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TABLE OF CONTENTS

GS PAPER - I _____ 5

Paper 1 Topic: Indian culture will cover the salient aspects of Art Forms, Literature and Architecture from ancient to modern times. _____ 5

1. Medaram Jatara _____ 5

2. Pelican festival _____ 5

3. International Kala Mela _____ 6

4. Demetrios Galanos _____ 6

5. Prachi Valley _____ 7

6. Mahamastakabhisheka _____ 7

7. Kailash Yatra via Nathu La to resume _____ 7

8. Separate Flag For Karnataka _____ 8

9. Sahitya Akademi _____ 9

10. Smart museums to give 'virtual' tours and 3D view of rare artifacts _____ 9

11. Endangered Indian Languages _____ 10

12. President approves Bill allowing Kambala in Karnataka _____ 11

13. Chardham Mahamarg Pariyojana _____ 11

14. Rashtriya Sanskriti Mahotsav-2018 _____ 12

15. Khajuraho dance festival _____ 12

16. World Cities Culture Forum _____ 14

Paper 1 Topic: Role of women and women's organization, population and associated issues, poverty and developmental issues, urbanization, their problems and their remedies. _____ 14

1. Swadhar Greh Scheme _____ 14

2. National Women Entrepreneurship Council _____ 15

3. SHe-box _____ 16

Paper 1 Topic: Social empowerment, communalism, regionalism & secularism. _____ 16

Democracy Index _____ 16

Paper 1 Topic: Urbanization, their problems and their remedies. _____ 17

Bengaluru may face Cape Town fate _____ 17

Paper 1 Topic: Important Geophysical phenomena. 19

'Super Blue Blood Moon' _____ 19

Paper 1 Topic: Distribution of key natural resources across the world (including South Asia and the Indian sub-continent). _____ 19

#. Massive reserves of mercury found in Arctic permafrost _____ 19

GS PAPER - II _____ 21

Paper 2 Topic: Indian Constitution- historical underpinnings, evolution, features, amendments, significant provisions and basic structure. _____ 21

1. Jallikattu _____ 21

2. Citizenship Act _____ 21

3. Parliament adopts motion of thanks to President's Address _____ 22

Paper 2 Topic: Separation of powers between various organs dispute redressal mechanisms and institutions. _____ 23

#. SC stays new Tribunal Rules _____ 23

Paper 2 Topic: Functions and responsibilities of the Union and the States, issues and challenges pertaining to the federal structure, devolution of powers and finances up to local levels and challenges therein. _____ 24

1. Cauvery water dispute verdict _____ 24

2. Tribunal to settle Mahanadi water dispute _____ 25

3. Electoral bonds _____ 25

4. Kaleswaram project _____ 26

Paper 2 Topic: Statutory, regulatory and various quasi-judicial bodies. _____ 27

1. Commission for Agricultural Costs and Prices (CACPC) _____ 27

2. Rationalization of Autonomous Bodies under Department of Health & Family Welfare _____ 28

3. CCI slaps Rs. 136 cr. fine on Google _____ 29

4. Medical Council of India (MCI) _____ 29

5. Defence Acquisition Council _____ 30

6. Prasar Bharati _____ 30

7. Central Geological Programming Board _____ 31

8. Botanical Survey of India _____ 32

9. Inter-Ministerial Committee (IMC) on Medicinal and Aromatic Plants (MAPs) for NER _____ 32

10. Heavy Water Board _____ 33

Paper 2 Topic: Welfare schemes for vulnerable sections of the population by the Centre and States and the performance of these schemes; mechanisms, laws, institutions and bodies constituted for the protection and betterment of these vulnerable sections. _____ 34

1. Coach Factory in Marathwada, Maharashtra _____ 34
2. Ayushman Bharat for a new India -2022 _____ 34
3. Ujjwala Yojana _____ 35
4. LPG Panchayat _____ 35
5. Anti-Narcotics Scheme _____ 36
6. SC seeks details on over-crowded prisons _____ 36

Paper 2 Topic: Government policies and interventions for development in various sectors and issues arising out of their design and implementation. _____ 38

1. 'Khelo India School Games' _____ 38
2. Revitalising Infrastructure and Systems in Education (RISE) _____ 38
3. E-way bill _____ 39
4. Atal Bhoojal Yojana _____ 39
5. Anti-dumping duty _____ 40
6. Open Acreage Licensing Programme (OALP) _____ 41
7. Coal blocks for commercial mining _____ 42
8. DoT's plan to spur synergy among 7 PSUs _____ 42
9. Highway liquor ban _____ 43
10. Draft pesticide bill _____ 44

Paper 2 Topic: Issues relating to development and management of Social Sector/Services relating to Health, Education, Human Resources. _____ 44

1. Technical Education Quality Improvement Programme (TEQIP) _____ 44
2. More tribal areas to get Ekalavya schools _____ 45
3. "Healthy States, Progressive India" Report _____ 46
4. National Deworming initiative _____ 47
5. Education impact bond for India _____ 48
6. N Gopalaswami committee _____ 48
7. Shram Awards _____ 49
8. Revitalising Infrastructure and Systems in Education (RISE) _____ 50
9. Aviation Multi Skill Development Centre (MSDC) _____ 50

Paper 2 Topic: Development processes and the development industry the role of NGOs, SHGs, various groups and associations, donors, charities, institutional and other stakeholders. _____ 51

1. Dust mitigation plan must for firms _____ 51
2. Kisan Urja Suraksha evam Utthaan Mahaabhiyan or KUSUM scheme _____ 52
3. Laghu Udyog Bharati _____ 52
4. Tools for ranking of startups _____ 53
5. Village Resource Centres _____ 54
6. India Health Fund _____ 55
7. 'Watan ko Jano' _____ 55
8. Northeast Venture Fund _____ 55
9. NITI Forum for Northeast _____ 56

Paper 2 Topic: Important aspects of governance, transparency and accountability, e-governance-applications, models, successes, limitations, and potential; citizens charters, transparency & accountability and institutional and other measures. _____ 57

1. Government e-Marketplace _____ 57
2. BharatNet Project _____ 57
3. Kerala to get MGNREGS assets geo- tagged _____ 58
4. Criminal Laws (Rajasthan Amendment) Bill _____ 58
5. Corruption Perception Index 2017 _____ 59
6. National e-Governance Awards _____ 59

Paper 2 Topic: India and its neighbourhood-relations. _____ 60

1. Rohingya issue _____ 60
2. Atal doctrine _____ 61
3. Maldives' ongoing political crisis _____ 61
4. India gets access to strategic Oman port Duqm for military use _____ 62
5. Myanmar dam on border worries Manipur village _____ 63
6. Chabahar port _____ 64
7. Milan 2018 _____ 65

Paper 2 Topic: Bilateral, regional and global groupings and agreements involving India and/or affecting India's interests. _____ 66

1. Ashgabat agreement _____ 66
2. New Instrument adopted by International Labour Organization (ILO) _____ 67
3. Jogighopa to become India's new gateway to South-East Asia _____ 67

4. TAPI gas pipeline _____	68	<i>Paper 3 Topic: Inclusive growth and issues arising from it.</i> _____	85
<i>Paper 2 Topic: Effect of policies and politics of developed and developing countries on India's interests, Indian diaspora.</i> _____	70	1. Inverted duty structure _____	85
#. US tightens H-1B visa rules _____	70	2. Ombudsman scheme for NBFCs _____	86
<i>Paper 2 Topic: Important International institutions, agencies and fora, their structure, mandate.</i> _____	71	<i>Paper 3 Topic: Major crops cropping patterns in various parts of the country, different types of irrigation and irrigation systems storage, transport and marketing of agricultural produce and issues and related constraints; e-technology in the aid of farmers.</i> _____	87
1. UN Development Partnership Fund _____	71	1. Government reboots eNAM _____	87
2. Fifth South Asia Region Public Procurement Conference _____	71	2. Operation Greens _____	87
3. UN World Food Programme _____	72	3. GOBAR-Dhan Yojana _____	88
4. World Government Summit _____	72	<i>Paper 3 Topic: Issues related to direct and indirect farm subsidies and minimum support prices; Public Distribution System objectives, functioning, limitations, revamping; issues of buffer stocks and food security; Technology missions; economics of animal-rearing.</i> _____	88
5. Tanzania withdraws from UN refugee programme _____	72	#. Rajasthan announces Rs8,000 crore farm loan waiver _____	88
6. World Sustainable Development Summit _____	73	<i>Paper 3 Topic: Infrastructure: Energy, Ports, Roads, Airports, Railways etc.</i> _____	89
7. World Congress on IT 2018 _____	74	1. Jal Marg Vikas Project _____	89
8. India offers USD \$1 million aid to Tonga _____	74	2. "Development of Solar Cities" scheme _____	91
9. ASEAN-India Research Training Fellowship (AIRTF) _____	75	3. India's first 'Highway Capacity Manual' released _____	92
10. 20th Conference of Commonwealth Education Ministers _____	75	4. Govt drops the idea of an India EV policy _____	92
11. International Conference on Sustainable Biofuels _____	76	5. Hyperloop Between Mumbai and Pune _____	93
12. Coordinating center on medicinal plants _____	77	6. Delhi Mumbai Industrial Corridor (DMIC) _____	94
13. Arctic Seed Vault _____	78	7. National Urban Housing Fund _____	94
14. Asian Infrastructure Investment Bank (AIIB) _____	79	8. Strategic Petroleum Reserve (SPR) Programme _____	95
GS PAPER - III _____	80	9. National Technology Centre for Ports, Waterways and Coasts at IIT Chennai _____	96
<i>Paper 3 Topic: Indian Economy and issues relating to planning, mobilization of resources, growth, development and employment.</i> _____	80	<i>Paper 3 Topic: Science and Technology- developments and their applications and effects in everyday life Achievements of Indians in science & technology; indigenization of technology and developing new technology.</i> _____	97
1. Gift City gets unified regulator _____	80	1. Agni-I missile _____	97
2. LTCG tax on equity _____	80	2. Prithvi-II _____	97
3. Separate debt office at Centre _____	81	3. Super critical carbon di oxide Brayton test loop facility _____	98
4. National Productivity Council _____	81	4. Rustom 2 _____	99
5. Merger of PSU non-life insurers _____	82	5. National Science Day 2018 _____	100
6. Privatising public sector banks _____	83		
<i>Paper 3 Topic: Inclusive growth and issues arising from it.</i> _____	83		
1. CriSidEx _____	83		
2. RBI to link base rate with MCLR from 1 April _____	84		
<i>Paper 3 Topic: Effects of liberalization on the economy, changes in industrial policy and their effects on industrial growth.</i> _____	84		
#. Change in the basis of classifying Micro, Small and Medium enterprises _____	84		

Paper 3 Topic: Awareness in the fields of IT, Space, Computers, robotics, nano-technology, bio-technology and issues relating to intellectual property rights. 100

1. LiFi technology _____ 100
2. THREE-PARENT BABIES PERMITTED IN U.K _____ 102
3. SpaceX Falcon Heavy _____ 103
4. Global IP Index _____ 104
5. WFIRST _____ 104
6. ESPRESSO Instrument _____ 105
7. Scientists find a potentially powerful new antibiotic in dirt _____ 106
8. Blockchain tech _____ 107
9. Society for Worldwide Interbank Financial Telecommunication _____ 108

Paper 3 Topic: Conservation, environmental pollution and degradation, environmental impact assessment. _____ 108

1. World Wetlands Day 2018 _____ 108
2. New Project to Control Pollution of River Sal at Navelin, Goa _____ 109
3. Minamata Convention _____ 110
4. Great Indian Bustard _____ 111
5. Compensatory afforestation (CA) funds _____ 111
6. India State of Forest Report (ISFR) 2017 _____ 112
7. Compensatory Afforestation Act _____ 113
8. Mass nesting of olive ridleys begins in Odisha _____ 114
9. Swajal Yojana _____ 114

Paper 3 Topic: Disaster and disaster management. 115

1. India Tsunami Early Warning Centre (ITEWC) _____ 115
2. Integrated Automatic Aviation Meteorological Systems (IAAMS) _____ 116

Paper 3 Topic: Various Security forces and agencies and their mandate. _____ 116

- #. Enforcement Directorate _____ 116

Paper 3 Topic: Challenges to internal security through communication networks, role of media and social networking sites in internal security challenges, basics of cyber security; money-laundering and its prevention. _____ 116

1. Bill to amend the Prevention of Money-laundering Act, 2002 _____ 116
2. 'Security Check Kiya' campaign _____ 117
3. Crime and Criminal Tracking Network and Systems (CCTNS) _____ 117

4. Cyber security incidents _____ 119
5. Pakistan added to FATF grey-list _____ 120
6. Centre may enact law against fugitives _____ 120

Facts for Prelims _____ 122

1. Floating island to come up on Nekkampur Lake _____ 122
2. Bhasha Samman _____ 122
3. Geospatial world excellence award _____ 122
4. New wildlife sanctuary at Ghodazari _____ 122
5. Sela pass _____ 122
6. Task force set up to study AI application in military _____ 123
7. Cochin Shipyard signs MoU with Russian firm _____ 123
8. 'Exam Warriors' _____ 123
9. "Green Good Deeds" campaign _____ 123
10. Under-19 World Cup _____ 123
11. Sherin's Law _____ 123
12. Vinay Sheel Oberoi committee _____ 123
13. Tawang gets rhododendron park _____ 124
14. THE World Rankings 2018 _____ 124
15. "Swachh Bharat Sanitation Park" inaugurated in Delhi _____ 124
16. 21st Indian Birding Fair _____ 124
17. Janadriyah festival _____ 124
18. Manipur gets first woman Chief Justice _____ 125
19. Three new eel species found in Bay of Bengal _____ 125
20. World Radio Day _____ 125
21. First Hindu Temple Project In Abu Dhabi _____ 125
22. Mumbai 12th richest city in the world _____ 125
23. NTPC to supply 300 MW power to Bangladesh _____ 125
24. Soyuz rocket launches cargo freighter to International Space Station _____ 126
25. International Conference for Reconstruction of Iraq _____ 126
26. Indira Gandhi Canal _____ 126
27. Ramalingaswami Re-entry Fellowship Programme _____ 126
28. India Pharma 2018 and India Medical Device 2018 _____ 126
29. Paschim Lehar _____ 127
30. India's Umang App, Aadhaar win awards at World Government Summit _____ 127
31. Delhi hosts India's first radio festival _____ 127

32. Venezuela, Libya Lose UN Vote for Third Time in 3 Years _____	127	44. All-Women Railway Station In Jaipur's Gandhinagar A First For Rajasthan _____	129
33. First large scale CO2-injected project in Asia ____	127	45. RBS hires 'digital human' Cora on probation ____	129
34. National Banana Festival 2018 _____	127	46. UP Cabinet approves 'one district, one product' scheme _____	129
35. Theatre Olympics _____	128	47. National Integration Tours _____	130
36. Sci-tech Oscar Award _____	128	48. 5 th International Data Science summit _____	130
37. Saudi Arabia allows women to open their business without male consent _____	128	49. 'Dhanush' ballistic missile _____	130
38. Saras _____	128	50. Drypetes kalamii _____	130
39. Mizoram to get first regional agricultural centre with Israeli collaboration _____	128	51. SRIJAN _____	131
40. International Mother Language Day: 21 February _____	128	52. UIDAI's Blue Coloured New Aadhaar Card _____	131
41. India to host World Environment Day 2018 ____	129	53. September 22 as Rhino Day _____	131
42. Prithvi-II _____	129	54. Viral load testing _____	131
43. YH Malegam committee _____	129	55. 4G network on Moon in 2019 _____	131
		56. Maldives rejects India's Milan naval exercise invite _____	131

GS PAPER - I

Paper 1 Topic: Indian culture will cover the salient aspects of Art Forms, Literature and Architecture from ancient to modern times.

1. Medaram Jatara

Context:

- The four-day ‘Sammakka – Saralamma Jatara’ at Medaram in Telangana has begun. Considered the biggest tribal festival across South Asia, the Jatara witnesses a huge number of devotees thronging the village to take the blessings of Goddess Sammakka-Saralamma.

About the Medaram’s Sammakka-Sarakka/Saralamma Jatara:

- What is it?** Sammakka-Sarakka Jatara held by forest dwelling Koya tribe of Telangana and surrounding States, is the biggest Tribal festival in Asia which is attended by one crore people on an average.
- Why is it held?** The event is held bi-annually to honour the twin goddesses Sammakka and her daughter Sarakka. Several communities in Telangana society support Jatara as it is also a mythical narrative of two tribal women leaders who fought against the Kakatiya rulers who tried to annex their land and forests. According to the myth it was Sammakka’s curse which caused gradual decline and death of Kakatiya rule.

Facts for Prelims:

- Where is Medaram located?** Medaram is a remote place in the Eturnagaram Wildlife Sanctuary, a part of Dandakaranya, the largest surviving forest belt in the Deccan.

Sources: the hindu.

2. Pelican festival

Context:

- ‘Pelican Bird Festival-2018’ was recently organized at Kolleru lake. It was jointly organised by the Andhra Pradesh Tourism Authority (APTA) and Krishna district administration.

Background:

- Thousands of pelicans, painted storks and other birds will visit the lake during winter season, roost, breed and fly with their off springs.
- Recently, officials identified that Atapaka is one of the largest pelicanry in the world.



About Kolleru lake:

- Kolleru lake is one of the largest fresh water lakes in the country. It is located between Krishna and Godavari delta. It was declared as a wildlife sanctuary in 1999. It is a Ramsar site and is also listed as an Important Bird Area.
- The lake is known to amateur birdwatchers and professional ornithologists as a Pelicanery – a location where the Grey Pelicans, a large magnificent bird, nest and breed. Grey pelicans had vanished from the lake in 1973 for nearly 35 years and returned to it to nest again in December 2006.

Facts for Prelims:

- The Grey Pelican also called the Spot Billed Pelican is listed in Schedule I of the Wildlife Protection Act and in the Red Data Book. It is also considered a “globally threatened species” under the “vulnerable” category.

Sources: the hindu.

3. International Kala Mela

Context:

- The First ever International Kala Mela is being in New Delhi. The International Kala Mela has been organised by the Lalit Kala Akademi in partnership with IGNSA of the Ministry of Culture.

About the festival:

- The central objective of Kala Mela is to focus on direct interaction between the artist and the connoisseur and also educating and raising awareness about art, which has been the mandate of Lalit Kala Akademi.
- This comprehensive outreach shall include the participation of National, International level Artists/ Art Critics of repute from all over the Globe.
- More than 800 artists from across the world are taking part in the Festival. The festival serves as a platform for artists to showcase their art works.

Lalit Kala Akademi:

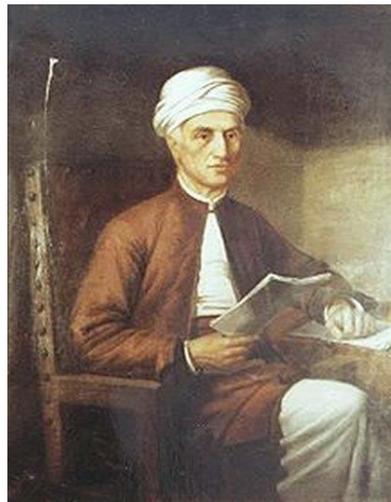
- The Lalit Kala Akademi or National Academy of Art is India's National Academy of Fine Arts.
- It is an autonomous organization, established at New Delhi in 1954 to promote and propagate understanding of Indian art, both within and outside the country.
- It does so through providing scholarships, a fellow program, and sponsoring and organizing numerous exhibitions in India and overseas.

Sources: pib.

4. Demetrios Galanos

Context:

- Indira Gandhi National Centre for the Arts (IGNCA) is organizing an International Conference on, 'Demetrios Galanos and His Legacy'. The convention is being held in Delhi and Varanasi, in addition to organizing the exhibition and folk music of Greece. The conference is being organized by Indira Gandhi National Center for the Arts (IGNCA) under the Bharat Vidya Prayojana, a long term academic program of the IGNCA.
- The aim of the conference is to focus on academic and cultural exchanges between India and Greece made by scholars and artists both Indian and Greek, in modern times since Demetrios Galanos.



International Conference
on
'Demetrios Galanos and His Legacy'
Indo-Greek scholarship 1790-2018'

3rd– 10th February, 2018
New Delhi & Varanasi

Organized by:
IGNCA Bharat Vidya Prayojana

www.einepa.org

About Demetrios Galanos:

- Demetrios Galanos (1760–1833) has a special place among the European Indologists of the nineteenth century. He was the only one who stayed in India for 47 years, and except for the first seven years when he lived in Calcutta, for 40 years he lived in the city of Varanasi, mastering Sanskrit, Hindi and Persian, from local scholars.
- Contributions: He translated the Bhagvad Gita into Greek among many other Sanskrit texts. His major contribution was the compilation of a Sanskrit-English-Greek lexicon of about 9000 words.

Sources: pib.

5. Prachi Valley

Context:

- The Archaeological Survey of India (ASI) has discovered pottery pieces, and tools made of stones and bones believed to be of the pre-Christian era from a mound in Jalalpur village of Cuttack district, Odisha.
- Discoveries of ancient artefacts indicated that a rural settlement might have thrived in that period.
- These settlements could have had cultural and trade ties with other settlements in the Prachi Valley that had come up around the Prachi river, which gradually disappeared.



Facts for Prelims:

- Prachi Valley civilisation is believed to be earlier than that of Harappa and Mohenjo-Daro flourished on the banks of Prachi river. Prachi Valley civilisation has contributed a lot towards amalgamation, assimilation and proliferation of different religious faiths and cults.
- The Prachi river, a tributary of Mahanadi, originates about 10 km away from Bhubaneswar. The river flows through Puri, Khurda, Cuttack and Jagatsinghpur districts and it is this region that is called the Prachi Valley.

Sources: the hindu.

6. Mahamastakabhisheka

Context:

- 88th *Mahamastakabhisheka* (head anointing ceremony) of the monolithic statue of Lord Bahubali has begun at Shravanabelagola, Karnataka.

About Mahamastakabhisheka:

- The *mastakabhisheka* is held once in 12 years. One of the biggest festivals for the Jain community, it honors Lord Bahubali, a revered Jain icon. According to Jain texts, Bahubali attained liberation from the cycle of births and deaths (moksha) at Mount Kailash and is revered as a liberated soul (Siddha) by the Jains.
- Bahubali is also called Gommateshwara because of the Gommateshwara statue dedicated to him and as lord “Kammateswara” from an inscription. The Gommateshwara statue was built by the Ganga dynasty minister and commander Chavundaraya; it is a 57-foot monolith situated above a hill in Shravanabelagola in the Hassan district, Karnataka state, India. It was built in around 981 A.D. and is one of the largest free-standing statues in the world.



Sources: pib.

7. Kailash Yatra via Nathu La to resume

Context: China has confirmed restarting of the Kailash Mansarovar Yatra through the Nathu La pass.

Kailash Mansarovar Yatra:

- Kailash Mansarovar Yatra (KMY) is known for its religious importance, cultural significance and arduous nature. The annual pilgrimage holds religious importance for Hindus, Jains and Buddhists.



- The Yatra is organized by the government of India in close cooperation with the Government of the People's Republic of China.
- State Governments of Uttarakhand, Sikkim and Delhi, and Indo-Tibetan Border Police (ITBP) and Kumaon Mandal Vikas Nigam Limited (KMVN) are other major Indian partners of the Ministry in organizing the Yatra.

Facts for Prelims:

- **Mansarovar Lake** is located at an altitude of 14,950 ft (4,558 m) is said to be the highest freshwater lake in the world. It is located in the Tibet Autonomous Region, China, 940 kilometres from Lhasa. To the west of it is Lake Rakshastal and to the north is Mount Kailash.
- **Nathu La** is a mountain pass in the Himalayas. It connects the Indian state of Sikkim with China's Tibet Autonomous Region. It is also one of the four officially agreed BPM (Border Personnel Meeting) points between the Indian Army and People's Liberation Army of China for regular consultations and interactions between the two armies, which helps in defusing stand-offs.
- **The four BPM are:** Chushul in Ladakh, Nathu La in Sikkim, Bum La Pass in Tawang district of Arunachal Pradesh, and Lipulekh Pass in Uttarakhand.

Sources: the hindu.

8. Separate Flag For Karnataka

Context:

- A committee formed by the Karnataka government has recommended a separate flag for the state, discounting any constitutional or legal hurdles for it.
- The proposed state flag will be a tricolour yellow, white and red, with the state's emblem at the centre.



What next?

- The state government will now seek an amendment to enable provisions of including the Karnataka flag as one of the symbols in the Flag Code.
- If the Centre gives its nod to the said amendment, Karnataka will be the second state in the country to have its own flag after Jammu and Kashmir, which is allowed the same under Article 370 of the Constitution.

Are states permitted to have their own flags?

- In *S.R. Bommai v/s Union of India (Supreme Court 1994)* case, the Supreme Court has declared that federalism is a basic feature of the Constitution and States are supreme in their sphere.
- This being the Constitutional position, there is no prohibition in the Constitution for the State to have its own flag.
- However, the manner in which the State flag is hoisted should not dishonour the national flag.
- It has to be always below the national flag. The national flag code specifically authorises use of other flags subject to the regulation by the court. So, State flag is not unauthorised.

Is Karnataka's move justified?

- All the 50 States in the U.S. have separate and distinct flags, apart from the national flag.
- In the U.K., the political units of England, Scotland, Wales, and Northern Ireland have their own flags without offending or affecting the integrity of the U.K. Karnataka is justified and constitutionally empowered to adopt its own flag to uphold the pride of the State without infringing the law.
- Democracy and federalism are essential features of the Constitution and are part of its basic structure.
- It is the democratic right of Karnataka to assert its identity through a separate name, emblem and flag.

Sources: the hindu.

