Oman, INF treaty, Asia economic integration report

East Asia Summit

In News

Prime Minister of India attended the 13th East Asia Summit in Singapore during which the leaders of the grouping discussed global and regional issues, including maritime cooperation.

Prime Minister at the summit reiterated India's vision of a peaceful, open and inclusive Indo Pacific region, strengthening maritime cooperation and commitment to a balanced RCEP.

EAS

- The members of East Asia Summit consists of 10 ASEAN nations (Indonesia, Thailand, Singapore, Malaysia, The Philippines, Vietnam, Myanmar, Cambodia, Brunei and Laos), Australia, China, India,

PEPPER IT WITH AG600, Jerusalem, UNHRC, G4, UNSC reforms, Asia pacific policy group, CPEC, Saudi Arabia joins CPEC

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Japan, New Zealand, South Korea, Russia and the US.

- The East Asia Summit was formed to further the objectives of regional peace, security and prosperity.

## APEC leaders' summit

### Why in News?

The APEC leaders' summit, held in Port Moresby (Papua New Guinea) was one of the most remarkable and tense in recent years. It ended with no joint statement from the leaders – a first in APEC history – and with the fight for dominance in the Pacific region between Australia, the US and Japan on one side and China on the other, coming out into the open.

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### No joint communique

The agreement that usually comes out of these summits was thwarted by tensions between the US and China over trade and security, meaning that for the first time in APEC history, the summit closed without a joint statement from the leaders.

PEPPER IT WITH  
Heart of Asia Conference, SCO, RCEP, BIMSTEC, Ganga-Mekong cooperation, Quad group, TPP, NAFTA

### APEC

The Asia-Pacific Economic Cooperation (APEC) is a regional economic forum to leverage the growing interdependence of the Asia-Pacific. APEC's 21 members aim to create greater prosperity for the people of the region by promoting balanced, inclusive, sustainable, innovative and secure growth and by accelerating regional economic integration.

Australia, Brunei, Canada, Indonesia, Japan, South Korea, Malaysia, New Zealand, the Philippines, Singapore, Thailand, and the United States, Chile, China, Hong Kong, Mexico, Papua New Guinea, Peru, Russia, Taiwan, and Vietnam are members. The Pacific Economic Cooperation Council (PECC), the South Pacific Forum (SPF), and the secretariat of the Association of Southeast Asian Nations (ASEAN) maintain observer status.

## E-registration must for jobs in 18 countries

### In News

The Indian government announced that it has deferred the requirement for mandatory online registration by Indian passport holders travelling to 18 countries – including the UAE – for work.

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### Background

Ministry of External Affairs was planning to bring in a rule according to which Passport holders with “non-Emigration Check Required (non-ECR)” status will have to get themselves registered with the Ministry of External Affairs before taking up jobs abroad.

### Categories of Passengers

- The non-ECR category of passengers includes Indians paying income tax and those with educational qualification above matriculation.
- As of now only ECR category passport holders were required to get emigration clearance from the office of the Protector of Emigrants to seek employment abroad.

### Beyond Fake News project

- ❖ The UK-based broadcasting channel BBC launched the Beyond Fake News project on how and why misinformation is shared in India.
- ❖ The project is based on findings from original BBC research into how and why disinformation is shared by accessing the **user's encrypted messaging app in India**, Kenya and Nigeria.

### Key Highlights

1. The objective of the directive was to protect workers with higher educational qualification from not getting into blue collar jobs. Previously only ECR stamped passport holders had to go through the mandatory e-migrate registration since 2015.

- The rule was aimed at the welfare of Indians going abroad and applied to jobs in 18 countries, including the six Gulf Cooperation Council nations, which have the largest number of expats.
- All those seeking employment had to register online via the website [www.emigrate.gov.in](http://www.emigrate.gov.in). Those failing to register at least 24 hours prior to actual departure will be off-loaded at the airports.

PEPPER IT WITH  
eMigrate system, Security Restrictions Guidelines 1990, International conference on ICT

ECR Passport

- Emigration Check Required is a required status for junior citizens who haven't yet passed the 10th grade or high school standard graduation exam in India.
- To leave India, these people will always have to go through an Immigration Office who would certify that these citizens are cleared and eligible for leaving the country and there's no restriction on them.
- Also, a senior citizen who haven't passed their 10th grade would require the same verification by an Immigration Office.

ECNR (Non-ECR) Passport

- ✓ ECNR (Non-ECR) category stands for 'Emigration Check not Required'. Anyone who has graduated through their 10th grade of school will not be required to go through an Immigration Office to have their leave registered and verified.
- ✓ Once a citizen passes 10th grade they earn the ECNR badge on their passport.

Issue on horizon  
Following concerns expressed by Non-Resident Indians, the Ministry of External Affairs decided to defer its decision to make pre-departure online registration **mandatory for 'non-Emigration Check Required (non-ECR)' status passport holders** flying to 18 countries, including the six Gulf Cooperation Council nations. Thus the registration of Non-ECR passport holders has been kept in abeyance till further orders.

Statistics

- UAE is one of the five top destination countries for Indians taking up employment. Nearly 1.5 lakh Indians had taken up employment in that country last year. This was followed by Saudi Arabia; Kuwait; Oman and Qatar.
- Incidentally Uttar Pradesh has emerged as the top labour-sending State with 88,450 Indian emigrants registering with the e-migrate system. This was followed by Bihar; Tamil Nadu; West Bengal and Rajasthan.

**Urban Cafe: 'River for Habitat'**

In News

The National Mission for Clean Ganga partnered with UN Habitat to organize a policy dialogue- **'Urban Cafe: River for Habitat' in New Delhi** on the occasion of World Cities Day 2018.

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Experts in the sector got together to discuss the deep association that rivers have with various aspects of human civilization – our cities, our economy and various facets of our daily lives, the challenges to maintaining healthy river ecosystems and ways to deal with the same.

Significance

- A survey carried out on the main-stem of Ganga has identified 97 towns contributing to **sewage/industrial pollution in the river**”.
- In order to protect our flood plains we need to find environmentally sensitive ways of using them to build a connect with the people living around them.
- River and river basins should be seen as 'national capital or asset'. There is need for developing an Urban River Plan from where the river enters the city and where it exits.**

PEPPER IT WITH  
One City One Operator, NMCG, Namami Gange, National Ganga Council, NGRBA, Ganga Protection, Corps

## Biofuel research

### In News

The Department of Biotechnology (DBT) signed a three-year, ₹11 crore deal with The Energy and Research Institute to set up a centre to produce “advanced biofuels and bio-commodities.”

This is the fifth such dedicated centre for bioenergy-research and development set up by the Department. The others are located at the Indian Agricultural Research Institute, New Delhi; the Indian Institute of Technology-Guwahati; Transtech Green Power Limited, Jaipur; and the Oil and Natural Gas Energy Centre in the National Capital Region.

TERI established a photo bioreactor of 10,000-litre capacities for round-the-year-production of algal strains that contain heightened lipid concentrations and a pilot scale (1,500 litres) scale bio-hydrogen production facility.

### Significance

1. The bio-centre would be focussed on not only developing technology but also commercialising it.
2. There about a 100 scientists in the country, tasked with research projects to achieve the goals spelt out in the biofuel policy, which envisages high-quality algal biodiesel, cellulosic ethanol, bio butanol and bio hydrogen.
3. Other than fuel, by-products envisaged at the TERI-DBT Centre include food, feed, nutrition supplements, bio-plastics and novelty speciality chemicals.

### TERI

- The Energy and Resources Institute (TERI) is a research institute based in New Delhi that conducts research work in the fields of energy, environment and sustainable development.
- Established in 1974, it was formerly known as Tata Energy and Research Institute. As the scope of its activities widened, it was renamed The Energy and Resources Institute in 2003.

PEPPER IT WITH  
Global Sustainable Development Summit, GRIHA, Cellulosic ethanol, Bio butanol, Bio hydrogen

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- ❖ According to Global Water Monitor & Forecast Watch List (November-2018), Water deficits will increase and intensify in India in 2019. It represents the regions which are likely to encounter significant water anomalies in the next few months.
- ❖ The results showcase that exceptional water deficits occur throughout Gujarat in the west and severe to exceptional deficits from Madhya Pradesh through Karnataka, as well as in Punjab, Rajasthan, Haryana, and India’s far northeast.
- ❖ The 12-month forecast through July 2019 indicates exceptional (greater than 40 years) water deficits in Maharashtra, Telangana, Andhra Pradesh, Karnataka, and Madhya Pradesh.
- ❖ The report presented by IScience (US based limited liability corporation) states the findings from the latest Water Security Indicator Model (WSIM) analysis of global water anomalies. ISciences Water Security Indicator Model (WSIM) monitors and forecasts water anomalies on a near global basis.
- ❖ WSIM products include data, visualisations and reports. WSIM includes algorithms to assess the impacts of water anomalies on people, agriculture and electricity generation. WSIM has been run continuously since April 2011 and has been validated against subsequent monitoring based on observed data.

## Palau becomes first country to ban sunscreen to save coral reefs

- The Western Pacific nation of Palau has become the first country to ban many kinds of sunscreen, in a move to protect its coral reefs from chemicals that scientists say cause significant damage.
- **Under the ban, which will take effect in 2020, “reef-toxic” sunscreen** — defined as containing one of 10 prohibited chemicals, a list that

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could grow later — can be confiscated from tourists when they enter the country, and retailers who sell it can be fined up to \$1,000.

- Palau passed the ban into law. The law was highly motivated by a 2017 report that **found sunscreen products to be “widespread” in Jellyfish Lake, one of the country’s UNESCO World Heritage sites.**
- Damage to coral reefs worldwide from climate change has been widely reported, but scientists say there is growing evidence that chemicals from sunscreen, which washes off swimmers or enters the ocean through sewer systems, also causes grave harm.
- Studies have shown that chemicals in sunscreen can cause localized coral bleaching and can disrupt the reproduction of fish by interfering with their hormonal systems.

**PEPPER IT WITH**  
 Coral bleaching, Hard and Soft corals, Great Barrier Reef, Coral sights in India, Mangroves, Symbiosis

Bal Ganga Mela

Why in News?

National Mission for Clean Ganga (NMCG) in partnership with HCL Foundation and German development agency GIZ (Deutsche Gesellschaft für Internationale Zusammenarbeit) **organized “Bal Ganga Mela”.**

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About Bal Ganga Mela

The Mela was organized with the objective to create awareness among school children on the importance of water in general and rivers in particular, so that they understand the importance of unpolluted, clean water and water security. Also, to foster respect for the natural environment and motivate children to become ambassadors of change, who influence and motivate others towards river rejuvenation and water conservation.

Coral reseedling project

- ❖ Scientists have launched the largest-ever attempt to regenerate coral on the endangered Great Barrier Reef by harvesting millions of the creatures' eggs and sperm during their annual spawning.
- ❖ This is the first time that the entire process of large scale larval rearing and settlement will be undertaken directly on reefs on the Great Barrier Reef.
- ❖ The "Larval Restoration Project" launch was timed to coincide with the annual coral spawn on the reef, which last only about 48 to 72 hours.
- ❖ Coral have been killed by rising sea temperatures linked to climate change, leaving behind skeletal remains in a process known as coral bleaching.

NMCG

- It acted as implementation arm of National Ganga River Basin Authority (NGRBA) which was constituted under the provisions of the Environment (Protection) Act (EPA), 1986. NGRBA has since been dissolved, consequent to constitution of National Council for Rejuvenation, Protection and Management of River Ganga (referred as National Ganga Council).
- The Act envisages five tier structure 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.
- NMCG has a two tier management structure and comprises of Governing Council and Executive Committee. Both of them are headed by Director General, NMCG. The Director General (DG) of NMCG is an Additional Secretary in Government of India.
- Executive Committee has been authorized to accord approval for all projects up to Rs.1000 crore. Similar to structure at national level, State Programme Management Groups (SPMGs) acts as implementing arm of State Ganga Committees.
- **NMCG is committed towards afforestation and conservation of the Ganga Basin's ecosystem and its indigenous flora and fauna.** To scale up the momentum in this direction, NMCG also signed an MoU with the HCL Foundation to work on tributaries of Ganga, - Hindon and Yamuna and increase forest cover in parts of UP and Uttarakhand.

PEPPER IT WITH  
National Ganga council, Namami gange, Ganga protection corps, river dispute, Indus river treaty, India-Bangladesh river agreements

**Tigress Avni killing**

In News

The National Tiger Conservation Authority (NTCA) has constituted a three-member team of independent wildlife experts to probe how the man-eating tiger Avni (T1) was killed. The NTCA said it had asked the **State's Wildlife Department to explain the circumstances of the death.**

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Background

The tigress which is said to have killed 13 people, was shot dead by civilian hunter Asgar Ali, who was with a team of Maharashtra Forest Department officials. According to Maharashtra Forest Minister, an official allegedly attempted — and failed — to fire a tranquiliser dart at the tigress following which she charged at the team. Mr Ali then fired in self-defence.

Wildlife Institute of India — a Union Environment Ministry-funded body — has been tasked with coordinating the tiger estimation exercise. The once-in-four-years exercise divided into four phases — began last winter and is expected to reveal its findings in early 2019.

NTCA

The National Tiger Conservation Authority is a statutory body under the Ministry of Environment, Forests and Climate Change constituted under enabling provisions of the Wildlife (Protection) Act, 1972, as amended in 2006, for strengthening tiger conservation, as per powers and functions assigned to it under the said Act.

Objective of the NTCA

1. Providing statutory authority to Project Tiger so that compliance of its directives become legal.
2. Fostering accountability of Center-State in management of Tiger Reserves, by providing a basis for MoU with States within our federal structure.
3. Providing for an oversight by Parliament.
4. Addressing livelihood interests of local people in areas surrounding Tiger Reserves.

PEPPER IT WITH  
Project tiger, Tiger range countries, M-STripes, WII, WCB, WWF

**Ozone Hole Recovery - NASA**

In News

Measurements show that the decline in chlorine, resulting from an international ban on chlorine-containing manmade chemicals called chlorofluorocarbons (CFCs), has resulted in about 20 percent less ozone

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depletion during the Antarctic winter— the first year that measurements of chlorine and **ozone during the Antarctic winter were made by NASA's Aura satellite.**

Past studies have used statistical analyses of changes in the **ozone hole's size to argue that** ozone depletion is decreasing. This study is the first to use measurements of the chemical composition inside the ozone hole to confirm that not only is ozone depletion decreasing, but that the decrease is caused by the decline in CFCs.

CFC's

CFCs are long-lived chemical compounds that eventually rise into the stratosphere, where they are **broken apart by the Sun's ultraviolet radiation**, releasing chlorine atoms that go on to destroy ozone molecules.

Two years after the discovery of the Antarctic ozone hole in 1985, nations of the world signed the Montreal Protocol on Substances that Deplete the Ozone Layer, which regulated ozone-depleting compounds. Later amendments to the Montreal Protocol completely phased out production of CFCs.

Montreal protocol

The Montreal Protocol on Substances that Deplete the Ozone Layer is the landmark multilateral environmental agreement (MEA) that regulates the production and consumption of nearly 100 manmade chemicals referred to as ozone depleting substances (ODS). The Protocol is the only UN treaty ever that has been ratified by every country on Earth - all 197 UN Member States.

Point Calimere wildlife sanctuary

- ❖ The sanctuary located in Nagapattinam district of Tamil Nadu, harbours the single-largest stretch of the unique dry-evergreen forest in the country besides open grasslands and tidal mudflats is of interest to tourists not only for its fauna, but also the presence of 364 flowering plants including 198 medicinal plants.
- ❖ The sanctuary and the surrounding wetlands are important wintering grounds for water birds from the North. Around 100 species of birds including the Greater Flamingo, Painted Stork, Little Sting, Sea Gull and Brown-headed gull have been making their presence felt.
- ❖ Blackbuck is the flagship species of the sanctuary. It is a Ramsar site.

PEPPER IT WITH  
Vienna Convention for the Protection of the Ozone Layer, Nagoya Protocol, Adaptation fund, Green climate fund, GEF

PHASE DOWN OF HFCS – THE KIGALI AMENDMENT

Another group of substances, hydrofluorocarbons (HFCs), were introduced as non-ozone depleting alternatives to support the timely phase out of CFCs and HCFCs. HFCs are now widespread in air conditioners, refrigerators, aerosols, foams and other products. While these chemicals do not deplete the stratospheric ozone layer, some of them have high GWPs ranging from 12 to 14,000. Uncontrolled growth in HFC emissions therefore challenges efforts to keep global temperature rise at or below 2°C this century. Urgent action on HFCs is needed to protect the climate system.

The Parties to the Montreal Protocol reached agreement at their 28th Meeting of the Parties in Kigali, Rwanda to phase-down HFCs. Countries agreed to add HFCs to the list of controlled substances, and approved a timeline for their gradual reduction by 80-85 per cent by the late 2040s. The first reductions by developed countries are expected in 2019. Developing countries will follow with a freeze of HFCs consumption levels in 2024 and in 2028 for some nations.

Deny MSP to stubble burners: NGT

In News

Stating that State governments had failed to curb stubble burning, the National Green Tribunal (NGT) summoned the Chief Secretaries of Delhi, Punjab, Haryana and Uttar Pradesh. Officers were directed to draw up a plan to provide economic incentives and disincentives to farmers.

It was suggested to the Bench that incentives could be provided to those who are not

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burning the stubble and disincentives for those who continue the practice.

### Stubble Burning

Stubble burning is the deliberate setting fire of the straw stubble that remains after wheat and other grains have been harvested. Hence large amount of toxic pollutants are emitted in the atmosphere. Pollutants contain harmful gases like Methane, Carbon Monoxide (CO), Volatile organic compound (VOC) and carcinogenic polycyclic aromatic hydrocarbons.

UN Environment award

United Nation Environment has awarded Wildlife Crime Control Bureau (WCCB), Ministry of Environment, Forest and Climate Change, Government of India with Asia Environment Enforcement Awards, 2018 for excellent work done by the Bureau in combating Trans boundary environmental crime. WCCB has been conferred this award in Innovation category.

### NGT

- The National Green Tribunal has been established under the National Green Tribunal Act 2010 for effective and expeditious disposal of cases relating to environmental protection and conservation of forests and other natural resources including enforcement of any legal right relating to environment and giving relief and compensation for damages to persons and property and for matters connected therewith or incidental thereto.
- The Tribunal shall not be bound by the procedure laid down under the Code of Civil Procedure, 1908, but shall be guided by principles of natural justice.
- The Tribunal is mandated to make and endeavour for disposal of applications or appeals finally within 6 months of filing of the same.
- The Chairperson of the NGT is a retired Judge of the Supreme Court. Other Judicial members are retired Judges of High Courts. Each bench of the NGT will comprise of at least one Judicial Member and one Expert Member. Expert members should have a professional qualification and a minimum of 15 years experience in the field of environment/forest conservation and related subjects.

PEPPER IT WITH  
MSP crops, NAFED, Green revolution, FCI, Price deficit financing scheme

## Wind Turbine Certification Scheme

### In News

Ministry of New and Renewable Energy, in consultation with National Institute of Wind Energy Chennai, has prepared a draft of new Scheme called Indian Wind Turbine Certification Scheme (IWTCS).