9. Sahitya Akademi

Context:

- Kannada litterateur Chandrashekar Kambar has been elected as president of the Sahitya Akademi. Kambar, who has been recipient of various awards including Sahitya Akademi Award, Padma Shri and Pampa Award, will serve as president of the Akademi for a period of five years. Hindi poet Madhav Koushik has been elected as vice-president.
- *Prof. Kambar is the third Kannada writer to head the country's premier literary institution, after Vinayak Krishna Gokak (1983) and U.R. Ananthamurthy (1993).*



About Sahitya Akademi:

- Sahitya Akademi, India's National Academy of Letters, is the central institution for literary dialogue, publication and promotion in the country and the only institution that undertakes literary activities in 24 Indian languages, including English. Though set up by the Government, the Akademi functions as an autonomous organisation.
- The Sahitya Akademi was formally inaugurated by the Government of India on 12 March 1954. The Government of India Resolution, which set forth the constitution of the Akademi, described it as a national organisation to work actively for the development of Indian letters and to set high literary standards, to foster and co-ordinate literary activities in all the Indian languages and to promote through them all the cultural unity of the country.

Awards:

- Akademi gives 24 awards annually to literary works in the languages it has recognized and an equal number of awards to literary translations from and into the languages of India.
- It also gives special awards called Bhasha Samman to significant contribution to the languages not formally recognized by the Akademi as also for contribution to classical and medieval literature.

Sources: the hindu.

10. Smart museums to give 'virtual' tours and 3D view of rare artifacts

Context:

- Centre for Development for Advanced Computing (C-DAC), Pune, has developed a software named "Jatan" and "Darshak" that are set to revolutionise museum experience.

About Jatan:

- The objective of the software is to make a digital imprint of all the objects preserved in museums.
- It will help researchers, curators and also people interested in the field.

About Darshak:

- It is a mobile-based application. It is aimed at improving the museum visit experience among the differently-abled.
- It allows real-time museum visitors gather all details about objects or artifacts simply by scanning a QR code placed near the object.

About C- DAC:

- Centre for Development of Advanced Computing (C-DAC) is the premier R&D organization of the Ministry of Electronics and Information Technology (MeitY) for carrying out R&D in IT, Electronics and associated areas.

Sources: ie.

11. Endangered Indian Languages

Context:

- As per the Census Directorate, 42 Indian languages are said to be endangered. Due to the small number who speak the languages are expected to soon be extinct. The languages include dialects as well.
- The 42 languages are considered endangered because they are spoken by less than 10,000 people.

Endangered languages:

The endangered languages include:

Andaman and Nicobar Islands	Andamanese, Jarawa, Lamongse, Luro, Muot, Onge, Pu, Sanenyo, Sentilese, Shompen and Takahanyilang
Manipur	Aimol, Aka, Koiren, Lamgang, Langrong, Purum, and Tarao
Himachal Pradesh	Baghati, Handuri, Pangvali and Sirmaudi
Orissa	Mandi, Parji and Pengo
Karnataka	Koraga and Kuruba
Andhra Pradesh	Gadaba and Naiki
Arunachal Pradesh	Mra and Na
Assam	Tai Nora and Tai Rong
Uttarakhand	Bangani
Tamil Nadu	Kota and Toda
Jharkhand	Birhor
Maharashtra	Nihali
Meghalaya	Ruga
West Bengal	Toto

Efforts to protect these languages:

- A central scheme is in place to protect these languages. The Central Institute of Indian Languages has been working on the conservation of these languages. Under the programme, grammatical descriptions, monolingual and bilingual dictionaries, language primers, anthologies of folklore, encyclopedias of all languages or dialects that are endangered are being prepared. There are currently 31 languages in India that have been given the status of official languages by state governments and union territories.

Way ahead:

- India is one of the few countries with such a huge diversity of languages.
- If the languages become extinct it will not just mean the loss of the said languages but also a loss of culture.
- The country wouldn't be the same if it weren't for its diversity, languages are a crucial part of that diversity.

What's important?

- For Prelims:** not much.
- For Mains:** Need for protection of endangered languages.

Difference between a Dialect and a Language

- Distinction between the two based can be made based on the concept of Mutual intelligibility. Two languages where speakers can understand each other are considered dialects of the same language, whereas two languages where the speakers cannot understand each other are separate languages.
- Historically two dialects with close enough continuous contact will remain mutually intelligible. With enough separation in time and space dialects will eventually turn into separate languages.

Sources: the hindu.

12. President approves Bill allowing Kambala in Karnataka

Context:

- President Ram Nath Kovind has approved the Prevention of Cruelty to Animals (Karnataka Amendment) Bill making Kambala a legal rural sport in Karnataka. With this, all apprehensions and obstacles that were preventing kambala have been cleared.

Background:

- Karnataka government had promulgated Prevention of Cruelty to Animals (Karnataka Amendment) Ordinance, 2017 on July 20 last year.
- The Bill seeks to exempt kambala and bullock-cart racing from the ambit of the Prevention of Cruelty to Animals (PCA) Act, 1960.

Way ahead:

- Kambala patrons are celebrating as they have almost won the battle. It is indeed a huge victory for the traditional slush track buffalo race, but a temporary one.
- Unless a scientific study is undertaken to prove that buffaloes used for ploughing in coastal Karnataka are also fit for racing, there is always the threat of the court staying the sport. Those against the sport have been claiming that the anatomy of buffalo is not fit for racing. Hence a scientific study is essential to prove the same.
- The government must constitute a scientific committee comprising of physiology and anatomy experts, doctorate holders and invite scientific reports stating that the buffaloes used for ploughing purpose are fit to run in slush tracks.

What's important?

- For Prelims:** Kambala.
- For Mains:** Kambala- For and Against issues.

About Kambala:

What is it?

- Kambala in its traditional form is non-competitive with buffalo pairs made to race one after another in paddy fields, which is considered a thanksgiving to the Gods for protecting the animals from diseases.

Why it has become controversial?

- Over the years, it has however become an organised sport with animal rights activists claiming that the buffaloes run in the race due to fear of being beaten, which the organizers dismiss, saying no violence is involved and that several modifications had been made to ensure that it is an animal friendly event.

Sources: the hindu.

13. Chardham Mahamarg Pariyojana

Context:

- Cabinet Committee on Economic Affairs has approved Silkyara Bend-Barkot Tunnel in Uttarakhand as part of 'Chardham Mahamarg Pariyojana'.

Facts related to Silkyara Bend-Barkot Tunnel:

- The construction of this tunnel will provide all weather connectivity to Yamunotri, one of the dham on Chardham Yatra, encouraging regional socio-economic development, trade and tourism within the country.
- It will reduce the travel distance from Dharasu to Yamunotri by about 20 km and travel time by about an hour.
- The project will be falling along NH-134 (old NH-94) in the State of Uttarakhand.
- The project will be built under Engineering, Procurement and Construction (EPC) Mode. This is funded under NH (O) Scheme of Ministry of RT&H and forms part of ambitious Chardham Plan.

About Chardham Pariyojana:

- The Chardham Mahamarg Vikas Pariyojana, or the Chardham highway development project, is an ambitious initiative to improve connectivity to the Char Dham pilgrimage centres in the Himalayas. The project's main objective is to develop around 900 km of national highways. These highways will be built in Uttarakhand at an approximate cost of Rs 12,000 crore.

- The project will make travel to the Char Dham (Gangotri, Yamunotri, Kedarnath and Badrinath) safer and more convenient. The project involves widening the existing, geometrically deficient highway that connects the four abodes. Apart from widening, the road transport and highways ministry plans to improve the stretches to two-lane carriageway with paved shoulders, protect landslide hazard zones, construct bypasses, long bridges, tunnels and elevated corridors to ensure safety for the users.

What's important?

- **For Prelims:** Silkyara Bend-Barkot Tunnel, Chardham.
- **For Mains:** Need for infrastructure development.

Sources: pib.

14. Rashtriya Sanskriti Mahotsav-2018

Context:

- To celebrate the idea of unity in diversity, the Ministry of Culture is organising the the Rashtriya Sanskriti Mahotsav at Gwalior.
- The Mahotsav will cover a profusion of art forms from classical and folk, music and dance, theatre to literature and the visual arts and would offer the chance to experience the best in established and emerging virtuosity.

Facts for Prelims:

- The Ministry of Culture is organising the event under the Ek Bharat Shreshtha Bharat matrix.
- The event will be held in Madhya Pradesh.

Ek Bharat Shreshtha Bharat:

- The Ek Bharat Shreshtha Bharat programme was launched by the Prime Minister on 31st October, 2016 to promote engagement amongst the people of different states/UTs so as to enhance mutual understanding and bonding between people of diverse cultures, thereby securing stronger unity and integrity of India.

What's important?

- **For Prelims:** Sanskriti Mahotsav, Ek Bharat Shreshtha Bharat.
- **For Mains:** Need for cultural integrity.

Sources: pib.

15. Khajuraho dance festival

Context:

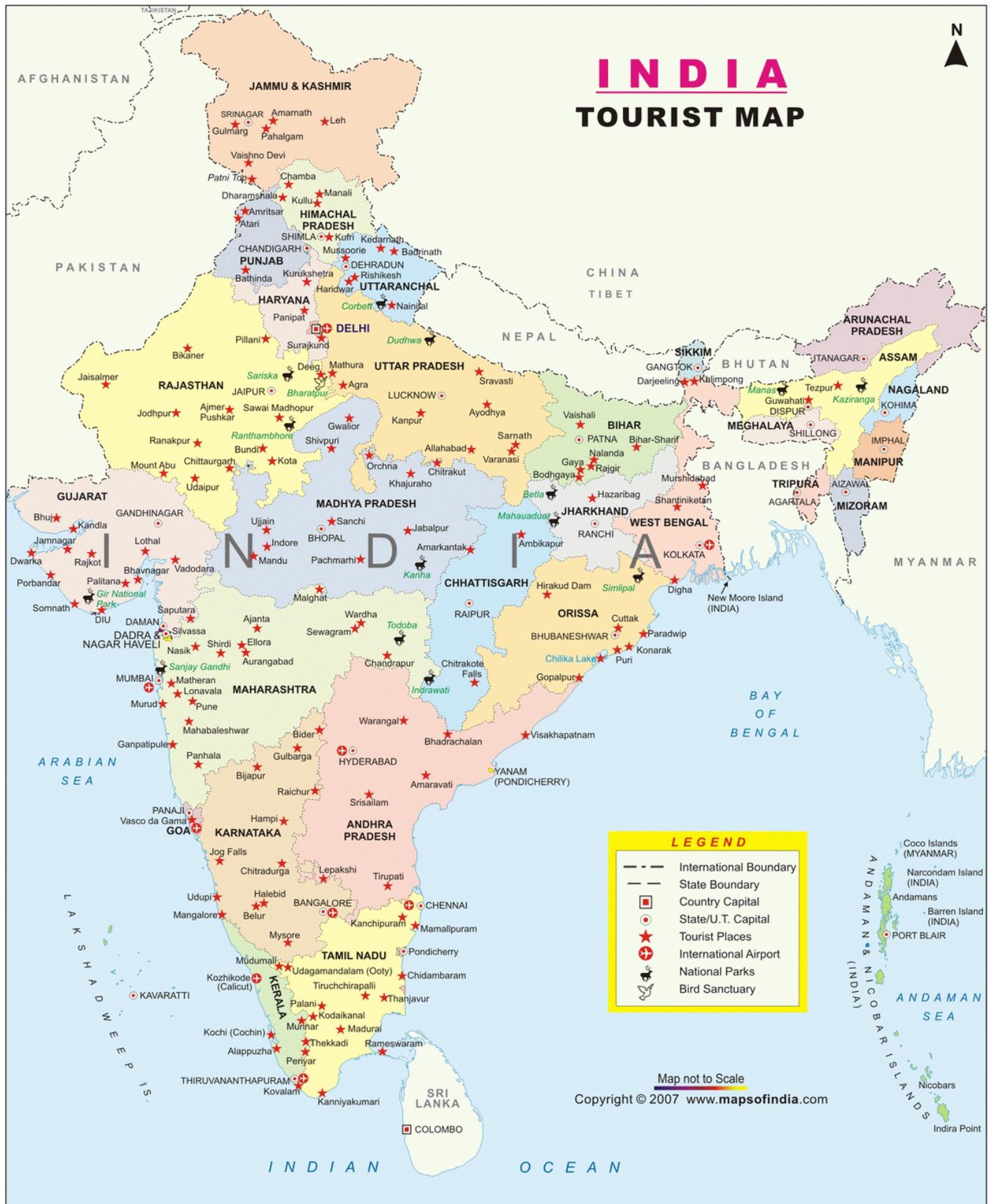
- The 44th edition of Khajuraho dance festival has begun at the UNESCO world heritage site. The Dance Festival is being organised by the culture department of the Madhya Pradesh government.

About Khajuraho Dance Festival:

- During the festival, dance performances are held in an open-air auditorium, usually in front of the Chitragupta Temple dedicated to the Sun God and the Vishwanatha Temple dedicated to Lord Shiva.
- It will showcase classical dances, including Kathak, Odissi, Bharatnatyam, Kuchipudi, Kathakali and Mohiniattam to name a few.

About Khajuraho temples:

- Khajuraho Temples are among the most beautiful medieval monuments in the country. These temples were built by the Chandella ruler between AD 900 and 1130.
- They are world-wide known for their erotic sculptures. The first recorded mention of the Khajuraho temples is in the accounts of Abu Rihan al Biruni in AD 1022 and the Arab traveler Ibn Battuta in AD 1335.
- The Khajuraho group of temples were built together but were dedicated to two religions, Hinduism and Jainism, suggesting a tradition of acceptance and respect for diverse religious views among Hindus and Jains in the region.



What's important?

- **For Prelims:** Khajuraho dance festival, temples, Chandella rulers, Al Biruni.
- **For Mains:** Khajuraho temple architecture.

Sources: pib.

16. World Cities Culture Forum

Context:

- Mumbai is set to be **the newest member and the first Indian city on the World Cities Culture Forum (WCCF)**, a platform for cities to share their culture.

How will the forum help Mumbai?

- The WCCF enables the policy makers of member cities to share research and intelligence, while exploring the vital role of culture in prosperity. Forum members collaborate via a program of events including themed symposia, regional summits and workshops.
- Mumbai, like members of the Forum, will be able to share its culture as part of a comparative research to understand its role and impact. The municipal corporation will be able to maintain a relationship with the other member cities and Mumbai will be represented on the Forum at all events.
- Through its leadership exchange program, the city's policy makers will be able to share ideas, technology, challenges and access cultures and arts.

About WCCF:

- The World Cities Culture Forum (WCCF), which BOP convenes, provides a way for policy makers to share research and intelligence, and explore the vital role of culture in their future prosperity.
- The forum, which began in 2012 with eight members, is a network of 32 key cities today, including London, Hong Kong, Amsterdam, Cape Town, Dakar, Edinburgh, Lisbon, San Francisco, Shanghai, Singapore, Toronto and many others.

Need for urban planning:

- Rapid urbanisation means that, by 2030, two-thirds of the world's population will live in cities. The very speed of change is unprecedented and governments are facing increasingly complex challenges. Many of the great policy issues of our age, from tackling climate change to promoting social equality, are being led at city, rather than national, level.
- As urban populations grow, so does the pressure on leaders to maintain their city's distinctiveness, attract business and skilled jobs, and stay resilient and adaptable in the face of change.

What's important?

- For Prelims:** WCCF- cities covered and first Indian city to be included.
- For Mains:** Need for urban planning- issues, challenges and solutions.

Sources: the hindu.

Paper 1 Topic: Role of women and women's organization, population and associated issues, poverty and developmental issues, urbanization, their problems and their remedies.

1. Swadhar Greh Scheme

Context:

- Recently released government data shows that there are 559 Swadhar Greh presently functional in the country with 17231 beneficiaries.

About Swadhar Greh Scheme:

The Swadhar scheme was launched by the **Union Ministry of Women and Child Development** in **2002** for rehabilitation of women in difficult circumstances. The scheme provides shelter, food, clothing and care to the **marginalized women/girls** who are in need.

- The beneficiaries include widows deserted by their families and relatives, women prisoners released from jail and without family support, women survivors of natural disasters, women victims of terrorist/extremist violence etc.
- The implementing agencies are mainly NGOs. An Evaluation Study conducted through Centre for Market Research and Social Development to assess the performance of the scheme observed that the scheme is successful for which it was formulated/implemented.

Way ahead:

- Women and girls represent half of the world's population – but in spite of the progress that has been made in bettering their lives, the road ahead remains long. As the famous saying goes, “Women's rights are human rights.”
- Women are equal members of society and have a right to live free from violence and discrimination, to be educated, own property, vote and fully participate in economic activities.
- When women have full access to their rights, all of society prospers.
- Experts claim that female empowerment and gender equality are two of the most effective ways for the global community to achieve every one of the 17 Sustainable Development Goals.



Sources: pib.

2. National Women Entrepreneurship Council

Context:

- The Ministry of Women and Child Development is considering to establish National Women Entrepreneurship Council (NWECC). NWECC will promote entrepreneurship as it would be the umbrella organization for socio-economic gender parity, financial inclusion and economic empowerment of women in India.

Background:

- According to Mastercard Index of Women Entrepreneurs, India scored an overall 41.7 points, ranking 49 among 54 economies globally with comparatively low in Women Business Ownership percentages.

Need for economic empowerment of women:

- Economically empowered women are major catalysts for development. There is greater recognition of the positive relationship between increased economic activity by women and improved social outcomes.
- Women often tend to reinvest their income in their children's education, health and nutrition. This has a positive impact on the potential for economic growth.

Challenges:

- India presents lower opportunities for women to assume leadership roles, participation in the workforce or engagement in entrepreneurial activities.
- Lack of education, technological know-how and cultural bias coupled with stringent business and government regulations are some key impediments that happen to undermine women's ability to rise to positions of leadership and take advantage of entrepreneurial opportunities in India.

Way ahead:

- Women entrepreneurs have been carving out a niche for them across the globe, including India especially in niche and unconventional businesses.
- However, there is significant potential to harness the untapped potential of women's entrepreneurship in India.

Sources: pib.

3. SHe-box

Context:

- So far, 107 complaints have been received through portal 'SHe-box'.
- The government has all concerned authorities to take appropriate actions.

About SHe-box:

What is it?

- It is an online complaint management system for registering complaints related to sexual harassment at workplace. It was launched by the **Ministry of Women and Child Development**.
- The complaint management system has been developed to ensure the effective implementation of Sexual Harassment of Women at Workplace (Prevention, Prohibition and Redressal) Act (the SH Act), 2013.
- Once a complaint is submitted to the portal, it will be directly sent to the Internal Complaints Committee (ICC) of the concerned Ministry/Department/PSU/Autonomous Body etc. having jurisdiction to inquire into the complaint. Through this portal, WCD as well as complainant can monitor the progress of inquiry conducted by the ICC.



Significance of the portal:

- This portal is an initiative to provide a platform to women working or visiting any office of Central Government (Central Ministries, Departments, Public Sector Undertakings, Autonomous Bodies and Institutions etc.) to file complaints related to sexual harassment at workplace under the SH Act.
- Those who had already filed a written complaint with the concerned Internal Complaint Committee (ICC) constituted under the SH Act are also eligible to file their complaint through this portal.
- It is also an effort to provide speedier remedy to women facing sexual harassment at workplace as envisaged under the SH Act.

Sources: pib.

Paper 1 Topic: Social empowerment, communalism, regionalism & secularism.

Democracy Index

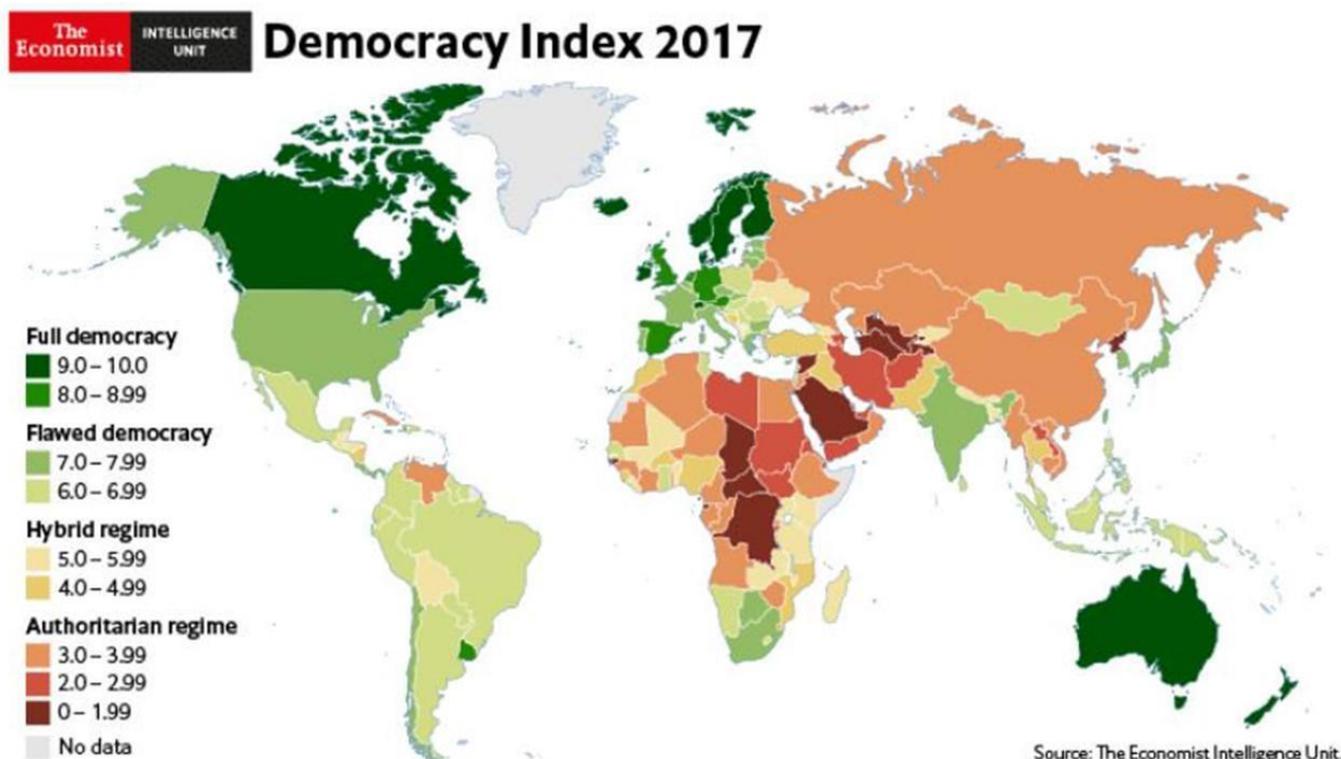
Context:

- The Economist Intelligence Unit has released 2017 Democracy Index report. The report shows that democracy is in decline across the world. It is the worst performance since 2010-'11 in the aftermath of the global financial crisis.
- The index ranks 165 independent states and two territories on the basis of five categories: electoral process and pluralism, civil liberties, the functioning of government, political participation and political culture. The list has been divided into four broad categories – full democracy, flawed democracy, hybrid regime and authoritarian regime.

Performance of various countries:

- **Top and bottom countries:** Norway, Iceland and Sweden are the top three on the list while Chad, Syria and North Korea bring up the bottom.
- **Performance of India:** The total score of 89 countries fell when compared to their ranking in 2016. India was one of the countries whose score declined the most. It fell ten places in the rankings from 32 to 42 as its score deteriorated by 0.58 points to 7.23 (on a scale of 0 to 10). In the 'media freedom ranking', India ranked 49 out of 167 countries that the index covered.
- **Continents:** Asia recorded the biggest decline compared to other regions of the world. According to the index, Asia (5.63) lagged behind North America (8.56), Western Europe (8.38) and Latin America (6.26). Indonesia was the worst-performing nation, falling to 68th position from 48th rank.

- **Classification:** Only top-19 countries have been classified as ‘full democracies’, while the hybrid regimes include Pakistan (110th), Bangladesh (92nd), Nepal (94th) and Bhutan (99th). Those named as ‘authoritarian regimes’ include China (139th), Myanmar (120th), Russia (135th) and Vietnam (140th). North Korea is ranked the lowest at 167th, while Syria is a notch better at 166th place.



What lies behind India's poor performance?

- The report has classified India as a flawed democracy and attributed the dip in India's rankings to lack of freedom of speech and free media. The report notes that the rise of conservative religious ideologies has mainly affected India. The strengthening of right-wing Hindu forces in an otherwise secular country led to a rise of vigilantism and violence against minority communities, particularly Muslims, as well as other dissenting voices.
- In some states in India, the authorities there have restricted freedom of the press, closed down several newspapers and heavily controlled mobile internet services. Several journalists were murdered in India in 2017, as in the previous year.

Way ahead:

- A Human Rights Watch report published on January 22 had also alleged that Indian failed to protect its minorities in 2017. This report should serve as a warning sign for the country. Urgent steps are needed to protect democratic values of the country, without which our fundamental credentials as a democracy will be seriously undermined.

Sources: the hindu.

Paper 1 Topic: Urbanization, their problems and their remedies.

Bengaluru may face Cape Town fate

Context:

- As per a report based on “UN-endorsed projections” published by the BBC, Bengaluru city of India is “most likely” to be the first Indian urban settlement that will run out of drinking water. The report has listed 11 top cities of the world that are “most likely” to run out of drinking water, just like South Africa's City of Cape Town, which is facing unprecedented water supply shortage in history.

Cities which are likely to run out of drinking water:

- Sao Paulo, Brazil's financial capital is on top of the list. The report ranks Bengaluru second in the list of 11 world cities that are "most likely" to run out of drinking water. Other cities are Chinese capital Beijing, Cairo in Egypt due to struggling river Nile, Jakarta of Indonesia, Moscow in Russia, Istanbul of Turkey, Mexico City, London, Tokyo of Japan and Miami in the US.