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The IWTCS is a consolidation of relevant National and International Standards (IS/IEC/IEEE), Technical Regulations and requirements issued by Central Electricity Authority (CEA), guidelines issued by MNRE and other international guidelines. It has also strived to incorporate various best practices from other countries to ensure the quality of the wind energy projects.

Type Certification of wind turbines plays an active role in ensuring that wind turbines in India meet the requirements of requisite IS/IEC/IECRE standards in vogue. Internationally, IEC /IECRE Certification schemes for wind turbines are well recognized and widely used and the IWTCS in its formulation has incorporated the rules and procedures of IS/IEC/IECRE.

### Significance

1. Wind energy has matured over the decades to be the mainstream source of renewable power generation in India. The steady growth of the sector has seen different types of wind turbines with diverse performance and safety criteria.
2. The Ministry of New and Renewable Energy (MNRE), Government of India through various policies and schemes has facilitated the healthy and orderly growth of the wind

energy sector. The guideline for the recognition of the certification schemes in India by MNRE was paramount for the success of quality wind turbines installed in India.

- 3. The successful evaluation under the recognised schemes resulted in the wind turbines being listed in the Revised List of Models and Manufacturers (RLMM). This listing has resulted in stakeholders having confidence on the quality of the wind turbines offered by various manufacturers in India.
- 4. Wind sector in India is growing at a rapid pace with increased utilization of wind energy for the power development. The modern wind turbines have higher hub heights, larger rotor diameter, higher capacity and improved Capacity Utilization Factor (CUF) along with technological improvements.
- 5. Under these developments, there is a need for comprehensive document which provides the complete technical requirements which shall have to be complied by the wind turbines for the safe and reliable operation by all the stakeholders. Also, there is a need for technical regulations which shall facilitate common ground for OEMs, Developers, Investors and Financial Institution for systematic development.

PEPPER IT WITH  
Delhi declaration on renewable energy, IRENA, RE-Invest, ISA, UN Solar project, National policy on biofuels

### Climate risk from rise in Indian AC units

#### Why in News?

By 2022, India is expected to have a fourth of the world’s air conditioning units, and the risks to climate from this could be immense, according to a report.

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Under a business-as-usual growth trajectory, about 4.5 billion room air-conditioners are estimated to be installed by 2050 — a nearly four-fold jump from today’s installed base, with emerging economies observing a five-fold increase, the report says.

#### Details

The refrigerants used for cooling are the major contributors to global warming, and if left unchecked, they could cause global temperatures to rise by 0.5 degrees Celsius. Several Departments in India, including the Department of Science and Technology and the Ministry of Power, announced a partnership with the Rocky Mountain Institute (RMI), a U.S.-based institute, and Conservation X Labs, a technology solutions company, to institute a Global Cooling Prize to motivate research laboratories across the world to develop highly efficient cooling technologies.

PEPPER IT WITH  
Montreal protocol, Amendment to Montreal protocol, RAMSAR Convention on Wetlands, Stockholm Conference, Convention Concerning the Protection of World Cultural and Natural Heritage, CITES, Convention on Migratory Species of Wild Animals

#### Phasing out HFCs

In 2016, India was a signatory to a compact of 107 countries to “substantially phase” out a potent greenhouse gas, called hydrofluorocarbons (HFC), by 2045 and move to prevent a potential 0.5 C rise in global temperature by 2050.

HFCs are a family of gases that are largely used in refrigerants at home and in car air-conditioners. However, they substantially worsen global warming. India, China, the United States and Europe have committed themselves to reducing the use of HFC by 85% by 2045.

### Eco-sensitive zones

#### In News

- The National Green Tribunal (NGT) has asked the Ministry of Environment, Forests and Climate Change (MoEF&CC) to consider

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declaring all elephant corridors in the country as eco-sensitive zones.

- The observations came while the green panel was hearing a plea moved by Assam resident that highlighted the increasing number of unnatural elephant deaths taking place in the state.
- Owing to the increased denudation and loss of their forest habitats, elephants have come increasingly into conflicts with humans and faced deliberate retaliatory killings and accidents at railway crossings, high tension power lines, power fences and trenches.

India's First Elephant Hospital

- ❖ India's first specialized hospital for elephants was opened Agra.
- ❖ The unique medical centre offers wireless digital X-ray, laser treatment, dental X-ray, thermal imaging, ultrasonography, hydrotherapy and quarantine facilities.
- ❖ Located close to the elephant conservation and care centre, the hospital is designed to treat injured, sick or geriatric elephants and is equipped with a medical hoist for lifting elephants, as also an elephant restraining device with a dedicated indoor treatment enclosure for long duration medical procedures.

Eco-sensitive zones

Eco-Sensitive Zones (ESZs) or Ecologically Fragile Areas (EFAs) are areas notified by the Ministry of Environment, Forests and Climate Change (MoEFCC), Government of India around Protected Areas, National Parks and Wildlife Sanctuaries. The purpose of **declaring ESZs is to create some kind of "shock absorbers" to the protected areas by regulating** and managing the activities around such areas. They also act as a transition zone from areas of high protection to areas involving lesser protection.

PEPPER IT WITH  
Zoological survey of India, Nairobi Declaration, Helsinki Declaration, IPCC, Dolphin research centre, WAYU

Himalayan State Regional Council

In News

In a bid to ensure sustainable development of the Himalayan region, NITI Aayog recently constituted the Himalayan State Regional Council (HSRC).

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Background

Recognizing the uniqueness of the Himalayas and the challenges for sustainable development, Five Working Groups were constituted by NITI Aayog last year. These Working Groups were tasked with preparing a roadmap for action across five thematic areas namely,

- I. Inventory and Revival of Springs in Himalayas for Water Security,
- II. Sustainable Tourism in Indian Himalayan Region,
- III. Shifting Cultivation: Towards Transformation Approach,
- IV. Strengthening Skill & Entrepreneurship (E&S) Landscape in Himalayas, and
- V. Data/Information for Informed Decision Making.

Country's first owl festival

- ❖ **The Indian Owl Festival, the country's first owl fest,** was held at Pingori village in Purandar taluka of Pune.
- ❖ The two-day festival, organised by Ela Foundation, an NGO working towards nature education and conservation.
- ❖ Of the 262 species of owls that are found in the world, 75 feature in the red data book — meaning they are threatened.

### About HSRC

- Objective:** The Council has been constituted to review and implement identified action points based on the Reports of five Working Groups, which were established along thematic areas to prepare a roadmap for action.
- Composition:** The Himalayan State Regional Council will be chaired by the Dr VK Saraswat, Member, NITI Aayog and will consist of the Chief Secretaries of the 12 Himalayan States as well as the Secretaries of key Central Ministries, senior officers of NITI Aayog as well as special invitees.
- Report:** The five thematic reports were released by the NITI Aayog in 2018 and framed the action points for the Terms of Reference of the Council constituted.
- Function & Power:** The Himalayan States Regional Council will be the nodal agency for the Sustainable development in the Himalayan Region which consists of the twelve States including Jammu & Kashmir, Uttarakhand and Himachal Pradesh.
- The terms of reference of the Council states that it shall monitor the implementation of action points for Central Ministries, Institutions and 12 Himalayan State Governments in Indian Himalayan Region.
- Area Of work:** river basin development and regional cooperation, spring mapping and revival across Himalayas in phased manner for water security; develop, implement and monitor tourism sector standards as well as bring policy coherence, strengthen skill & entrepreneurship with focus on identified priority sectors, among other action points.

PEPPER IT WITH REDD+, NGT, Namami Ganga, Neela Kurinji plants, TX2 program

### NGT to fine thermal plants over fly ash

#### In News

The National Green Tribunal (NGT) has imposed penalties of up to ₹5 crore on thermal power plants that have not fully disposed of the fly ash they generated.

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The “environmental damages” for not meeting the 100% fly ash disposal criterion will have to be deposited with the Central Pollution Control Board in a month, failing which these power plants will have to pay interest of 12% per annum. This makes it legally binding for all thermal power plants to ensure complete disposal of or utilization of fly ash immediately.

PEPPER IT WITH Chilika Lake, Bombay natural history society, Cheetah reintroduction program, Fly ash utilization policy

#### Background

A union environment ministry notification, states that thermal power plants commissioned before the date of the notification will have to ensure 100% fly ash utilisation in five years. Those commissioned after the notification have to ensure 100% compliance within four years of the date of commissioning.

An earlier notification, requires manufacturers of clay bricks, tiles or construction activities to mix at least 25% of fly ash so that full disposal can be achieved in nine years. This was amended in 2016 and the date for full utilization of fly ash was extended to December 31, 2017.

#### Significance

- The order is significant because of the high contribution of fly ash to air and water pollution and its impact on crops being grown in villages around these plants.

- Fly ash is a major source of PM 2.5 (fine, respirable pollution particles) in summer. It becomes air borne, and gets transported to a radius of 10 to 20 kms. It can settle on water and other surfaces. Fly ash contains heavy metals from coal, a large amount of PM 2.5 and black carbon (BC). Proper disposal of fly ash is still not happening in many places.

## Faunal Diversity of Biogeographic Zones

### Why in News?

A recent publication by the Zoological Survey of India (ZSI) titled Faunal Diversity of Biogeographic Zones: Islands of India has for the first time come up with a database of all faunal species found on the island, putting the number at 11,009. The documentation proves that the **islands, comprising only 0.25% of India's geographical area, are home to more than 10% of the country's fauna species.**

The total area of the A&N Islands, which comprises of 572 islands, islets and rocky outcrops, is about 8,249 sq. km. The population of the islands, which includes six particularly vulnerable tribal groups (PVTGs) — Great Andamanese, Onge, Jarawa, Sentinelese, Nicobarese and Shompens — is not more than 4 lakh.

### Highlights of report

1. The Narcondam hornbill, its habitat restricted to a lone island; the Nicobar megapode, a bird that builds nests on the ground; the Nicobar treeshrew, a small mole-like mammal; the Long-tailed Nicobar macaque, and the Andaman day gecko are found only on the Andaman and Nicobar Islands.
2. Of the ten species of marine fauna found on the islands, the dugong/sea cow, and the Indo-Pacific humpback dolphin, are both classified as Vulnerable under the IUCN (International Union for Conservation of Nature) Red List of Threatened Species.
3. Among the 46 terrestrial mammalian species found, three species have been categorised as Critically Endangered — Andaman shrew (*Crocidura andamanensis*), **Jenkin's shrew (*C. jenkinsi*)** and Nicobar shrew (*C. nicobarica*).
4. **Another unique feature of the islands' ecosystem is its marine faunal diversity, which includes coral reefs and its associated fauna.**
5. In all, 555 species of scleractinian corals (hard or stony corals) are found in the island ecosystem, all which are placed under Schedule I of the WPA. Similarly, all species of gorgonian (sea fans) and calcerous sponge are listed under different schedules of the WPA.

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**PEPPER IT WITH**  
Compensatory afforestation fund, Earth overshoots day, Snow leopard, Nilgiri tahr, Clouded leopard, Red panda

### New species of shark identified in Indian Ocean

- ❖ A new species of a deep sea shark has been found in the northern Indian Ocean, the first such discovery in India since 2011 when the Mangalore houndshark was identified. The Pygmy false catshark is currently known only from deep waters (200-1000m depth) and has a length of about 65cm. It is dark brown without any prominent patterns.
- ❖ The new species was found off the southwestern coast of India and north of Sri Lanka. Its scientific name is *Planonasmus indicus* – from 'planus' meaning flat and 'nasus' meaning nose.

## SSB to patrol Dudhwa tiger reserve

### Why in News?

Dudhwa Tiger Reserve and Sashastra Seema Bal have joined hands to provide security to Dudhwa forests and its rich wildlife.

It was agreed that joint long route patrolling comprising SSB, STPF and DTR field staff would be held at regular intervals. Stress was also laid

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on intelligence and information sharing among various security agencies about activities of wildlife and forest criminals.

Dudhwa tiger reserve

1. Dudhwa National park is a beautiful place, located in the Lakhimpur-Kheri district of the state of Uttar Pradesh. Dudhwa National park (DNP) is a part of Dudhwa Tiger Reserve. This region comes under the sub Himalayan area called as Terai belt.
2. DNP is a home to more than 38 species of mammals, 90 species of fish, 400 species of birds and 16 species of reptiles. The park is home to Tiger, Rhinoceros, Swamp deer, Elephant, Sambar, Hog deer, Cheetal and common mongoose etc. It is also inhabited by rattling diversity of birds, including Swamp Francolin, Bengal Florican and Great Slaty Woodpecker.
3. The main attraction of the park is its Swamp Deers (Barasingha) and Tigers. The park is famous for untiring efforts of **‘Billy’ Arjan Singh**, the conservationist who played an instrumental role in creation of Dudhwa as sanctuary for Swamp Deer.
4. THE BIG FIVE OF DUDHWA- Tiger, Rhinoceros, Barasingha, Crocodile and Garuda.

PEPPER IT WITH  
ALien invasive species, Kaziranga national park, Sangai deer, Orange national park, Rajaji national park

**HOG DEER**

Why in News?

Indian scientists have discovered the presence of a sub-species of hog deer, *Axis porcinus annamiticus*, in Keibul Lamjao National Park (KLNP) in Manipur. This endangered sub-species was earlier believed to be confined to the eastern part of central Thailand.

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Hog deer

- The hog deer or 'Pada' is an endangered species in the IUCN Red List and is protected under Schedule I of the Indian Wild Life (Protection) Act, 1972.
- Hog deer has lost ground in most of its distribution range. Presently, its small and fragmented population is known to be found in Cambodia. A small and isolated population of under 250 was reported from Cambodia. However, it was widely distributed throughout the Southeast Asian countries at the beginning of the 20th century.

PEPPER IT WITH  
Bengal Tigers, Asiatic Lion, Black Buck, Lion Tailed Macaque, Amur leopard, Gharial, Hangul

**BASIC states ask developed countries to scale up financial aid**

Why in News?

Ahead of the UN climate conference in Poland, the BASIC (Brazil, South Africa, India and China) group met to put pressure on developed countries to meet pre-2020 climate efforts, and to “progressively” and “substantially” scale up their financial support for future action.

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The group, through a joint statement, urged developed countries to take urgent actions to close the pre-2020 implementation gaps by 2023 which they said can be a useful input for the first Global Stocktake (GST) — which they said should be conducted in light of equity and the best available science.

Global Stocktake (GST)

- ‘Global stocktake’ refers to a proposed five-yearly review of the impact of countries’ climate change actions. Under the Paris Agreement, every country must present a climate action plan in five-yearly cycles.
- Under the Paris Agreement, the first global stocktake will happen in 2023. It will assess whether the net result of the climate actions being taken was consistent with the goal of keeping the increase in global average temperature from pre-industrial times to

within 2 degree Celsius. The stocktake will help the world determine whether it needs to do more - and how much more.

- While every country is required to participate in the global stocktake, the exercise will not assess whether actions of any individual country are adequate or not. It will **only make an assessment of the “collective”** efforts of the world. That is because the **climate actions are supposed to be “nationally determined”, and nations have problems over** being told by others what they should do. The stocktake will not go into who should do how much — and will rather focus on what needs to be done.
- In accordance with the demands of developing countries, the stocktake will cover not only the results of actions to reduce greenhouse gas emissions but of actions being taken to adapt to the effects of climate change as well.
- It will also include an assessment of whether developed countries are offering adequate help to developing countries by providing money and technology, as mandated by the Paris Agreement.

PEPPER IT WITH  
CoP, UNFCCC, UNEP, Green climate fund, Paris agreement, Nationally determined contribution, BASIC

El Nino very likely in 2019

Why in News?

There is a 75-80% chance of a climate-warming El Niño event by **February, according to the latest analysis from the UN’s World Meteorological Organization.**

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Background

The last El Niño event ended in 2016 and helped make that year the hottest ever recorded by adding to the heating **caused by humanity’s carbon** emissions. The 2019 event is not currently forecast to be as strong as in 2016.

The following year, 2017, was ranked equal second, but was the hottest for a year without an El Niño. Scientists expect 2018, which saw climate-related disasters around the globe, to be the fourth hottest on record.

El Nino

El Niño events occur naturally every few years and stem from abnormally high ocean temperatures in the western Pacific. They have a major influence on weather

around the globe, bringing droughts to normally damp places, such as parts of Australia, and floods to normally drier regions, such as in South America. The high temperatures also cause major bleaching on coral reefs.

El Niño is a climate cycle in the Pacific Ocean with a global impact on weather patterns. The cycle begins when warm water in the western tropical Pacific Ocean shifts eastward along the equator toward the coast of South America. Normally, this warm water pools near Indonesia and the Philippines. During an El Niño, the Pacific’s warmest surface waters sit offshore of northwestern South America.

Global Cooling Prize

- ❖ The Global Cooling Prize, an international competition to incentivize the development of a residential cooling technology that will have at least five times (5x) less climate impact than the standard Room Air Conditioning (RAC) was announced at the inaugural session of the two day Global Cooling Innovation Summit.
- ❖ The prize is supported by Mission Innovation, the Government of India through the Department of Science and Technology and its partner organizations. A winning technology could prevent up to 100 gigatons (GT) of CO2-equivalent emissions by 2050, and put the world on a **pathway to mitigate up to 0.5°C of warming by 2100.**

### Effects of El Niño

1. The warmer waters in the central and eastern tropical Pacific Ocean have important effects on the world's weather.
2. An El Niño creates stronger wind-shear and more-stable air over the Atlantic, which makes it harder for hurricanes to form. However, the warmer-than-average ocean temperatures boost eastern Pacific hurricanes, contributing to more-active tropical storm seasons.
3. Strong El Niños are also associated with above-average precipitation in the southern tier of the United States from California to the Atlantic coast. The cloudier weather typically causes below-average winter temperatures for those states, while temperatures tilt warmer-than-average in the northern tier of the United States. Rainfall is often below average in the Ohio and Tennessee valleys and the Pacific Northwest during an El Niño.
4. Record rainfall often strikes Peru, Chile and Ecuador during an El Niño year. Fish catches offshore South America are typically lower than normal because the marine life migrates north and south, following colder water.
5. El Niño also affects precipitation in other areas, including Indonesia and northeastern South America, which tend toward drier-than-normal conditions. Temperatures in Australia and Southeast Asia run hotter than average.
6. El Niño-caused drought can be widespread, affecting southern Africa, India, Southeast Asia, Australia, the Pacific Islands and the Canadian prairies.

PEPPER IT WITH  
 ENSO, ITCZ, Monsoon, Ocean waves,  
 Tsunami, La nina, Jet waves,  
 Medditarranean climate, Medagascar,  
 Biodiversity hotspots, Ring of fire

### CLIMATE VULNERABLE FORUM Virtual Summit

#### Why in News?

The CVF presidency of the Republic of Marshall Islands (RMI) convened a Head of Government level Summit in an entirely virtual format—the 2018 CVF Virtual Summit.

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In light of the UNFCCC Talanoa Facilitative Dialogue to take stock of global efforts to fulfill the Paris Agreement long-term goal to limit the increase in global temperatures, the CVF High Level Meeting at Marrakech, Morocco called for the holding of a Summit of the CVF in 2018.