Factors behind Bengaluru's fate:

- Bengaluru is a victim of urbanisation madness. The city is experiencing unprecedented rapid urbanisation and sprawl in recent times due to unplanned unrealistic concentrated developmental activities.
- This has posed "serious challenges to the decision-makers in the city planning and management process involving a plethora of serious challenges such as loss of green cover and water bodies, climate change, enhanced greenhouse gases (GHG) emissions, lack of appropriate infrastructure, traffic congestion, and lack of basic amenities (electricity, water, and sanitation) in many localities, etc."
- The report notes that not a "single" lake in the city has water fit for either drinking or bathing.
- Lakes of the city, including Bellandur, often make news for catching fire. Between 1973 and 2016, the city witnessed a 100% increase in "concretization or paved surface increase".
- Since 1981, the city has spread and has also experienced dramatic decadal population growth.

Why Indians should worry?

- Shortage of water is a problem faced by almost all urban centres of the world.
- Even in India, the situation is not so happy.
- A **World Bank report** last year had said that at least 21 Indian cities were moving towards zero groundwater level by 2020.
- As per a report by **World Resources Institute**, as much as 54% of India's area is under "high" to "extremely high water stress".
- The stark future of the Indian cities can be judged from the fact that water requirement would rise up to 1.5 trillion, while the current supply of water is just 740 billion cubic meter.
- Experts believe that 40% of people in India may not get to drink water by 2030.

Way ahead:

- The ominous prediction by the UN for Bengaluru must concern all residents and authorities of the city, especially after the Cape Town experience.
- The South African City of Cape Town is facing its worst drought in 100 years.
- Residents of the city have been told to cut their daily water consumption while the authorities of the city are scrambling to prevent the city running dry as soon as in April.
- Bengaluru's presence on the list should be a wake up call for other Indian cities.
- A mix of better planning, market-based thinking and technology adoption could help them, especially if local populations and governments are stakeholders in the process. It may be too late for Bengaluru, but there may still be a chance for other Indian cities.

What's important?

- **For Prelims:** The list of 11 cities which are likely to run out of drinking water.
- **For Mains:** Water crisis- causes, effects and solutions.

Sources: the hindu.

Paper 1 Topic: Important Geophysical phenomena.

'Super Blue Blood Moon'

Context:

- Large parts of the globe experienced a rare 'Super Blue Blood Moon' on January 31st, 2018. A supermoon, a blue moon and a total lunar eclipse took place at the same time.

So, what is a 'Super Blue Blood Moon?'

- A 'Super Moon' is simply a moon that is closer to the Earth than normal. As a result, it appears bigger and brighter in the sky.
- A 'Blue Moon' is also simple and means the second full moon in a calendar month.
- A 'Blood Moon' happens when sunlight passes through the atmosphere above the Earth, casting a dark colour across the surface of the moon.



Sources: the hindu.

Paper 1 Topic: Distribution of key natural resources across the world (including South Asia and the Indian sub-continent).

#. Massive reserves of mercury found in Arctic permafrost

Context:

- Scientists have discovered that permafrost in the northern hemisphere stores massive amounts of natural mercury and a warming climate could release large amounts of this dangerous toxin that may cause neurological effects in humans and animals.
- The scientists measured mercury concentrations in permafrost cores from Alaska and found that northern permafrost soils are the largest reservoir of mercury on the planet, storing nearly twice as much mercury as all other soils, the ocean and the atmosphere combined.



Highlights of the study:

- The study found approximately 793 gigagrams, or more than 15 million gallons, of mercury is frozen in northern permafrost soil. That is roughly 10 times the amount of all human-caused mercury emissions over the last 30 years, based on emissions estimates from 2016.
- The study also found all frozen and unfrozen soil in northern permafrost regions contains a combined 1,656 gigagrams of mercury, making it the largest known reservoir of mercury on the planet. This pool houses nearly twice as much mercury as soils outside of the northern permafrost region, the ocean and the atmosphere combined.

Mercury- basic facts:

- Mercury is a chemical element with symbol Hg and atomic number 80. It is commonly known as quicksilver and was formerly named hydrargyrum. It is the only metallic element that is liquid at standard conditions for temperature and pressure. The only other element that is liquid under these conditions is bromine.
- Mercury is a very rare element in the Earth's crust. It accounts for only about 0.08 parts per million (ppm). It is a relatively poor conductor of heat. Most metals are excellent thermal conductors.
- Mercury is used in thermometers, barometers, manometers, sphygmomanometers, float valves, mercury switches, mercury relays, fluorescent lamps and other devices.
- **It is also used in lighting:** electricity passed through mercury vapor in a fluorescent lamp produces short-wave ultraviolet light which then causes the phosphor in the tube to fluoresce, making visible light.

Effects of Mercury on Health:

- **Exposure to mercury** – even small amounts – may cause serious health problems, and is a threat to the development of the child in utero and early in life. It may have toxic effects on the nervous, digestive and immune systems, and on lungs, kidneys, skin and eyes. It is considered by WHO as one of the top ten chemicals or groups of chemicals of major public health concern.
- People are mainly exposed to methylmercury, an organic compound, when they eat fish and shellfish that contain the compound.

Way ahead:

- Mercury pollution is a global problem that requires global action.
- It moves with air and water, transcends political borders, and can be transported thousands of miles in the atmosphere.
- The **Minamata Convention** on Mercury is an opportunity for the global community to address this mounting problem before it gets worse. Over the next decades, implementation of this international agreement will help reduce mercury pollution from the specific human activities responsible for the most significant mercury releases to the environment.

What's important?

- **For Prelims:** Facts on Mercury, Minamata convention.
- **For Mains:** Effects of Mercury on Health, need for global cooperation.

Sources: toi.

GS PAPER - II

Paper 2 Topic: *Indian Constitution- historical underpinnings, evolution, features, amendments, significant provisions and basic structure.*

1. Jallikattu

Context:

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

Background:

- The decision came based on petitions filed by activists to strike down the Prevention of Cruelty to Animals (Tamil Nadu Amendment) Act of 2017 and the Prevention of Cruelty to Animals (Conduct of Jallikattu) Rules of 2017. Activists contended that the amended laws had opened the gates for the conduct of the popular bull-taming sport in the name of culture and tradition despite a 2014 ban by the Supreme Court.
- Activists contend that the 2017 Jallikattu Act and Rules violate the five internationally recognised freedoms – the freedom from hunger, malnutrition and thirst; freedom from fear and distress; freedom from physical and thermal discomfort; freedom from pain, injury and disease; and freedom to express normal patterns of behaviour.

Significance of this decision:

- It is for the first time the Supreme Court is considering the question of granting constitutional protection to jallikattu as a collective cultural right under Article 29 (1). Article 29(1) is a fundamental right guaranteed under Part III of the Constitution to protect the educational and cultural rights of citizens.
- Though commonly used to protect the interests of minorities, Article 29(1) mandates that “any section of the citizens residing in the territory of India or any part thereof having a distinct language, script or culture of its own shall have the right to conserve the same”.

What is Jallikattu?

- Also known as Eruthazhuvuthal or Manju virattu, Jallikattu is a traditional bull-taming sport organised in Tamil Nadu during Pongal. According to some historical accounts, the practice dates back to as far as 2000 years ago.
- The sport involves a natively reared stud that is set free inside an arena filled with young participants. The challenge lies in taming the bull with bare hands.
- Participants often try to grab the bull by its horns or tail and wrestle it into submission. A few also tend to latch on to the bull by clinging to the hump at the back of its neck.
- Calves are specially reared to become bulls fit for Jallikattu by feeding them a special diet.

Sources: the hindu.

2. Citizenship Act

Context:

- The Supreme Court has decided to refer to a fresh Constitution Bench pleas to examine the validity of various aspects of a provision of the Citizenship Act 1955, including the cut-off date for awarding citizenship to Bangladeshi immigrants in Assam.
- Section 6A of the Act relates to provisions for citizenship of people covered by the Assam Accord.*

Background:

- In December 2014, a two-judge Bench of the apex court had framed 13 questions, for deliberation by a larger Bench, which included whether Section 6A violates the Articles of the Constitution by diluting the political rights of residents of Assam.

- It had also framed a question about the scope of fundamental right contained in Article 29(1), relating to the right to conserve a distinct language, script or culture, and also about the meaning of expressions 'culture' and 'conserve.'

3. The Citizenship Act , 1955

Indian citizenship can be acquired by Birth, Descent, Registration and Naturalization. The conditions and procedure for acquisition of Indian Citizenship as per the provision of the Citizenship Act, 1955 are given below:

1. By Birth (Section 3) :-

A person born in India on or after 26th January 1950 but before 1st July, 1987 is citizen of India by birth irrespective of the nationality of his parents.

A person born in India on or after 1st July, 1987 but before 3rd December, 2004 is considered citizen of India by birth if either of his parents is a citizen of India at the time of his birth.

A person born in India on or after 3rd December, 2004 is considered citizen of India by birth if both the parents are citizens of India or one of the parents is a citizen of India and the other is not an illegal migrant at the time of his birth.

Assam Accord:

- The Assam Accord (1985) was a Memorandum of Settlement (MoS) signed between representatives of the Government of India and the leaders of the Assam Movement in New Delhi on 15 August 1985. The accord brought an end to the Assam Agitation and paved the way for the leaders of the agitation to form a political party and form a government in the state of Assam soon after.
- As per the Accord, those Bangladeshis who came between 1966 and 1971 will be barred from voting for ten years. The Accord also mentions that the international borders will be sealed and all persons who crossed over from Bangladesh after 1971 are to be deported.
- Though the accord brought an end to the agitation, some of the key clauses are yet to be implemented, which has kept some of the issues festering.

Sources: the hindu.

3. Parliament adopts motion of thanks to President's Address

- The Parliament has adopted the Motion of Thanks to the President's address.

What is "Motion of Thanks" and what it contains?

- The President makes an address to a joint sitting of Parliament at the start of the Budget session, which is prepared by the government and lists its achievements.
- The President's speech is a statement of the legislative and policy achievements of the government during the preceding year and gives a broad indication of the agenda for the year ahead.
- The address is followed by a motion of thanks moved in each House by ruling party MPs.
- During the session, political parties discuss the motion of thanks also suggesting amendments.

Amendments to the "Motion of Thanks":

- Notices of amendments to Motion of Thanks on the President's Address can be tabled after the President has delivered his Address.
- Amendments may refer to matters contained in the Address as well as to matters, in the opinion of the member, the Address has failed to mention.
- Amendments can be moved to the Motion of Thanks in such form as may be considered appropriate by the Speaker.

Limitation:

- The only limitations are that members cannot refer to matters which are not the direct responsibility of the Central Government and that the name of the President cannot be brought in during the debate since the Government and not the President is responsible for the contents of the Address.

Provisions governing them:

- President's Address and Motion of Thanks are governed by **Articles 86 (1)** and **87 (1)** of the Constitution and **Rules 16 to 24** of the **Rules of Procedure and Conduct of Business in Lok Sabha**.

Sources: the hindu.

Paper 2 Topic: Separation of powers between various organs dispute redressal mechanisms and institutions.

#. SC stays new Tribunal Rules

Context:

- The Supreme Court has paved the way for appointment of chairpersons, judicial and others members of all 19 tribunals including CAT and NGT that were stalled due to pendency of pleas challenging the 2017 Finance Act and the rules governing the panels.

Background:

- The Finance Act and the Tribunal, Appellate and other Authorities (Qualifications, Experience and other conditions of Service of Members) Rules, which govern appointments, tenure, removal and other service conditions of chairpersons and members of tribunals, had been challenged on grounds including that they gave more powers to the executive and interfered with the judicial independence of the panels.

Interim arrangement:

- The court has asked the government to form an interim search-cum-selection committee during the pendency of the petitions to appoint judicial and administrative members in tribunals. The search panel would be headed by the CJI or his nominee. The chairpersons of tribunals to which appointments will be made and two secretaries, nominated by the central government, would be the members of the committee.
- Appointment to the post of chairman (of tribunals) will be made by nomination by the CJI. All appointments to be made pursuant to the selection made by the interim search-cum-selection committee shall abide by the conditions of service as per the old Acts and the Rules.

What's the main concern now?

- Tribunals, Appellate Tribunals and Other Authorities (qualifications, experience and other conditions of service of members) Rules, 2017', framed under the Finance Act, provides that the search-cum-selection committee to select its administrative members will be headed by a nominee of the central government. Earlier, the Chief Justice of India (CJI) or his nominee had a role in the selection of administrative members of CAT.
- It is argued that the new law would destroy independent functioning of tribunals as they give primacy to the executive in deciding the constitution, qualifications of members, their appointments and removal.

Facts for Prelims:**About CAT:**

- The Central Administrative Tribunal was established by an Act of Parliament namely Administrative Tribunals Act, 1985 as sequel to the 42nd amendment of the Constitution of India inserting Article 323 A. The Principal seat of Central Administrative Tribunal is at New Delhi and it has 16 Outlying Benches scattered all over the Country.
- The tribunal adjudicates disputes and complaints with respect to Recruitment and Conditions of Service of the persons appointed to the Public Services and Posts in connection with the affairs of the Union or any State or of any other Local Authorities within the territory of India or under the control of the Government of India.

- The Tribunal is headed by the Chairman and 65 Members, 33 from Judicial (including Chairman) and 33 from the Administrative stream. The Chairman is normally a retired Chief Justice of a High Court.

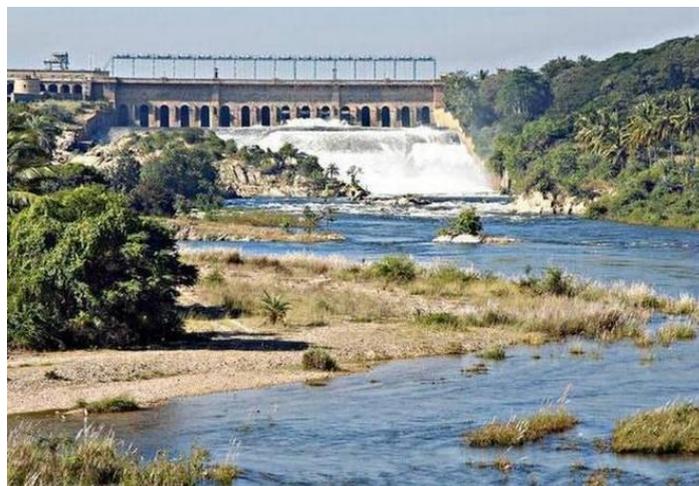
Sources: the hindu.

Paper 2 Topic: Functions and responsibilities of the Union and the States, issues and challenges pertaining to the federal structure, devolution of powers and finances up to local levels and challenges therein.

1. Cauvery water dispute verdict

Context:

- The Supreme Court verdict on Cauvery water dispute is out, and it has come as a big relief for Karnataka.
- Karnataka and Tamil Nadu have been at loggerhead for their 'due share' of Cauvery river.



What's the verdict?

- The apex court directed the Karnataka government to release 177.25 TMC of water to Tamil Nadu, 14.75 TMC lesser than what was allotted by the tribunal in 2007. Karnataka will now get 284.75 TMC and Tamil Nadu will get 404.25 TMC of Cauvery water.
- The top court also made it clear that increase in the share of Cauvery water for Karnataka has been done keeping in view the fact that there is an increased demand of drinking water by Bengaluru and also for many industrial activities.

What's the dispute?

- The dispute began with Karnataka's demand of 'equitable sharing of the waters' after it expanded farming activities in the Cauvery basin. It claimed that the previous agreements, which happened between erstwhile Madras Presidency and Kingdom of Mysore in 1924, were highly skewed to what is present day Tamil Nadu. Tamil Nadu used to get about 602 TMC of the total water, leaving only about 138 TMC for Karnataka.

Tribunal order:

- In 1990, the union government set up a Cauvery Water Disputes Tribunal or CWDT to look into inter-state river water disputes. In 2007, the Tribunal came out with its order. The Tribunal found the total water of the river 740 thousand million cubic feet (TMC) which it divided (majorly) in Karnataka (270) and Tamil Nadu (419 TMC). Rest of the water was divided into two other states and several other basins.
- It gave Kerala: 30 TMC, Kabini sub-basin: 21 TMC, Bhavani sub-basin: 6 TMC, Pambar sub-basin: 3 TMC, the Union Territory of Pondicherry: 7 TMC. The Tribunal also awarded 10 TMC for environmental protection and 4 TMC for inevitable escapages into the sea.

What was the demand by Karnataka?

- The CWDT had directed Karnataka to release 192 TMC of Cauvery water in normal monsoon year.
- Karnataka government wasn't satisfied with the Tribunal's order. It moved to the Supreme Court claiming for 312 TMC of water.
- Karnataka had recently moved a review petition in the apex court against its three orders on the issue.
- It said grave miscarriage of justice was caused to it following the three apex court orders of September 20, 27 and 30, 2016. In all these orders, Karnataka was directed to release Cauvery water to Tamil Nadu.

Sources: the hindu.

2. Tribunal to settle Mahanadi water dispute

Context:

- The Union Cabinet has approved the setting up of a tribunal to settle a row between Odisha and Chhattisgarh on sharing the waters of the river Mahanadi.
- This is in keeping with the recent Supreme Court order directing the Centre to set up a tribunal in response to a plea by the Odisha government to stop the Chhattisgarh government from constructing several weirs on the river.

Legal provisions:

- With a chairperson and two other members, the tribunal will be formed according to the provisions of the Inter-State River Water Disputes (ISRWD), 1956.
- The Chief Justice of India would nominate the chairperson and members for the tribunal from among the judges of the apex court or high courts.
- As per provisions of the ISRWD Act, 1956 the Tribunal is required to submit its report and decision within a period of 3 years which can be extended to a further period not exceeding 2 years due to unavoidable reasons.

What's the dispute?

- Odisha and Chhattisgarh are locked in a dispute over the Mahanadi waters since the mid-80s.
- Odisha claimed that Chhattisgarh government has been constructing dams in the upper reaches of the Mahanadi, depriving its farmers who are heavily dependent on the rivers waters.
- Chhattisgarh has been against the setting up of a tribunal, and argued that the water sharing agreement was with the erstwhile Madhya Pradesh government, before the state was carved out in 2000.

What's important?

- **For Prelims:** Mahanadi river, ISRWD Act.
- **For Mains:** inter- state river water disputes.

Sources: the hindu.

3. Electoral bonds

Context:

- The first sale of electoral bonds will start from March 1 for a period of 10 days at four main branches of State Bank of India in Chennai, Kolkata, Mumbai and New Delhi.

About Electoral bonds:

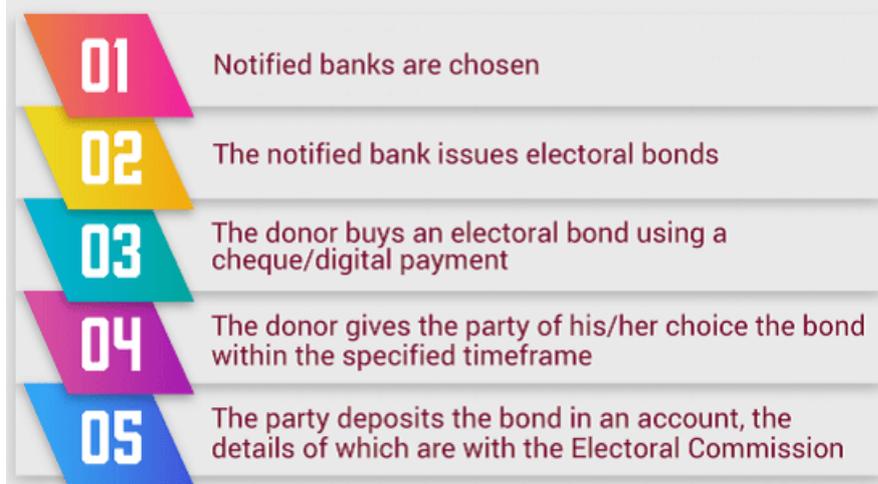
What is it?

- An electoral bond is designed to be a bearer instrument like a Promissory Note – in effect, it will be similar to a bank note that is payable to the bearer on demand and free of interest.
- It can be purchased by any citizen of India or a body incorporated in India.
- The electoral bonds will not bear the name of the donor.

How do you use it?

- The bonds will be issued in multiples of ₹1,000, ₹10,000, ₹1 lakh, ₹10 lakh and ₹1 crore and will be available at specified branches of State Bank of India.
- They can be bought by the donor with a KYC-compliant account.

How An Electoral Bond Works



- Donors can donate the bonds to their party of choice which can then be cashed in via the party's verified account within 15 days.
- Every party that is registered under section 29A of the Representation of the Peoples Act, 1951 (43 of 1951) and has secured at least one per cent of the votes polled in the most recent Lok Sabha or State election will be allotted a verified account by the Election Commission of India.
- Electoral bond transactions can be made only via this account.

Why Electoral Bonds are Necessary?

- India is the largest democracy in the world. However, despite strengthening various institutions for the last seven decades, India has not been able to evolve a transparent political funding system.
- Elections and political parties are a fundamental feature of Parliamentary democracy.
- Elections cost money. The round the year functioning of the political parties involves a large expenditure.
- Parties run offices throughout the country. Staff salaries, travelling expenses, establishment cost are regular expenditures of political parties.
- There has not been a single year where election either for the Parliament or State Assemblies have not been held. Besides expenditure of individual candidates, political parties have to spend money on election campaigns, publicity, tours, travels and election related establishments.
- These expenditures run into hundreds of crores. Yet there has not been a transparent funding mechanism of the political system.

Issues with the conventional system of political funding:

- The conventional system of political funding is to rely on donations. These donations, big or small, come from a range of sources from political workers, sympathisers, small business people and even large industrialists.
- The conventional practice of funding the political system was to take donations in cash and undertake these expenditures in cash. The sources are anonymous or pseudonymous. The quantum of money was never disclosed.
- The present system ensures unclean money coming from unidentifiable sources. It is a wholly non-transparent system.

What's important?

- **For Prelims:** Electoral Bonds.
- **For Mains:** Electoral reforms, Bonds- need and challenges.

Sources: the hindu.

4. Kaleswaram project

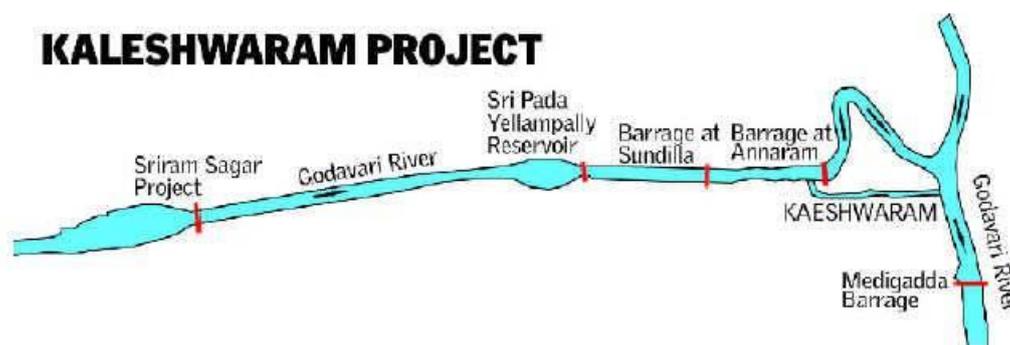
Context:

- In a major relief to the Telangana government, the Supreme Court has refused to intervene in an order granted by the Hyderabad High Court suspending the order of the National Green Tribunal at Delhi staying the construction of the Kaleswaram Lift Irrigation Project.
- The NGT bench at Chennai had on October 5, 2017 directed the Telangana government to stay the construction of the project.

What's the project?

- The Kaleswaram project is an off-shoot of the original Pranahitha-Chevella Lift Irrigation Scheme taken up by the Congress government in 2007 when Andhra Pradesh was not divided. After the formation of Telangana in 2014, the TRS government redesigned the project on the ground that the original plan had too many environmental obstacles and had very low water storage provision – only about 16.5 tmc ft.
- After conducting a highly advanced **Light Detection and Ranging (LiDAR) survey** for a couple of months, the government separated the original component serving the Adilabad area as the Pranahitha project and renamed the rest as Kaleswaram by redesigning the head works, storage capacity and the canal system based on the data of availability of water at different locations along the course of the **Godavari** and its tributaries.

- The Kaleshwaram project has provision for the storage of about 148 tmc ft with plans of utilising 180 tmc ft by lifting at least 2 tmc ft water every day for 90 flood days. The project is designed to irrigate 7,38,851 hectares (over 18.47 lakh acres) uplands in the erstwhile districts of Karimnagar, Nizamabad, Warangal, Medak, Nalgonda and Ranga Reddy.



What's unique?

- According to engineers, KLIP has many unique features, including the **longest tunnel to carry water in Asia**, running up to 81 km, between the Yellampally barrage and the Mallannasagar reservoir.
- The project would also utilise the **highest capacity pumps, up to 139 MW**, in the country to lift water.

Sources: the hindu.

Paper 2 Topic: Statutory, regulatory and various quasi-judicial bodies.

1. Commission for Agricultural Costs and Prices (CACP)

Context:

- Based on recommendations of Commission for Agricultural Costs and Prices (CACP), the **Cabinet Committee on Economic Affairs** has given its approval for **increase in the Minimum Support Price (MSP)** for Fair Average Quality (FAQ) of "Milling Copra" to Rs.7500 per quintal for 2018 season from Rs. 6500 per quintal in 2017.
- The MSP of copra is expected to ensure appropriate minimum prices to the farmers and step up investment in coconut cultivation and thereby production and productivity in the country.

Commission for Agricultural Costs and Prices (CACP)

- The Agricultural Prices Commission was set up in January, 1965 to advise the Government on price policy of major agricultural commodities
- Since March 1985, the Commission has been known as Commission for Agricultural Costs and Prices.
- Minimum Support Prices (MSP) for major agricultural products are fixed by the government, each year, after taking into account the recommendations of the Commission for Agricultural Costs and Prices (CACP).

About CACP:

- The Commission for Agricultural Costs & Prices (CACP) is an attached office of the **Ministry of Agriculture and Farmers Welfare**, Government of India. It came into existence in January **1965**. Currently, the Commission comprises a Chairman, Member Secretary, one Member (Official) and two Members (Non-Official). The non-official members are representatives of the farming community and usually have an active association with the farming community.
- It is **mandated to recommend minimum support prices (MSPs)** to incentivize the cultivators to adopt modern technology, and raise productivity and overall grain production in line with the emerging demand patterns in the country. However, the **Cabinet Committee on Economic Affairs (CCEA)** of the Union government takes a **final decision** on the level of MSPs and other recommendations made by CACP.