The Talanoa Dialogue is a process designed to help countries implement and enhance their Nationally Determined Contributions by 2020. The Dialogue was mandated by the Parties to the United Nations Framework Convention for Climate Change to take stock of the collective global efforts to reduce the emissions of greenhouse gases, in line with the goals of the Paris Agreement, which is to limit the rise in average global temperature to 2°C above pre-industrial levels, and to pursue efforts to limit the increase to 1.5°C.

#### About the Summit

The 2018 CVF Virtual Summit aims to contribute to momentum and the raising of levels of climate action and ambition during the 2018-2020 period towards the safeguard of **the world’s most vulnerable groups** from climate change threats. The Summit seeks to encourage the sharing of stories and perspectives on climate risks, new national actions and opportunities related to climate action, supporting decisions that serve the **collective good in accordance with the Pacific concept of “Talanoa”**.

The 2018 CVF Summit was organized **entirely online** as a “Virtual Summit”. **The use of this** format aimed to maximize cost-effectiveness, inclusivity and global participation, while minimizing any adverse climate impacts of the meeting in a demonstration of what can be achieved with the solutions of today. The Summit featured live and interactive online sessions and the statements of Heads of Government broadcast virtually.

CVF

1. The Climate Vulnerable Forum (CVF) is an international partnership of countries highly vulnerable to a warming planet. The Forum serves as a South-South cooperation platform for participating governments to act together to deal with global climate change.
2. The Climate Vulnerable Forum (CVF) brings together government leaders representing 48 developing countries vulnerable to climate change. Nations participating in the Climate Vulnerable Forum are also members of the Vulnerable Twenty (V20) Group.
3. CVF member states: Afghanistan, Bangladesh, Barbados, Bhutan, Burkina Faso, Cambodia, Colombia, Comoros, Costa Rica, Democratic Republic of the Congo, Dominican Republic, Ethiopia, Fiji, The Gambia, Ghana, Grenada, Guatemala, Haiti, Honduras, Kenya, Kiribati, Lebanon, Madagascar, Malawi, Maldives, Marshall Islands, Mongolia, Morocco, Nepal, Niger, Palau, Palestine, Papua New Guinea, Philippines, Rwanda, Saint Lucia, Samoa, Senegal, South Sudan, Sri Lanka, Sudan, Tanzania, Timor-Leste, Tunisia, Tuvalu, Vanuatu, Viet Nam and Yemen.

PEPPER IT WITH  
 Marshall island, Global climate forum,  
 National adaptation fund for climate  
 change, CoP24, International  
 conference on climate change

**RIMES terms Titli cyclone ‘rarest of rare’**

Why in News?

The Regional Integrated Multi-Hazard Early Warning System (RIMES) for Africa and Asia, a 45-nation international organisation on disaster **warning, has termed ‘Titli’,** the severe cyclonic storm that devastated Odisha in October, as **‘rarest cyclone’.**

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Details

- The UN-registered organisation said: Considering the history of cyclone tracks, no synthetic track projection captures the Titli type of cyclones. The forecast information available lacks actionable early warning information such as no indication of occurrence of secondary hazards, including landslides far away from the coasts.
- India Meteorological Department had called the **formation of Titli as a ‘rarest of rare’ occurrence.** The severe cyclone had changed its path after landfall.
- The RIMES has recommended that a detailed risk assessment has to be carried out for Odisha to understand the risks in the light of the Titli devastation.

14th Formation Day of NDMA  
 14th Formation Day of National Disaster Management Authority (NDMA) was celebrated with the **theme of ‘Early Warning for Disasters’.**

RIMES

1. The Regional Integrated Multi-Hazard Early Warning System for Africa and Asia (RIMES) is an international and intergovernmental institution, owned and managed by its Member States, for the generation and application of early warning information. RIMES evolved from the efforts of countries in Africa and Asia, in the aftermath of the 2004 Indian Ocean tsunami.
2. It operates from its regional early warning center located at the campus of the Asian Institute of Technology in Pathumthani, Thailand.
3. RIMES caters to differential needs and demands of its Member States by enhancing capacities for end-to-end multi-hazard early warning, in particular:
  - ✓ Hazard monitoring, detection, analysis, prediction, and forecasting
  - ✓ Risk assessment
  - ✓ Potential impact analysis

PEPPER IT WITH  
 Typhoons, Hurricanes, Titli,  
 Hindukush, Earthquake early  
 warning system

- ✓ Generation of tailored risk information at different time scales
- ✓ Risk communication
- ✓ Application of tailored risk information in decision-making

Cyclones

- Cyclone, any large system of winds that circulates about a centre of low atmospheric pressure in a counterclockwise direction north of the Equator and in a clockwise direction to the south.
- Cyclonic winds move across nearly all regions of the Earth except the equatorial belt and are generally associated with rain or snow. Also occurring in much the same areas are anticyclones, wind systems that rotate about a high-pressure centre.
- Anticyclones are so called because they have a flow opposite to that of cyclones— i.e., an outward-spiraling motion, with the winds rotating clockwise in the Northern Hemisphere and counterclockwise in the Southern. These winds are usually not as strong as the cyclonic variety and commonly produce no precipitation.
- Cyclones occur chiefly in the middle and high latitude belts of both hemispheres. Cyclones that form closer to the Equator (i.e., at latitudes 10° to 25° north and south over the oceans) differ somewhat in character from the extra tropical variety.
- Such wind systems, known as tropical cyclones, are much smaller in diameter. Whereas extratropical cyclones range from nearly 1,000 to 4,000 km (620 to 2,500 miles) across, tropical cyclones typically measure only about 100 to over 1,000 km in diameter.

4 new frog species discovered in Northeast

- A team of biologists have discovered four new species of horned frogs from the Northeast.
- The scientists named the four new Indian species as the Himalayan horned frog (*Megophrys himalayana*), the Garo white-lipped horned frog (*Megophrys oreocrypta*), the yellow spotted white-lipped horned frog (*Megophrys flavipunctata*) and the giant Himalayan horned frog (*Megophrys periosa*). The four species were found at different places in Arunachal Pradesh, Meghalaya and Nagaland.

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NASA's DAWN MISSION

In News

The Dawn mission team found that the spacecraft was out of hydrazine fuel. Since hydrazine powers Dawn's thrusters, it can no longer point itself in orientations to study Ceres, relay information back to Earth or charge its solar panels.

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DAWN Mission

- Dawn surveyed two of the largest asteroids in the main asteroid belt — Ceres and Vesta. Both these objects were studied as likely 'protoplanets' — large orbiting rocks thought to be gradually forming a planet.
- Over its 14-month survey of Vesta, Dawn discovered liquid water once flowed on the protoplanet's surface, and that the protoplanet sports a mountain as tall as Mars's famous Olympus Mons.

PEPPER IT WITH OSIRIS Rex, Benu, Asteroid Redirect Mission, HAMMER, Asteroid deflection program, Kepler Belt, Primitive asteroids

- The spacecraft arrived on Ceres in 2015, making it the first spacecraft to orbit a dwarf planet and the first to orbit two celestial bodies apart from the Earth and Moon.
- Dawn's data sets will be deeply mined by scientists working on how planets grow and differentiate, and when and where life could have formed in our solar system.

**AstroSat**

Why in News?

Indian astrophysicists have discovered large ultraviolet lobes and jets that were hurled out from a dying star, using data from AstroSat – space observatory launched by the Indian Space Research Organisation (ISRO) in 2015.

Scientists used the Ultra-Violet Imaging Telescope (UVIT) on board AstroSat to stare at a planetary nebula called NGC 6302, popularly known as the Butterfly Nebula.

Planetary Nebula

- A planetary nebula is formed when a star like our Sun, or a few times heavier, is in its dying days. The term, a misnomer now, was coined by astronomers in the 19th century since the nebula looked like planets through their telescopes.
- When hydrogen and helium fuel that kept the star shining gets exhausted, the star expands in size and becomes a red giant star.
- Such stars shed most of their outer layers which expands outwards, and the inner core, made of carbon and oxygen, shrinks further and becomes hotter. This hot core shines brightly in the ultraviolet, and ionizes the expanding gas. This glowing ionized gas is what is seen as a planetary nebula.

This discovery was made possible because of the uniqueness of UVIT. Of all the ultraviolet telescopes in space, UVIT is special in its ability to image a large field of view with a very high resolution, or detail.

OSIRIS-REx

OSIRIS-REx will travel to a near-Earth asteroid called Bennu and bring a small sample back to Earth for study. As planned, the spacecraft will reach Bennu in 2018 and return a sample to Earth in 2023.

The asteroid sampling mission was launched in September 2016, and the spacecraft has since been traveling through space to catch up to an asteroid known as Bennu, which has a diameter of about 500 meters.

AstroSat

**ASTROSAT is India's first dedicated multi wavelength space observatory. This scientific satellite mission endeavours for a more detailed understanding of our universe. One of the unique features of ASTROSAT mission is that, it enables the simultaneous multi-wavelength observations of various astronomical objects with a single satellite. ASTROSAT observes universe in the optical, ultraviolet, low and high energy X-ray regions of the electromagnetic spectrum, whereas most other scientific satellites are capable of observing a narrow range of wavelength band.**

PEPPER IT WITH  
AstroSat Picture of the Month series, Public Outreach and Education Committee, Cartosat, Resourcesat

**Kepler space telescope**

In News

The Kepler space telescope has run out of fuel and will be retired after a 9-1/2-year mission in which it detected thousands of planets beyond our solar system and boosted the search for worlds that might harbour alien life.

Currently orbiting the sun 156 million km from the earth, the spacecraft will drift further from our planet when mission engineers turn off its radio transmitters.

PEPPER IT WITH  
NASA's Discovery program, Cygnus, Kepler K2, Goldilock Zones, Neutron Stars, Supernova, Blackhole

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Kepler Space Telescope

- NASA's Kepler Space Telescope is an observatory in space dedicated to finding planets outside our solar system, particularly alien planets that are around the same size as Earth in the "habitable" regions of their parent star.
- The astronomers have discovered thousands of extra-solar planets, or exoplanets, through this telescope alone. Most of them are planets that are ranging between the size of Earth and Neptune. Most of these planets were discovered in a small region of the constellation Cygnus, at which Kepler was pointed for the first four years of its mission.
- It is part of NASA's Discovery program, which targets lower-cost spacecraft for exploration of the solar system.

Orion

NASA's Orion spacecraft is built to take **humans farther than they've ever gone** before. Orion will serve as the exploration vehicle that will carry the crew to space, provide emergency abort capability, sustain the crew during the space travel, and provide safe re-entry from deep space return velocities. Orion **will launch on NASA's new heavy-lift rocket**, the Space Launch System.

The Earth has not one, but three moons

Why in News?

A group of Hungarian scientists have confirmed a long standing astronomical speculation—the Earth has three natural satellites or moons and not one.

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Details

- The new moons are entirely made up of extremely tiny dust particles of less than one millimetre size and reflect light rather faintly. This is the reason why they were difficult to observe and study in the first place even when they are located at around the same distance as the Moon from the Earth—400,000 kilometres.
- With this collected data, the astronomers were able to establish that the moons are spread across an expanse of 1,00,000 km by 70,000 km in space. This is equivalent to 30 by 20 lunar disks.
- Though the dust clouds themselves are ancient the particles that they are comprised of change and are replaced over time. They take in dust from various sources—remnants of planets, comets, meteors, asteroids and other objects loitering around in space.
- When the Earth, the Sun or the Moon destabilise, the particles slip away with their gravity and particles from other sources replace them.

HysIS

- ❖ The Indian Space Research Organisation's (ISRO) Polar Satellite Launch Vehicle (PSLV-C43) successfully launched 31 satellites from Satish Dhawan Space Centre (SDSC) in Sriharikota.
- ❖ It is an earth observation satellite built around ISRO's Mini Satellite2 (IMS-2) bus weighing about 380kg. The mission life of the satellite is five years.
- ❖ The primary goal of HysIS is to study the **earth's surface in both the visible**, near infrared and shortwave infrared regions of the electromagnetic spectrum.
- ❖ Data from the satellite will be used for a wide range of applications including agriculture, forestry, soil/geological environments, coastal zones and inland waters, etc.

Kordylewski Dust Clouds

- Kazimierz Kordylewski, a Polish scientist had observed these moons for the first time and they were later named after him as Kordylewski Dust Clouds (KDCs). But their existence has been

PEPPER IT WITH

Trojans, Mohammed VI-B,  
NovaSAR, Kepler space  
telescope, Gaofen, Vikas  
engine

questioned by astronomers for the past six decades and not many accurate models or simulations of these objects are available.

- Kordylewski had discovered the dust clouds close to a special point in space known as L5 which is a Lagrange point of the Earth-Moon gravitational system. Lagrange points are places of equilibrium in space where gravitational forces of two large and solid astronomical objects like the Earth and the Moon cancel out the centrifugal forces. Many other small celestial objects are often found around Lagrange points.

### NASA’s Ralph and Lucy

#### In News

NASA’s Ralph and Lucy are all set to explore **Jupiter’s Trojan** asteroids, which are remnants from the earliest days of our solar system.

Ralph is a space instrument that has travelled as far as Pluto, while Lucy is a mission payload, or the spacecraft which would be carrying various scientific instruments including Ralph to study the properties of the asteroids. The mission scheduled for launch in October 2021 would be the very first space mission to study the Trojans.

#### Lucy

- The name Lucy’ was taken from the name of the fossil of the earliest human ancestor yet discovered. Just like the finding of this skeleton had provided important insight into human evolution, scientists hope the Lucy mission will also be able to tell us more about our planetary origins.
- The Lucy mission will comprise a 12-year journey with a fly-by to seven different asteroids -- six Trojan asteroids and a Main Belt asteroid -- more than any other previous asteroid mission.

PEPPER IT WITH  
Mars Cube One, Tiangong,  
Yaogan-30, Antrix, Aditya-1,  
Halo orbit, Lagrangian point

#### Ralph

- Ralph first launched aboard the New Horizons spacecraft in 2006 and obtained stunning flyby images of Jupiter and its moons.
- This was followed by a visit to Pluto where Ralph took the first high-definition pictures of the iconic minor planet
- Given a name and not an acronym, Ralph enables the study of the composition and atmospheres of celestial objects.

#### Trojan asteroids

- ✓ Trojan asteroid, also called Trojan planet, any one of a number of asteroids that occupy **a stable Lagrangian point in a planet’s orbit around the Sun.**
- ✓ The Trojan asteroids orbit Sun in two loose groups -- one group is always ahead of Jupiter (called the Greek camp) in its path while the other is always behind (called the Trojan camp).

### Experimental Advanced Superconducting Tokamak (EAST)

#### In News

China has built an 'artificial sun' that reaches temperature six times that of the core of our closest star. The state-of-the-art reactor is designed to replicate the processes of the sun as part of a project to turn

hydrogen into cost-effective green energy.

It reached a key milestone when it hit 180 million F (100 million C) for the first time, which is believed to be the temperature at which nuclear fusion occurs. Scientists believe that nuclear fusion occurs at 180 million F - causing charged deuterium and tritium particles join together in a

PEPPER IT WITH  
Nuclear fusion, Nuclear reactors,  
Kandakulum nuclear power plant,  
Atomic energy regulatory board,  
Prototype fast breeder reactor

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huge burst of energy.

Tokamak

- The goal of the team's Experimental Advanced Superconducting Tokamak (EAST) is to better understand the process of fusion ahead of building a full reactor. Nuclear fusion reactors work differently to fission reactors because they fuse two nuclei, rather than splitting them.
- EAST currently holds the world record for sustaining a reaction in a Tokamak - a poultry 101.2 seconds.
- The Tokamak is the world's most developed magnetic confinement system and is the basis for the design of many modern fusion reactors. It involves light elements, such as hydrogen, smashing together to form heavier elements, such as helium.
- For fusion to occur, hydrogen atoms are placed under high heat and pressure until they fuse together. Tokamak Energy, a nuclear fusion company based in Oxfordshire, claims it will build a fusion reactor for power generation by 2030.

Heavenly Palace

- ❖ China unveiled a replica of its first permanently crewed space station, which would replace the international community's orbiting laboratory and symbolises the country's major ambitions beyond Earth.
- ❖ The model represented the living and working space of the Tiangong — or "Heavenly Palace" — which will also have two other modules for scientific experiments and will be equipped with solar panels.
- ❖ Three astronauts will be permanently stationed in the 60-tonne orbiting lab, which will enable the crew to conduct biological and microgravity research. Assembly is expected to be completed around 2022 and the station would have a lifespan of around 10 years.
- ❖ The International Space Station- a collaboration between the United States, Russia, Canada, Europe and Japan has been in operation since 1998 but is due to be retired in 2024.

GROWTH-India telescope

In News

The 0.7 m GROWTH-India telescope at the Indian Astronomical Observatory located in Hanle, Ladakh, has made its first science observation which is a follow-up study of a nova explosion.

The GROWTH-India telescope is part of the Global Relay of Observatories Watching Transients Happen (GROWTH). Its goals are threefold:

- I. Search for explosions in the optical regime whenever LIGO group detects a Binary Neutron Star merger
- II. study nearby young supernova explosions
- III. Study nearby asteroids

PEPPER IT WITH  
LIGO, CERN, Gravitational waves,  
Supernova, Neutron star, Red dwarf,  
Big bang theory, Higgs boson

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GROWTH

- It is a 5 year project, funded by the National Science Foundation to advance our understanding of cosmic transient events - supernovae, white dwarf detonations, merging neutron stars, fast moving near-earth asteroids, gamma-ray bursts and more.
- Led by Caltech, GROWTH partner institutions from around the world have created a network of telescopes to continuously observe the transient sky unbeaten by sunrise. Such extended observations in the first 24 hours after a cosmic transient is detected help to localize the primary sources of gravitational waves, identify the long sought cosmic location of heavy element production, track and analyze small near-earth asteroids and much more.

Novae

Novae are explosive events involving violent eruptions on the surface of white dwarf stars, leading to temporary increase in brightness of the star. Unlike a supernova, the star does not go on to die but returns to its earlier state after the explosion.

**NASA’s InSight spacecraft**

In News

A NASA spacecraft designed to burrow beneath the surface of Mars landed on the red planet after a six-month, 300 million-mile (482 million km) journey.

It was NASA’s ninth attempt to land at Mars since the 1976 Viking probes. All but one of the previous U.S. touchdowns were successful. NASA last landed on Mars in 2012 with the Curiosity rover.

InSight mission

- InSight, short for Interior Exploration using Seismic Investigations, Geodesy and Heat Transport, is a Mars lander designed to give the Red Planet its first thorough checkup since it formed 4.5 billion years ago. It is the first outer space robotic explorer to study in-depth the "inner space" of Mars: its crust, mantle, and core.
- This mission is part of NASA's Discovery Program for highly focused science missions that ask critical questions in solar system science.
- Studying Mars' interior structure answers key questions about the early formation of rocky planets in our inner solar system - Mercury, Venus, Earth, and Mars - more than 4 billion years ago, as well as rocky exoplanets. InSight also measures tectonic activity and meteorite impacts on Mars.

PEPPER IT WITH ALMA observatory, Proxima cantauri, Mars 2020 mission, Tracking and data relay satellite system, Venus satellite

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Why Mars?

In comparison to the other terrestrial planets, Mars is neither too big nor too small. This means that it preserves the record of its formation and can give us insight into how the terrestrial planets formed. It is the perfect laboratory from which to study the formation and evolution of rocky planets. Scientists know that Mars has low levels of geological activity. But a lander like InSight can also reveal just how active Mars really is.

**Impact Based Forecasting Approach**

Why in News?

A new technology has been developed to assess the rise in water level in rivers and reservoirs due to rain and can help State governments to minutely monitor the impact of rainfall. The technology called the **‘Impact Based Forecasting Approach’ which shows “pre-event scenario” can help authorities in taking real-time decisions.**

Background

- The heavy downpour that ravaged Kerala for a fortnight in August this year caused death of around 500 people and economic damage of over ₹40,000 crore. Kerala Chief Minister had said in the State assembly that there were “lapses” on the part of the IMD’s rain forecast.
- The IMD had forecast an estimated 98.5 mm rain in the State between August 9 and 15, but Kerala received 352.2 mm of rainfall. The IMD director general attributed the excessive rainfall to climate change.

PEPPER IT WITH Minmata convention, WMO, International seabed authority, Ensemble prediction system, NCMRWF, SEZ

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### IMD

1. The India Meteorological Department, also referred to as the Met Department, is an agency of the Ministry of Earth Sciences of the Government of India. It is headed by the Director General of Meteorology.
2. It is the principal agency responsible for meteorological observations, weather forecasting and seismology. IMD is headquartered in Delhi and operates hundreds of observation stations across India and Antarctica. Regional offices are at Mumbai, Kolkata, Nagpur and Pune.
3. It is also one of the six Regional Specialised Meteorological Centres of the World Meteorological Organization. It has the responsibility for forecasting, naming and distribution of warnings for tropical cyclones in the Northern Indian Ocean region, including the Malacca Straits, the Bay of Bengal, the Arabian Sea and the Persian Gulf.

### Definition of kilogram redefined

#### In News

At the General Conference on Weights and Measures, in Versailles, Paris, the definition of kilogram was changed forever.

In a historic judgment, more than 60 nations came together to vote unanimously for a new system that redefines the kilogram along with three other units, the ampere (electrical current), the kelvin (thermodynamic temperature) and the mole (amount of a substance).

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#### How was it defined before?

The kilogram has been defined since 1889 by a shiny piece of platinum-iridium kept in a special glass case, the International Prototype of the Kilogram (IPK), also known as Le Grand K. It is housed at the ureau of Weights and Mea headquarters of the International Bsures (BIPM), Paris.

#### Why is the kilogram redefined?

The problem is, the IPK doesn't always weigh the same. Even inside its three glass bell jars, it picks up microparticles of dirt and is affected by the atmosphere. Sometimes it needs cleaning, which can affect its mass. That can have profound implications. If the prototype were to lose mass, atoms would, in theory, weigh more since the base kilogram must by definition always weigh a kilogram.

#### GSAT-29

- ❖ **India's GSAT-29** communication satellite was successfully launched by the second developmental flight of Geosynchronous Satellite Launch Vehicle MarkIII (GSLV MkIII-D2) from the Satish Dhawan Space Centre (SDSC) SHAR, Sriharikota.
- ❖ GSLV Mk III is a three-stage heavy lift launch vehicle developed by the Indian Space Research Organisation (ISRO).
- ❖ GSAT-29 is a multiband, multi-beam communication satellite, intended to serve as test bed for several new and critical technologies.
- ❖ Its Ku-band and Ka-band payloads are configured to cater to the communication requirements of users including those from remote areas especially from Jammu & Kashmir and North-Eastern regions of India.

#### How will it be defined now?

- A kilogram will be defined by a tiny but immutable fundamental value called the 'Planck constant.'
- The new definition involves an exquisitely accurate weighing machine called the Kibble balance, which makes use of the constant to measure the mass of an object using a precisely measured electromagnetic force.
- While the extra accuracy will be a boon to scientists, for the average consumer buying flour or bananas, there will be absolutely no change whatsoever.

**PEPPER IT WITH**  
 Coal gasification fertilizer plant, Cyclone-30, Deep learning technology, DeepHack, Aeolus, Aerogel

- Suffice to say that the updated definition will, in time, spare nations the need to occasionally send their kilos back to France for calibration against the Grand K. Scientists instead should be able to accurately calculate an exact kilo without having to measure one lump of metal against another.

**Four innovators selected for early detection of TB, malaria**

Why in News?

The Tata Trust and The Global Fund backed Indian Health Fund (IHF) announced that it had chosen four innovators, three related to tuberculosis and one to malaria in its goal of supporting national efforts to effectively tackle eradicate these diseases.

The aim for selecting them aims to leverage technology for improving early detection and prompt treatment along with promoting diagnostics feasible for primary health care facilities.

Significance

1. TB and malaria, together, account for over 4.23 lakh (0.42 million) deaths annually in India alone. With over 8.5 million TB patients. In 2016, a staggering 1.9 million TB cases were reported including 0.8 million new infectious cases. The economic cost of TB to the Indian economy has been pegged at US\$3 billion (over Rs13,000 crore) annually.
2. Malaria results in high morbidity, mortality and economic loss each year. About 95 percent of India's population resides in malaria-endemic areas. ~1.12 million malaria cases were reported in India in 2016, according to the National Vector Borne Disease Control Program. The socio-economic burden due to malaria is pegged at around \$1.94 billion (Rs11,640 crore) annually.
3. The government has set a target of eliminating TB by 2025 and malaria by 2030. India contributes to 27 per cent of the global TB burden and 68 per cent of all malaria cases in the Southeast Asia region.

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PEPPER IT WITH  
 Horizon 2020, Hepatitis, Global alliance to eliminate lymphatic filariasis, Ebola virus, LEAD-INCREASE-ENABLE-SUPPLEMENT, REPLACE program

**National Monogenic Diabetes Study Group**

In News

A National Monogenic Diabetes Study Group has been formed to identify cases of monogenic diabetes across the country. Supported by the Indian Council of Medical Research (ICMR), the Madras Diabetes Research Foundation (MDRF) and Dr. Mohan's Diabetes Specialities Centre (DMDS) will be the national coordinating centre for the study group.

Details

Monogenic diabetes is a group of disorders where mutation of a single gene causes diabetes; the three commonest forms being - Maturity Onset Diabetes of the Young (MODY), Neonatal Diabetes Mellitus (NDM) and Congenital Hypoglycaemia.

PEPPER IT WITH  
 CSIR, US Agency for International Development, Revised National Tuberculosis Control Program, NIKSHAY

Under this initiative, MDRF would provide guidelines to the collaborators for identifying **monogenic diabetes**. **“They need to look out for certain parameters such as children below six months of age and those diagnosed as Type 1 diabetes but have atypical features such as milder forms of diabetes, and strong family history of diabetes going through several generations.** The collaborators will identify cases of monogenic diabetes and send their details.

### ICMR

- The Indian Council of Medical Research (ICMR), the apex body in India for the formulation, coordination and promotion of biomedical research, is one of the oldest medical research bodies in the world.
- It functions under Department of Health Research, Ministry of Health and Family Welfare.

## 2018 pneumonia and diarrhea progress report

### Why in News?

2018 Pneumonia and Diarrhea Progress Report was released by the International Vaccine Access Center (IVAC) at the Johns Hopkins Bloomberg School of Public Health ahead of the 10th annual World Pneumonia Day. The report describes efforts to fight pneumonia and diarrhea in 15 countries with the greatest number of deaths from these illnesses.

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### About the Report

The IVAC report also analyses how effectively countries are delivering or ensuring the use of 10 key interventions, including exclusive breastfeeding, vaccination, access to care and use of antibiotics, oral rehydration solution and zinc supplementation, to prevent and treat pneumonia and diarrhea. The measures are known to help protect children from death due to these illnesses and could help achieve the UN’s Sustainable Development Goal target of reducing under-five mortality to 25 per 1,000 live births by 2030.

### Background

Last year, the report had lauded India for its Mission Indradhanush programme that, it said, “actualises its vision towards equitable immunisation and demonstrates its commitment to the nation’s health”.

### Highlights of 2018 report

- Despite improvements in full immunisation coverage across India, girls under the age of five in rural and poorer urban localities continue to lose out on vaccinations.
- Across India, there is lower vaccine coverage among female children in rural areas and in poor, urban areas. Improvements to full immunization coverage in India have not succeeded in closing the gender gap in coverage, as only 78 females were fully immunized for every 100 males fully immunized in poorer areas of Delhi.
- India and Tonga are the only two countries in the world where the under-five mortality rate of girls is higher than boys. The study had compared the under-five mortality rates of girls and boys in 195 countries.
- In India, the under-five child mortality for girls is 40 deaths per 1,000 live births, while for boys it is 39 deaths per 1,000 live births. Children, under the age of five who died of pneumonia and diarrhoea in India in 2016 is the highest in the world.
- The IVAC report does not reflect on the pneumonia vaccine introduced by India in 2017 under the universal immunisation programme. “India initiated a phased national introduction in May 2017, but no child had yet received the third dose, given at 9 months of age in 2017; thus, the estimated PCV3 coverage is zero per cent.

### Barnard's Star b

- ❖ Astronomers announced the detection of a planet candidate circling Barnard's Star, which lies just 6 light-years from the sun.
- ❖ Barnard's Star currently lies in the constellation Ophiuchus (the serpent bearer) and is visible from both the Northern and Southern hemispheres with a small telescope.
- ❖ **Barnard’s Star b is the smallest and most distant planet from its star to be found so far using radial velocity.**

### PEPPER IT WITH

World diabetes day, Immune checkpoint therapy, Zika virus, Nipah virus

## Earth BioGenome Project

### Why in News?

Scientists launched a vast project to map the genetic code of all 1.5 million known species of complex life on earth, aiming to complete the work within a decade.

**They described the Earth BioGenome Project (EBP) as “the next moonshot for biology” after the Human Genome Project, a 13-year \$3 billion endeavor to map human DNA which was completed in 2003.**

### Details

This plan will draw in major research efforts from across the world, including a U.S.-led project aiming to sequence the genetic code of all 66,000 vertebrates, a Chinese project to sequence 10,000 plant genomes, and the Global Ant Genomes Alliance, which aims to sequence around 200 ant genomes.

### Significance

- Signs of rapid decreases in biodiversity and increases in the number of species becoming endangered or extinct underlined the urgency of the project.
- It will ultimately create a new foundation for biology to drive solutions for preserving biodiversity and sustaining human societies.
- It will be a tremendous resource for new discoveries, understanding the rules of life, how evolution works, new approaches for the conservation of rare and endangered species, and new resources for researchers in agricultural and medical fields.
- **The project would be “internationally inspirational” and** - like the Human Genome Project - had the potential to transform research into health and disease.

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A team of UK scientists led by Matt Loose at Nottingham University have claimed the record for decoding the world's longest DNA sequence. The scientists produced a DNA read that is about 10,000 times longer than normal, and twice as large as a previous record holder, from Australia.

PEPPER IT WITH  
Human Genome Project, REPAIR,  
CRISPR-Cas9, National Wildlife  
Genetic Resource Bank

## Advanced Motor Fuels Technology Collaboration Programme

### Why in News?

The Union Cabinet has been apprised of India joining as Member of Advanced Motor Fuels Technology Collaboration Programme (AMF TCP) under International Energy Agency (IEA). AMF TCP works under the framework of International Energy Agency (IEA) to which India has "Association" status.

### Why India Joined AMF TCP

- Ministry of Petroleum & Natural Gas, Government of India has joined AMF TCP as its 16th member.
- The primary goal of joining AMF TCP by MoP&NG is to facilitate the market introduction of Advanced motor fuels/ Alternate fuels with an aim to bring down emissions and achieve higher fuel efficiency in transport sector.
- AMF TCP also provides an opportunity for fuel analysis, identifying new/ alternate fuels for deployment in transport sector and allied R&D activities for reduction in emissions in fuel intensive sectors.
- The R&D work in AMF TCP is carried out within individual projects called "Annex". Over the years, more than 50 Annexes have been initiated in AMF TCP and a number of fuels have been covered in previous Annexes.

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Indira Gandhi Prize for peace  
Delhi-based environment think-tank CSE (Centre for Science and Environment) will be honoured with the Indira Gandhi Prize for Peace, Disarmament and Development this year for its work in environmental education and protection.

### Significance

- Government at Urja Sangam, had directed to reduce the import in energy sector by at least 10% by 2022. Subsequently, MoP&NG has come up with a detailed action plan wherein Biofuels, Advanced/ alternate fuels and fuel efficiency play a major role. Association with AMF TCP will help MoP&NG in furthering its efforts in identification & deployment of suitable fuels for transport sector in respect of higher efficiency and lesser emissions.
- Government of India has recently notified National Policy on Biofuels-2018 which focusses on giving impetus to R&D in field of advanced biofuels such as 2G Ethanol, Bio-CNG, biomethanol, Drop-in fuels, DME etc. These advanced fuels can be produced from various kind of wastes such as crop residues, Municipal solid waste, Industrial waste, waste gases, Food waste, plastic etc. Association with AMF will help MoP&NG in identifying advanced biofuels suitable for deployment in transport sector in near future.
- The benefits of participation in AMF TCP are shared costs and pooled technical resources. The duplication of efforts is avoided and national Research and Development capabilities are strengthened. There is an information exchange about best practices, network of researchers and linking research with practical implementation. After becoming member, India will initiate R&D in other areas of its interest in advanced biofuels and other motor fuels in view of their crucial role in substituting fossil fuel imports.

PEPPER IT WITH International Energy Agency, Urja Sangam, Bio-methanol, BS norms, Environment Pollution (Prevention and Control) Authority, Air quality index, SAFAR

### AMF TCP

AMF TCP is an international platform for co-operation among countries to promote cleaner and more energy efficient fuels & vehicle technologies. The activities of AMF TCP relate to R&D, deployment and dissemination of Advanced Motor Fuels and looks upon the transport fuel issues in a systemic way taking into account the production, distribution and end use related aspects.

## INSPIRE 2018

### Why in News?

The second edition of International Symposium to Promote Innovation & Research in Energy Efficiency (INSPIRE) was held recently. It was organised by Energy Efficiency Services Limited (EESL) and World Bank. The three-day symposium focused on enhancing grid management, e-Mobility, financial instruments and technologies for energy efficiency in India.

It was organised in collaboration with the Bureau of Energy Efficiency (BEE), The Energy & Resources Institute (TERI), Asian Development Bank (ADB), the United Nations Environment Program (UNEP), and the Administrative Staff College of India (ASCI).

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The #InnovateToINSPIRE challenge was organized by EESL and World resources Institute (WRI) in the run-up to INSPIRE 2018. The challenge invited participants to submit sustainable and scalable solutions to seven specific challenges spanning grid management, e-Mobility, energy efficient technologies and financial instruments. to market.

### Important highlights

- To support investments in new, innovative and scalable business models, EESL and Asian Development Bank (ADB) signed an agreement for a Global Environment Facility (GEF) grant of USD 13 million to establish an Energy Efficiency Revolving Fund (EERF). EERF aims to expand and sustain investments in the energy efficiency market in India, build market diversification, and scale up existing technologies.
- During INSPIRE 2018, EESL and GAIL, a wholly owned subsidiary of GAIL (India) Limited signed a MoU to develop natural gas based cogeneration and trigeneration projects in Commercial & Industrial Sectors in India.

- This MoU is set to benefit industries such as Hotels, Hospitals, Airports, Commercial Malls, Commercial/Government Buildings, Integrated Residential Complexes, Educational Institutions, Data Center, among others, with the advantages of Combined Heat & Power technology.

PEPPER IT WITH  
Bureau of Energy Efficiency, The Energy & Resources Institute, Asian Development Bank, United Nations Environment Program, Administrative Staff College of India

About EESL

- Energy Efficiency Services Limited (EESL), under the administration of Ministry of Power, Government of India, is working towards mainstreaming energy efficiency and is **implementing the world’s largest energy efficiency portfolio in the country.**
- Driven by the mission of Enabling More – more transparency, more transformation, and more innovation, EESL aims to create market access for efficient and future-ready transformative solutions that create a win-win situation for every stakeholder.
- EESL has pioneered innovative business approaches to successfully roll-out large-scale programs that allow for incentive alignment across the value chain and rapidly drive transformative impact.

**Shakti - India’s first microprocessor**

In News

Indian Institute of Technology (IIT) Madras scholars and researchers **have come up with India’s first indigenous microprocessor, named ‘Shakti’.** The design of this microprocessor was done by IIT-Madras. Semi-Conductor Laboratory (SCL) of the Indian Space Research Organisation (ISRO) in Chandigarh has **fabricated the microchip which is essential for ‘Shakti’.** Modern synthesis language named Bluespec has been used for the chips. The researcher has used such a design which will help them overcome the difficulties that arise due to addition of new features and changes that are required to be used in different devices.

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The Semi-Conductor Laboratory (ISRO), which has played a significant part, is an autonomous body engaged in research and development in microelectronics to meet the strategic needs of the country.

Significance

- This will prove to be very useful in reducing dependency on microchips which are imported from abroad. **‘Shakti’ can utilise in surveillance cameras and smartphones.**
- With the advent of digital India there are several applications that require customised processor cores.
- The product would assist the defence, nuclear power and government agencies in reducing the threat from systems infected with back-doors and hardware Trojans.

PEPPER IT WITH  
Prototype fast breeder reactor, Small Satellite Launch Vehicle, Bisphenol A, Bionics, Parashakti

**Gene editing of babies**

Why in News?

A Chinese researcher, He Jiankui of Southern University of Science and Technology in Shenzhen, created an international sensation with his claim that he had altered the genes of a human embryo that eventually resulted in the birth of twin girls earlier this month. If proven, it would be the first instance of human offspring having been produced with specific desired attributes, using newly-developed tools of gene “editing”.

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The technology

- Genes contain the bio-information that defines any individual. An ability to alter this information gives scientists the power to control some of these features.

- CRISPR (Clustered Regularly Interspaced Short Palindromic Repeats) technology is a relatively new, and the most **efficient, tool for gene “editing”** developed in the last one decade. The technology replicates a natural defence mechanism in bacteria to fight virus attacks, using a special protein called Cas9.
- CRISPR-Cas9 technology behaves like a cut-and-paste mechanism on DNA strands that contain genetic information. The specific location of the genetic codes that need to be **changed, or “edited”, is identified on the DNA strand**, and then, using the Cas9 protein, which acts like a pair of scissors, that location is cut off from the strand.
- A DNA strand, when broken, has a natural tendency to repair itself. Scientists intervene during this auto-repair process, supplying the desired sequence of genetic codes that binds itself with the broken DNA strand.