Sources: pib.

2. Rationalization of Autonomous Bodies under Department of Health & Family Welfare

Context:

- The Union Cabinet has approved the proposal for closure of Autonomous Bodies, namely, Rashtriya Arogya Nidhi (RAN) and Jansankhya Sthirata Kosh (JSK) and the functions are proposed to be vested in Department of Health & Family Welfare (DoHFW).
- The rationalization of Autonomous Bodies under Department of Health & Family Welfare will involve inter-ministerial consultations and review of existing bye laws of these bodies. The time frame for implementation is one year.

Cabinet Decision
February 7, 2018

Rationalization of Autonomous Bodies under Department of Health & Family Welfare



- **Cabinet approves closure of autonomous bodies, namely, Rashtriya Arogya Nidhi (RAN) and Jansankhya Sthirata Kosh (JSK); their functions to be vested in Department of Health & Family Welfare (DoHFW)**
- This will involve inter-ministerial consultations and review of existing bye laws of these bodies
- To be implemented within one year

Background

- RAN was set up as a registered society to provide financial medical assistance to poor patients receiving treatment in designated central government hospitals
- JSK was set up with a corpus grant of Rs.100 crores in the year 2003 to raise awareness for population stabilization strategies
- Rationalisation based on a review by NITI Aayog of the 19 Autonomous Bodies under the DoHFW

Rashtriya Arogya Nidhi (RAN):

- It was set up as a registered society to provide financial medical assistance to poor patients receiving treatment in designated central government hospitals.
- An advance is placed with the Medical Superintendents of such hospitals who then provide assistance on a case to case basis. Since the DoHFW provides funds to the hospitals, the grants can be given from the Department to the hospital directly. RAN functions can, therefore, be vested in DoHFW.
- Managing Committee of RAN Society will meet to dissolve the Autonomous Body (AB) as per provisions of Societies Registration Act, 1860 (SRA). In addition to this, Health Minister's Cancer Patient Fund (HMCPPF) shall also be transferred to the Department. The timeline required for this is one year.

Jansankhya Sthirata Kosh (JSK):

- It was set up with a corpus grant of Rs.100 crores in the year 2003 to raise awareness for population stabilization strategies.
- JSK organizes various activities with target populations as a part of its mandate. There has been no continuous funding to JSK from the Ministry.
- Population stabilization strategies require private and corporate funding, which can be accessed through JSK. Although, JSK will continue to play a significant role in population stabilization strategies, its existence as an Autonomous Body is not necessary.
- Hence, JSK as an Autonomous Body can be closed as it can be administered by the Department as a fund.

Sources: pib.

3. CCI slaps Rs. 136 cr. fine on Google

- The Competition Commission of India has imposed a fine of Rs. 136 crore on search engine major Google for unfair business practices in the Indian market for online search.

Background:

- It was alleged that Google was indulging in abuse of dominant position in the market for online search through practices leading to search bias and search manipulation, among others.

About CCI:

- Competition Commission of India is a body responsible for enforcing The Competition Act, 2002 throughout India and to prevent activities that have an adverse effect on competition in India. It was established on 14 October 2003. It became fully functional in May 2009.
- Composition:** CCI consists of a Chairperson and 6 Members appointed by the Central Government.
- Functions:** The duty of the Commission is to eliminate practices having adverse effect on competition, promote and sustain competition, protect the interests of consumers and ensure freedom of trade in the markets of India. The Commission is also required to give opinion on competition issues on a reference received from a statutory authority established under any law and to undertake competition advocacy, create public awareness and impart training on competition issues.

Sources: the hindu.

4. Medical Council of India (MCI)

Context:

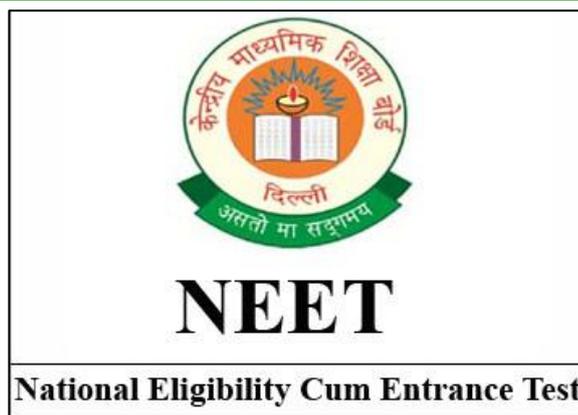
- Medical Council of India (MCI) proposal to amend the Screening Test Regulations 2002 has been approved by Health Ministry. It is now mandatory to qualify NEET to pursue foreign medical course.

What's the issue?

- A common National Entrance Exam viz. National Eligibility cum Entrance Test has been made mandatory for admission to all medical courses in the country.
- Indian students can also pursue medical education abroad and have to qualify a Screening Test called Foreign Medical Graduates Exam (FMGE), for registration to practice in India after obtaining primary medical qualification (MBBS) overseas.
- However, few medical institutions / Universities of foreign countries admit Indian students without proper assessment or screening of the students' academic ability to cope up with medical education with the result that many students fail to qualify the Screening Test.
- In this regard, Medical Council of India (MCI) had proposed to amend the Screening Test Regulations, 2002, making it mandatory to qualify NEET to pursue foreign medical course.

Why reform the MCI?

- Like a license-raj permit controller, MCI has for long focused too much on licensing of medical colleges and stipulating impractical conditions, while ignoring its other mandate of maintaining ethical conduct in the



About MCI:

- The Medical Council of India was first established in 1934 under the Indian Medical Council Act, 1933. This Act was repealed and replaced with a new Act in 1956. Under the 1956 Act, the objectives of MCI include:
- Maintenance of standards in medical education through curriculum guidelines, inspections and permissions to start colleges, courses or increasing number of seats.
- Recognition of medical qualifications.
- Registration of doctors and maintenance of the All India Medical Register.
- Regulation of the medical profession by prescribing a code of conduct and taking action against erring doctors.

profession. It has failed to stop the sale of medical seats in private colleges for capitation fees going up to Rs.50 lakh.

- Over the years, it has emerged as a single, all-powerful agency heavily influenced by corporate hospitals to provide accreditation to institutions and assess their quality, ignoring blatant conflicts of interest.

What's important?

- **For Prelims:** NEET, MCI.
- **For Mains:** MCI reforms.

Sources: pib.

5. Defence Acquisition Council

Context:

- Defence Acquisition Council has cleared a plan to procure some much-needed fire-power for the armed forces, expected to cost Rs. 15,935 crore.
- The list includes light machine guns, assault rifles and sniper rifles.

Defence Acquisition Council (DAC)

What is it?

- To counter corruption and speed up decision-making in military procurement, the government of India in 2001 decided to set up an integrated DAC. It is headed by the Defence Minister.

Objective:

- The objective of the DAC is to ensure expeditious procurement of the approved requirements of the Armed Forces, in terms of capabilities sought, and time frame prescribed, by optimally utilizing the allocated budgetary resources.

Functions:

- The DAC is responsible to give policy guidelines to acquisitions, based on long-term procurement plans.
- It also clears all acquisitions, which includes both imported and those produced indigenously or under a foreign license.

What's important?

- **For Prelims:** composition of DAC.
- **For mains:** not much.

Sources: the hindu.

6. Prasar Bharati

Context:

- Public broadcaster Prasar Bharati (PB) has turned down a resolution moved by the Union ministry of information and broadcasting (I&B) to appoint a serving IAS officer to its board, and deferred its proposal to bring in professionals to head the news service units of Doordarshan and All India Radio.

Why?

- The board refused to appoint a serving IAS officer as member (personnel) on grounds that the appointment would go against the norms laid down in The Prasar Bharati (Broadcasting Corporation of India) Act, 1990.
- The broadcaster concluded that accepting the resolutions moved by the ministry would “amount to infringing Prasar Bharati’s autonomy”.



What the law says?

- As per the PB Act of 1990 the Prasar Bharati Board consists of a chairman, a CEO, two whole-time members for finance and personnel, six part-time members, heads of Doordarshan and All India Radio and one representative of the I&B ministry.
- There is no provision to have a serving bureaucrat on the board.

Appointment of board members:

- The PB Act states that the President of India will appoint the Board members decided by a selection committee which is headed by the Vice President of India and includes the Chairman of the Press Council of India and a nominee of the President.
- The ministry does not have a direct role in appointment of the chairman and whole-time members of the Board.

Way forward:

- India is in dire need of broadcast autonomy, especially in the form of a truly autonomous, even if state-assisted, public service broadcaster.
- This was a promise made by Nehru to Parliament in 1948. But, it is yet to be redeemed.
- The post-Emergency 1977-78 broadcast autonomy committee, in its report “Akash Bharati”, presented a blueprint for autonomy.
- Despite brave efforts to make something of it, Prasar Bharati (PB) has not lived up to its charter.
- PB “needs to be adequately empowered and enabled” with independent professionals and financial self-reliance to “unleash its creative forces” beyond the market as a true voice of India, its ethos, culture and aspirations in order to become a genuine public broadcaster rather than remain a “government broadcaster”.

Prasar Bharati:

- Prasar Bharati is a statutory autonomous body established under the Prasar Bharati Act and came into existence in November 1997. It is the Public Service Broadcaster of the country.
- The objectives of public service broadcasting are achieved in terms of Prasar Bharati Act through All India Radio and Doordarshan.

What's important?

- **For Prelims:** Composition of PB and appointment of members.
- **For Mains:** Need for autonomy.

Sources: the hindu.

7. Central Geological Programming Board**Context:**

- The 57th Meeting of the Central Geological Programming Board (CGPB) was recently held. Representatives of State Departments, Central Ministries/ organizations, PSUs, academic institutes and private entrepreneurs attended the 57th CGPB meeting.
- Apart from discussion on achievements of GSI (Geological Survey of India) during the current year, the proposed Annual Programme for ensuing 2018-19 was presented before all Board members.

About CGPB:

- The Central Geological Programming Board (CGPB) is the apex body at the national level to overview the programme of geoscientific activities including mineral exploration in the country.
- It was established through Government of India Resolution in 1966, and subsequently revamped in 2009 with the constitution of 12 theme based committees. CGPB meetings are held twice in a year.
- **Composition:**
 - The Secretary (Mines) is the chairman of CGPB. Geological Survey of India is the nodal department (Member Secretary) and the State Geology and Mining departments and Central Government institutions, permanent and special invitees are its participating members.
- **Functions:**
 - CGPB coordinates activities on geological mapping, mineral prospecting, exploration and exploitation in the country.

- It is responsible for providing the general strategic direction of geosciences activity; effecting programmatic coordination among agencies; enabling better interaction between central agencies and state level organizations; human resource, and research capability; identifying new areas and new technologies for geoscientific activities; advising on geosciences partnerships between GSI, and State and Central – level agencies; actively promoting use of information technology; and approving five-year detailed sub-sectoral targets on a rolling plan basis.

What's important?

- **For Prelims:** Composition of CGPB.
- **For Mains:** Nothing much.

Sources: pib.

8. Botanical Survey of India

Context:

- Botanical Survey of India (BSI) and Natural History Museum (NHM), UK have signed a Memorandum of Understanding for cooperation in the field of genetic/taxonomic studies, research and training, conservation in India, including species and habitat conservation assessments.
- NHM will help BSI in capacity building in areas of systematic botany and long-term conservation of plant genetic resources in India.



Way ahead:

- Open science and collaboration is a core goal of both Botanical Survey of India and Natural History Museum, signing of the Memorandum of Understanding between BSI and NHM is set to develop further to the benefit of both India and the UK.
- Capacity building and scientific exchange between India and the UK will also be central to future work under the Memorandum of Understanding and will enable learning from each other and work collaboratively to address important scientific questions and deliver benefit to humanity.

What's important?

- **For Prelims:** BSI.
- **For Mains:** Nothing much.

Sources: pib.

About BSI:

The Botanical Survey of India (BSI) was established in 1890 with the objectives of exploring the plant resources of the country and identifying plant species with economic virtue. In 1954, the Government reorganised the BSI with the objectives of:

- Undertaking intensive floristic surveys and collecting accurate and detailed information on the occurrence, distribution, ecology and economic utility of plants in the country.
- Collecting, identifying and distributing materials that may be of use to educational and research institutions.
- Acting as the custodian of authentic collections in well planned herbaria and documenting plant resources in the form of local, district, state and national flora.

9. Inter-Ministerial Committee (IMC) on Medicinal and Aromatic Plants (MAPs) for NER

Context:

- An Inter-Ministerial Committee (IMC) on Medicinal and Aromatic Plants (MAPs) has been set up for the North Eastern Region (NER). This was decided after a meeting between Secretaries of DoNER and AYUSH.

About the IMC on MAPs:**Aim:**

- The IMC is to create synergy in various programmes of the Union Government to enable medicinal and aromatic plants sector become vibrant and develop the resources to its potential.

Composition:

- The IMC will comprise members from various Ministries, Departments and several organisations in the relevant fields.
- The Ministry of Development of North-East Region (MDoNER) will be the coordinator for the IMC of MAPs.

Functions:

- The Committee will review the existing mechanism or institutional arrangements for management and development of MAPs resources of NER.
- The IMC will identify gaps in the existing mechanism or institutional arrangements, suggest a policy intervention for optimally harnessing the MAPs resources of NER and accelerating the development of MAPs sector, suggest a Plan of Action for dovetailing of the schemes and programmes of concerned Ministries and Departments.

What's important?

- **For Prelims:** IMC on MAPs.
- **For Mains:** Potential of NER.

Sources: the hindu.

10. Heavy Water Board

Context:

- Heavy Water Board has signed a collaborative agreement with M/s Clearsynth, Mumbai for sale of 20 tonnes of Heavy Water in a year for development of deuterium labeled compounds, NMR Solvents, d-labeled Active Pharma Ingredients (APIs).
- This marks the beginning of an important era in the annals of Indian Nuclear industry leading to societal benefits for the masses.

About Heavy water board:

- Heavy Water Board (HWB) is a constituent unit under the Department of Atomic Energy.
- The organisation is primarily responsible for production of Heavy Water (D₂O) which is used as a 'moderator' and 'Coolant' in nuclear power as well as research reactors.
- Other than Heavy Water, HWB is also engaged with production of different types of nuclear grade solvents and extraction of rare materials.

What is Heavy Water?

- Heavy water or deuterium oxide (D₂O) is a form of water that contains a large amount of the hydrogen isotope deuterium which is also known as heavy hydrogen.
- Deuterium differs from the hydrogen which is usually found in water.
- Heavy water may be deuterium protium oxide (DHO) or deuterium oxide (D₂O).
- The increase in mass due to the presence of deuterium gives it a different chemical and physical property compared to normal water.

Applications:

Heavy water is used in certain types of nuclear reactors, where it acts as a neutron moderator to slow down neutrons. The different applications and uses of heavy water are:

- Nuclear magnetic resonance.
- In Organic chemistry.
- Fourier transform spectroscopy.
- Neutron moderator.
- Neutrino detector.
- Metabolic rate testing in physiology and biology.
- Tritium production.

What's important?

- **For Prelims:** Heavy water board, D2O- features, how is it different from light water.

Sources: pib.

Paper 2 Topic: Welfare schemes for vulnerable sections of the population by the Centre and States and the performance of these schemes; mechanisms, laws, institutions and bodies constituted for the protection and betterment of these vulnerable sections.

1. Coach Factory in Marathwada, Maharashtra

- A massive rail coach factory will be set up in Latur, Maharashtra by Indian Railways. This plant would manufacture Electric Multiple Units for suburban trains and coaches for metros.

Significance of the project:

- Marathwada, the region where Latur lies, is amongst the most backward areas of Maharashtra. There have been few central government projects in this region.
- This will massively benefit 'Make in India', and bring employment to a large number of people. In addition, it will create an industrial ecosystem in the drought prone region boosting shift from agriculture to industry.
- It may be noted that the region suffers from heavy migration to other parts of the country.



Sources: pib.

2. Ayushman Bharat for a new India -2022

- The Government has announced two major initiatives in health sector, as part of Ayushman Bharat programme. These two health sector initiatives under Ayushman Bharat Programme will build a New India 2022 and ensure enhanced productivity, well being and avert wage loss and impoverishment. These Schemes will also generate lakhs of jobs, particularly for women.

The initiatives are as follows:

- **Health and Wellness Centre:**
 - The National Health Policy, 2017 has envisioned Health and Wellness Centres as the foundation of India's health system. Under this 1.5 lakh centres will bring health care system closer to the homes of people.
 - These centres will provide comprehensive health care, including for non-communicable diseases and maternal and child health services.
 - These centres will also provide free essential drugs and diagnostic services. The Budget has allocated Rs.1200 crore for this flagship programme.
 - Contribution of private sector through CSR and philanthropic institutions in adopting these centres is also envisaged.
- **National Health Protection Scheme:**
 - The second flagship programme under Ayushman Bharat is National Health Protection Scheme, which will cover over 10 crore poor and vulnerable families (approximately 50 crore beneficiaries) providing coverage upto 5 lakh rupees per family per year for secondary and tertiary care hospitalization.
 - This will be the world's largest government funded health care programme. Adequate funds will be provided for smooth implementation of this programme.

Sources: the hindu.

3. Ujjwala Yojana

Context:

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

What makes LPG adoption necessary?

- About 75 crore Indians, especially women and girls, are exposed to severe household air pollution (HAP) from the use of solid fuels such as biomass, dung cakes and coal for cooking. A report from the Ministry of Health & Family Welfare places HAP as the second leading risk factor contributing to India's disease burden.
- According to the World Health Organization, solid fuel use is responsible for about 13% of all mortality and morbidity in India (measured as Disability-Adjusted Life Years), and causes about 40% of all pulmonary disorders, nearly 30% of cataract incidences, and over 20% each of ischemic heart disease, lung cancer and lower respiratory infection.

Way ahead:

- The PMUY is a bold and much-needed initiative, but it should be recognised that this is just a first step.
- The real test of the PMUY and its successor programmes will be in how they translate the provision of connections to sustained use of LPG or other clean fuels such as electricity or biogas.
- Truly smokeless kitchens can be realized only if the government follows up with measures that go beyond connections to actual usage of LPG.
- This may require concerted efforts cutting across Ministries beyond petroleum and natural gas and including those of health, rural development and women and child welfare.

About the Pradhan Mantri Ujjwala Yojana:

- Pradhan Mantri Ujjwala Yojana aims to provide LPG (liquefied petroleum gas) connections to poor households. Under the scheme, an adult woman member of a below poverty line family identified through the Socio-Economic Caste Census (SECC) is given a deposit-free LPG connection with financial assistance of Rs 1,600 per connection by the Centre.
- Eligible households will be identified in consultation with state governments and Union territories. The scheme is being implemented by the Ministry of Petroleum and Natural Gas.

Sources: the hindu.

4. LPG Panchayat

Context:

- The President of India, Shri Ram Nath Kovind, recently hosted an 'LPG Panchayat' at Rashtrapati Bhavan. The LPG Panchayat was organised by the Ministry of Petroleum and Natural Gas with an aim to provide a platform for LPG consumers to interact with each other, promote mutual learning and share experiences.
- Each LPG Panchayat has about 100 LPG customers coming together, near their living areas, to discuss safe and sustainable usage of LPG, its benefits and the link between clean fuel for cooking and women's empowerment.

About LPG Panchayat:

- The LPG Panchayat is an interactive communication platform aimed at educating rural LPG users about proper safety precautions to be taken while using LPG, its benefit to the environment, its effect on women empowerment and health. With this, the government aims to reach the doorsteps of poor and under-privileged women to educate them about the safety and efficiency, health benefits, positive impact on environment, economic development and empowerment on usage of LPG connections.
- One lakh LPG Panchayats would be activated across the country under the scheme during the next one and a half years. The idea of this platform is to trigger a discussion through sharing of personal experiences on the benefits of use of clean fuel compared to traditional fuels like cowdung. The agenda would also include safe practices, quality of service provided by distributors and availability of refill cylinders.

About the Pradhan Mantri Ujjwala Yojana:

- Under the Pradhan Mantri Ujjwala Yojana, Rs.8,000 crore has been earmarked for providing 50 million LPG (liquefied petroleum gas) connections to poor households. Under the scheme, an adult woman member of a below poverty line family identified through the Socio-Economic Caste Census (SECC) is given a deposit-free LPG connection with financial assistance of Rs 1,600 per connection by the Centre.
- Eligible households will be identified in consultation with state governments and Union territories. The scheme will be implemented over the next three years. The scheme is being implemented by the Ministry of Petroleum and Natural Gas.

What's important?

- **For Prelims:** LPG Panchayat, PMUY.
- **For Mains:** need for PMUY.

Sources: the hindu.

5. Anti-Narcotics Scheme**Context:**

- The 'Assistance to States and UTs for Narcotics Control' scheme has been extended by the Centre for a further period of 3 years -from 2017-18 to 2019-20 -with an estimated budget of Rs 21 crore.

About the scheme:

- The scheme aims to combat illicit trafficking in drugs and psychotropic substance. The purpose of the scheme is to assist state governments and Union Territories which are contributing in controlling the inter-state and cross border drug trafficking.
 - Financial assistance will be provided to all the anti- narcotics agencies for strengthening their enforcement capabilities to combat illicit trafficking in narcotic drugs and psychotropic substances. Financial assistance is also proposed to be provided for all capacity building activities, including training of personnel.
 - The Narcotics Control Bureau (NCB) being the national nodal agency for drug administration will process the requests from state governments and UTs for financial assistance for improving their enforcement capabilities in dealing with the supply side of the drug menace.

Way ahead:

- Estimates suggest that there are 40 lakh drug addicts in the country. The most common drugs of abuse are 'ganja', 'hashish', 'opium' and 'heroin'. The abuse of pharmaceutical preparations like 'buprenorphine', codeine based cough syrups and painkillers like 'proxivon' has also assumed serious proportions. In certain regions of the country, drug abuse has already become a severe social-economic problem affecting the vulnerable age groups.
- It is, therefore, essential that the state governments and UTs are aware of the drug-related problems in their states and UTs and address them in an effective manner before they assume epidemic proportions. The strategies would include both supply reduction and demand reduction. Supply reduction would include enforcement activities while demand reduction would involve rehabilitation and de-addiction measures.

What's important?

- **For Prelims:** Anti- Narcotics Scheme.
- **For Mains:** Drug menace- effects and prevention.

Sources: pib.

6. SC seeks details on over-crowded prisons**Context:**

- The Supreme Court has asked the National Legal Services Authority (NALSA) to provide details and figures of prisons where the occupancy rate is over 150% as on December 31, 2017.

- The apex court further agreed to hear issues related to standard operating procedure for **Under Trial Review Committees (UTRCs)** and responses received from States and Union Territories on **open jails**.

Background:

- Supreme court is hearing a matter relating to inhuman conditions prevailing in 1,382 prisons across the country.

What are UTRCs?

- The UTRCs, set up in every district, deliberates and recommends the release of undertrial prisoners and convicts who have completed their sentences or are entitled to be released from jail due to bail or remission granted to them.

What are open prisons?

- Semi-open prisons or open prisons allow convicts to work outside the jail premises and earn a livelihood and return in the evening. The concept was brought in to assimilate the convicts with society and reduce the psychological pressure and lack of confidence they faced lack of confidence in returning to lives outside prison.

Background:

- The management of prisons falls exclusively under the domain of the state government, as per the seventh schedule of the constitution.
- In every state, the prison administrative machinery works under the chief of prisons who is a senior ranking IPS officer.

Need for reforms:

- NHRC figures show that prisoners cut off from family and friends had a 50% more chance of committing suicide than those outside. The average suicide rate among the general public for this period is 11 (per 100,000) whereas the average suicide rate in prison is 16.9 (per 100,000). In other words, the average suicide rate in prisons is over 50% more than in normal conditions.
- Indian prisons face three long-standing structural constraints: overcrowding, thanks to a high percentage of undertrials in the prison population, understaffing and underfunding. The inevitable outcome is sub-human living conditions, poor hygiene, and violent clashes between the inmates and jail authorities.
- Besides, while 33% of the total requirement of prison officials still lies vacant, almost 36% of vacancy for supervising officers is still unfulfilled. In the absence of adequate prison staff, overcrowding of prisons leads to rampant violence and other criminal activities inside the jails.

Way ahead:

- Indian jails have often been dubbed as a university for grooming criminals due to pathetic and inhumane conditions. In the absence of a robust Whistleblower Protection Act and structural changes to address the issues of overcrowding and understaffing, India's prisons will continue to be heaven for politically connected criminals and hell for socio-economically disadvantaged undertrials, some regular media uproars notwithstanding.
- Fundamental rights of prisoners cannot be placed in the back-burner and the Centre and the states need to be more pro-active in sensitising staff about the need to treat prisoners as humanely as possible.

What's important?

- **For Prelims:** NALSA, UTRCs and open jails.
- **For Mains:** Prison reforms- need and challenges.

Sources: the hindu.

Paper 2 Topic: Government policies and interventions for development in various sectors and issues arising out of their design and implementation.

1. 'Khelo India School Games'

Context:

- Khelo India School Games as a part of the Khelo India Programme has been launched.
- The mission aims to develop a sporting culture in the country, identify talents from grassroots and groom them for international success.
- The Khelo India Games will witness athletes fight it out in 16 disciplines at various venues in the Capital.

About Khelo India Programme:

- The Khelo India programme has been introduced to revive the sports culture in India at the grass-root level by building a strong framework for all sports played in our country and establish India as a great sporting nation.

Sources: the hindu.