World's first AI news anchor

- ❖ **China’s state news agency Xinhua** introduced the newest members of its newsroom: AI anchors who will report **“tirelessly” all day every day**, from anywhere in the country.
- ❖ Developed by Xinhua and the Chinese search engine, Sogou, the anchors were developed through machine learning to simulate the voice, facial movements, and gestures of real-life broadcasters, to **present a “a lifelike image instead of a cold robot.**

The ethical dilemma

- The kind of use that the technology has been put to by the Chinese researcher is something that many in the scientific community, and outside, are deeply uncomfortable with. This is for several reasons.
- The technology was used to solve a problem — potential infection to HIV — that already has alternative solutions and treatments. It was not necessary to tamper with the genetic material, which can have unintended, and as yet unknown, consequences.
- The fact that the researcher made the announcement in the media and not in a peer-reviewed scientific journal has meant that the scientific community, as of now, has no way to verify the claims or whether the **“editing” was carried out in the proper manner.**
- **There are more serious issues as well.** “The technology is extremely precise, but not 100% precise every time. There is a possibility that some other genes also get targeted. In such scenarios, unintended impacts cannot be ruled out. Then there is this highly problematic issue of trying to produce **“designer” babies or human beings.**
- The most promising use of the CRISPR technology is in treatment of diseases. In such cases, the genetic codes of just one individual are being changed to cure a disease. It is gene therapy.
- But what the Chinese researcher has done is to edit the genes of an embryo. Such a change would be passed on to the offspring. You are basically making changes in the genome of the next generation. If we allow this, nothing stops people with access to CRISPR technology to produce babies with very specific traits.

Jennifer Doudna, the co-inventor of CRISPR technology that was used to **“edit” genes in the Chinese case**, have for long been **calling for a “global pause” on clinical applications of the technology in human beings**, till such time as internationally accepted protocols are developed.

**PEPPER IT WITH**  
Three parent baby, Kochon prize, Rotavac, Thermal battery plant, Digital literacy library, Artificial intelligence

**ICMR guidelines for antibiotics’ judicious use**

In News

To ensure judicious use of antibiotics in healthcare facilities, the Indian Council of Medical Research (ICMR) released, Antimicrobial Stewardship Guidelines to advise hospitals in setting up Antimicrobial Stewardship Programmes (AMSP) for the purpose.

Details

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These guidelines provide guidance for setting up structure and processes of Antimicrobial Stewardship Programmes in healthcare institutions. It will help discuss essential elements of antimicrobial stewardship, diagnostic stewardship besides providing information on tools that can be used to measure progress.

Irrational prescription of broad-spectrum antibiotics, poor regulations around sale of antibiotics, self-medication, lack of education and awareness regarding responsible use of antibiotics have been identified as some of the key factors driving antimicrobial resistance in our country.

Antimicrobial stewardship is the umbrella term used to define comprehensive quality improvement activities that together represent a cohesive programme aiming to optimise the use of antimicrobials, improve patient outcomes, reduce the spread and development of antimicrobial resistance and reduce the incidence of healthcare acquired infections.

Significance

- Antimicrobial resistance (AMR) is a major public health challenge, and with very few new antibiotics in the pipeline, it is important to use the existing drugs judiciously. Since inappropriate use of antibiotics is rampant in India, there is an urgent need to improve antibiotic use in hospitals, which can be achieved through implementation of good AMS programmes.
- The National Health Policy, 2017, terms antimicrobial resistance as one of the key healthcare issues and prioritises development of guidelines regarding antibiotic use, limiting over-the-counter use of antibiotics and restricting the use of antibiotics as growth promoters in livestock.

PEPPER IT WITH Bionics, Cyanobacteria, MDR-TB, Integrated Disease Surveillance Programme, Rashtiya Swasthiya Bima Yojana, ModiCare

Government initiatives

Government of India has launched the ‘National Programme on Containment of Antimicrobial Resistance (AMR) under the 12th Five Year Plan under which a surveillance lab network of ten labs has been established to monitor trends of AMR in the country.

The Schedule H1 notification of the Government of India, as an amendment to the Drugs and Cosmetics Rules of 1945, came into force to control the misuse of 24 antibiotics (falling under third and fourth generation) through over-the-counter (OTC) dispensing of antibiotics in India. The packaging of these drugs will have mandatory Schedule H1 warning printed on the label in a box with red border and the Rx symbol in red. They can be sold by pharmaceutical chemists only on production of a valid prescription.

Atal Innovation Mission

In News

The Union Cabinet has been apprised of the Memorandum of Understanding (MoU) between Atal Innovation Mission, India and Fund "Talent and Success", Russia for promotion of science & technology, strong foundation to the collaborative work through exchange of students, teachers, researchers and scientists between both countries.

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Significance

The MOU will provide a mechanism in taking part in establishing relationships with-schools, universities, cultural institutions, science & technology and specialized education institutions, high-tech companies, startups and innovation centers in both countries. The activities are expected to promote creation of new scientific knowledge, generation of intellectual property, innovations and products development in both countries.

PEPPER IT WITH Atal Tinkering Labs, Atal Incubation Centers, Scale-up support to Established Incubators, Innovate in India

## Partial Credit Enhancement

### Why in News?

The Reserve Bank of India (RBI) recently allowed banks to provide partial credit enhancement (PCE) to bonds issued by systemically important non-deposit taking non-banking financial companies (NBFCs) registered with the RBI and housing finance companies (HFCs) registered with the National Housing Bank (NHB).

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### Rationales behind the move

- The incentive comes at a time when NBFCs and HFCs have requested the government and regulators to ensure that confidence returns to the market.
- They have sought relaxations of the NHB's credit rating norms related to refinance, lowering of the criterion on years of existence to one year, providing for 10% of the loan loss by the government and capital infusion in banks.
- The Indian corporate bond market is at a nascent stage of development, resulting in excessive pressure on the banking system to fund credit for project development.
- Due to greater asset-liability mismatch in infrastructure and project financing, banks are exposed to liquidity risk. The insurance and provident/pension funds, whose liabilities are long term, may be better suited to finance such projects.

#### What is 'Investment Grade'

An investment grade is a rating that indicates that a municipal or corporate bond has a relatively low risk of default. Bond rating firms, such as Standard & Poor's and Moody's, use different designations to identify a bond's credit quality rating. 'AAA' and 'AA' (high credit quality) and 'A' and 'BBB' (medium credit quality) are considered investment grade. Credit ratings for bonds below these designations ('BB', 'B', 'CCC', etc.) are considered low credit quality, and are commonly referred to as "junk bonds."

Credit ratings are important because they communicate the risk associated with buying a certain bond. An investment grade credit rating indicates a low risk of a credit default, making it an attractive investment vehicle. Government bonds, or Treasuries, are not subject to credit quality ratings, and these securities are considered to be of the very highest credit quality.

### Significance

- It is aimed at enhancing the credit rating of the bonds and enabling these NBFCs to access funds from the bond market on better terms.
- PCE is expected to help NBFCs and HFCs raise money from insurance and provident or pension funds who invest only in highly-rated instruments.
- According to RBI, the tenure of these bonds shall not be less than three years and that proceeds from them shall only be utilized to refinance existing debt.
- RBI also restricted the exposure of a bank through PCEs to bonds issued by each such NBFC or HFC to 1% of capital funds of the bank within the current single and group borrower exposure limits.
- Basically, the credit enhancement gets used only when there is a shortfall in either paying interest or repaying principal. Hence, investors are more secure about repayment even if there is uncertainty regarding cash flows for some time.
- Credit enhancement makes the bonds more attractive by improving the rating enough so that institutional investors become interested in adding these to their portfolios.

PEPPER IT WITH  
Open Market Operations,  
Credit Rating Agency, NBFC,  
India Rating and Research

### About PCE

Introduced in 2015, credit enhancement means improving the credit rating of a corporate bond. For example, if a bond is rated BBB, credit enhancement, which is basically an

assurance of repayment by another entity, can improve the rating to AA. This is done to provide an additional source of assurance or guarantee to service the bond. RBI has now allowed banks to provide credit enhancement up to 20% of the total bond issue.

Banks are allowed to provide PCE as non-funded subordinated facility in the form of a contingent line of credit to be used in case of shortfall in cash flows for servicing the bonds and thereby improve the credit rating of the bond issue.

## NBFC Mudra loan

### Why in News?

According to the 2017-18 annual report of Pradhan Mantri Mudra Yojana (PMMY), NBFCs not only met their Mudra target of ₹9,050 crore for FY18, but their sanctions for the year were a five-fold jump from the previous year.

Though NBFCs sanctioned only over ₹27,000 crore of Mudra loans in FY18 against ₹92,492.68 crore by public sector banks, their year-on-year growth was faster.

### Highlights

- The annual report pointed out that there are 57.7 million small businesses and micro units in India and a majority of them are owned by people belonging to scheduled caste, scheduled tribe or other backward classes.
- Of these, only less than 5% have access to formal credit institutions and the rest have to rely upon informal sources for funding their business (friends, relatives or money lenders). Mudra loans want to bring these sectors under the formal credit channel.
- MUDRA loans remain mostly unaffected by rising number of bad loans under the Pradhan Mantri Mudra Yojana (PMMY). According to the 2017-18 annual report of PMMY, while gross non-performing assets (NPA) across all sectors in the country crossed 10% in fiscal 2017-18, the NPA level under PMMY was only 5.38% as on March 31, 2018.
- In the financial year 2017-18, overall loans worth Rs 2.54 lakh crore were classified as Mudra loans, an increase of 41% from Rs 1.80 lakh crore of loans sanctioned in this category in the last financial year. For 2018-19, a target of Rs 3 lakh crore has been set.

### About PMMY

- PMMY is a scheme launched in 2015 for providing loans up to ₹10 lakh to any Indian citizen for non-corporate, non-farm small/micro enterprises. These advances are classified as Mudra loans and given by commercial banks, regional rural banks (RRBs), small finance banks, cooperative banks, micro finance institutions (MFIs) and NBFCs.
- It is a flagship scheme of Government of India to “fund the unfunded” by bringing such enterprises to the formal financial system and extending affordable credit to them.
- There is no subsidy for the loan given under PMMY. However, if the loan proposal is linked to some Government scheme, wherein the Govt. is providing capital subsidy, it will be eligible under PMMY also.
- Loans under the scheme is classified as under:
  - Shishu : covering loans upto 50,000/-
  - Kishor : covering loans above 50,000/- and upto 5 lakh
  - Tarun : covering loans above 5 lakh and upto 10 lakh

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### MUDRA Card

It is an innovative credit product wherein the borrower can avail of credit in a hassle free and flexible manner. It provides facility of working capital arrangement in the form of CC/OD to the borrower. Since MUDRA Card is a RuPay debit card, it can be used for drawing cash from ATM or Business Correspondent or make purchase using Point of Sale (POS) machine. Facility is also there to repay the amount, as and when, surplus cash is available, thereby reducing the interest cost.

PEPPER IT WITH  
Micro Units Development &  
Refinance Agency Ltd (MUDRA),  
Micro Finance Institutions,

### Paisa – Portal for Affordable Credit & Interest Subvention Access

- A centralized electronic platform for processing interest subvention on bank loans to beneficiaries under Deendayal Antyodaya Yojana – National Urban Livelihoods Mission (DAY-NULM) named “PAiSA – Portal for Affordable Credit and Interest Subvention Access”, was launched recently.
- The web platform has been designed and developed by Allahabad Bank which is the Nodal bank.
- PAiSA is another effort by the government to connect directly with the beneficiaries, ensuring that there is greater transparency and efficiency in delivery of services. DBT of subvention on monthly basis under DAY-NULM will give the necessary financial support to small entrepreneurs in a timely manner.
- All 35 states / UTs & all scheduled commercial banks, RRBs and Cooperative Banks are expected to be on board the PAiSA portal the year end.

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### Ease of Doing Business Grand Challenge

#### Why in News?

The Prime Minister of India launched a Grand Challenge on resolving seven identified Ease of Doing Business (EoDB) problems with the use of cutting edge technologies.

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#### Objective

The objective of this challenge is to invite innovative ideas based on Artificial Intelligence, Internet of Things, Big Data Analytics, Blockchain and other cutting edge technology to reform Government processes. The platform for the Grand Challenge is the Startup India Portal.

#### Eligibility

The Grand Challenge seeks to invite innovative ideas from individuals, startups and other enterprises to implement solutions using cutting edge new technologies

#### Background

- In the World Bank's Doing Business Report (DBR, 2019) released in October this year, India has recorded a jump of 23 positions against its rank of 100 in 2017 to be placed at 77<sup>th</sup> rank among 190 countries. As a result of continued efforts by the Government, India has improved its rank by 53 positions in the last two years and 65 positions in the last four years (2014-18).
- This jump was driven by an improvement in 8 out of 10 business indicators measured by the World Bank. In nine parameters, India has moved closer to global best practices. At a granular level, to give just one example, 21 regulatory changes have been brought in for startups in the last two-and-a-half years.

#### UK India Business Council releases annual Ease of Doing Business report

- ❖ Based on an in-depth survey of businesses with a combined turnover of USD 122 billion, the report found only 25 percent of UK businesses saw corruption as a major barrier in 2018, as opposed to 51 percent in 2015 (Since the UKIBC launched the project).
- ❖ The drive to digitalise government interactions was cited as a major factor behind this as it has led to reduced face-to-face interactions where corruption is most likely to take place.
- ❖ Another key finding was that a remarkable 46 percent of UK Businesses responding had plans to expand their investments in India in the next 12 months.
- ❖ Moreover 25 percent of those responding intend to direct this new investment eastwards - seeking new opportunities in states such as West Bengal, Assam, Meghalaya, and Manipur.
- ❖ Since 2000, UK has been the largest G20 investor in India, investing £17.5 billion and creating 371,000 new jobs, representing 10 percent of all FDI-related jobs in that period.

- India now ranks first in South Asia. Union and State Governments have both worked together towards improving EoDB, in the spirit of cooperative, competitive federalism.
- In the last four years, more than 1400 archaic laws have been repealed. Dramatic reductions have been achieved in areas such as time taken for resolution of commercial disputes, time taken for clearing imported goods, Approval for loans upto Rs 1 crore in 59 minutes for MSME sector, electricity connection to an entrepreneur in half the time and through half as many procedures as in 2014, and now it costs less than 30% of per capita income etc.

### Way Forward

The aim is to make India a 5 trillion dollar economy in the shortest possible time. For this, improvement is necessary in every sector of the economy. Union Government is also working towards an industrial policy which will be more reflective of current realities, and will be in accordance with the new vision of the entrepreneurs of New India.

PEPPER IT WITH  
Brexit, GST, IBC, G20, Digital  
Innovation, Ayushman Bharat

### Conclusion

India wants to crack the top-50, but may find it difficult to do so in light of the World Bank adding a new parameter to assess the ranking from next year. **Called “contracting with the government”, this indicator will “assess contracting public procurement system of the governments around the world”.** This move is not the only incumbent on close coordination between the Centre and states, it may also put tacit pressure on India to open up its government procurement system to foreign bidders.

## New Back series GDP Data

### Why in News?

India never hit the 9% ‘high-growth’ phase in the years of UPA I and II as was earlier believed, according to new back series GDP data released by the government.

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After the base year is changed, the GDP in previous years is revised according to the new base year for a fair comparison.

### Background

From 2015, the Central Statistics Office (CSO) updated base year for GDP calculation to 2011-12, replacing the old series base year of 2004-05, as per the recommendations of the National Statistical Commission.

The new series includes corporate information from the MCA21 database of the Ministry of Corporate Affairs instead of the results obtained from the RBI study on company finances, which means a more comprehensive inclusion of corporate data in GDP numbers. It also helps improve accuracy, particularly for the services sector, which accounts for about 60 per cent of GDP.

- ❖ As per the standard practice, India's external debt statistics for the quarters ending March and June are released by the RBI with a lag of one quarter and those for the quarters ending September and December by the Ministry of Finance, GoI.
- ❖ In 2018, the national debt of India amounted to about 69.55% of the GDP and 68.70% in 2017.
- ❖ Government Debt to GDP in India averaged 73.24% from 1991 until 2017, reaching an all time high of 84.20% in 2003 and a record low of 66% in 1996.
- ❖ The N.K. Singh Committee, which is reviewing the FRBM Act of 2003, has suggested that the fiscal policy try to reduce the debt-to-GDP ratio to 60% by FY23, with **the Centre’s at 40% and the states’ combined at 20%.**

### Why is base year changed?

- Change of base year to calculate GDP is done in line with the global exercise to capture economic information accurately. Ideally, the base year should be changed after every five years to capture the changing economy.

- The new series is also compliant with the United Nations guidelines in System of National Accounts-2008. It takes information for the corporate sector and has better estimates of the unorganised sector from 2010-11 National Sample Survey on unincorporated enterprises and data on sales and service taxes.
- Base year is carefully selected because of the impact it has on the numbers and the year chosen is usually one in which no serious anomaly was present.

PEPPER IT WITH  
Gross Value Addition method, Annual Survey of Industries, Headline Growth Rate, Basic prices and Factor cost

### Issues

- The average growth for the UPA years after the back-series revision for FY06 to FY12 declines to 6.82% from 7.75% earlier, well below the 7.35% clocked during the four years of the present government.
- The major take away from the data is that the **economy doesn't seem to have** recovered from the global financial crisis as quickly as previously thought.
- The new back series data diverges significantly from a draft report released by the National Statistical Commission earlier this year, which showed that growth during the UPA years crossed 9% on at least three occasions, and even hit 10.23% in 2007-08.
- Sudipto Mundle Committee was appointed by National Statistical Commission (NSC) with the task of backdating the new series all the way to 2005, to give a better idea of previous year performance.
- The committee report in August calculated that the previous government had performed much better than suggested by earlier data, averaging 8.87% GDP growth in its first term and 7.39% in its second term.

## RBI vs Government

### Why in News?

The bitterness between the finance ministry and India's central bank has reached a new high, with both camps at a standoff. Board members belonging to various parts of the industry are torn between these two camps. At stake is an economy that seems at last to be on the road to a recovery, but which also faces several headwinds.

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### Highlights of the Scenario

- Differences that have always been there sharpened in recent times after the collapse of Infrastructure Leasing and Financial Services Ltd (IL&FS) snowballed into a liquidity crisis for non-banking financial companies (NBFCs), which in turn squeezed lending to small and medium enterprises (SMEs)—the big catchment area for jobs creation.
- As a solution, the union government in its dialogue with RBI sought to exert pressure to relax restrictions on weak banks to lend to small businesses, deploy **RBI's capital** reserves to generate additional liquidity and exempt power companies from the purview of an earlier circular on bad debts this year.
- **Allahabad high court's suggestion** that the government consider giving directions to RBI under Section 7 of RBI Act, in a case involving independent power producers, who by virtue of their accumulated debts fell foul of the newly minted insolvency and bankruptcy code made things more complicated.
- **Thereafter, government sought RBI governor's views on deploying the central bank's** capital reserves to infuse liquidity in the markets. This turned out to be the proverbial final straw, pertained to regulatory issues including relaxing the prompt corrective action framework for public sector banks.
- RBI deputy governor, Viral Acharya warned against encroaching on RBI autonomy—something that drew critics of the government to argue that it was part of a larger malaise where key institutions were being undermined.

- Finance ministry accused RBI of sleeping on the job when public sector banks were nudged by politicians to lend indiscriminately between 2008 and 2014. The meeting of the Financial Stability and Development Council (FSDC) chaired by the finance minister witnessed another round of acrimony.