2. Revitalising Infrastructure and Systems in Education (RISE)

Context:

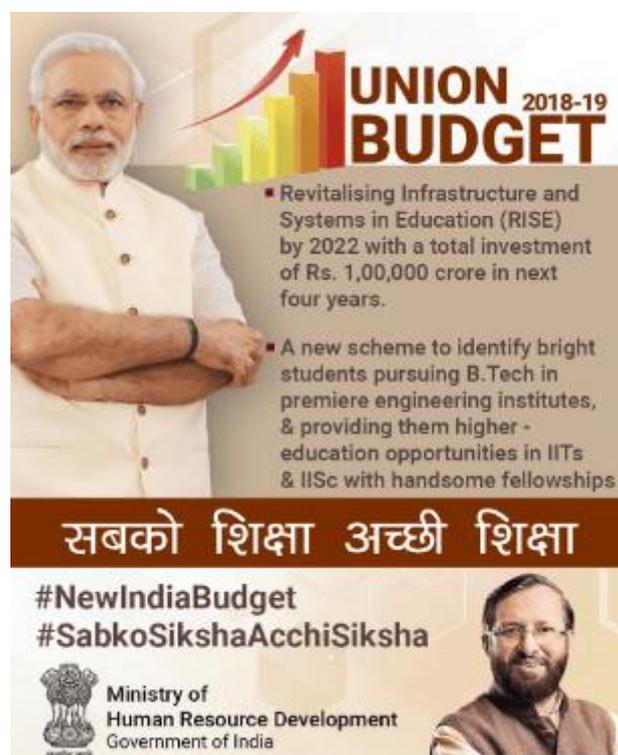
- The government has announced a new initiative called Revitalising Infrastructure and Systems in Education (RISE).

Key facts:

- The initiative aims to step up investments in research and related infrastructure in premier educational institutions, including health institutions. It will have a total investment of ₹1,00,000-crore in the next four years.
- Higher Education Financing Agency (HEFA) would be suitably structured for funding this initiative. The manner in which investment in institutions is provided is likely to be the same as is practised in HEFA, but there may be different windows for different institutions.

About HEFA:

- **What is it?** The Union Cabinet had approved HEFA in September 2016 as a Special Purpose Vehicle with a public sector bank (Canara Bank). It would be jointly funded by the promoter/bank and the MHRD with an authorised capital of ₹2,000 crore. The government equity would be ₹1,000 crore.
- **Functions:**
 - HEFA will leverage the equity to raise up to ₹20,000 crore for the funding of world-class infrastructure at the IITs, IIMs, the National Institutes of Technology (NITs) and such other institutions.
 - The agency is also expected to mobilise Corporate Social Responsibility (CSR) funds from public sector units (PSUs) and corporates.
 - These would be released as grants to eligible institutions for promoting research and innovation.
- **Significance of HEFA:** Funding from HEFA is expected to boost infrastructure, especially state-of-the-art laboratories, in key institutions such as the Indian Institutes of Technology (IITs), the Indian Institutes of Management (IIMs), and the Indian Institutes of Information Technology (IIITs).



Sources: the hindu.

3. E-way bill

Context:

- With the E-way bill generation platform facing technical glitches, the Government has extended the trial period for e-way bill. However, the government has not clarified how long the trial will run.

How E-way bill works?

- E-way is valid for all-India movement and transporters can generate the bill electronically and in self-service mode. Under the system, there is no need to visit any tax office and check post.
- Transporters can generate e-way bill on the official website through the Mobile App, SMS and offline as well.
- Transporters can visit the portal 'ewaybill.nic.in' and generate the e-way bill by registering themselves by giving the GSTIN.
- Those who are not registered can get themselves registered on the website using Aadhaar or PAN card.
- E-way bill can be generated by entering vehicle number.
- In case of breakdown or transshipment, the traders can update the vehicle number using the same E-way bill.
- Once generated E-way bill, however, cannot be cancelled for 24 hours.

Concerns:

- Some traders are not happy with the move. Traders are demanding simplification of the process for generation of these electronic receipts. Explaining that it will be more of a hindrance than compliance, traders say the move will force them to shut shops.



What is E-way Bill?

- E-way is an electronic billing system for traders who are moving their goods for sale beyond 10 km radius.
- Under the system, transporters carrying goods worth Rs 50,000 will be required to get goods pre-registered before transporting them from one location to another.
- While the mandatory compliance of inter-state E-way bill may roll-out soon once again, however, the for intra-state, the date is June 1.
- States such as Kerala, Rajasthan, Uttarakhand and Karnataka have already implemented the e-way bill system.

Sources: the hindu.

4. Atal Bhoojal Yojana

Context:

- The water resources ministry is working on a Rs 6,000 crore worth 'Atal Bhoojal Yojana' for water conservation.

About Atal Bhoojal Yojana:

- The scheme is aimed at efficient management of available water resources and strengthening of recharge mechanism through community participation. The emphasis of the scheme will be on recharge of ground water sources and efficient use of water by involving people at the local level.

Funding:

- Rs 6,000 crore has been earmarked for this ambitious plan. Half of the total cost of this central scheme will be supported by the World Bank as loan while the remaining half (Rs 3,000 crore) will be funded by the government through budgetary support.



Implementation:

- The government plans to give 50% of the money to states, including gram panchayats, as incentives for achieving targets in groundwater management. That's a first-ever move to encourage community participation and behavioural changes. The remaining 50% of the funds will be given to states for strengthening institutional arrangements such as providing a strong database and scientific approach to help them accomplish sustainable management of groundwater.

Need for groundwater conservation:

- Ground water in India provides for about 60% of the country's irrigation needs, 85% of rural drinking water requirements and 50% of urban water needs. Over-exploitation and contamination have left many blocks across the country in a critical stage.
- The last assessment report of the Central Ground Water Board (CGWB) shows that 1,034 of 6584 assessed blocks in the country are over-exploited (usually referred to as 'dark zones'). It means annual ground water consumption in those blocks is more than the annual ground water recharge. Besides, 934 blocks fall in different stages of criticality due to depletion without recharge.
- The over-exploited units are mostly concentrated in Punjab, Haryana, Delhi, western UP, Rajasthan, Gujarat, Karnataka, Andhra Pradesh, Telangana and Tamil Nadu. Tamil Nadu has the maximum number of 'dark zones'.

Why there is an increased pressure on groundwater?

- Main reason for excessive use of groundwater is the legal framework governing access to the resource.
- This was first introduced in the mid-19th century when judges decided that the easiest way to regulate this 'invisible' substance was to give landowners what amounts to a right to access groundwater found under their land, even if in the process they also used water found under their neighbours' land.
- Over the following decades, this led to a framework whereby landowners see groundwater as their own and as a resource they can exploit without considering the need to protect and replenish it since there are no immediate consequences for over-exploiting it.
- Therefore, access to a source of groundwater has progressively become a source of power and economic gain. The latter has become increasingly visible in recent decades with the propagation of mechanical pumps, which allows big landowners to sell water to others.

Way ahead:

- The increasing crisis of groundwater and the failure of the existing legal regime make it imperative to entrust people directly dependent on the source of water the mandate to use it wisely and to protect it for their own benefit, as well as for future generations.
- The theoretical case for water being in the Concurrent List is thus unassailable. Of all the subjects that are or ought to be in the Concurrent List, water ranks higher than any other.
- The practical and political difficulties of shifting it there remain, but these would need to be overcome.

What's important?

- **For Prelims:** Atal Bhoojal Yojana, concurrent list.
- **For Mains:** Groundwater crisis, community participation in crisis management.

Sources: the hindu.

5. Anti-dumping duty**Context:**

- India has initiated a review of the anti-dumping duty on flat base steel wheels from China to take a call on "the need for continued imposition of the duties in force."
- The Directorate General of Anti-dumping and allied Duties (DGAD) will now examine whether the expiry of such duty (on imports of flat base steel wheels from China) is likely to lead to continuation or recurrence of dumping and injury to the domestic (Indian) industry."

Anti dumping duties

Protect its domestic producers from cheap imports



WTO Rules in this regard:

- As per the World Trade Organisation, if a company exports a product at a price lower than the price it normally charges on its own home market, it is said to be “dumping” the product.
- The global body has also said that the WTO agreement allows governments to act against dumping where there is genuine (“material”) injury to the competing domestic industry.

What you need to know about Anti-dumping duty?

- **What is it?** Anti-dumping is a measure to rectify the situation arising out of the dumping of goods and its trade distortive effect.
- **Purpose:** The purpose of anti-dumping duty is to rectify the trade distortive effect of dumping and re-establish fair trade.
- **Is it permitted?** The use of anti-dumping measure as an instrument of fair competition is permitted by the WTO. It provides relief to the domestic industry against the injury caused by dumping. It is levied on distrustfully low-priced imports, so as to protect the domestic manufacturers.
- **Need for anti-dumping duty:** Dumping is an unfair trade practice of exporting goods to another country at a price lesser than what is paid in the exporting nation or their normal production cost, thereby distorting international trade and causing injury to the domestic manufacturers of the goods in the importing country.

Sources: the hindu.

6. Open Acreage Licensing Programme (OALP)

Context:

- To handhold and apprise the prospective investor community about the salient features of Hydrocarbon Exploration & Licensing Policy(HELP) framework and details about the e-bidding process, the government of India successfully concluded a facilitation workshop under Open Acreage Licensing Programme (OALP) in Ahmedabad recently.

Open Acreage Licensing Policy (OALP):

- The OALP, a part of the government’s Hydrocarbon Exploration and Licensing Policy (HELP), gives exploration companies the option to select the exploration blocks on their own, without having to wait for the formal bid round from the Government.
- The company then submits an application to the government, which puts that block up for bid. The new policy will open up 2.8 million square kilometres of sedimentary basins for exploration and eventual production.

About Hydrocarbon Exploration & Licensing Policy (HELP):

- The Hydrocarbon Exploration & Licensing Policy (HELP) opens up India’ entire sedimentary basin for investment from domestic and foreign players under a simplified, transparent and investor -friendly fiscal and administrative regime.
- The new policy aims to provide Investors a ready access to huge amount of seismic data available in National Data Repository (NDR), flexibility to carve out exploration acreages through an open acreage licensing process and increased operational autonomy through a new revenue sharing model.
- The National Data Repository (NDR) manifested through an open acreage licensing (OAL) process will be a key facilitator by providing seamless access to India’s entire E&P data process through a digital medium to all investors with the objective of harnessing the potential of India’s large basinal area.

Way ahead:

- Open Acreage Licensing Policy and the National Data Repository together are a significant and welcome step towards opening up the hydrocarbon exploration and production industry in India.
- By placing greater discretion in the hands of explorers and operators, the Licensing Policy attempts to address a major drawback in the New Exploration Licensing Policy, which forced energy explorers to bid for blocks chosen by the government. Such initiatives help India attract enough investment to meet the government’s objective of reducing oil imports by 10% by 2022.
- There’s a compelling opportunity for gas, which India must seize to reduce import dependency and shift to a lower carbon trajectory.

- HELP is more about gas than oil. While the overall thrust is positive, concerns regarding the contractual regime and gas pricing formula remain, and will need to be addressed.

What's important?

- **For Prelims:** OALP, HELP and Hydrocarbon reserves in the country.
- **For Mains:** Significance and need for OALP.

Sources: pib.

7. Coal blocks for commercial mining

Context:

- The Cabinet Committee on Economic Affairs has approved the methodology for auction of coal mines or blocks for commercial coal mining.
- The opening up of commercial coal mining for private sector is the most ambitious coal sector reform since the nationalisation of this sector in 1973.

New methodology:

- As per the new methodology, there will be no end use restriction or price restriction for the coal that is mined from these blocks. The blocks will be awarded through a forward auction.
- The amount accrued through the bids will be in addition to the royalty that the States get.
- All the revenue from the sale of these blocks will go into coffers of the States where they are located.

Significance of this move:

- As the entire revenue from the auction of coal mines for sale of coal would accrue to the coal bearing States, this methodology shall incentivise them with increased revenues which can be utilised for the growth and development. States in Eastern part of the country will be especially benefited.
- The auction of coal mines to private operators will help in boosting the economy. Commercial coal mining will help increase efficiency and productivity in the sector and will attract fresh local and foreign investments. It will also lead to the availability of low cost power and Coal India will benefit from the government's move.
- As 70% of India's electricity is generated from thermal power plants, opening coal blocks for commercial purposes will ensure energy security and accountable allocation of coal and as a result, it will ensure cheaper electricity for consumers.

Background:

- Despite the increasing share of non-fossil fuels in India's energy mix, the market for coal is projected to grow at a solid pace for several more years as this high-emitting fuel will continue to be the mainstay for the country's power generation. Also, coal exports are a potentially lucrative business for India.
- Recent years have seen other state-run entities too establishing a presence in commercial coal mining and a jump in captive coal production (thanks to a 1993 amendment to CMNA) by a veritable cross-section of industries, public and private, but only commercial coal mining by the private sector was to bring a transformative change in the sector.

Sources: the hindu.

8. DoT's plan to spur synergy among 7 PSUs

Context:

- The government has unveiled a 'strategic plan' to enable seven state-owned companies under the Department of Telecom (DoT) to work closely.
- The action plan covers MTNL, BSNL, Indian Telephone Industries (ITI), Centre for Development of Telematics (CDOT), Telecommunications Consultants India Ltd. (TCIL), Testing and Certification of Telecom Equipments (TEC) and BharatNet (BBNL).

About the strategic plan:

- The strategic plan entails effective utilisation of human resources, optimum use of vacant space and promoting 'Make in India', among other things. Under the plan, the government has identified specific areas where teams will work on including manpower, settlement of legal issues and utilisation of vacant space.
- The plan aims at promoting greater operational synergy among the PSUs, including pooling in of resources and effective utilisation of human resources as well as land and buildings.
- Some units have excess manpower whereas others face a shortage. Under the plan, the Centre intended to train and redeploy manpower. Also, telecom PSUs will refrain from going to court against one another and, instead, first approach DoT for resolution of disputes.
- The strategic roadmap will also cover other areas such as standards and certification, and preparing to tap opportunities in areas like 5G and Internet of Things. These PSUs will also look at pooling in resources to address new business opportunities in Digital India, Smart City and Internet of things, and develop mechanism for sharing of revenues and expenses.

What's important?

- **For Mains:** Sick PSUs, their revamp.

Sources: the hindu.

9. Highway liquor ban**Context:**

- The Supreme Court has given the State governments the discretion to decide, on facts, whether areas covered by local self-governing bodies or areas proximate to municipal pockets should be exempted from the court's nationwide prohibition on sale of liquor within 500 metres along the highways.

What is the ban all about?

- In 2016, the Supreme Court passed an order banning the sale of alcohol along national and state highways, ordering the cancellation of liquor licences issued to shops by April 1, 2017.
- The order states that no liquor stores should be even visible from highways, or located within a distance of 500 metres of the highways, or be directly accessible from a national or state highway.
- The order has been subsequently modified to exempt establishments within 220 metres of the highways for smaller towns and municipalities with a population of less than 20,000 people.

Significance of this ban:

- The order reaffirms a policy decision of the union government that goes back more than 10 years.
- In 2004, the National Road Safety Council (NRSC) unanimously agreed that licences for liquor shops should not to be given along the national highways, and the Ministry of Road Transport and Highways (MoRTH) has "consistently" advised state governments not to issue fresh licences and remove liquor shops from national highways.

Why the ban?

- The order is aimed at tackling the rising menace of drunk driving as well as improving road safety conditions in India. The court cited "alarming" statistics showing drunk driving-related accidents and deaths, and said the order is in "overwhelming public interest."
- Citing data from the Union Ministry of Road Transport and Highways, the Supreme Court noted that in 2015, intake of alcohol or drugs by drivers resulted in 16,298 road accidents (4.2% of total accidents) and 6,755 fatalities (6.4% of total accidents) where drivers were at fault.
- The court also said data showing low incidence of drunk driving often tends to be skewed and "under-reported" as a cause of accidents, as that can affect the claims of victims or their heirs to accident compensation.

Concerns:

- The Supreme Court order banning establishments selling alcohol along all state and national highways is a classic case of good intentions missing the mark.
- The apex court directive is certainly well meant. It stems from the desire to curb drunken driving that kills thousands of people each year on our highways. But a blanket ban on all liquor outlets is a sweeping and

radical measure, throwing out the baby with the bath water. While the move's impact on drunken driving is likely to be marginal, the ban puts thousands of valid businesses employing lakhs of people at risk.

What's important?

- **For Prelims and Mains:** Need for liquor ban- implications and challenges.

Sources: the hindu.

10. Draft pesticide bill

Context:

- The Centre has released a new draft Pesticide Management Bill 2017 to replace an almost 50-year old legislation governing the plant chemicals sector.
- Proposed as a step towards promoting safe use of pesticides, this Bill seeks to regulate the manufacture, inspection, testing and distribution of pesticides.

The Pesticide Management Bill, 2008:

- The Bill establishes a **Central Pesticides Board** to advise the government on matters related to pesticide regulation, manufacture, use and disposal. It establishes a registration committee to register pesticides.
- No pesticide can be registered unless tolerance limits for its residues on crops and commodities are specified under the Food Safety and Standards Act, 2006.
- The Bill establishes **a procedure to licence manufacturers, distributors and retailers** of pesticides, to be administered by state governments.
- Pesticide inspectors shall inspect facilities and collect pesticide samples while pesticide analysts shall test the samples collected.

What is pesticide?

- The Bill defines a pesticide as any substance used to destroy or control pests in agricultural commodities or animal feeds.
- Pesticides used for non-agricultural purposes, such as health care, are thus excluded from this definition.

Issues:

- Farmers are opposing the bill as it does not address the core issues of applying penal provisions on companies marketing pesticides.
- The draft bill also does not ease the powers of regulation and registration to the state governments which has been a long pending demand of many governments.
- Also, the burden of spurious pesticide has once again passed on to the Registration Committee (RC) which is set to expanded under the new Bill.

What's important?

- **For Prelims:** Pesticides bill.
- **For Mains:** Pesticides management in India- need, issues and challenges.

Sources: the hindu.

Paper 2 Topic: Issues relating to development and management of Social Sector/Services relating to Health, Education, Human Resources.

1. Technical Education Quality Improvement Programme (TEQIP)

Context:

- Post-graduates and doctorates from premier institutes are going to teach undergraduates in engineering colleges in backward regions of 11 districts as part of an HRD Ministry initiative. This is being done under the third phase of Technical Education Quality Improvement Programme (TEQIP). The initiative is aimed to improve quality of education and help secure NBA accreditation of the engineering programme.
- Under the initiative there will be focus on seven districts which have been called aspirational. They include Gaya and Muzaffarpur in Bihar, Kalahandi in Orissa and Dumka in Jharkhand.

Significance of this move:

- There are a lot of vacancies for teachers in engineering colleges in backward states and quality teachers are not willing to go there to teach. Therefore, this initiative aims to address the problem of dearth of well qualified faculty in the country.

About TEQIP:

- TEQIP or Technical Education Quality Improvement Programme is an initiative of the National Project Implementation Unit (NPIU) which implements World Bank Assisted Projects in Technical Education. The initiative is aimed at improving the quality of engineering graduates.
- Under this project, all the Government engineering colleges are selected for direct intervention, and all private engineering colleges are selected for indirect intervention. The focus is on the most-backward states like Jharkhand, Chhattisgarh, Bihar, North-East, Rajasthan, MP etc.

The measures include:

- Institution based: accreditation of the courses through NBA, governance reforms, improving the processes, digital initiatives, securing autonomy for the colleges.
- Student based: improving the quality of teaching, teacher training, equipping the class rooms, revision of syllabus, industry interaction, compulsory internships for students, training the students in industry-relevant skills, preparing them for the GATE exam etc.

Way forward:

- Technical education of our country is in the threshold of having to undergo major reforms for building a credible professional workforce which has to build the nation for the welfare of our future generations.

Sources: pib.

TECHNICAL EDUCATION QUALITY**IMPROVEMENT PROGRAMME (TEQIP) PHASE II**

- On successful near completion of TEQIP Phase I of Rs. 1500 crore, TEQIP Phase II proposed at a total outlay of Rs. 2430 crore.
- World Bank, Central Government and State Governments to contribute Rs. 1400 crore, Rs. 500, and Rs. 530 crore, respectively.
- Lead institutions (60) / networking institutions (146) to get Rs. 15 crore and Rs. 10 crore, respectively.
- Selection of institutions / norms will be decided in consultation with stakeholders and World Bank.
- Focus on Capacity Building of Staff and Faculty (18%), Research Fellowships (18%) and Research Infrastructure Development and equipment (64%).
- Only States willing to accept educational reforms will be eligible for World Bank Aid.

2. More tribal areas to get Ekalavya schools**Context:**

- The government has proposed to establish Ekalavya Residential School in each block of the country where tribal people constitute a majority of the population.
- It has been decided that by the year 2022, every block with more than 50% ST population and at least 20,000 tribal persons, will have an Ekalavya Model Residential School.

Eklavya Model Residential Schools (EMRS)?

- Eklavya Model Residential School Scheme was started in 1998 and first school was started in the year 2000 in Maharashtra. EMRSs have been functioning as institutions of excellence for tribal students.
- As per existing EMRS Guidelines of 2010, at least one EMRS is to be set up in each Integrated Tribal Development Agency (ITDA) / Integrated Tribal Development Project (ITDP) having 50% ST population in the area.
- The capital cost for setting up the school complex, including hostels and staff quarters etc. has been earmarked at Rs. 12 crore with a provision to go up to Rs.16 crore in hill areas, deserts and islands. Recurring cost during the first year for these schools would be Rs. 42000/-per child, with a provision of raising it by 10% every second year to compensate for inflation etc.

Sources: the hindu.

3. “Healthy States, Progressive India” Report

Context: NITI Aayog has released a comprehensive Health Index report titled, “Healthy States, Progressive India”.

What you need to know about the report?

- The report has been developed by NITI Aayog, with technical assistance from the **World Bank**, and in consultation with the **Ministry of Health and Family Welfare (MoHFW)**.
- The report ranks states and Union territories innovatively on their year-on-year incremental change in health outcomes, as well as, their overall performance with respect to each other.
- It is the first attempt to establish an annual systematic tool to measure and understand the heterogeneity and complexity of the nation’s performance in Health.

Background:

- States and UTs have been ranked in three categories namely, Larger States, Smaller States, and Union Territories (UTs), to ensure comparison among similar entities.
- The Health Index is a weighted composite Index, which for the larger States, is based on indicators in three domains:
 - (a) **Health Outcomes** (70%);
 - (b) **Governance and Information** (12%); and
 - (c) **Key Inputs and Processes** (18%),
 with each domain assigned a weight based on its importance.
- Health Index has been developed as a tool to leverage co-operative and competitive federalism to accelerate the pace of achieving health outcomes.
- It would also serve as an instrument for “nudging” States & Union Territories (UTs) and the Central Ministries to a much greater focus on output and outcome based measurement of annual performance than is currently the practice.
- With the annual publication of the Index and its availability on public domain on a dynamic basis, it is expected to keep every stakeholder alert to the achievement of Sustainable Development Goals (SDGs) Goal number 3.

Performance of states:

- Among the Larger States, Kerala, Punjab, and Tamil Nadu ranked on top in terms of overall performance, while Jharkhand, Jammu & Kashmir, and Uttar Pradesh are the top three ranking States in terms of annual incremental performance.
- Among Smaller States, Mizoram ranked first followed by Manipur on overall performance, while Manipur followed by Goa were the top ranked States in terms of annual incremental performance.

Comment:

- The Health Index report notes that while States and UTs that start at lower levels of development are generally at an advantage in notching up incremental progress over States with high Health Index scores, it is a challenge for States with high Index scores to even maintain their performance levels.

Way ahead:

- The incremental measurement reveals that about one-third of the States have registered a decline in their performance in 2016 as compared to 2015, stressing the need to pursue domain-specific, targeted interventions.
- Common challenges for most States and UTs include the need to focus on addressing vacancies in key staff, establishment of functional district Cardiac Care Units (CCUs), quality accreditation of public health facilities and institutionalization of Human Resources Management Information System (HRMIS).
- Additionally, almost all Larger States need to focus on improving the Sex Ratio at Birth (SRB).

Sources: pib.

4. National Deworming initiative

Context:

- In a bid to tackle the countrywide public health threat of intestinal worm infections in children and related morbidity, all states and Union territories conducted the National Deworming Day on February 10th, as mandated by the Union ministry of health and family welfare.

About the National Deworming Day:

- The National Deworming Day is a single fixed-day approach to treating intestinal worm infections in all children aged 1- 19 years, and is held on 10 February and 10 August each year. It will mobilize health personnel, state governments and other stakeholders to prioritize investment in control of Soil Transmitted Helminth (STH) infections one of the most common infections.
- All the children are provided deworming tablet in schools and anganwadis. Besides the deworming tablet, various health promotion activities related to Water, Sanitation and Hygiene (WASH) are organised in schools and anganwadis.

Background:

- India carries the highest burden of worm infestation and 64% of Indian population less than 14 years of age are at risk of Soil Transmitted Helminths (STH) or worms' infestation (WHO). Soil Transmitted Helminths (STH) interfere with nutrients uptake in children; can lead to anaemia, malnourishment and impaired mental and physical development. The situation of undernutrition and anaemia which is linked to STH ranges from 40% to 70% in different population groups across the country (WHO). They also pose a serious threat to children's education and productivity later in life.

About Intestinal parasitic worms:

- They are large multicellular organisms, which when mature can generally be seen with the naked eye.
- They are also known as Helminths.
- They are often referred to as intestinal worms even though not all helminths reside in the intestines.

Why this is a cause for concern?

- Parasitic worms in children interfere with nutrient uptake, and can contribute to anaemia, malnourishment, and impaired mental and physical development. Parasitic worms have also debilitating consequences on the health and education of children, and on their long-term earning potential.
- According to the 2012 report 'Children in India', published by the Ministry of Statistics and Programme Implementation, 48% of children under the age of 5 years are stunted and 19.8% are wasted, indicating that half of the country's children are malnourished.

Way ahead:

- Anganwadi and school-based mass deworming program is safe, cost-effective, and can reach crores of children quickly.
- Deworming has been shown to reduce absenteeism in schools; improve health, nutritional, and learning outcomes; and increase the likelihood of higher-wage jobs later in life.
- Deworming with the safe and beneficial Albendazole tablet is an evidence-based, globally-accepted, and effective solution to controlling worm infections.
- National Deworming Day has, thus, been designed to reach all children, regardless of socio-economic background.



Ministry of Health & Family Welfare
Government of India

National Deworming Day

February 2018*

Did you know?

Worms can make your child

- Anaemic
- Undernourished
- Weak
- Too Sick & tired to concentrate or even attend school and anganwadi

All children aged 1-19 will be dewormed free-of-cost in schools/anganwadis on National Deworming Day. Any child not dewormed on National Deworming Day, will be dewormed on mop-up day.

For more information contact ANM/ASHA/Anganwadi worker

Other practices to reduce worm infections, in addition to deworming



Sources: pib.

5. Education impact bond for India

Context:

- Britain's Prince Charles has launched a new 10-million-dollar Development Impact Bond (DIB) to help improve education for over 200,000 children in India.

About the Development Impact Bond:

The DIB, the largest bond of its type in South Asia, is the latest fundraising initiative by the British Asian Trust (BAT), set up by the royal 10 years ago to fight poverty in South Asia. This will be the largest bond of its type in the region. It is intended to improve literacy and numeracy learning levels for primary school students from marginalised communities in the country.

- The new bond has been launched by the trust with the support of the UK government's Department for International Development (DfID), Comic Relief, the Mittal Foundation and the UBS Optimus Foundation.
- The concept of DIB is intended as a result-oriented way to attract new capital into development projects, with a strong emphasis on data and evidence. Under the initiative, the DIB will provide funding to local not-for-profit delivery partners in India over four years, delivering a range of operational models including principal and teacher training, direct school management, and supplementary programmes.

Sources: the hindu.

6. N Gopaldaswami committee

Context:

- N Gopaldaswami committee has been constituted to select 20 institutes of higher education in India that will be developed into "world-class" institutes.
- In a few months, 10 each (from public and private category) institutions will be accorded the eminence status with a mandate, and supported, to achieve the world-class status over a period of 10 years.

Facilities provided to these institutes:

- These institutes will be provided with greater autonomy to admit up to 30% foreign students, to recruit up to 25% foreign faculty, to offer online courses up to 20% of its programmes and to enter into academic collaboration with top 500 in the world ranking institutions without UGC permission.

Background:

- Last year, the Union ministry of Human resources Development, through the University Grants Commission, had invited institutes from across the country to be upgraded into “world-class universities.”
- Following this the Commission had received 100 applications, maximum being from public institutions.

Need for world-class institutes:

- India lacks world-class universities according to international rankings, and Indian academics, compared internationally, are rather poorly paid. Students also suffer an immense shortage of places in top academic institutions and throughout the higher education system.
- India today educates only half as many young people from the university age group as China and ranks well behind most Latin American and other middle-income countries.

Way ahead:

- If India is to succeed as a great technological power with a knowledge-based economy, world-class universities are required.
- The first step, however, is to examine the problems and create realistic solutions. Spending large sums scattershot will not work. Nor will copying the American academic model succeed.

What's important?

- **For Prelims:** Gopalaswami committee.
- **For Mains:** Need for world class institutes and challenges therein.

Sources: the hindu.

7. Shram Awards**Context:**

- 338 Workers will be Conferred with Prime Minister Shram Awards.
- The awards are given in recognition of their distinguished performances, innovative abilities, outstanding contribution in the field of productivity and exhibition of exceptional courage and presence of mind.

About Shram Awards:

- The Prime Minister's Shram Awards were instituted in 1985 by the Government of India. This national award is conferred on workers for outstanding contributions that improve productivity, innovation, and indigenization, resulting in saving foreign exchange. The award is also given for long-term exceptional dedicated work.
- The objective of the Prime Ministers Shram Awards is to recognize the outstanding contributions made by workmen as defined in the Industrial Dispute Act, 1947 in organizations both in public and private sector and who have distinguished record of performance, devotion to duty of a high order, specific contribution in the field of productivity and proven innovative abilities among others.

There are four types of awards:

- **Shram Ratna:** Rs. Two lakhs and recognition of their contribution to their field (a Sanad).
- **Shram Bhushan:** RS. 100000 and a Sanad.
- **Shram Vir / Shram Veerangana:** RS. 60000 and a Sanad.
- **Shram Devi / Shram Shree:** RS. 40000 and a Sanad.

What's important?

- **For Prelims:** Shram awards.

Sources: pib.

8. Revitalising Infrastructure and Systems in Education (RISE)

Context:

- IITs will corner the largest chunk of loans on offer under the new funding model – Revitalising Infrastructure and Systems in Education (RISE) – for all centrally-run institutes, announced in the Union Budget. A quarter of loan amount under the scheme will be set aside exclusively for the 23 IITs. The second largest share, Rs 20,000 crore, will be earmarked for central universities.

What is RISE scheme all about?

- Under RISE, all centrally-funded institutes (CFIs), including central universities, IITs, IIMs, NITs and IISERs, can borrow from a Rs 1,00,000 crore corpus over the next four years to expand and build new infrastructure.
- The initiative aims to step up investments in research and related infrastructure in premier educational institutions, including health institutions.
- Higher Education Financing Agency (HEFA) would be suitably structured for funding this initiative.
- The manner in which investment in institutions is provided is likely to be the same as is practised in HEFA, but there may be different windows for different institutions.

About HEFA:

What is it?

- The Union Cabinet had approved HEFA in September 2016 as a Special Purpose Vehicle with a public sector bank (Canara Bank).
- It would be jointly funded by the promoter/bank and the MHRD with an authorised capital of ₹2,000 crore.
- The government equity would be ₹1,000 crore.

Functions:

- HEFA will leverage the equity to raise up to ₹20,000 crore for the funding of world-class infrastructure at the IITs, IIMs, the National Institutes of Technology (NITs) and such other institutions.
- The agency will also mobilise Corporate Social Responsibility (CSR) funds from public sector units (PSUs) and corporates.
- These would be released as grants to eligible institutions for promoting research and innovation.

Significance of HEFA:

- Funding from HEFA is expected to boost infrastructure, especially state-of-the-art laboratories, in key institutions such as the Indian Institutes of Technology (IITs), the Indian Institutes of Management (IIMs), and the Indian Institutes of Information Technology (IIITs).

What's important?

- **For Prelims:** RISE scheme, HEFA.
- **For Mains:** Need for funding in the education sector.

Sources: pib.



9. Aviation Multi Skill Development Centre (MSDC)

Context:

- A first-of-its-kind Aviation Multi Skill Development Centre (MSDC), a CSR initiative of Airports Authority of India (AAI) was inaugurated in Chandigarh.

About aviation MSDC:

- The Centre has been set up in collaboration with the National Skill Development Corporation (NSDC) and is supported by the Aerospace and Aviation Sector Skill Council (AASSC) of India.

- The course curriculum and assessments of the training have been designed by AASSC in accordance with the National Skill Qualification Framework.
- The Centre will train about 2,400 youth and women in 8 aviation job roles over the next 3 years.

Background:

- Demand for aviation skilled personnel has been rising commensurately with the boom in the civil aviation sector witnessed in the last 3-4 years. More than 900 new aircraft are expected to be inducted by Indian scheduled airlines in the coming few years.
- Air connectivity for both passenger transport and air freight is increasing, with new air routes and operationalisation of unserved or underserved airports through the UDAN Regional Connectivity Scheme.
- MRO and ground-handling demands for skilled personnel are also rising in tandem.

About NSDC:

- The National Skill Development Corporation (NSDC) is a one-of-its-kind, Public Private Partnership (PPP) model in India, under the Ministry of Skill Development & Entrepreneurship (MSDE).
- It aims to promote skill development by catalyzing creation of large, quality and for-profit vocational institutions.

Functions:

- NSDC provides funding to build scalable and profitable vocational training initiatives. Its mandate is also to enable support system which focuses on quality assurance, information systems and train the trainer academies either directly or through partnerships.
- NSDC acts as a catalyst in skill development by providing funding to enterprises, companies and organisations that provide skill training.
- It will also develop appropriate models to enhance, support and coordinate private sector initiatives.

What's important?

- **For Prelims:** Aviation MSDC, NSDC.
- **For Mains:** Need for skill development.

Sources: pib.

Paper 2 Topic: Development processes and the development industry the role of NGOs, SHGs, various groups and associations, donors, charities, institutional and other stakeholders.

1. Dust mitigation plan must for firms

- The Environment Ministry has made it mandatory for companies seeking environment clearance to ensure that they put in place a dust mitigation plan.

What are the requirements?

- The requirements, specified in a gazette notification on January 25, say that roads leading to or at construction sites must be paved and black-topped.
- There could be no soil excavation without adequate dust mitigation measures in place.
- No loose soil, sand, construction waste could be left uncovered.
- A water sprinkling system was mandatory, and the measures taken should be prominently displayed at the construction site.
- Moreover, the grinding and cutting of building materials in open area were prohibited and no uncovered vehicles carrying construction material and waste would be permitted.



Background:

- The standards were developed by the Central Pollution Control Board as part of the National Ambient Air Quality Standards (NAAQS), and will now empower the organisation to fine companies and agencies for not complying with norms.

Need for dust mitigation:

- A study by the Indian Institute of Technology, Kanpur and commissioned by the Delhi government reported, in 2015, that road dust, burning of biomass and municipal solid waste, constituted the lion's share of the city's air pollution.
- Road dust contributed 56% of all PM₁₀ pollution, while it was 38% for PM_{2.5}. Another estimate by the Indian Institute of Tropical Meteorology, Pune had different numbers but still ranked dust as the major contributor – 52% – to the city's PM₁₀ load.

Sources: the hindu.

2. Kisan Urja Suraksha evam Utthaan Mahaabhiyan or KUSUM scheme

Context:

- As part of Union Budget 2018-19, the government has announced Kisan Urja Suraksha evam Utthaan Mahaabhiyan or KUSUM scheme.

**About KUSUM scheme:**

- **What is it?** It is a ₹1.4 lakh-crore scheme for promoting decentralised solar power production of up to 28,250 MW to help farmers. It would provide extra income to farmers, by giving them an option to sell additional power to the grid through solar power projects set up on their barren lands. It would help in de-dieselising the sector as also the DISCOMS.
- **Components of the scheme:**
 - The components of the scheme include building 10,000 MW solar plants on barren lands and providing sops to DISCOMS to purchase the electricity produced, 'solarising' existing pumps of 7250 MW as well as government tube wells with a capacity of 8250 MW and distributing 17.5 lakh solar pumps.
 - The 60% subsidy on the solar pumps provided to farmers will be shared between the Centre and the States while 30% would be provided through bank loans.
 - The balance cost has to be borne by the farmers.
- **Significance of the scheme:** Expected positive outcomes of the scheme include promotion of decentralised solar power production, reduction of transmission losses as well as providing support to the financial health of DISCOMs by reducing the subsidy burden to the agriculture sector. The scheme would also promote energy efficiency and water conservation and provide water security to farmers.

Sources: the hindu.

3. Laghu Udyog Bharati

Context:

- A national level meeting was recently convened by the Government of India with the members of Laghu Udyog Bharati.

About Laghu Udyog Bharati:

- Laghu Udyog Bharati is a registered all India organization of Micro and Small Industries in India since 1994. Today, Laghu udyog Bharati has its membership spread over the length and breadth of the country.
- It has membership in more than 400 Districts with 250 Branches all over the Country.



लघु उद्योग भारती

Laghu Udyog Bharati

- In a genuine effort to organise MSE sector Laghu Udyog Bharati is fighting the various ills plaguing the sector and to remove impediments coming in the way to MSEs.

Laghu Udyog Bharati render assistance to small scale industries as follows:

- Removal of inspector raj & simplification procedures.
- Availability & distribution of power.
- Guidance for improving productivity.
- Quality & technological upgradation & modernisation.
- Sales promotion & marketing assistance.
- Encouraging women entrepreneurs.
- Creating congenial environment for better entrepreneur, worker and customer relations.
- Making various panels for better representation.
- Participation in Trade-Fairs and Exhibitions for better product exposure.

Significance of MSE sector:

Worldwide, micro and small enterprises (MSEs) have been accepted as the engine of economic growth and for promoting equitable development. MSEs constitute over 95% of total enterprises in most of the economies and are credited with generating the highest rates of employment growth and account for a major share of industrial production and exports. It contributes more than 45% of total manufacturing production and 40% of exports, while employing 10 crores people, it suits the Indian conditions in the following manner:

- It is only source which has the potential to absorb about 10 million new youths which enter the workforce every year, as there are hardly any job opportunities in Government sector; the agriculture sector is already super saturated; and the large / corporate sector has had less employment growth in last 2 decades.
- For country like India which has very scarce capital, promoting MSE is essential as only one tenth of capital investment is required to generate one employment in MSE sector as compared to investment required per capita employment in large sector. It mitigates the problem of migration to cities and slum dwellings in urban areas. It also ensure inclusive growth.

Sources: pib.

4. Tools for ranking of startups

Context:

- Three new tools for States and Union Territories for ranking of startups in the country have been launched. These will act as catalysts to help the Startup India initiative to drive India's economic growth.

The tools are:

- The State and Union Territory Startup Ranking Framework, the Compendium of Good Practices for Promoting Startups in India and the Startup India Kit.

About the Ranking Framework:

- The key objective of the Startup States and UTs Ranking Framework is to encourage States and UTs to take proactive steps towards strengthening the Startup ecosystems at the local level. The Ranking Framework will measure the impact of each step initiated at the local level for building a strong Startup ecosystem. The Ranking Framework will also enable continuous learning through the dissemination of good practices.
- The Ranking Framework is based on the feedback collected from Startup ecosystem stakeholders, which include startups, mentors, investors, accelerators, incubators and the government bodies. Areas which should be given greater thrust like seed funding support, women entrepreneurship are given more score.

Startup India Compendium of Good Practises for promoting Startups in India:

- It focuses on enriching the Startup ecosystem through ethical behaviours and is currently followed by 18 States and UTs.
- It covers 95 good practises across 7 areas of intervention.
- These are distilled into 38 action points including Incubation Support, Seed Funding, Angel & Venture Funding, Startup Policy & Implementation, Simplified Regulations, Easing Public Procurement, Awareness & Outreach.

The Startup India Kit:

- It is primarily a one-stop guide on all Startup India offerings.
- It offers vital information, advice and assistance through website links, statistics, tools, templates, events, competitions and a glossary on startup terms.
- All the benefits available to startups from the Startup India initiative can be found in the kit.

Significance of Startups:

- India is home to about 20,000 startups, with about 1,400 beginning operations every year. They are not only driving economic growth but also leading to technological innovations and employment generation in every state.
- Entrepreneurs are introducing new solutions everyday and also improving existing processes.
- To encourage and help startups the Govt of India has taken the lead in creating policies and a framework. Many States and UTs have a startup focussed environment with ease of doing business for startups.

Way ahead:

- The Govt has to align its strategies to tap into the infinite potential of young entrepreneurial minds.
- Startups need help in the journey from idea to business and business to success.
- States will also have to take proactive steps to enable startup ecosystems at the local level.

Sources: pib.

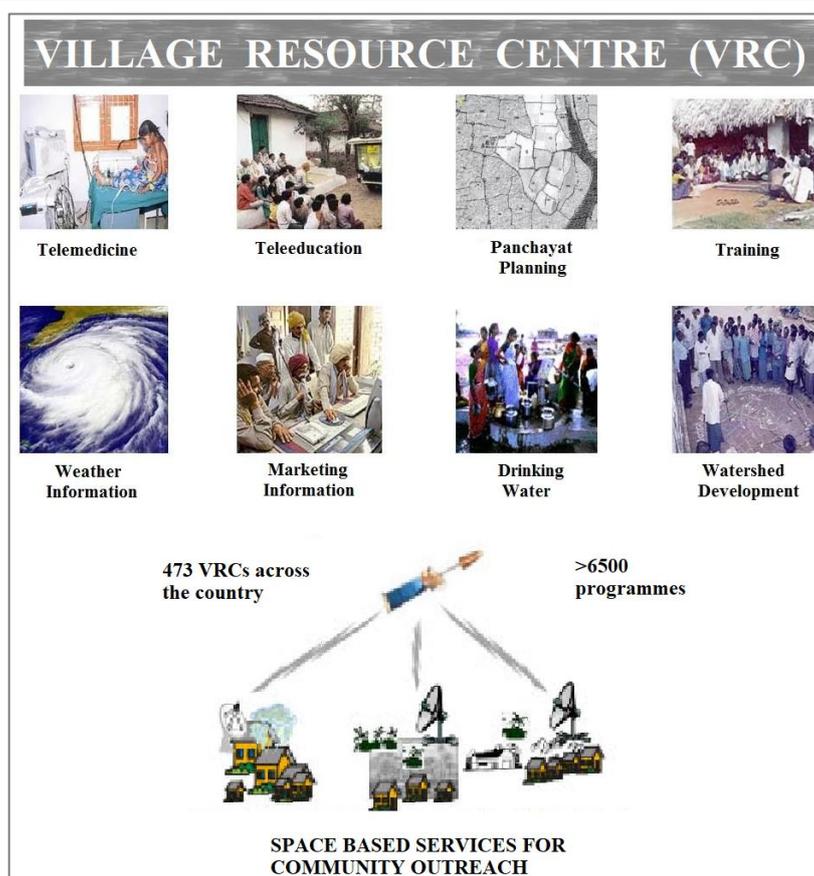
5. Village Resource Centres

Context:

- To demonstrate the potential of satellite technology for development of rural areas, ISRO established Village Resource Centres (VRCs) on a pilot scale. About Rs 18 crores was spent for establishing 473 VRCs.
- The project is running in association with selected NGOs, Trusts and State Government Departments.

About Village Resource Centres program:

- To provide the space based services directly to the rural areas, ISRO/ DOS has launched the Village Resource Centres (VRCs) programme in association with NGOs/ Trusts and state/ central agencies.
- VRCs provide various space technology enabled services such as tele-healthcare, tele-education, natural resources information, advisories related to agriculture, career guidance to rural students, skill development and vocational training etc.
- Establishing new VRCs is an ongoing process and the same is carried out based on communication technology needs, funds available, proposals received from State Governments/NGOs etc.
- The parameters for selecting NGOs and Trusts as partners in VRC include experience in community organisation and social work, availability of required infrastructure for housing the VRC facility, requisite manpower for day-to-day operation and capacity for conducting programmes of relevance for the development of rural areas.



Sources: pib.

6. India Health Fund

Context:

- The India Health Fund (IHF), an initiative by Tata Trusts, in collaboration with the Global Fund has come forward to financially support innovations and technologies designed to combat tuberculosis and malaria.
- The IHF aims to support individuals and organisations with already germinated innovative strategies, services, products, such that they become sustainable and scalable solutions in addressing TB and malaria.

About India Health Fund:

The India Health Fund is a lead initiative of Tata Trusts, with technical support from the Global Fund. It is a pioneering vehicle by Tata Trusts, designed to not only influence philanthropic capital within India, but also serve as a trusted mechanism to generate significant impact in addressing key health challenges in the country – starting with malaria and tuberculosis.

- The IHF looks at catalysing agility and innovation within large scaled programmes of The Global Fund and the Government of India. Addressing infectious diseases like TB and malaria, the India Health Fund plans to support programs and projects that develop new products or strategies for innovative business models and innovative partnerships or financing mechanisms that significantly scale existing effective solutions.
- The investments made by the IHF will be aligned to national strategies and link to clear pathways of scale including government platforms, private health networks, open source technology or sustainable organization growth.

Background:

- TB and malaria pose long-standing health challenges for India. The two diseases account for over 4.23 lakh deaths and around 15 million lab-confirmed cases every year.

Sources: pib.

7. 'Watan ko Jano'

Context: The Ministry of Home Affairs (MHA) had recently organized the programme "Watan Ko Jano".

About Watan Ko Jano:

- **What?**
"Watan Ko Jano" is sponsored jointly by Ministry of Home Affairs, Government of India (Kashmir Cell) and State Rehabilitation Council Social Welfare Department. The programme aims to give exposure to the youth and children of Jammu and Kashmir about the cultural and socio-economic development taking place in other parts of the country.
- **Who?**
Youth and children hit by militancy and from weaker sections of the society have been identified for the purpose.

What's important?

- **For Prelims:** Watan Ko Jano programme is related to?
- **For Mains:** Scheme for the betterment of weaker section of the society.

Sources: pib.

8. Northeast Venture Fund

Context:

- In a bid to make Northeast a favourite destination for young Startups, the government has invited young start-ups to avail the benefits of Northeast Venture Fund.

About Northeast Venture Fund:

- **What?**

The Ministry of DoNER had rolled out “Venture Fund” for anybody who wishes to Startup in the Northeast region, which would provide a huge financial relief particularly to young entrepreneurs. Northeast Venture Fund is the first dedicated venture capital fund for North-Eastern region and the initiative to set it up began in April this year.

- **Who?**

It has been set up by North Eastern Development Finance Corporation Ltd (NEDFi), which already has the mandate to encourage entrepreneurship in the region, primarily by offering support to the first-generation entrepreneurs. In addition, the NEDFi also performs the role of hand-holding and capacity building.

Significance:

- While all the avenues of livelihood and new ventures are gradually getting exhausted in other parts of the country and States, the immense unexplored avenues and potentials of North Eastern region are still available.
- With its vast unexplored avenues, those looking for livelihood will soon find a potential enterprise in the Northeast, particularly in fruit, food, handicraft and tourism industry.

What’s important?

- **For Prelims:** Venture fund.
- **For Mains:** Significance of North East region.

Sources: pib.

9. NITI Forum for Northeast

Context: The Union Government has issued order setting up the ‘Niti Forum for North-East’.

About NITI Forum for Northeast:

- ‘Niti Forum for North-East’ has been set up to identify constraints and recommend suitable interventions for speedy and sustainable growth in northeast region.

Functions:

- The NITI Forum for Northeast is tasked to identify various constraints on the way of accelerated, inclusive and sustainable economic growth in the North East Region of the country and to recommend suitable interventions for addressing identified constraints.
- It will also review the development status in the NER.

Composition of the Forum:

- Members of the Forum will include Secretaries of Ministries of Road Transport & Highways, Railways, Power, Water Resources, River Development & Ganga Rejuvenation, New & Renewable Energy, Health & Family Welfare, Human Resource Development, Environment, Forest & Climate Change.
- Chief Secretaries of Northeastern states of Assam, Sikkim, Nagaland, Meghalaya, Manipur, Tripura, Arunachal Pradesh and Mizoram will also be members of the Forum. Secretary, North East Council (NEC), Shillong will be Member Secretary. Joint Secretary (NE), MHA, besides a number of experts from various fields will also be members of the Forum.
- The forum will be co-chaired by the Vice-Chairman of NITI Aayog and Minister of State (I/C), Ministry of Development of Northeastern Region (DoNER).

Sources: pib.

Paper 2 Topic: Important aspects of governance, transparency and accountability, e-governance-applications, models, successes, limitations, and potential; citizens charters, transparency & accountability and institutional and other measures.

1. Government e-Marketplace

Context:

- Government has launched the advanced version of GeM – the Government E Marketplace portal.
- The new version GeM would offer standardised and enriched catalogue management, powerful search engine, demand aggregation, user rating and analytics.
- GeM 3.0 has undergone a digital transformation with superior technology and ability to scale from the previous version.
- This will bring together many sellers and service providers for products and services across the country under one roof. This will also give a huge uplift for growth of MSME's, manufacturers & service providers.

About GeM:

- Government e-Marketplace (GeM) aims to transform the way in which procurement of goods and services is done by the Government Ministries/Departments, PSUs, autonomous bodies etc.
- DGS&D with technical support of NeGD (MeitY) has developed GeM portal for procurement of both Products & Services.
- GeM is a completely paperless, cashless and system driven e-market place that enables procurement of common use goods and services with minimal human interface.

Sources: et.

2. BharatNet Project

Context:

- To further promote the Centre's BharatNet project for providing broadband services in 2.5 lakh gram panchayats of the country, the finance ministry has proposed an allocation of Rs 8,175 crore, which will be used towards completing the second phase of the programme under which 1.5 lakh gram panchayats will be covered.



About BharatNet project:

- Bharat Net sought to connect all of India's households, particularly in rural areas, through broadband, forming the backbone of the government's ambitious Digital India programme. It proposes broadband connectivity to households under village panchayats and even to government institutions at district level. The project is being funded through the Universal Service Obligation Fund (USOF).
- In its first phase, the BharatNet project saw over one lakh gram panchayats being connected across the country with high speed optical fibre network as of December 31, 2017. Under the first phase, the project saw 2,54,895 km of optical fibre cable being laid covering 1,09,926 gram panchayats out of which 1,01,370 gram panchayats have been provided active connectivity.

Universal Service Obligation Fund:

- USOF, established in 2002, provides effective subsidies to ensure telegraph services are provided to everyone across India, especially in the rural and remote areas. It is headed by the USOF Administrator who reports to the Secretary, Department of Telecommunications (DoT).
- Funds come from the Universal Service Levy (USL) of 5% charged from all the telecom operators on their Adjusted Gross Revenue (AGR) which are then deposited into the Consolidated Fund of India, and require prior parliamentary approval to be dispatched.

- The USOF works through a bidding process, where funds are given to the enterprise quoting the lowest bid. However, the funds for NOFN were made an exception to this process since BBNL was the sole party involved in the implementation having being specifically created for it.

Sources: the hindu.

3. Kerala to get MGNREGS assets geo- tagged

Context:

- Kerala is planning to get assets generated under MGNREGS geo- tagged and perhaps become the first state to achieve this distinction.
- The state Rural Development Department has already geo- tagged over 1 lakh assets.

Need for geotagging:

- The scale of rural assets created under MGNREGA is very large. Since the inception of the programme in financial year 2006-07, about 2.82 Crore assets have been created under the programme.
- On an average, about 30 Lakh Assets are created annually which includes a variety of works such as water harvesting structures, plantations, rural infrastructure, flood control measures, individual assets for sustainable livelihood, community infrastructure and so on.

What is geotagging?

- Geotagging is the process of adding geographical information to various media in the form of metadata.
- The data usually consists of coordinates like latitude and longitude, but may even include bearing, altitude, distance and place names.