Issues

- An independent payments regulator: Government wants to set up an independent “payment regulatory board”, which will oversee all payment systems in India and be outside the purview of the RBI. The RBI which currently manages all payment systems, some directly and some through the National Payments Corporation of India (NPCI) has long opposed such a move.
- Easing credit to small firms: In recent times government-affiliated directors on the RBI’s board have pushed for “MSME forbearance” or easing non-performing asset (NPA) rules for small and medium businesses which have taken loans.
- The RBI’s reserves and surplus: Over the last few years, the Centre’s attempt to withdraw capital and reserves from the central bank’s balance sheet has triggered public debate. RBI is of the view that having “adequate reserves and capital” is crucial to maintaining confidence in the central bank.
- This year, BloombergQuint reported that the present government wanted the RBI to “define a policy governing dividends” and was reportedly of the view that the central bank’s annual dividend to the Centre could be higher if the former did not transfer funds to its contingency reserves.

Section 7 of RBI Act 1934

- ❖ Finance Ministry officials said three letters have been sent to the RBI citing Section 7, without actually implementing it.
- ❖ Section 7 of the RBI Act reads. “Subject to any such directions, the general superintendence and direction of the affairs and business of the Bank shall be entrusted to a Central Board of Directors which may exercise all powers and do all acts and things which may be exercised or done by the Bank.”
- ❖ This Central Board of Directors, as per the Act, comprises a Governor and Deputy Governors (Not more than 4) to be appointed by the Centre, four Directors to be nominated by the Centre and one government official nominated by the Centre.
- ❖ Giving control of the RBI to its Board of Directors effectively gives control to the Central Government.
- ❖ Sec 7 of RBI Act involves 2 stages: consultation and instruction.

Way Forward

- ✓ The autonomy for the Central Bank, within the framework of the RBI Act, is an essential and accepted governance requirement.
- ✓ What is needed is transparency in setting macro-prudential policies with clear targets. This is certainly more difficult than setting up a single inflation target and requires co-ordination between all stake holders. The RBI routinely publishes its financial-stability report identifying risks to the financial system, but the toolkit to manage such risks is still evolving. The task is complicated given that risks to the financial system does not end with regulating and supervising financial intermediaries.
- ✓ RBI as an institution is perceived to have the intellectual capital to determine the strength of its own balance sheet. Hence, the government should leave the judgement to the technocrats of RBI.

| GOVERNMENT PROPOSED<br>RBI BOARD GRANTED  |   |
|---|---|
| <b>Govt:</b> A higher share of RBI surplus transfer, questioned the method and need for keeping higher capital reserves | <b>Govt:</b> More funds to small businesses   |
| <b>RBI:</b> A committee to review RBI's Economic Capital Framework  | <b>RBI:</b> Loan restructuring scheme for MSME borrowers with credit facility up to ₹25 crore cleared |
| <b>Govt:</b> Easy capital norms for banks   | <b>Govt:</b> Making rules easier for PCA banks  |
| <b>RBI:</b> One-year extension of deadline to March 2020 to create capital buffer                                       | <b>RBI:</b> Rules to be examined by the Board for Financial Supervision of RBI                        |
| <b>Govt:</b> Easy fund flows for NBFC through special liquidity window  |   |
| <b>RBI:</b> To discuss in the next board meeting  |   |

- ✓ Global investors prefer political stability, but they value institutional credibility more. Respecting the institutional credibility of the RBI would soothe global investors who would soon face the uncertainty of national elections. The outflow of dollars could get worse if the central bank is portrayed as weakening.
- ✓ The government is accusing the central bank of choking the banking system by needless regulation. Easing Basel norms on capital may buy the government time but it would hardly help in reducing capital infusion. Public sector banks would need colossal capital infusion irrespective of whether their minimum capital adequacy ratio is 8% or 9% simply because bad loan provisioning will remain high.
- ✓ Non-bank lenders have been a critical funding source for small business as a last-mile connectivity. In the aftermath of tax reforms and demonetisation, small business have suffered and to deny them credit because of exogenous factors is unfair. Giving leeway to non-banks would go in a long way to improve the fund flow to the Indian economy without compromising on prudence.
- ✓ The biggest worry among central bank watchers is the possibility of political motivations seeping into the functioning of RBI. Indeed, a few members of the board are known to harbour specific political affiliations. Great care should be taken by the government and RBI that political compulsions—unless accompanied by sound economic logic—do not impinge upon the functioning of the central bank.
- ✓ Globally, the conduct of central banks has come under scrutiny after the global financial crisis. The need for central banks to be accountable is recognised and RBI is not above this. To be fair, the central bank is answerable to the government and even Parliament. That said, it should have no hesitation in explaining why it does what it does in front of its board members. RBI would only strengthen its credibility in front of them.

#### America Merrill Lynch Report

- According to the report, RBI has “more than adequate” reserves and it can transfer over ₹1 trillion to the government after a specially-constituted panel on the RBI’s economic capital framework (ECF) identifies the “excess capital”.
- The committee is expected to identify ₹1-3 trillion, which is 0.5-1.6% of GDP, as excess capital. As per its stress tests, the central bank can transfer ₹1 trillion to the government if the transfer is limited to passing excess contingency reserve and can go up to ₹3 trillion if the total capital is included.
- The report also said capping the overall reserves at 20% of the RBI’s book as against 28.3% now and higher than 18% recommended by the Usha Thorat panel will be able to release ₹3.11 trillion.

#### PEPPER IT WITH

Financial Emergency (Article 360), Inflation Targeting, Monetary Policy Committee, Staggered Surplus Distribution Policy of RBI, Financial Stability and Development Council, Prompt Corrective Action Plan, Y H Malegam Committee

### Conclusion

India needs a strong and independent RBI to ensure macroeconomic stability. Autonomy of the bank is a state of mind which depends on the vision, knowledge and experience of the Governor and while the bank must have as much autonomy as possible in the sense that it must be free to give advice to the government but one cannot legislate the autonomy of the Reserve Bank.

Tension between the government and the central bank is healthy, but the past decade’s steady sound of the government chipping away at RBI’s powers and autonomy has now reached a crescendo. Both the Government and the Central Bank, in their functioning, have to be guided by public interest and the requirements of the Indian economy.

## Public Credit Registry

### Why in News?

The Reserve Bank has initiated steps to set up a wide-based digital PCR to capture details of all borrowers, including wilful defaulters and also the pending legal suits in order to check financial delinquencies.

PCR will also include data from entities like Sebi, Ministry of Corporate Affairs, Goods and Service Tax Network (GSTN) and the Insolvency and Bankruptcy Board of India (IBBI) to enable the banks and financial institutions to get holistic profile of existing and prospective borrowers on a real-time basis.

### Background

- The move is based on the recommendations of a committee, headed by Y.M. Deosthalee. The committee has suggested the registry should capture all loan information and borrowers be able to access their own history. Data is to be made available to stakeholders such as banks, on a need-to-know basis. Data privacy will be protected.
- The high-level task force (HTF) was constituted by the RBI to review the current availability of information on credit, the adequacy of the existing information utilities, and identify gaps that could be filled by a PCR.
- In June this year, the RBI had announced to set up a PCR for India with a view to address information asymmetry, foster access to credit and strengthen the credit culture in the economy.
- Currently, corporate exposures of Rs 5 crore and above are shared with the central bank on the Central Repository of Information on Large Credits (CRILC) in India. There are also private credit bureaus (PCBs) like Cibil, Experian and Equifax which share mostly individual credit history with banks.

### What is PCR and How will it be Helpful?

- A public credit registry is an information repository that collates all loan information of individuals and corporate borrowers. A credit repository helps banks distinguish between a bad and a good borrower.
- The PCR would be the single point of mandatory reporting for all material events for each loan, notwithstanding any threshold in the loan amount or type of borrower. Currently, there are multiple granular credit information repositories in India, with each having somewhat distinct objectives and coverage.
- PCR will address issues such as information asymmetry, improve access to credit and strengthen the credit culture among consumers. Setting up of the PCR assumes significance amidst rising bad loans in the financial system. It can flag early warnings on asset quality by tracking performance on other credits.
- **A PCR may also help raise India's rank in the global ease of doing business index.** Besides, borrowers would also be able to access their own credit information and seek corrections to the credit information reported on them.
- Transparent credit information is a necessity for sound risk management and financial stability. A PCR, with linkage to ancillary credit information systems, can help in effective supervision and help lenders to take timely corrective steps to prevent delinquencies wherever possible.

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### NSE goBID

- ❖ In a bid to make it easier for retail investors to invest in government bonds directly, the National Stock Exchange has offered a mobile application and web-based platform- “NSE **goBID**” (Government Bond Investment Destination).
- ❖ It will be available to all investors registered with trading members of NSE.
- ❖ NSE had earlier launched its e-Gsec platform which allowed retail investors to invest in government securities and hold them in existing demat accounts.
- ❖ Government securities are one of the safer investment options available to retail investors as these are risk-free instruments which provide portfolio diversification and are available for longer investment durations.

### PCR in other countries

PCR in other countries now include other transactional data such as payments to utilities like power and telecom for retail consumers and trade credit data for businesses. Regularity in making payments to utilities and trade creditors provides an indication of the credit quality of such customers.

### Conclusion

Access to credit information, including debt details and repayment history would drive innovation in lending. For example, currently most banks focus on large companies for loans and consequently the micro, small and medium enterprises are left with limited options for borrowing. With satisfactory payment history and validated debt details made available, it will increase the credit availability to micro, small and medium enterprises along with deepening of the financial markets. This will support the policy of financial inclusion.

PEPPER IT WITH  
GSTN, Central Fraud Registry, Wilful Defaulter/Caution/Suit Filed Lists, FATF, Non-Performing Assets, Bad Bank, Credit Information Companies

## Support Initiatives for MSME Sector

### In News

The govt. launched a historic support and outreach programme for the Micro, Small and Medium Enterprises (MSME) sector. As part of this programme, the govt. unveiled 12 key initiatives which will help the growth, expansion and facilitation of MSMEs across the country.

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### Five key aspects of facilitating the MSME sector:

#### 1. Access to credit

- The launch of the 59 minute loan portal to enable easy access to credit for MSMEs. The loans upto Rs. 1 crore can be granted in-principle approval through this portal, in just 59 minutes. This portal will be made available through the GST portal.
- 2 percent interest subvention for all GST registered MSMEs, on fresh or incremental loans. For exporters who receive loans in the pre-shipment and post-shipment period will receive an increase in interest rebate from 3 percent to 5 percent.
- All companies with a turnover more than Rs. 500 crore, must now compulsorily be brought on the Trade Receivables e-Discounting System (TReDS).

#### 2. Access to market

- The public sector companies have now been asked to compulsorily procure 25 percent, instead of 20 percent of their total purchases, from MSMEs.
- Out of the 25 percent procurement mandated from MSMEs, 3 percent must now be reserved for women entrepreneurs.
- All public sector undertakings of the Union Government must now compulsorily be a part of GeM. They should also get all their vendors registered on GeM.

#### 3. Technology upgradation

Coming to technological upgradation, the initiative stated that tool rooms across the country are a vital part of product design. 20 hubs will be formed across the country, and 100 spokes in the form of tool rooms will be established.

#### 4. Ease of doing business

- The clusters will be formed of pharma MSMEs. 70 percent cost of establishing these clusters will be borne by the Union Government.
- The return under 8 labour laws and 10 Union regulations must now be filed only once a year.
- The establishments will be visited by an Inspector will be decided through a computerised random allotment.
- Under air pollution and water pollution laws, now both these have been merged as a single consent. The return will be accepted through self-certification.

- An Ordinance has been brought, under which, for minor violations under the Companies Act, the entrepreneur will no longer have to approach the Courts, but can correct them through simple procedures.

5. A sense of security for employees

- A mission will be launched to ensure that they have Jan Dhan Accounts, provident fund and insurance.
- MSME outreach programme will run for 100 days covering 100 districts throughout the country.



**12 historic decisions by PM Modi for the MSME Sector**

|   |   |  |
|---|---|--|
| Loan in 59 minutes.                               | Interest benefits for GST registered MSMEs.                     | CPSEs and Corporates more than Rs. 500 crore to join Trade Receivables e-Discounting System or the TReDS Platform. |
| Tech support to MSMEs via 20 hubs and 100 Spokes. | Mandatory 25% procurement from MSMEs by CPSEs.                  | Now, returns due to 8 Labour Laws and 10 rules to be filed only once instead of the earlier twice.                 |
| Pharma Clusters where 70% cost borne by Centre.   | All CPSEs to join Government e-Marketplace (GeM).               | Of the 25% mandatory procurement, 3% to be done only from women-led MSMEs.   |
| Ending Inspector Raj and ensuring transparency.   | Ordinance for simplifying levy of penalties for minor offences. | Easier process for Environmental Clearances and 'Consent to Establish.'  |

Impact of MSME

- The Indian MSME sector provides maximum opportunities for both self-employment and wage employment outside the agricultural sector
- The sector generates around 100 million jobs through over 46 million units situated throughout the geographical expanse of the country
- With 38 per cent contribution to the nation's Gross Domestic Product (GDP) and 40-45 per cent share of the overall exports and manufacturing output respectively, the sector plays a key role in our economy
- Besides the wide range of services provided by the sector, it is engaged in the manufacturing of over 6000 products ranging from traditional to hi-tech items

PEPPER IT WITH  
Ease of doing  
Business, TReDS,  
GeM, eNAM, GST, GDP

Sustainable Blue economy conference in Nairobi

Why in News?

First global conference on the sustainable blue economy was hosted by Kenya and its co-hosts Canada and Japan. It captured concrete commitments and practical actions that can be taken today to help the world transition to the blue economy. The theme of the conference was “The Blue Economy and the 2030 Agenda for Sustainable Development”

Why this Conference

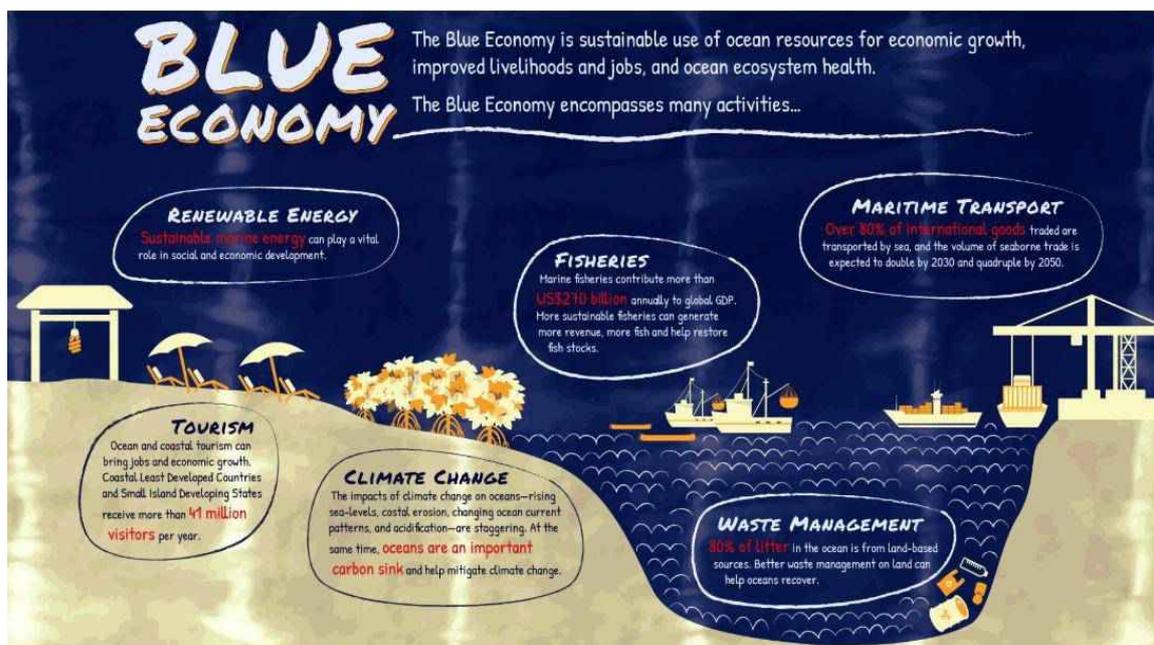
- The world has rallied around the enormous pressures facing our oceans and waters, from plastic pollution to the impacts of climate change. At the same time, there is international recognition that we need to develop our waters in an inclusive and sustainable manner for the benefit of all.
- The Conference is preparatory to **the UN Ocean’s Conference 2020**; which Kenya will be co-hosting

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Seychelles has launched **world’s first sovereign blue bond** to support sustainable fisheries and marine projects. According to the World Bank, a blue bond is an innovative financial instrument used to finance ocean and marine-based projects that have positive economic, environmental and climate benefits. The blue bond concept is inspired by the green bond concept. Examples of eligible activities include fisheries management plans, stock rebuilding, improved value chains, aquaculture development and promotion of sustainable practices and education awareness programmes.

with Portugal.

- The Sustainable Blue Economy Conference builds on the momentum of the UN’s 2030 Agenda for Sustainable Development, the 2015 Climate Change Conference in Paris and the UN Ocean Conference 2017 “Call to Action”.
- The conference aimed to:
  - Identify how to harness the potential of the blue economy to create jobs and combat poverty and hunger
  - Show how economic development and healthy waters go hand in hand
  - Capture commitments and practical actions that can be taken today
  - Bring together the players needed to transition to a blue economy



### Blue Economy

The Blue Economy is the economic benefit and value we realize from the Earth’s coastal and marine environment. Sustainable Blue Economy is a marine-based economy that provides social and economic benefits for current and future generations, restores, protects and maintains the diversity, productivity and resilience of marine ecosystems, and is based on clean technologies, renewable energy, and circular material flows.

### India and Blue Economy

- Blue Economy remains a critical aspect of India’s economic development agenda, and more than 95% of our trade is being carried on by sea.
- India has a strategic location in the Indian Ocean region, and on this basis, it endorses the growth of the Blue Economy in a sustainable, inclusive and people centred manner through the framework of the Indian Ocean Rim Association (IORA).
- India’s national vision about the sector is clearly articulated in the term **“SAGAR”**- Security and Growth for All in the Region coined by Prime Minister Shri Narendra Modi.
- India is developing its maritime infrastructure as well as its inland waterways and coastal shipping through the **“Sagarmala Programme”** which aims to revolutionize maritime logistics and port led developments in the country.
- India’s ambitious Sagarmala programme has identified 600 plus projects entailing huge investment of around Rs 8 lakh crore (120 billion dollars) by the year 2020.

PEPPER IT WITH  
Aquaculture, UN Ocean conference 2020, SDG 14 (Life below water), IORA, IORA Ministerial Blue Economy Conference, Jakarta Declaration on the Blue Economy, Exclusive Economic Zone, Our Ocean Conference

- This will save the country nearly six billion dollars per annum in logistics costs besides creating 10 million new jobs and boosting port capacity by 800 Million Metric Tonne per Annum (MMTPA) to an overall 3500 MMTPA.
- Coastal Economic Zones (CEZs) are being developed under Sagarmala. CEZs will become a microcosm of the blue economy wherein industries and townships that depend on the sea and contribute to global trade through sea connectivity are envisaged.