What's important?

- **For Prelims:** Geo tagging.
- **For Mains:** Applications and Challenges.

Sources: the hindu.

4. Criminal Laws (Rajasthan Amendment) Bill

Context: The Rajasthan government has withdrawn the Criminal Laws (Rajasthan Amendment) Bill 2017.

About the Criminal Laws (Rajasthan Amendment) Bill:

- The Criminal Laws (Rajasthan Amendment) Bill seeks to protect serving and former judges, magistrates and public servants in the State from being investigated for on-duty action, without government sanction.
- It also bars the media from reporting on such accusations till the sanction to proceed with the probe is given by the government.

Intention behind this move:

- The government said, with this bill, it aimed to protect honest officials from frivolous allegations levelled by vested interests, and thus prevent a situation of policy paralysis.
- It was felt that bar on reporting will deter false cases brought with the intention of maligning public officials.

What is the concept of Prior Sanction?

- The basic idea is that public officials need to be protected from legal harassment for their official actions. But at what stage is prior sanction required – before beginning investigation, or before prosecution in court?
- At present, prior sanction is required before public officials can be prosecuted in courts.
- The CrPC provides that no court can take cognizance of an offence by a public official unless sanction has been given by the central or state government.
- The Prevention of Corruption Act also requires prior sanction for prosecution of public servants for offences such as taking a bribe or criminal misconduct.
- The Rajasthan Bill introduced the **requirement of prior sanction at the stage of investigation** in addition to the stage of prosecution.

Questions raised on the provision of prior sanction in the Bill:

- First, whether this protection is necessary at both the investigation and prosecution stages.
- Second, since evidence of an alleged offence is collected through an investigation, how will an authority sanction investigation in the absence of evidence?
- And finally, the requirement of prior sanction at both the investigation and prosecution stages could result in delays.

Sources: the hindu.

5. Corruption Perception Index 2017**Context:**

- The annual corruption index of Transparency International for the year 2017 has been released.
- The index ranks 180 countries and territories by their perceived levels of public sector corruption.
- The index uses a scale of 0 to 100, where 0 is highly corrupt and 100 is very clean.

Performance of India:

- India has been ranked 81st. While it maintained its score at 40 on a 100-point scale where anything below 30 is considered seriously corrupt, its ranking changed from 79th last year partly because Vanuatu, one of the countries added to the rankings this year, was rated higher and partly because others improved.
- The index also characterised India as “among the worst regional offenders” in the Asia Pacific region on grounds of journalists, activists, opposition leaders and even staff of law enforcement or watchdog agencies being threatened or even murdered. In this, it was clubbed with the Philippines and Maldives.

Performance of various countries:

- New Zealand and Denmark were ranked as the cleanest countries in the 2017 list as in 2016, with scores of 89 and 88, respectively.
- Syria, South Sudan and Somalia were ranked as the most corrupt countries with scores of 14, 12 and 9, respectively.
- Pakistan with a score of 32 and China with 41 are perceived to be more corrupt than India. Russia is more corrupt than all three countries with a score of 29. South Africa is at 71st, having dropped seven places from 2016.
- Countries with the poorest protection for press and non-governmental organisations (NGOs) also tended to have the lowest ranks on the index.

What's important?

- **For Prelims:** Performance of various countries in the corruption perception index.
- **For Mains:** Need for transparency, efforts by government.

Sources: the hindu.

NZ RANKED 'CLEANEST'**TOP 5***

Rank	Country	2017 score	2016 score
1	NZealand	89	90
2	Denmark	88	90
3	Finland	85	89
3	Norway	85	85
3	Switzerland	85	86

BOTTOM 6

175	Sudan	16	14
175	Yemen	16	14
177	Afghanistan	15	15
178	Syria	14	13
179	S Sudan	12	11
180	Somalia	9	10

INDIA & NEIGHBOURS

26	Bhutan	67	65
77	China	41	40
81	India	40	40
91	Sri Lanka	38	36
117	Pakistan	32	32
122	Nepal	31	29
130	Myanmar	30	28
143	Bangladesh	28	26

*Others ranked higher than 10: Singapore, Sweden (both 6), Canada, Luxembourg, Netherlands, UK (all 8)

6. National e-Governance Awards**Context:**

- National e-governance Awards were presented on the occasion of 21st National Conference on e-Governance.

- The *National e-Governance Awards* recognise and promote excellence in implementation of e-Governance initiatives taken by various government departments and also initiatives of public sector units and Non-Government Institutions.

About the conference:

- The Department of Administrative Reforms and Public Grievances (DARPG), Government of India, along with the Ministry of Electronics & Information Technology, Government of India in association with Government of Telangana have organized the 21st National Conference on e-Governance in Hyderabad, Telangana.
- The Conference serves as a forum in which the Secretaries, Administrative Reforms and Secretaries, Information Technology of State Governments, IT Managers of the Central Governments, Software Solution providers, industry, etc. participate and interact, exchange opinions, views, discuss issues, problems and also analyze various solution frameworks.

Theme: Technology for Accelerating Development.

Sub themes:

- Building User experience.
- Universalization and Replication.
- Governing e – Governance.
- Emerging technologies.
- e-Governance good/best practices.

What is e governance?

- e-Governance is generally understood as the use of Information and Communication Technology (ICT) at all the level of the Government in order to provide services to the citizens, interaction with business enterprises and communication and exchange of information between different agencies of the Government in a speedy, convenient efficient and transparent manner.

What's important?

- **For Prelims:** National e-Governance awards.
- **For Mains:** Significance of e governance.

Sources: pib.

Paper 2 Topic: *India and its neighbourhood- relations.*

1. Rohingya issue

Context:

- In response to a submission by Rohingya refugees that the BSF was “pushing back” their compatriots at the borders with chilli spray and stun grenades, the Union government recently told the Supreme Court that it does not want the country to become the refugee capital of the world.
- The government said it is in talks and should be allowed to take a decision. There was no contingency as of now and this was not a matter for the court to intervene.

What's the issue?

- Outbreaks of violence in Rakhine State, Myanmar, have forced hundreds of thousands of Rohingya people to flee their homes. There are numerous reports of widespread violence against men, women and children. Here are five things you need to know about the deepening crisis.

WHO ARE THE ROHINGYA?

- Often described as the “world’s most persecuted minority,” the Rohingya are a predominantly Muslim ethnic group, mostly concentrated in Rakhine, one of Myanmar’s poorest states.
- The Rohingya have lived in Myanmar for generations, many migrating from Bangladesh during British rule. After gaining independence, Myanmar, a majority Buddhist nation, refused to acknowledge the Rohingya as citizens, rendering them a stateless people.

- Without recognition as citizens or permanent residents of the country, the Rohingya have limited access to education, jobs, and health services, resulting in chronic poverty and marginalization. Violence targeting Rohingya over the last several decades has driven hundreds of thousands to neighboring countries.

Way ahead:

- Minimum humanitarian morality should be shown to the refugees at the border before sending them back. There is a need to balance national interests with humanitarian concern about the refugees.

Sources: the hindu.

2. Atal doctrine**Context:**

- The J&K government has asked the Centre to revisit former Prime Minister Atal Bihari Vajpayee's doctrine to defuse tension with Pakistan.
- The state government believes that dialogue and reconciliation is the only way to restore peace along the borders and on the mainland.

Atal Doctrine:

- The Atal doctrine on Kashmir called for peace, progress and prosperity in the Valley by imbibing the spirit of *Insaniyat* (Humanity), *Jamhuriyat* (Democracy) and *Kashmiriyat* (Identity of the people of Kashmir).
- The doctrine was universally acclaimed by all segments across of political spectrum in the state, including the extremist elements in the Valley.
- Vajpayee's mantra included resolving all outstanding issues with Pakistan, including that of Jammu and Kashmir issue in a peaceful manner through bilateral dialogue without any third party intervention.
- Vajpayee extended a hand of friendship on the basis of reciprocity and mutual trust and called for collective fight against poverty in the Indian subcontinent devoid of terrorism and drug-trafficking.
- Vajpayee also signed a Lahore Declaration with Prime Minister Nawaz Sharif on February 21, 1999.
- As part of the declaration, Pakistan agreed to resolve all bilateral issues between the two countries, including the issue of Jammu and Kashmir in a peaceful manner and through dialogue and to promote people to people contact.

Sources: the hindu.

3. Maldives' ongoing political crisis

- The Maldives is engulfed in a deepening political crisis, as the introduction of a state of emergency decree across the holiday islands prompted heavily-armed troops to storm the country's top court and arrest a former president.

Background:

- Ever since President Yameen came to power in 2013, he has been jailing almost all the political opposition.
- The island nation has been witnessing political unrest and street protests since former president Nasheed was convicted in 2015 on terror charges and sentenced to 13 years in jail.
- He was later allowed to go to Britain for medical treatment in January 2016.
- He has lived in exile since and is currently in Sri Lanka.

What happened now?

- The Maldivian Supreme Court had last week ordered the immediate release of former president Mohamed Nasheed and other opposition leaders.
- The Court had also ordered the government to restore the seats of 12 legislators sacked for defecting from Mr Yameen's party, giving the opposition the majority in the assembly which would mean that they could potentially impeach the president.
- However, President Yameen refused to comply the top court's orders, despite growing international pressure and concern, leading to declaration of Emergency in Maldives.

How has the world reacted?

- Both former leaders of the Maldives, Nasheed and Gayoom, have called on India to force Yameen to release the recently jailed high court judges and political prisoners.
- While intervention from New Delhi would certainly be unusual, it is not unprecedented. India sent troops to the Maldives in 1988 to foil a coup.
- Alongside India, the U.S. and the U.K. have both urged Yameen to honor the rule of law and free the detainees.
- Meanwhile, the United Nations (UN) human rights chief has warned that Yameen's state of emergency decree, which had been used to imprison perceived political opponents, was undermining the checks and balances necessary in any functioning democracy.

Facts for Prelims:

- Maldives is a South Asian island country, located in the Indian Ocean, situated in the Arabian Sea. It lies southwest of Sri Lanka and India. The chain of 26 atolls stretches from Ihavandhippolhu Atoll in the north to the Addu City in the south.
- Maldives is one of the world's most geographically dispersed countries, as well as the smallest Asian country by both land area and population. It is the world's lowest country, with even its highest natural point being the lowest in the world.
- The Maldives archipelago is located atop the Chagos-Maldives-Laccadive Ridge, a vast submarine mountain range in the Indian Ocean, which also forms a terrestrial ecoregion, together with the Chagos and the Lakshadweep.

Sources: the hindu.

4. India gets access to strategic Oman port Duqm for military use**News:**

- In a strategic move to expand its footprint in the Indian Ocean region, India has secured access to the key Port of Duqm in Oman for military use and logistical support.
- Following this pact, the services of Duqm port and dry dock will be available for maintenance of Indian military vessels. This was one of the key takeaways of Prime Minister Narendra Modi's recent visit to Oman.

Significance of this move:

- The Port of Duqm is situated on the southeastern seaboard of Oman, overlooking the Arabian Sea and the Indian Ocean.
- It is strategically located, in close proximity to the Chabahar port in Iran.
- With the Assumption Island being developed in Seychelles and Agalega in Mauritius, Duqm fits into India's proactive maritime security roadmap. This is also part of India's maritime strategy to counter Chinese influence and activities in the region.
- The Port of Duqm also has a special economic zone, where about \$1.8 billion investments are being made by some Indian companies.

**The Indian Ocean is important for the following reasons:**

- It enjoys a privileged location at the crossroads of global trade, connecting the major engines of the international economy in the Northern Atlantic and Asia-Pacific. This is particularly important in an era in which global shipping has burgeoned.
- Indian Ocean is also rich in natural resources. 40% of the world's offshore oil production takes place in the Indian Ocean basin. Fishing in the Indian Ocean now accounts for almost 15% of the world's total.
- Mineral resources are equally important, with nodules containing nickel, cobalt, and iron, and massive sulphide deposits of manganese, copper, iron, zinc, silver, and gold present in sizeable quantities on the sea bed.

- Indian Ocean coastal sediments are also important sources of titanium, zirconium, tin, zinc, and copper.
- Additionally, various rare earth elements are present, even if their extraction is not always commercially feasible.

India's Importance in the Indian Ocean:

- The Indian Ocean holds particular importance for India, as the littoral's most populous country. Indeed, for the rest of the Ocean's littoral states, and even those outside the region, India's leadership role will be important in determining the strategic future.
- India is geographically located at the Ocean's centre, and has over 7,500 kilometres of coastline.
- Finally, there is a strong security dimension to India's engagement with the Indian Ocean, beyond traditional naval considerations.

Way ahead:

- Indian Ocean region is the primary area of concern for India. Securing its position here is vital before venturing elsewhere.
- For India, geographically the area of concern, and so the area of focus, should remain the IOR, stretching from the Gulf of Aden to the Strait of Malacca.
- While reiterating its commitment to upholding the established laws of the global commons, New Delhi should not go adrift in the larger Indo-Pacific.
- As more powers make inroads into this strategically crucial space, India must consolidate its position and not expect others to do its job, for it would only mean ceding space in the long run.

Sources: the hindu.

5. Myanmar dam on border worries Manipur village

Creating a barrier

The dam is being built on the Twigem river flowing into Myanmar from Manipur

- It is barely 100 m from the zero line separating India and Myanmar
- International rules warrant border countries to check activities in No Man's Land – a 150-metre strip on either side of the boundary line

Context:

- Myanmar is constructing a dam, called Tuidimjang, on the Twigem river flowing into Myanmar from Manipur.

What's the issue?

- Since, Tuidimjang dam is being constructed across a river close to the boundary with India, it has stoked fears of submergence and water scarcity among border villagers in Kengjoi subdivision of Manipur's Chandel

district. The topography of the area is such that nearby Indian villages will be submerged if the dam comes up. The villagers, dependent on the river, are already facing water scarcity.

- Also, the dam is being built by Myanmar authorities barely 100 metres from the Zero Line separating the two countries. International rules warrant border countries to check activities in No Man's Land – a 150-metre strip on either side of the boundary line.

What's important?

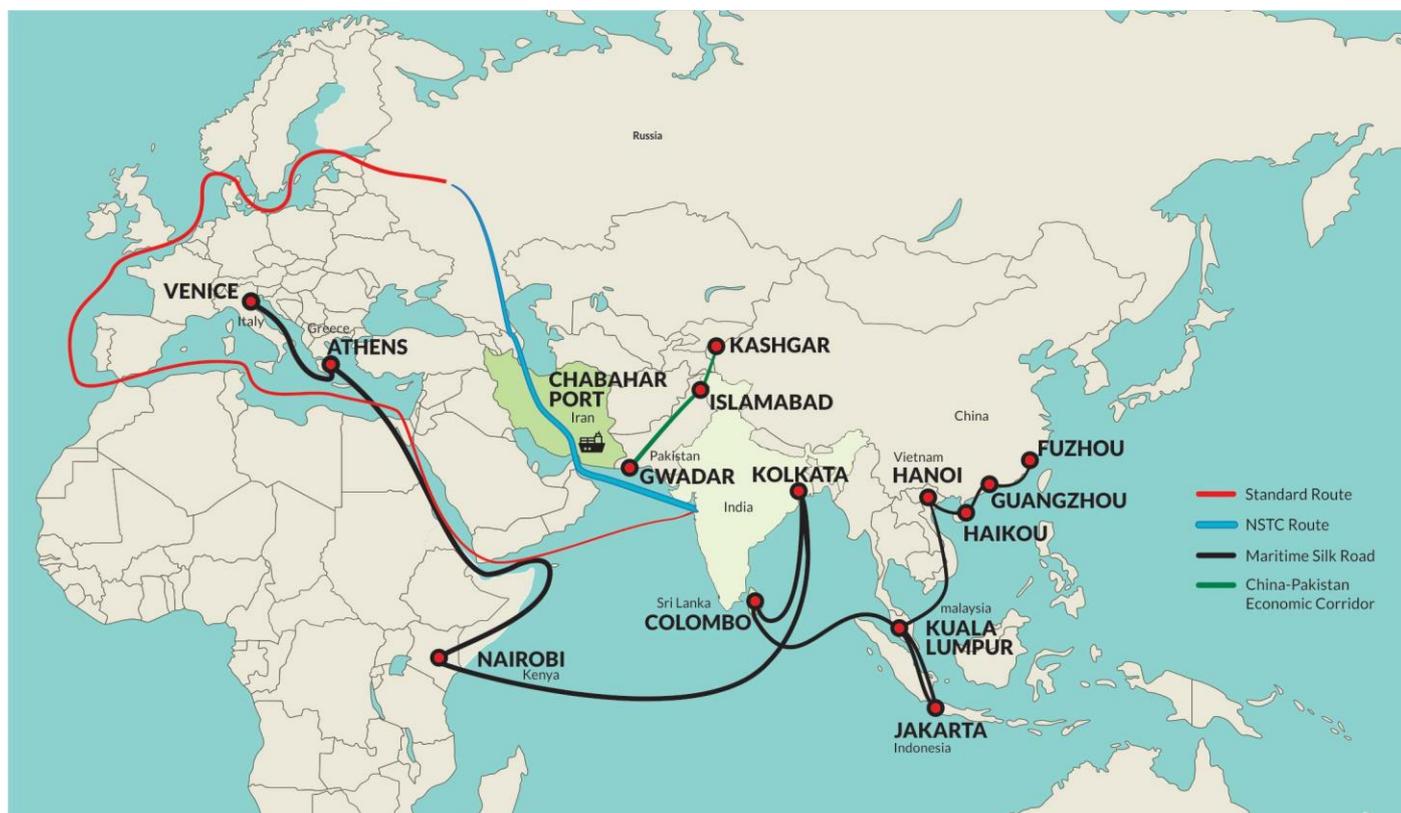
- **For Prelims:** Tuidimjang dam.
- **For Mains:** Construction of dams on international boundaries- Issues and solutions.

Sources: the hindu.

6. Chabahar port

Context:

- India and Iran have signed a significant pact which gives New Delhi operational control of a part of the strategically located Chabahar port on the Gulf of Oman for 18 months.
- The first phase of the Chabahar port was inaugurated in December last, opening a new strategic route connecting Iran, India and Afghanistan, bypassing Pakistan.



Where is Chabahar port?

- Iran's Chabahar port is located on the **Gulf of Oman** and is the **only oceanic port of the country**.
- The port gives access to the energy-rich Persian Gulf nations' southern coast and India can bypass Pakistan with the Chabahar port becoming functional.

Why Chabahar port is crucial for India?

- The first and foremost significance of the Chabahar port is the fact that India can **bypass Pakistan** in transporting goods to Afghanistan. Chabahar port will boost India's access to Iran, the key gateway to the International North-South Transport Corridor that has sea, rail and road routes between India, Russia, Iran, Europe and Central Asia.
- Chabahar port will be beneficial to India in **countering Chinese presence** in the Arabian Sea which China is trying to ensure by helping Pakistan develop the Gwadar port. Gwadar port is less than 400 km from Chabahar by road and 100 km by sea.

- With Chabahar port being developed and operated by India, Iran also becomes a **military ally** to India. Chabahar could be used in case China decides to flex its navy muscles by stationing ships in Gwadar port to reckon its upper hand in the Indian Ocean, Persian Gulf and Middle East.
- With Chabahar port becoming functional, there will be a significant **boost in the import** of iron ore, sugar and rice to India. The import cost of oil to India will also see a considerable decline. India has already increased its crude purchase from Iran since the West imposed ban on Iran was lifted.
- Chabahar port will ensure in the establishment of a **politically sustainable connectivity** between India and Afghanistan. This is will, in turn, lead to better economic ties between the two countries.
- From a diplomatic perspective, Chabahar port could be used as a point from where **humanitarian operations** could be coordinated.

Way ahead:

- Chabahar port is crucial for India as it is easily accessible from Indian western ports of Mumbai and Kandla. While, Iran would benefit from increased trade, earn transit fees and witness major infrastructural investments and developments. Also, development of Chabahar port will have a multiplier effect on the growth of its economy and boost foreign investments in the country.

Sources: the hindu.

7. Milan 2018

Context: Andaman & Nicobar Command will host the multinational mega event MILAN 2018.

Theme: 'Friendship Across the Seas'.

What is it?

- MILAN is a congregation of littoral navies conducted biennially by **Indian Navy** at the Andaman and Nicobar Islands, under the aegis of the **Andaman and Nicobar Command**.

Aims:

- MILAN 2018 aims to showcase the rich heritage and pristine natural beauty of the Andaman and Nicobar Islands to the foreign visitors.
- Besides fostering co-operation through naval exercises and professional interactions, MILAN also provides an excellent opportunity to the participating navies to come together in a spirit of collaboration and mutual understanding to nurture stronger ties.

What's important?

- **For Prelims:** MILAN 2018, where it is held.
- **For Mains:** Significance of Indian Ocean Region.

Sources: pib.

Paper 2 Topic: Bilateral, regional and global groupings and agreements involving India and/or affecting India's interests.

1. Ashgabat agreement



Context:

- India has been admitted to Agreement on the Establishment of an International Transport and Transit Corridor” between Iran, Oman, Turkmenistan and Uzbekistan signed on April 25, 2011, known as the Ashgabat Agreement.
- All the four founding members have consented to the accession of India and India’s accession to the Agreement will enter into force on February 3, 2018.

Significance of this accession:

- Accession to the Agreement would diversify India’s connectivity options with Central Asia and have a positive influence on India’s trade and commercial ties with the region.
- It also assumes significance given Beijing’s One Belt, One Road (OBOR) initiative of which the China Pakistan Economic Corridor (CPEC), that leads to Gwadar port in Pakistan passing through Pakistan-administered Kashmir, is a major part.
- India’s stand has been that while it is all for connectivity, such initiatives should respect the territorial integrity of other countries.

About Ashgabat agreement:

- The Ashgabat Agreement aims to develop a shortest trade route between Central Asian countries and Iranian and Omani ports.
- The Ashgabat Agreement has Oman, Iran, Turkmenistan and Uzbekistan as founding members. Kazakhstan has also joined this arrangement subsequently.
- In October 2016, Pakistan also formally joined the Ashgabat Agreement.
- The Iran-Turkmenistan-Kazakhstan (ITK) railway line will be the major route according to the Ashgabat Agreement, which became operational in December 2014 and was also included as part of India-funded North-South international transport corridor (NSITC).

Facts for Prelims:

- Ashgabat, known as Poltoratsk between 1919 and 1927, is the capital and the largest city of Turkmenistan in Central Asia, situated between the Karakum Desert and the Kopet Dag mountain range.

Sources: the hindu.

2. New Instrument adopted by International Labour Organization (ILO)**Context:**

- The Union Cabinet has given its approval for placing the new Instrument adopted by International Labour Organization (ILO) Recommendation concerning “The Employment and Decent Work for Peace and Resilience (No.-205)” before the Parliament.

About the Recommendation No.- 205:

- The International Labour Conference of ILO at its 106th Session held in Geneva in June, 2015 adopted the Recommendation. India supported the adoption of Recommendation.
- The Recommendation provides guidance to member States on the measures to be taken to generate employment and decent work for the purposes of prevention, recovery, peace and resilience with respect to crisis situations arising from conflicts and disasters. It also emphasizes the need to ensure respect for all human rights and the rule of law, including respect for fundamental principles and rights at work and for international labour standards, in particular those rights and principles relevant to employment and decent work.
- The Recommendation affirms the need to develop and strengthen measures of social protection, as a means of preventing crises, enabling recovery and building resilience. It states that Members should adopt a phased multi-track approach implementing coherent and comprehensive strategies for promoting peace, preventing crises, enabling recovery and building resilience.

Approach:

- The approach should include promoting local economic recovery for employment and decent work opportunities and socio-economic reintegration, social protection and social inclusion, sustainable development, the creation of sustainable enterprises (in particular small and medium-sized enterprises); ensuring consultation and encouraging active participation of employers’ and workers’ organizations in planning, implementing and monitoring measures for recovery and resilience.

Applicability:

- The Recommendation No. 205 is applicable to all workers and jobseekers, and to all employers, in all sectors of the economy affected by crisis situations arising from conflicts and disasters and to workers engaged in crisis response, including in the immediate response.

Way ahead:

- Each member state of ILO is required to submit the instruments so adopted before the competent authority (the Parliament in case of India).
- The adoption and placing of the Instrument for the information of the Parliament does not create any immediate obligation.
- An ILO Recommendations is a non-binding instrument which seeks to serve as a guiding principle for national policy process.

Sources: pib.

3. Jogighopa to become India’s new gateway to South-East Asia**Context:**

- Jogighopa, a small town in Assam, is set to become India’s gateway to South-East Asia as well as the rest of the North-East with the road ministry gearing up to develop a multimodal logistics park (MMLP) there with road, rail, waterways and air transport facilities.

What is being done?

- Under the project, all four types of transportation—road, rail, air and waterways—will be available.
- The development includes railway sidings, container terminals, warehousing, non-cargo processing, a truck terminal, common facilities, support infrastructure and equipment.
- A special purpose vehicle, backed by the Asian Development Bank (ADB), will be created to execute the project, which will be executed in two phases.

**Need for alternatives:**

- The current transit corridors from mainland India to the North-East region pass through an area known as the “Chicken’s Neck”—a narrow tract of land in India between the borders with Bangladesh, Nepal and Bhutan.
- Since it is close to these borders and cannot be expanded, the North-East region requires an alternative route for providing connectivity to the rest of India—a route with adequate expansion potential.
- The Indo-Bangladesh road route, along with the National Waterways-2, provides such an option.

Significance of this move:

- The move comes at a time when India’s neighbours are gearing up for trade. For example, Bangladesh’s development of the Khulna-Dhaka-Sylhet Economic Corridor and the Banglabandha-Dhaka-Chittagong-Cox’s Bazar Economic Corridor—to promote industrial development in the region.
- These initiatives are expected to drive freight movement in the region and facilitate trade between India and Bangladesh, and between Bangladesh and Bhutan through India.