## Inclusive Wealth Report-2018

### Why in News?

Education and good health contribute the most in creating ‘inclusive wealth’. Together, the two factors, have been consistently making for more than half of the wealth accumulated, according to Inclusive Wealth Report-2018.

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### About Inclusive Wealth Report (IWR)

- The Inclusive Wealth Report (IWR) is a biennial effort led by the UN Environment to evaluate the capacities and performance of the nations around the world to measure sustainability of economy and wellbeing of their people.
- The existing statistical systems in the countries are using System of Environment and Economic Accounts which are geared to measure flow- income. The flow would critically depend upon the health and resilience of capital assets like manufactured capital, human capital and natural capital.
- The IWR 2018 builds on previous versions of the report (IWR2012 and IWR 2014) and advances methods of measuring the base of economy- capital of all types. It covers the period from 1990 to 2014, which provides us with a picture of the changes in capital assets over almost a generation.

### Findings of the Report

The results of the IWR 2018 covering 140 countries indicate that:

- The Inclusive wealth (IW) in 135 countries was higher in 2014 compared to the level in 1990 and the global growth rate of IW was 44% over the indicated period, which implies an average growth rate of 1.8% per year. However, during the same period the global GDP growth per year was 3.4%, which is close to twofold of the annual growth rate of growth in IW.
- The structure of capital at the global scale as of 2014 has composed of produced capital (21%), human capital (59% of which 26% is education induced human capital and 33% is health induced human capital), and natural capital (20%).
- While the natural capital declined (0.7% per annum), there was a significant rise in human and produced capital (2.1% and 3.8% respectively). This means that the **manufactured capital and human capital “have been enhanced at the cost of natural capital”**.
- Further, global average wealth accumulation trends between the period show that the human capital has followed a relatively steady path of growth, while manufactured capital witnessed a rise post 2000 and natural capital simultaneously witnessed a steady decline.
- The findings maintain that the two major threats to world economy are: increasing natural resource degradation and growing rich-poor divide. It says that the main cause behind the economic imbalance lies in the fact that natural capital is under-priced and hence over exploited, while the resulting proceeds are insufficiently invested in other forms of wealth, especially human capital.

### What is Inclusive Wealth?

A country’s inclusive wealth is the social value (not dollar price) of all its capital assets, including natural capital, human capital and produced capital. As defined by the Inclusive Wealth Report, Inclusive wealth is a measure of human well-being, totalling the value of an economy’s stock of manufactured capital, human capital and natural capital.

### Conclusion

An overview of the basis for wealth estimation and explores how various types of conservation and development policies recognizing the trade-off can be understood better with the help of inclusive wealth. The findings also suggest that over the past twenty years the negative wealth effects of a decline in natural capital have been offset by growth in human and physical capital.

PEPPER IT WITH  
Frontier Analysis Methodology, System of Environment and Economic Accounts, Gross Happiness Index

The Inclusive Wealth Report 2018 demonstrates that assessing and valuing natural capital and the change in per capita inclusive/comprehensive wealth over time has the potential to keep track of progress on most Sustainable Development Goals (SDGs).

### India's first multi-modal terminal on inland waterways inaugurated

#### In News

Prime Minister inaugurated India's first multi-modal terminal on the Ganga river in Varanasi and received the country's first container cargo transported on inland waterways from Kolkata.

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This is the first of the four multi-modal terminals being constructed on the National Waterway-1 (river Ganga) as part of the World Bank-aided Jal Marg Vikas project of the Inland Waterways Authority of India. The total estimated cost of the project is ₹5,369.18 crore, which will be equally shared between the Government of India and the World Bank.

#### Jal Marg Vikas Project

- Centre's Jal Marg Vikas Project aims at developing the stretch of the river between Varanasi and Haldia for navigation of large vessels weighing up to 1,500 tonnes to 2,000 tonnes.
- Its objective is to promote inland waterways as a cheap and environment-friendly means of transportation, especially for cargo movement. IWAI is the project implementing agency.
- The project entails construction of three multi-modal terminals (Varanasi, Sahibganj and Haldia), two inter-modal terminals, five roll-on-roll-off (Ro-Ro) terminal pairs, new navigation lock at Farakka (West Bengal), assured depth dredging, integrated vessel repair and maintenance facility, differential global positioning system (DGPS), river information system (RIS), river training.

### Ease of Doing Agri-Business Index

#### In News

Barely two years after NITI Aayog launched the first index (Agricultural Marketing and Farmer Friendly Reforms Index) to rank states on the basis of marketing and farmer-friendly reforms, the ministry of agriculture is planning to come out with its own index to rank states on 'ease of doing agri-business'.

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#### About Ease of Doing Agri-Business Index:

1. Objective Parameter: The parameter and sub-parameter are kept purely objective so that assessment of performance becomes easy and transparent.
2. Process Oriented Parameter: The parameters considered will be primarily focussing on the way the reforms in agriculture sector have been undertaken by the State and the basic Govt structure that has been put in the place for overall welfare of farmers.
3. Evolving Parameter: The parameter of the index will be always evolving.
4. The new Ease of Doing Agri-Business Index will rank the States on the basis of reforms in the sector as well as their investment in agriculture, increased productivity, reduction of input costs, and risk mitigation measures.

- The Agriculture Ministry will consider rewarding the higher performing States both in absolute and incremental terms by linking the performance with allocation from flexi funds made available in various flagship.

Parameter

The index on 'ease of doing agri-business', a concept note of which was floated recently, will broadly rank states on six major reform parameters related to the farming sector and have a total score of 100.

These include:

- marketing reforms (total weight of 25)
- reducing the cost of inputs (20)
- governance and land reforms (20)
- risk mitigation (15)
- increasing production and productivity (10)
- investment in agriculture (10)

Why need of the index?

To ensure the reform agenda of the Govt is implemented at the desired pace by the State govts., there is a need to develop a competitive spirit between States. The concept is to consider farming not solely as production oriented activity carried out to achieve food security of the country but as business activity carried out by farmer as entrepreneurs. With this in mind, the income of farmers will increase through the 3 strategies of increasing production/productivity, increase price realization of agri-produce and decrease input cost of production.

NEDAC

- Meeting of General Assembly of Network for Development of Agricultural Cooperatives in Asia and the Pacific (NEDAC) was held in New Delhi.
- The general assembly of 22 prominent cooperative organizations from eight countries unanimously decided to focus on C2C and capacity development to meet challenges of climate change as transformative cooperatives.
- NEDAC was set up in 1991 by the United Nations' Food and Agriculture Organisation, the International Cooperative Alliance and the International Labour Organisation.

PEPPER IT WITH  
Agricultural Marketing and Farmer Friendly Reforms Index, APMC Act, eNAM, SHC, APLM Act 2017, PKVY

**New Safety Features for Public service Vehicles**

In News

The Ministry of Road Transport & Highways has mandated that all new public service vehicles except auto rickshaws and eRickshaws, registered on and after 1st January 2019, will have to be equipped with Vehicle Location Tracking (VLT) with Emergency Buttons.

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Key Facts

- The VLT device manufacturers would assist in providing the back end services for monitoring. This regulation is being brought in to ensure safety of passengers especially women.
- Command and Control Centres will be setup by the State or VLT manufacturers or any other agency authorised by the State Government.
- These centres will also provide feed to the VAHAN data base or the relevant data base of the State with regard to the over speeding, device health status.
- The details of each VLT device will be uploaded on the VAHAN database by the VLT device manufacturer using its secured authenticated access.

PEPPER IT WITH  
Motor Vehicle Act,  
Smart fence pilot  
project, Invest India

VAHAN & SARATHI

The MoRTH has introduced online based citizen centric application VAHAN 4.0 and SARATHI 4.0 to ease out the process of obtaining driving licences such as online application, payment of fees or booking an appointment at the RTO for a new Driving Licence etc. The software VAHAN 4.0 enables the processes at RTO/DTO/MLO/SDM involving vehicle registration, fitness, taxes, permits and enforcement to get computerised.

## Security Restrictions in Border Area

### In News

The Defence Ministry has now allowed developmental work of small nature by Panchayati Raj Institutions and the central or state government's statutory bodies for faster development in border areas. The fresh guidelines were issued by the ministry by superseding the Security Restrictions Guidelines enunciated by it in 1990.

### Details

The restrictions have been lifted for works like construction, repair and maintenance of village ponds, construction and maintenance of government buildings like schools and hospitals. These restrictions were restrictive in nature towards developmental activities near border areas and were not fully facilitating in developmental works of small nature in the border areas.

### BADP

- The Border Area Development Programme (BADP) was introduced in 1993-94 as a Centrally Sponsored Scheme. Initially, the programme was implemented in the western Border States with an emphasis on the development of infrastructure to facilitate the deployment of Border Security Force.
- BADP covers 111 border districts in 17 States to meet special development needs of border population with focus on people living within 50 kilometers of the International Border.
- The Department of Border Management, Ministry of Home Affairs has been implementing the programme through the State Governments as part of a comprehensive approach to Border Management.
- The programme aims to meet the special development needs of the people living in remote and inaccessible areas situated near the international border and to saturate the border areas with the essential infrastructure through convergence of Central/State/BADP/Local schemes and participatory approach.

### Factsheet

- ❖ Sikkim, WB, Arunachal Pradesh and J&K share its border with 3 countries.
- ❖ Sikkim and Meghalaya are the only two states having borders with only one state – Sikkim with West Bengal and Meghalaya with Assam only.
- ❖ UP shares its borders with as many as 9 states/Union Territories, apart from sharing International border with Nepal.
- ❖ J&K has maximum international border length (3176km) while Nagaland has minimum international border length (215).

PEPPER IT WITH  
Interstate Border Areas  
Development Programme,  
Article 275

### Integrated Check Posts

Integrated Check Posts (ICPs) at five border crossing points out of seven approved projects have been completed. Terminals for smooth movement of goods and people at ICP Raxaul and ICP Jogbani on India-Nepal Border, ICP Petrapole and ICP Agartala on India-Bangladesh Border and ICP Attari on India-Pakistan Border have been made functional. At each ICP, facilities have been constructed for customs clearance, Immigration, warehouses for storage of goods, approach roads and terminal buildings to adequately handle import and export of goods and entry and exit of people. Work on ICP Moreh on India-Myanmar Border and ICP Dawki on India-Bangladesh Border is in advanced stage of completion.

## India's Nuclear Triad is complete

### Why in News?

India declared that its nuclear triad, stated in its nuclear doctrine, is operational after indigenous ballistic missile nuclear submarine INS Arihant achieved a milestone by conducting its first deterrence

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patrol. The submarine recently returned from its first deterrence patrol, completing the establishment of the country's survivable nuclear triad.

Significance

- The success of INS Arihant enhances India's security needs. Given India's stated position of 'No-First-Use' (NFU) in launching nuclear weapons, the SSBN (ship submersible ballistic nuclear) is the most dependable platform for a second-strike.
- Because they are powered by nuclear reactors, these submarines can stay underwater indefinitely without the adversary detecting it. The other two platforms — land-based and air-launched are far easier to detect. This places India in the league of the few countries that can design, construct and operate SSBN.
- Submarine-based nuclear capability is the most survivable leg of a nuclear triad, and its benefit must be seen especially in the light of the growing naval capabilities of India's potential adversaries.
- The Arihant provides India with a capability to hit either neighbour from 300 meters under the sea. The sea-based missiles envisaged for this purpose are the Sagarika with a range of 750 km and the K-4 missiles (being developed by DRDO), with a range of 3500 km.
- While land-based missile sites can be attacked and destroyed, a submarine-based deterrent is virtually impregnable against a missile attack. India is the only country having a sea-based nuclear deterrent, which is not a Permanent Member of the UN Security Council.

India earlier had the capabilities to launch nuclear weapons from the Air, mounted largely on its Mirage 2000 and Jaguar Aircraft, and by land based missiles, ranging from its Agni 1 missile, with a range 700-900 km, to Agni 5 Missiles, with a range of 5500 km. Its aim has been to develop a "credible nuclear deterrent", with capabilities to deliver nuclear weapons from multiple locations on land, air and sea, to all strategic areas and centres, in its two nuclear-armed neighbours —China and Pakistan.

PEPPER IT WITH  
 Agni missiles, Prithvi missiles, NAG missile, Aakash missile, Indian Ballistic Missile Defence Programme, No first use policy

Background

- The Advanced Technology Project (ATV) began in the 1980s and the first of them, Arihant, was launched in 2009. Since then it underwent extensive sea trials and the reactor on board went critical in 2013.
- Arihant was quietly commissioned into service in 2016 but its induction was never officially acknowledged. It has a displacement of 6000 tonnes and is powered by an 83 MW pressurised light-water reactor with enriched uranium.
- In 1998, India conducted nuclear tests under Pokhran-II and in 2003, it declared its nuclear doctrine based on credible minimum deterrence and a NFU policy while reserving the right of massive retaliation if struck with nuclear weapons first.

INS Arihant

- ✓ The indigenously-built nuclear-propelled submarine that completed its first deterrence patrol, is capable of firing ballistic missiles and can stay under water for months.
- ✓ SSBNs are usually bigger in size and are powered by a nuclear reactor, so they can remain submerged for months without having to surface. This allows them to travel farther and with greater stealth.
- ✓ They are supposed to be the best guarantee for a second-strike capability in a possible nuclear exchange scenario. The second submarine in the series, Arighat is now undergoing sea trials after which it will be inducted into service.

Exercises

Dharma Guardian- 2018: It is first ever joint military exercise involving the Indian Army and Japan Ground Self Defence Force at Counter Insurgency Warfare School, Vairengte, Mizoram (India).

SIMBEX 2018: The 25th edition of SIMBEX, an acronym for

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“Singapore-India Maritime Bilateral Exercise” is scheduled off Andaman Sea and Bay of Bengal. It is a bilateral Exercise Between Indian & Republic of Singapore Navies.

INDRA military exercise: India and Russia concluded the 10th iteration of their Indra joint exercise. The exercises took place at India’s Babina Military Station, near Jhansi in Uttar Pradesh.

Samudra Shakti: It is an Indian Navy and Indonesian Navy Bilateral Exercise. The exercise seeks to promote India’s solidarity with Indonesia towards ensuring good order in the maritime domain and to strengthen existing bonds between the navies of the two nations.

Vajra Prahar: It is a joint military exercise between India and the United States, which was recently held in Bikaner with focus tackling of terror at MFFR, Bikaner.

KONKAN-18: It is naval cooperation between India and the United Kingdom. It is based on the long term strategic relationship between both countries. The KONKAN series of exercises commenced in 2004, and since then has grown in scale. KONKAN-2018 will be conducted off Goa.

### Mission Raksha Gyan Shakti

#### In News

Defence ministry formally launched ‘Mission Raksha Gyan Shakti’. The event showcased salient inventions and innovations achieved by DRDO, Defence Public Sector Undertakings (DPSUs) and Ordnance Factories (OFs) which have resulted in successful filing of Intellectual Property Right (IPR) applications.

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The IPR has emerged as a key ingredient of an ecosystem which stimulates innovation and ingenuity. An IP Facilitation Cell was established, which has worked tirelessly to achieve ambitious targets of training 10,000 personnel of OFB and DPSUs on IPR and to facilitate filing of at least 1,000 new IPR applications.

#### Details

As part of the ongoing initiatives to enhance self-reliance in defence, Department of Defence Production has instituted a new framework titled ‘Mission Raksha GyanShakti’ which aims to provide a boost to the IPR culture in indigenous defence industry. The Directorate General of Quality Assurance (DGQA) has been entrusted with the responsibility of coordinating and implementing the programme. The event brought out that the end objective of ‘Mission Raksha Gyan Shakti’ is to inculcate IP culture in Indian defence manufacturing ecosystem.

PEPPER IT WITH  
Directorate General of Quality Assurance, Make in India

#### DRDO

Defence Research & Development Organisation (DRDO) works under Department of Defence Research and Development of Ministry of Defence. DRDO dedicatedly work towards enhancing self-reliance in Defence Systems and undertakes design & development leading to production of world class weapon systems and equipment in accordance with the expressed needs and the qualitative requirements laid down by the three services.

DRDO is working in various areas of military technology which include aeronautics, armaments, combat vehicles, electronics, instrumentation engineering systems, missiles, materials, naval systems, advanced computing, simulation and life sciences. DRDO while striving to meet the Cutting edge weapons technology requirements provides ample spinoff benefits to the society at large thereby contributing to the nation building.

### Veer Surendra Sai

#### Why in News?

The Union Cabinet has approved renaming of Jharsuguda Airport, Odisha as “Veer Surendra Sai Airport, Jharsuguda”.

- Surendra Sai was born in 1809 in Sambalpur and was a direct

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descendant from Madhukar Sai and therefore was legally entitled to be crowned as king of Sambalpur after demise of king Maharaja Sai in 1827. But he was not acceptable to the British power.

- He was a born rebel and an uncompromising enemy of the British Raj from his young age. His revolution against the British commenced from 1827 and continued till 1862 when he surrendered and even after that, until he was finally arrested in 1864. The aim of Surendra Sai was to drive the British out of Sambalpur.
- He was also an inspiring leader of the people and espoused the cause of the down trodden tribal people who were being exploited by the higher caste Hindu and who became tools in the hands of the British for the establishment of their political power in Sambalpur.

## Sentinelese

### Why in News?

The recent death of a young American man John Allen Chau, at the hands of the inhabitants of North Sentinel Island in the Andaman and Nicobar Islands has led to many lines of debate. Some have called for the sentinelese to be convicted and punished and others have urged that they be integrated into modern society.

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### Issues

- No one, whether missionary, scholar, adventurer, U.S. citizen or Indian is allowed to venture near North Sentinel Island without permission, which is given only in the rarest of circumstances and with meticulous precautions in place to ensure that the Sentinelese are not disturbed.
- Having lived in isolation in an island in the Bay of Bengal for thousands of years, the Sentinelese have no immunity or resistance to even the commonest of infections. Various degrees of protection are in place for the indigenous people of A&N Islands, but it is complete in the case of the Sentinelese.
- **The administration enforces “an ‘eyes-on and hands-off’ policy to ensure that no poachers enter the island”. A protocol of circumnavigation of the island is in place, and the buffer maintained around the island is enforced under various laws.**
- The Sentinelese are perhaps the most reclusive community in the world today. Their language is so far understood by no other group and they have traditionally guarded their island fiercely, attacking most intruders with spears and arrows. Arrows were fired even at a government aircraft that flew over the island after the 2004 Tsunami.

PEPPER IT WITH  
T N Pandit, Anthropological Survey of India, Andaman Adim Janjati Vikas Samiti, Grants under Article 275,

### About the Sentinelese

- The Sentinelese, a negrito tribe who live on the North Sentinel Island of the Andamans, have not faced incursions and remain hostile to outsiders. They have physical and linguistic similarities with the Jarawa.
- No accurate census has been made but the expected population of sentinelese (PVTG) was 50 individuals according to the Secretary, National Commission for Scheduled Tribes. North Sentinel Island lies west of Port Blair, part of the archipelago made up of about 200 islands.
- Research scholars have, on the basis of genetic pointers, suggested that the earliest settlers in the Andamans came about 35,000 years ago, while others say it could have been much earlier. They are thus believed to be descendants of the earliest humans to migrate out of the African continent.

### How did they arrive across seas?

Scholars theorise that during the ice ages, when sea levels were considerably lower, it should have been possible to walk across land bridges or cross shallow waters in crude canoes from the Sumatra, Malay and Burma coasts which are not far from the southern and northern extremes of the present day islands. According to some researchers, there

were 13 linguistically defined groups among the original inhabitants, before the British set up a penal colony in Port Blair in 1858. Exposure to diseases and the social disruption that followed decimated the populations.

How are they protected?

- ✓ The Govt. of India issued the Andaman and Nicobar Islands (Protection of Aboriginal Tribes) Regulation, 1956 to declare the traditional areas occupied by the tribes as reserves, and prohibited entry of all persons except those with authorisation. Photographing or filming the tribe members is also an offence. The rules were amended later to enhance penalties.
- ✓ But in August this year, the Centre relaxed the Restricted Area Permit system to boost tourism and enable foreigners to visit 29 islands in Andaman and Nicobar, including North Sentinel. The National Commission for Scheduled Tribes has called for a review of the decision.
- ✓ Even though RAP was withdrawn, any tourist is required to take permission from the forest department and the administration of the Andamans as it is protected under two other acts -- protection of aboriginal people and forest acts.
- ✓ RAP regime was notified under the foreigners (Restricted areas) Order, 1963 till 2022.

Should they be integrated to Modern Society?

The continued existence of ancient people in 60 sq. km North Sentinel Island with no real contact with modernity is enough evidence of their ability to persist without outside help. When other groups, such as the Andamanese, the Onge and later the Jarawa made contact with outsiders, there was a destructive impact on them. The Sentinelese have so far escaped the disease and disruption that overtook the others. Yet, they face the threat of poaching off North Sentinel.

Particularly Vulnerable Tribal Groups (PVTGs)

- o PVTGs are more vulnerable among the tribal groups. Due to this factor, more developed and assertive tribal groups take a major chunk of the tribal development funds, because of which PVTGs need more funds directed for their development.
- o 75 tribal groups out of 705 Scheduled Tribes, residing in 18 States and UT of A&N Islands have been categorized categorized by Ministry of Home Affairs as Particularly Vulnerable Tribal Groups (PVTGs). The Ministry of Tribal Affairs implements the Scheme of “Development of Particularly Vulnerable Tribal Groups (PVTGs)” exclusively for them.
- o Under the scheme, Conservation-cum-Development (CCD)/Annual Plans are to be prepared by each State/UT for their PVTGs based on their need assessment, which are then appraised and approved by the Project Appraisal Committee of the Ministry.
- o Activities for development of PVTGs are undertaken in Sectors of Education, Health, Livelihood and Skill Development, Agricultural Development , Housing & Habitat, Conservation of Culture etc.
- o In 1973, the Dhebar Commission created Primitive Tribal Groups (PTGs) as a separate category, who are less developed among the tribal groups. In 2006, the Government of India renamed the PTGs as Particularly Vulnerable Tribal Groups (PVTGs). In 1975, the Government of India initiated to identify the most vulnerable tribal groups as a separate category called PVTGs.
- o The state governments or UT governments submit proposals to the Central Ministry of Tribal Welfare for identification of PVTGs. After ensuring the criteria is fulfilled, the Central Ministry selects those groups as PVTGs.

**Earliest cave paintings of animals discovered in Indonesia**

- The **world’s oldest known cave painting of an animal was** discovered by scientists in Borneo, Indonesia. The painting, which depicts a red silhouette of a bull-like beast, dates back to at least 40,000 years ago.
- The drawing, which was spotted by a team of archaeologists from

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Australia and Indonesia, is said to be even older than similar animal paintings found in **France’s Chauvet cave and Spain’s Cave of Altamira.**

- In addition to the animal drawing, which is about 5 feet wide, the scientists also found red- and purple-colored hand stencils and cave paintings of human scenes. These remote limestone caves on Borneo have been known to contain prehistoric drawings since the 1990s.
- The finding adds to the mounting view that cave art featuring animals and figures did not arise from Europe as experts long believed, and that **“ice age” artists in Southeast Asia** played a key role in its development.

PEPPER IT WITH Indonesian island of Sulawesi

### 2018 UNESCO Asia-Pacific Awards for Cultural Heritage Conservation

#### Why in News?

Ten projects from five countries – Australia, China, India, Japan and Thailand – **have been recognized in this year’s Awards.**

Mumbai has won 19 recognitions since the inception of the awards, *the most for any city in India.*

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#### Award of Excellence

The Shijo-cho Ofune-hoko Float Machiya, for **“celebrating Kyoto culture through the safeguarding of the city’s endangered wooden townhouse typology as well as the iconic annual Gion Festival.**

#### Award of Distinction

The Ladakh Arts and Media Organisation (LAMO) Centre, Ladakh, India won for Cultural Heritage Conservation

#### Honourable Mention

- Hengdaohezi Town, Heilongjiang, China
- Rajabai Clock Tower & University of Mumbai Library Building, Mumbai, India
- Ruttonsee Muljee Jetha Fountain, Mumbai (India)

#### Award of Merit

- 5 Martin Place, Sydney, Australia
- Aijing Zhuang, Fujian, China
- Old Warehouse of the Commercial Bank of Honjo, Saitama, Japan

PEPPER IT WITH INTACH, Elephanta Caves, Art Deco building, Oval Maidan, Bob Marley

#### New Design in Heritage Contexts

- Kaomai Estate 1955, Chiang Mai, Thailand
- The Harts Mill, Port Adelaide, Australia

#### About the Award

Introduced in 2000, the UNESCO Asia-Pacific Awards for Cultural Heritage Conservation programme recognizes the efforts of private individuals and organizations that have successfully conserved structures and buildings of heritage value in the region. The Award aims to encourage other property owners to undertake conservation projects within their communities, either independently or by seeking public-private partnerships.

Awarded projects reflect a clear understanding and application of various criteria, such as the understanding of the place, technical **achievement, and the project’s social and policy impact.**

### Ramayan Circuit

- The Shri Ramayana Express, a special tourist train to run on the Ramayana circuit to cover major spots related to the Hindu epic.
- Ramayana Circuit is one of the fifteen thematic circuits identified for development under Swadesh Darshan scheme of Ministry of Tourism.

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### Swadesh Darshan Scheme

- Two important projects under Swadesh Darshan Scheme of Ministry of Tourism, Government of India have been inaugurated at PTSO Lake in Tawang, Arunachal Pradesh.
- **These projects are “Development of North East Circuits: Bhalukpong- Bomdila – Tawang Project & Nafra- Seppa- Pappu, Pasa, Pakke Valleys- Sangdupota- New Sagalee- Ziro-Yomcha Project”.**

PEPPER IT WITH  
Swadesh Darshan, PRASAD,  
Adopt a Heritage, Blue Revolution

### Quadricycles

- The government has allowed non-transport usage of quadricycles with a view to providing a safe and cheap mode for the last mile connectivity.
- Ministry of Road Transport and Highways has notified the insertion of the item Quadricycle as a non-transport vehicle under the Motor Vehicles Act 1988.
- Quadricycles were only allowed for transport usage under the Act, but now has been made usable for non-transport also.
- A quadricycle is a vehicle which is of the size of a three wheeler but with four tyres and fully covered like a car but its maximum speed limit and engine capacity are lower than that of a small car.

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### India International Cherry blossom festival

- **Shillong’s 3<sup>rd</sup> India International Cherry Blossom Festival 2018** celebrated the unique autumn flowering of Himalayan Cherry Blossoms with several cultural events at Shillong, Meghalaya.
- The festival is world's only Autumn Cherry Blossom festival. One can enjoy the full cherry blossom view at Shillong, with pink and **white cherry blossoms all along the roadside and the famous Ward’s lake.**
- The India International Cherry Blossom Festival 2017, which was celebrated to mark the International Year of Sustainable Tourism for Development attracted more than one lakh visitors and boosted the local economy by 300%.
- The Himalayan cherry blossom, or *Prunus cerasoides*, called *padmakashtha* in Hindi, is a flower we have long associated with Japan.

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### Concept Clearing Assignment

1. The Govt. unveiled 12 key initiatives which will help the growth, expansion and facilitation of MSMEs across the country. How will this help MSME flourish across country? Critically analyse. Also highlight the key features of the 12 Initiatives.
2. Bring out the key features of The Enemy Property (Amendment and Validation) Act, 2017. Discuss the major impact of the mechanism of sale of enemy property laid down recently by the cabinet.
3. The RBI has, through a series of open market operations (OMO), injected liquidity into the system. What are the reasons behind current liquidity crisis? Also suggest measures to improve the liquidity in the market.
4. There are 87 million displaced people in the world: 25 million refugees, 3 million asylum-seekers, 40 million internally displaced due to conflict and 19 million

- displaced due to natural disasters. Discuss the impact of Migration, Displacement and internal migration on the education of the youth. Suggest step to combat this deprivation of education in light of SDGs.
5. In the Indian context, GDP is a rough estimate, with many assumptions and imputations and statistical proxies involved in the calculation. What steps should be taken to make GDP growth equitable across regions and social groups, and how to make it sustainable.
  6. Discuss the provision of Article 370 section 92 – **‘Provisions in case of failure of constitutional machinery in the State of J&K’**. How it is different from Article 356 of Indian Constitution? Elucidate
  7. The banking system in the country has been passing through a critical phase manifesting into different problems in private and public sector banks. What are the current issues being faced by the banking industry.
  8. Briefly discuss the Private Member Bill. Why is Private Member Bill important? Support your answer with examples.
  9. The Sentinelese people who live in the small forested island are known to resist all contact with outsiders, often attacking anyone who comes near. An American who was on an adventure trip to the island was also killed by the tribal group. Do you think the sentinelese should be convicted and punished for their act? Do you support their integration into the modern world?
  10. India suffers from twin problems of under nutrition and obesity. The country needs to come with a national nutrition strategy to tackle the problem. Discuss.
  11. The Indian credit rating industry has evolved over time. What are the main functions of credit rating agencies and how are they helping Indian economy to mature.
  12. Indian national movement did not take place in isolation. World War I linked India to global events in profound ways with far-reaching consequences. What were the socio economic changes brought by the World War I in India? Do we need to give more **attention on India’s role in the first World War? Discuss.**
  13. Economic growth is a powerful tool for poverty reduction. India is among the fastest growing economy but still almost one quarter of its population is below the poverty line. How can India make its economic growth inclusive?
  14. The remembrance of the 26/11 Mumbai terror attack came along with the ground work for the construction of a **“faith corridor” across the India Pakistan** borders in the Punjab. Do you think the two neighbouring countries have space for Faith diplomacy?
  15. Digital technologies are changing the shape of work before our eyes. Do you think India needs to focus even more strongly on the quality of education it offers to human capital? Critically Analyse.

### P.T Oriented Questions

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| <ol style="list-style-type: none"> <li>1. Sec 7 of RBI Act defines               <ol style="list-style-type: none"> <li>1. Functions of RBI</li> <li>2. Role of governor of RBI</li> <li>3. Provision for Reserves of RBI</li> <li>4. Management of RBI</li> </ol>               Code:<br/>               (a) 1 and 2 only<br/>               (b) 3 and 4 only<br/>               (c) Only 4<br/>               (d) None of the above             </li> <li>2. The SABKI YOJANA, SABKA VIKAS Campaign is related to               <ol style="list-style-type: none"> <li>(a) MSME sector</li> <li>(b) Minorities</li> <li>(c) Gram Panchayat</li> <li>(d) Education</li> </ol> </li> </ol> | <ol style="list-style-type: none"> <li>3. Consider the following about AFRICAN CONTINENTAL FREE TRADE AREA and choose the correct one/s               <ol style="list-style-type: none"> <li>1. It is the biggest free trade agreement of the world</li> <li>2. All the African continent states are part of it</li> </ol>               Code:<br/>               (a) 1 only<br/>               (b) 2 only<br/>               (c) Both 1 and 2<br/>               (d) Neither 1 nor 2             </li> <li>4. Consider the following about INF treaty and choose the correct one/s</li> </ol> |
|--|--|

1. It is a cold war treaty between NATO and Russia  
2. It is related to ballistic missiles  
Code:  
(a) 1 only  
(b) 2 only  
(c) Both 1 and 2  
(d) Neither 1 nor 2
5. Consider the following statements and choose the correct one/s  
1. Centre for fourth industrial revolution has been launched by WEF in Bangalore  
2. It will be focusing on digital data security as its first project  
Code:  
(a) 1 only  
(b) 2 only  
(c) Both 1 and 2  
(d) Neither 1 nor 2
6. Bali Fintech agenda is launched by  
(a) IMF  
(b) WTO  
(c) WEF  
(d) UN
7. Global Hunger Index is released by  
(a) Welthungerhilfe and Concern Worldwide  
(b) FAO  
(c) UNESCO  
(d) WHO
8. Banni grassland reserve is located in  
(a) Rajasthan  
(b) Gujrat  
(c) Karnataka  
(d) Mizoram
9. Consider the following about lion tailed macaque and choose the correct one/s  
1. It is endemic to Western ghat  
2. It is listed as critically endangered in IUCN red list  
Code:  
(a) 1 only  
(b) 2 only  
(c) 1 and 2  
(d) None
10. Consider the following about Pradhan Mantri Fasal Bima Yojana (PMFBY) and choose the incorrect one/s  
1. The scheme insures income of the farmer and not crop per se
2. It will be implemented by LIC India  
3. Only commercial crops will be covered under it  
Code:  
(a) 1 and 2  
(b) 2 only  
(c) 2 and 3  
(d) 3 only
11. Consider the following statements about Central Vigilance Commission (CVC) and choose the correct one/s  
1. It was setup on the recommendation of K. Santhanam committee  
2. CVC is appointed on the pleasure of the President  
Code:  
(a) 1 only (b) 2 only  
(c) 1 and 2 (d) None
12. Which of the following DPSP were added by 42nd amendment Act of 1976  
1. To promote equal justice and to provide free legal aid to the poor  
2. To protect and improve the environment and to safeguard forests and wildlife  
3. State to abate inequalities in income, status, facilities and opportunities  
Code:  
(a) 1 and 2  
(b) 1 and 3  
(c) 2 and 3  
(d) All the above
13. Which of the following ocean currents flow from east to west?  
1. North Equatorial Current  
2. South Equatorial Current  
3. West Wind Drift  
Code:  
(a) 1 and 2  
(b) 1 and 3  
(c) 2 and 3  
(d) All the above
14. Which of the following are left bank tributaries of Brahmaputra  
1. Dibang  
2. Manas  
3. Sikang  
4. Lohit  
5. Jiabharali  
Code:  
(a) 1,2 and 5

- (b) 1,3 and 4  
(c) 2,3,4 and 5  
(d) 1 and 3 only
15. Consider the following statement and choose the correct one/s  
1. Inflation target is set by the Reserve Bank, once in every five years  
2. RBI governor has veto vote in decisions of Monetary policy committee  
Code:  
(a) 1 only  
(b) 2 only  
(c) 1 and 2  
(d) None
16. Ashok Dalwai committee was setup for  
(a) APMCs  
(b) Digital payment  
(c) Doubling farmers income  
(d) Mega food parks
17. Consider the following about Dachigam National Park and choose the correct one/s  
1. It is located in the high altitude temperate zone in Jammu & Kashmir  
2. It is home to Snow leopards  
3. It is a UNESCO World Heritage Site  
Code:  
(a) 1 and 2  
(b) 1 and 3  
(c) 2 and 3  
(d) All the above
18. Consider the following about Intergovernmental Panel on Climate Change and choose the correct statement/s  
1. It is established by World Meteorological Organization and the United Nations Environment Programme  
2. It conducts research on stabilizing greenhouse gas concentrations in the atmosphere and advice the same to UNFCCC  
Code:  
(a) 1 only  
(b) 2 only  
(c) 1 and 2  
(d) None
19. Identify the person from following statements  
1. She is known for hoisting the Indian flag at the Gowalia Tank Maidan in Mumbai during the Quit India Movement  
2. She is popularly known as the 'Grand Old Lady' of the Independence Movement  
Code:  
(a) Usha mehta  
(b) Vijya Lakshmi Pandit  
(c) Aruna Asaf Ali  
(d) Annie Besant
20. The Bengal Sati Regulation which banned the Sati practice in all jurisdictions of British India was passed on December 4, 1829 by  
(a) Governor-General Lord William Bentinck  
(b) Governor-General Lord Cornwallis  
(c) Warren Hastings  
(d) Governor-General Lord Dalhousie
21. With reference to the difference between the culture of Rigvedic Aryans and Indus Valley people, which of the following statements is/are correct? (CSE 2017)  
1. Rigvedic Aryans used the coat of mail and helmet in warfare whereas the people of Indus Valley Civilization did not leave any evidence of using them  
2. Rigvedic Aryans knew gold, silver and copper whereas Indus Valley people knew only copper and iron  
3. Rigvedic Aryans had domesticated the horse whereas there is no evidence of Indus Valley people having been aware of this animal  
Select the correct answer using the code given below:  
(a) 1 only  
(b) 2 and 3 only  
(c) 1 and 3 only  
(d) 1, 2 and 3
22. One of the implications of equality in society is the absence of (CSE 2017)  
(a) Privileges  
(b) Restraints  
(c) Competition  
(d) Ideology

23. Which one of the following statements is correct? (CSE 2017)
- Rights are claims of the State against the citizens
  - Rights are privileges which are incorporated in the Constitution of a State
  - Rights are claims of the citizens against the State
  - Rights are privileges of a few citizens against the many
24. With reference to Manipuri Sankirtana, consider the following statements: (CSE 2017)
- It is a song and dance performance
  - Cymbals are the only musical instruments used in the performance
  - It is performed to narrate the life and deeds of Lord Krishna
- Which of the statements given above is/are correct?
- 1, 2 and 3
  - 1 and 3 only
  - 2 and 3 only
  - 1 only
25. The Trade Disputes Act of 1929 provided for (CSE 2017)
- The participation of workers in the management of industries.
  - Arbitrary powers to the management to quell industrial disputes.
  - An intervention by the British Court in the event of a trade dispute.
  - A system of tribunals and a ban on strikes.
26. Delhi Dialogue X is related to
- India-ASEAN
  - BRICS
  - SAARC
  - International solar alliance
27. Project Sashakt is for
- Police reforms
  - Stressed assets in banks
  - Poverty alleviation
  - Manufacturing sector
28. Consider the following about municipal bonds and choose the correct one/s
- It is tax free bond issued by local authorities
  - Indore Municipal Corporation launched the first municipal bond in India
- Code:
- 1 only
  - 2 only
  - 1 and 2
  - None
29. Consider the following about Rythu Bandhu scheme and choose the correct one/s
- It is a scheme by Telangana government
  - It is a support scheme for farmers in which every beneficiary farmer gets Rs 4,000 **per acre as "investment support"** before every crop season
- Code:
- 1 only
  - 2 only
  - 1 and 2
  - None
30. Vernacular press act was withdrawn by
- Lord Minto
  - Lord Ripon
  - Lord Lytton
  - Lord Curzon