Way ahead:

- North-East is one of the regions which has played a pivotal role in terms of logistics connectivity with the international and national corridors of India. And Asean’s (Association of Southeast Asian Nations) strong bond with the North-East region will act as a mascot for the entire region and for the rest of the businesses in India.

Facts for Prelims:

- Jogighopa is a small town located on the banks of the Brahmaputra River in the Bongaigaon district in the state of Assam.
- Within the city are the remains of the five rock cut rock-cut caves, examples of Salasthambha period architecture.

Sources: livemint.

4. TAPI gas pipeline

Context:

- Turkmenistan, Afghanistan, Pakistan and India recently ceremonially broke ground on the Afghan section of an ambitious, multi-billion dollar gas pipeline expected to help ease energy deficits in South Asia.

About TAPI gas pipeline project:

- The Turkmenistan-Afghanistan-Pakistan-India Natural Gas Pipeline (TAPI) Project is a natural gas pipeline being developed by the Asian Development Bank. The TAPI pipeline will have a capacity to carry 90 million standard cubic metres a day (mscmd) gas for a 30-year period and be operational in 2018.



- India and Pakistan would get 38 mscmd each, while 14 mscmd will be supplied to Afghanistan. From the Galkynysh field in Turkmenistan, the pipeline will run to Herat and Kandahar province of Afghanistan, before entering Pakistan. In Pakistan, it will reach Multan via Quetta before ending at Fazilka (Punjab) in India.

Benefits of this project for India:

- Energy** is a growing need, and even if India is able to source energy from other countries like Iran and further afield, both the proximity and abundance of Turkmenistan's reserves, that rank fourth in the world, will make it an attractive proposition.
- It will bring India much needed energy at competitive pricing, and could easily supply about 15% of India's projected needs by the time it is completed in the 2020s.
- This project also gives India an opportunity to secure its **interest in Central Asia**. TAPI's success will also ensure that India, Pakistan and Afghanistan find ways of cooperating on other issues as well.

Benefits for other countries:

- Holding 4% of the gas reserves of the world, presently, Turkmenistan exports gas to only very few countries. But, with the TAPI pipeline, it will be able to diversify its exports to nations like India, Pakistan etc. Turkmenistan will also earn a lot of revenue by these exports.
- The potential extension of the pipeline to the Gwadar Port in Pakistan will also enable Pakistan to export gas to several countries, thereby increasing its share of revenue.
- Since the pipeline passes through Afghanistan, it will earn some revenue too in the name of transit fees.
- This project could easily supply a quarter of Pakistan's gas needs. It will also reopen a historic route that reconnects South Asia to Central Asia, in the way it was before the British Empire sealed it off.

Challenges before the project:

- Security issues:** The TAPI project crosses Afghanistan and Pakistan, the former deeply unstable and of uncertain future, the latter plagued by terrorist incidents and infested with militant groups that may find a gas pipeline easy pickings. Ensuring the security of those involved in the construction of the pipeline and then extending that security along its length once operational is going to be a challenge for all the signatories.
- Maintenance:** After its completion, maintenance in the presence of terrorist elements in Afghanistan and in the restive areas of Pakistan will also be a challenge.
- India- Pakistan tensions:** Another critical issue is the fraught relations of Pakistan with India and Afghanistan.

Way ahead:

- Countries like India, Pakistan and Afghanistan are facing a severe energy crisis and badly need such a resource to give an impetus to their ailing economies.
- It is important for these countries to increase cooperation and take decisive action against the terrorists who are the main hurdle to any peace and development process.
- If utilized properly, the gas reserves can change the destiny of the people of these countries.

- It is a win-win situation for all stakeholder states and they must make up for lost time to explore this channel of prosperity.

What's important?

- **For Prelims:** TAPI pipeline.
- **For Mains:** TAPI- need, issues and solutions.

Sources: the hindu.

Paper 2 Topic: *Effect of policies and politics of developed and developing countries on India's interests, Indian diaspora.*

#. US tightens H-1B visa rules

Context:

- The US government has announced a new policy that has made the procedure of issuing H-1B visas relatively harder than the existing one.
- The updated policy guidance is in sync with President Donald Trump's 'Buy American, Hire American' Executive order.

Changes introduced:

- The H-1B visa program generally allows a foreign employee to work for a specific sponsoring American employer. As is true in many employment situations, the location of work can change. Under the new policy, the company would have to walk an extra mile to prove that its H-1B employee at a third-party worksite has specific and non-qualifying speculative assignments in speciality occupation.
- New employers must provide contracts and itineraries for employees who will work at a third-party location. This includes evidence of actual work assignments, which may include technical documentation, milestone tables, marketing analysis, cost-benefit analysis, brochures, and funding documents.
- When H-1B beneficiaries are placed at third-party worksites, petitioners must demonstrate that they have specific and non-speculative qualifying assignments in a specialty occupation for that beneficiary for the entire time requested on the petition.

Implications of this move:

- The Indian IT companies are among the major beneficiaries of H-1B visas with a significant number of employees deployed at third-party worksites.
- IT workers from India are always in high demand in American banking, travel and commercial services.

What is H-1B Visa?

- The H-1B visa is a non-immigrant visa that allows US companies to employ foreign workers in speciality occupations that require theoretical or technical expertise.
- The technology companies depend on it to hire tens of thousands of employees each year.

Criticisms:

- The aim of the H1B visa programme was to supplement the US workforce with high-skilled workers to do jobs that Americans are not skilled to do, not to replace the US workers.
- But over time, there have been many grumbings that many companies use the H1B visa to replace American workers with foreign ones, as the latter can be hired at lower salaries without compromising on the skill sets.
- In some cases, American employees have alleged that they were made to train H1B holders to do their own jobs, and then fired.

What's important?

- **For Prelims:** H- 1B visa.
- **For Mains:** Recent changes in the policy, impact on Indian diaspora, solutions.

Sources: the hindu.

Paper 2 Topic: Important International institutions, agencies and fora, their structure, mandate.

1. UN Development Partnership Fund

Context:

- India has contributed an additional \$1 million to the India-UN Development Partnership Fund earmarked for South-South cooperation. The contribution aims to intensify its partnerships with other developing countries.

About the India-UN Development Partnership Fund:

- What is it?** The India-UN Development Partnership Fund was set up as a partnership between India and the United Nations Office for South-South Cooperation (UNOSSC).
- What is it for?** Managed by UNOSSC, the fund will support Southern-owned and led, demand-driven, and transformational sustainable development projects across the developing world. Focusing on Least Developed Countries (LDCs) and Small Island Developing States, United Nations agencies will implement the Fund's projects in close collaboration with partnering governments.
- Focus areas:** Reducing poverty and hunger, improving health, education and equality, and expanding access to clean water and energy.

Facts for Prelims and Mains:

About UNOSSC:

What is it?

- The United Nations Office for South-South Cooperation (UNOSSC) was established to promote, coordinate and support South-South and triangular cooperation globally and within the United Nations system. UNOSSC, hosted by UNDP since 1974, was established by the UN General Assembly with a mandate to advocate for and coordinate South-South and triangular cooperation on a global and UN system-wide basis.
- Functions:** UNOSSC receives policy directives and guidance from the General Assembly and through its subsidiary body, the High-level Committee on South-South Cooperation. UNOSSC submits its strategic planning frameworks to the UNDP, UNFPA and UNOPS Executive Board for approval and funding.

Sources: the hindu.

2. Fifth South Asia Region Public Procurement Conference

Context:

- 5th South Asia Region Public Procurement Conference is being held at New Delhi.
- The Government of India (GOI), through the Public Procurement Division (PPD) of the Ministry of Finance and All India Management Association (AIMA) are hosting the Conference.

The theme of the Fifth Conference is: "Public Procurement and Service Delivery".

About the conference:

- The objective of the Conference is to enable the Heads of Public Procurement and other key stakeholders in the eight South Asian countries to meet and learn from one another and from experts in the field of public procurement.
- The knowledge thus acquired would help various South Asian Governments to consider enhancements and innovations in their public procurement systems, enabling efficient utilization of public resources, ensuring quality and timeliness in delivery of services.
- The Conference is held under the auspices of the South Asia Region Public Procurement Network (SARPPN), which is sponsored and facilitated by the World Bank, Asian Development Bank and Islamic Development Bank.
- The First Conference was held in Kathmandu in 2010, the second in Islamabad in 2014, the third in Dhaka 2015 and the fourth in Sri Lanka 2017.

Way ahead:

- All eight SAR countries spend approximately US\$550 billion equivalent on public procurement of goods, works and services, which eventually convert to public services.
- The Fifth Conference will deliberate upon key aspects of public procurement that help ensure delivery of these services; and identify and address areas that need improvement.

Sources: pib.

3. UN World Food Programme**Context:**

- Sweden and the United Nations World Food Programme have signed a Strategic Partnership Agreement committing an unprecedented \$370 million dollars to WFP over the next four years.
- The contribution for the period 2018-2021 is the biggest ever made by a donor within a WFP Strategic Partnership Agreement.

**About WFP:**

- The World Food Programme (WFP) is the food assistance branch of the **United Nations** and the world's largest humanitarian organization addressing hunger and promoting food security.
- The WFP strives to eradicate hunger and malnutrition, with the ultimate goal in mind of eliminating the need for food aid itself.
- It is a member of the **United Nations Development Group** and part of its Executive Committee.
- Born in **1961**, WFP pursues a vision of the world in which every man, woman and child has access at all times to the food needed for an active and healthy life.
- The WFP is governed by an Executive Board which consists of representatives from member states.
- The WFP operations are funded by voluntary donations from world governments, corporations and private donors.
- WFP food aid is also directed to fight micronutrient deficiencies, reduce child mortality, improve maternal health, and combat disease, including HIV and AIDS.

Sources: the hindu.

4. World Government Summit**Context:** The sixth Edition of **World Government Summit** was held in **Dubai, UAE**.**About World Government Summit:**

- The World Government Summit is a global platform dedicated to shaping the future of government worldwide. Each year, the Summit sets the agenda for the next generation of governments with a focus on how they can harness innovation and technology to solve universal challenges facing humanity.
- It functions as a thought leadership platform and networking hub for policymakers, experts, and pioneers in human development.
- The Summit is a gateway to the future as it functions as a stage for analysis of the future trends, issues, and opportunities facing humanity. It is also an arena to showcase innovations, best practice, and smart solutions to inspire creativity to tackle these future challenges.

Sources: the hindu.

5. Tanzania withdraws from UN refugee programme**Context:**

- Tanzania has decided to withdraw from UN refugee programme for reasons of security and lack of funds.
- Tanzania has long been considered a safe haven for refugees, particularly from Burundi and the Democratic Republic of Congo.

About UN refugee programme:s

The **New York Declaration** lays out a vision for a more predictable and more comprehensive response to these crises, known as the **Comprehensive Refugee Response Framework**, or **CRRF**. It calls for greater support to refugees and the countries that host them. The **New York Declaration for Refugees and Migrants** is a milestone for global solidarity and refugee protection at a time of unprecedented displacement across the world.

- Adopted by all 193 Member States of the United Nations in September 2016, it contains historic and wide-ranging commitments that reaffirm the commitment by Member States to respect the human rights of refugees and migrants and to support the countries that welcome them.
- UN's "comprehensive refugee response framework" provides lasting solutions for refugees, including integration into host communities. The framework approach is based on the idea that refugees should be included in their host communities. When refugees have access to education and the right to work legally, they can develop their skills and be more self-reliant, contributing to the local economy.



Sources: the hindu.

6. World Sustainable Development Summit

Context: 2018 World Sustainable Development Summit is being held in New Delhi.

Theme: The theme of the Summit this year is 'Partnerships for a Resilient Planet'.

- The WSDS series seeks to bring together the finest minds and leading thinkers of the world to focus attention on the challenge of sustainable development and has emerged as a landmark event addressing issues pertinent to the future of humanity.

About TERI:

- The Energy and Resources Institute (TERI) is a leading think tank dedicated to conducting research for sustainable development of India and the Global South.
- TERI was established in 1974 as an information centre on energy issues.
- However, over the following decades, it made a mark as a research institute, whose policy and technology solutions transformed people's lives and the environment.

About World Sustainable Development Summit:

- The World Sustainable Development Summit (WSDS), TERI's flagship event, has been conceptualized as a single platform to accelerate action towards sustainable development and especially climate change.
- The event was earlier known as the Delhi Sustainable Development Summit (DSDS).

Way ahead:

- India is ranked 116 out of 157 nations on a global index that assesses the performance of countries towards achieving the ambitious sustainable development goals (SDGs). India is ranked 116th on the index with a score of 58.1, behind countries such as Nepal, Iran, Sri Lanka, Bhutan and China. Pakistan is ranked 122.
- There is need for urgent action on the part of India in making sustainable development a reality both within and beyond its border. Also, if the world is to achieve the SDGs, all countries must take up the goals as part of their national development strategies, and ensure that they take responsibility for their impact on the rest of the world.

What's important?

- **For Prelims:** WSDS, SDGs and SDG Index.
- **For Mains:** Need for Sustainable Development.

Sources: pib.

7. World Congress on IT 2018**Context:**

- The World Congress on Information Technology (WCIT) 2018 is being held in Hyderabad, India. The event is organised by the World Information Technology and Services Alliance.

The theme: 'Future Enterprises.'**WCIT:**

- The World Congress on Information Technology (WCIT) is the largest and the most reputable international event among worldwide IT leaders. It brings together high-level officials from different countries, heads of multinational organizations, universities and scientific research centers, non-governmental organizations' representatives and many more.
- The event includes discussions of legal, political and economic trends affecting IT business processes, presentations of innovative solutions, B2B meetings and so on.
- The WCIT has been held since 1978. Previous hosting countries were Canada, the Netherlands, Malaysia, USA, Greece, Australia, China, Spain, Japan, England, France, Denmark, Mexico, Brazil.

**About WITSA:**

- **What?** The World Information Technology and Services Alliance (WITSA) is a consortium of associations from the information and communications technology (ICT) industry around the world.
- **Background:** WITSA was founded in 1978 as the World Computing Services Industry Association, and participates in advocacy in international public policy that affects the "global information infrastructure".
- **Functions:** WITSA's motto is "Fulfilling the Promise of the Digital Age". It voices the concerns of the international IT industry in organisations such as the World Trade Organization, the Organisation for Economic Co-operation and Development, and the G8.

What's important?

- **For Prelims:** WITC- Host nation, WITSA.
- **For Mains:** WICT and its significance.

Sources: the hindu.

8. India offers USD \$1 million aid to Tonga**Context:**

- India has contributed USD one million for the rehabilitation efforts in Tonga after the Tropical Cyclone Gita caused massive destruction in the Pacific island nation.
- India has allocated USD 500,000 in the India-UN Development Partnership Fund for the rehabilitation efforts while USD 500,000 will be provided for immediate relief assistance.

About the India-UN Development Partnership Fund:**What is it?**

- The India-UN Development Partnership Fund was set up as a partnership between India and the United Nations Office for South-South Cooperation (UNOSSC).

What is it for?

- Managed by UNOSSC, the fund will support Southern-owned and led, demand-driven, and transformational sustainable development projects across the developing world.

- Focusing on Least Developed Countries (LDCs) and Small Island Developing States, United Nations agencies will implement the Fund's projects in close collaboration with partnering governments.

Focus areas:

- Reducing poverty and hunger, improving health, education and equality, and expanding access to clean water and energy.

What's important?

- **For Prelims:** UN Development Fund, Cyclone Gita.
- **For Mains:** Need for International cooperation in rehabilitation.

Sources: the hindu.

9. ASEAN-India Research Training Fellowship (AIRTF)

Context:

- Federation of Indian Chambers of Commerce & Industry (FICCI) has entered into a partnership with the Department of Science and Technology (DST), Government of India to implement and execute the ASEAN India Research Training Fellowship (AIRTF).

About AIRTF scheme:

- The AIRTF scheme was introduced to promote scientific cooperation between India and ASEAN member countries.
- The objective is to support and facilitate mobility of young talented researchers from ASEAN member countries to India to conduct short term research and training under the guidance of Indian host scientists.

Aim:

- The scheme aims at capacity building of 50 young researchers annually from ASEAN member countries in science and technology domain and provide complete financial support for a period of six months that includes to and fro travel, sustenance allowance and research contingency.

What it does?

- The scheme provides opportunities to researchers from ASEAN member countries to undertake research and training for a period of 6 months at Academic and Research Institutions in India.

Sources: the hindu.

10. 20th Conference of Commonwealth Education Ministers

Context:

- 20th Conference of Commonwealth Education Ministers is being held **at Fiji**.
- The Conference of Commonwealth Education Ministers is a high-level meeting that brings together education Ministers from the 52 Commonwealth countries to discuss key issues on education.

Theme:

- The theme for 20CCEM is **Sustainability and Resilience: Can Education Deliver?** It includes three subthemes:
- Education for sustainable development: Education as a key enabler for sustainable development- skills development and transitioning youth to decent work.
- Building resilience through education: Climate change and the curriculum – displacement and migration due to climate change and the challenges faced by small and atoll islands (including the role of education, traditional knowledge and local culture in building climate resilience).
- Education governance & management: Strengthening the teaching profession and school management – issues of quality and equity; financing of education; societal barriers (including drug abuse and internet/social media); and advocacy for education strategies across the SDGs.

Key facts for Prelims:

- The Commonwealth education conference has been **taking place every three years** since 1959, when the first meeting was held in Oxford.

- It is **the second largest meeting organised by the Commonwealth Secretariat** after the Commonwealth Heads of Government Meeting (CHOGM).
- 2018 conference will be the first Conference of Commonwealth Education Ministers (CCEM) since the global community adopted the 2030 agenda for sustainable development.
- The meeting will give education ministers the opportunity to agree on effective strategies to help individual countries **achieve Sustainable Development Goal (SDG) 4 – inclusive and quality education for all.**
- **Kenya has formally undertaken to host the 21st Commonwealth Conference** of Education Ministers in 2021. Bahamas hosted the 19th Conference.

What's important?

- **For Prelims:** Commonwealth conference of education ministers, SDG 4, location of Fiji and 21st
- **For Mains:** Need for international cooperation in the field of education.

Sources: pib.

11. International Conference on Sustainable Biofuels

Context:

- A two- day International Conference on Sustainable Biofuels is jointly being organized by Department of Biotechnology, Govt. of India on behalf of **Mission Innovation** and **Biofuture Platform** at New Delhi.



What is it?

- The Sustainable Biofuel is one of the Seven Mission Innovation Challenges and India Co-leads this along with other countries Brazil, Canada and China.
- The sustainable biofuel innovation challenge under MI aims to accelerate research, development and deployment of low cost, high GHG impacting advanced biofuels.

Participants:

- The event will bring together experts from Biofuels sector to take stock of current knowledge, share information and best practices, and build consensus on the actions most needed to move forward.
- Senior Government Officers, Technical Experts, Academicians, Researchers and Representatives from various Countries, Industry and Investors will participate in the event.

Conference aims:

- Provide a platform to Government policy makers, investors, industry and research community to exchange experiences and challenges related to development and scaling up of advanced biofuels.
- Exchange best practices in developing projects, performance breakthroughs and in cost reduction.
- Understanding the concerns of private sector and that of investors, to speedup large scale production of sustainable biofuels.

What is Mission Innovation?

- Mission Innovation (MI) is a global initiative of 22 countries and the European Union to dramatically accelerate global clean energy innovation.
- As part of the initiative, participating countries have committed to double Clean Energy Research and Development investments over five years.

What is Biofuture Platform?

- The Biofuture Platform aims to be an action-oriented, country-led, multistakeholder mechanism for policy dialogue and collaboration among leading countries, organizations, academia and the private sector conscious of the need to accelerate development and scale up deployment of modern sustainable low carbon alternatives to fossil based solutions in transport, chemicals, plastics and other sectors.

Way ahead:

- Use of fossil fuels for transportation contributes significantly to global greenhouse gases (GHG) emission.
- The sustainable biofuels have ability to reduce the GHG emission load.
- Advanced or second-generation biofuels produced from non-food biomass materials and specially grown high yielding plants or algae, if managed sustainably can contribute to significantly reduce emissions.
- However, many of the advanced biofuels still remain in pre- or an early commercial stage of development and need innovations and breakthrough for low cost sustainable production.

What's important?

- **For Prelims:** Sustainable biofuels, Mission Innovation and Biofuture platform.
- **For Mains:** Biofuels- significance, challenges and solutions.

Sources: pib.

12. Coordinating center on medicinal plants

Context:

- Council of Scientific & Industrial Research (CSIR) has entered into a MoU with the Regional Center for Science and Technology Transfer (RCSTT) of Indian Ocean Rim Association (IORA) for designating Central Institute of Medicinal and Aromatic Plants, Lucknow (CSIR-CIMAP) as Coordinating Center on Medicinal Plants.
- Now, the IORA Center at CSIR-CIMAP will establish a database on the important medicinal plants, their value added products, related experts and industries of the IORA member states and organize meetings and training programmes to promote trade, commerce and scientific exchanges to complement the strength and limitation of the member states.

Significance of this move:

- The Coordination Center will promote cooperation in the area of traditional knowledge related to medicinal plants for the welfare of the people of IORA member states.

Significance of IORA:

- The existence of IORA is a reminder of the untapped potential of Indian Ocean regionalism. Nearly five decades ago, in the aftermath of decolonisation, the attempt to bring together the Indian Ocean states faltered amidst deep divisions within the littoral and due to the negative impact of the Cold War. Today, the IORA underlines the region's agency in shaping its own future.

Way ahead:

- IORA's success would depend, to a large extent, upon what the middle powers of the Indian Ocean littoral, like Indonesia, Australia and India, can do. Together the three countries have already breathed new life into an organisation that few had heard of.
- Also, India's growing sea-borne trade and a historic power shift in the Indian Ocean cempell Delhi to pay greater attention to securing a sustainable regional order in the vast littoral.

What's important?

- **For Prelims:** IORA, Centre on medicinal plants.
- **For Mains:** Significance of IORA and need for reforms.

Sources: pib.

About IORA:

- The Indian Ocean Rim Association (IORA), formerly known as the Indian Ocean Rim Initiative and Indian Ocean Rim Association for Regional Cooperation (IOR-ARC), is an international organisation consisting of coastal states bordering the Indian Ocean.
- The IORA is a regional forum, tripartite in nature, bringing together representatives of Government, Business and Academia, for promoting co-operation and closer interaction among them.
- The IORA is an association of 21 countries and 7 dialogue partners which have identified 6 areas of cooperation including medicinal plants. The Coordinating Secretariat of IORA is located at Ebene, Mauritius.

13. Arctic Seed Vault

Context:

- Norway has announced it will spend 100 million Norwegian crowns, or \$13 million, to make improvements to a special seed vault in the Arctic. The vault received its one-millionth seed sample on February 26, its 10th anniversary. It has the ability to hold about 2.5 billion seeds in total.

About Arctic Seed Vault:

- What is it?** The Norwegian government built the Svalbard Global Seed Vault in 2008 to store seed samples of the world's crops and plants. The vault serves as a natural deep freeze, and is meant to protect important genetic material in case of a major man-made or natural disaster.
- Need:** The loss of crop diversity and the vulnerability of existing seed collections in various seed/gene banks gave birth to the idea in of establishing a back-up seed facility in Svalbard.

Who owns seeds?

- Depositors retain ownership rights over the seeds sent to the facility. The boxes with seeds are sealed by the depositors and are not distributed to or given access to by anyone other than the depositors.

Why Svalbard?

- Svalbard was chosen for several reasons. Its cold climate and permafrost make the area a perfect location for underground cold storage.
- The surrounding sandstone is stable for building and is low in radiation.
- In terms of security, Svalbard scores high marks compared to the locations of many other genebanks in the world. The vault is located an extraordinary 120 meters (393.7 feet) into the rock, ensuring that the vault rooms will remain naturally frozen even in the event of failure of the mechanical cooling system and rising external air temperatures due to climate change.

Concerns:

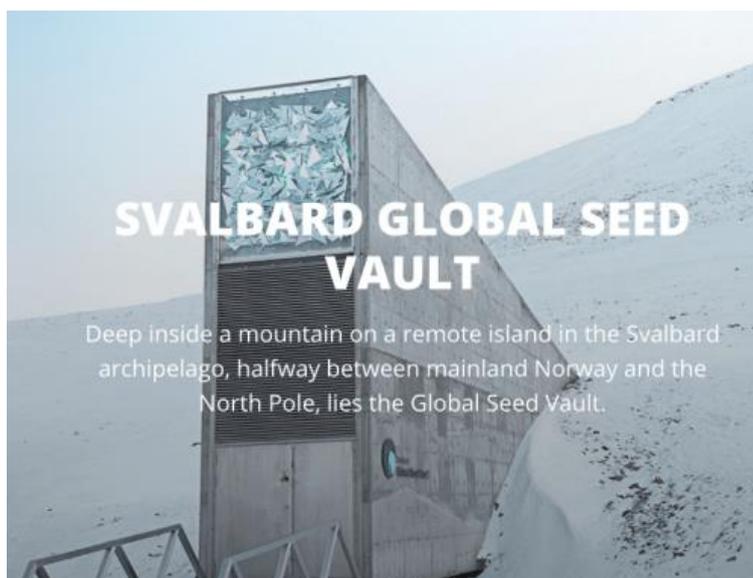
- Svalbard was chosen as the site of the seed bank, in part, because of the area's permafrost – a thick layer of soil that stays frozen throughout the year.
- It makes for excellent underground cold storage. But in late 2016, the permafrost began to unexpectedly melt. This caused water to flow into the entrance of the vault tunnel.
- The event raised concerns about the need to better protect the samples. However, Norway government has initiated improvement works.

Where is India's seed vault?

- At Chang La in the Himalayas, at a height of 17,300 feet, there is a storage facility with over 5,000 seed accessions. One accession consists of a set of seeds of one species collected from different locations or different populations.
- The vault is a joint venture of the National Bureau of Plant Genetic Resources (which comes under the Indian Council of Agricultural Research) and the Defence Institute of High Altitude Research (under Defence Research and Development Organisation).

Significance of seed vault for developing countries:

- Food security is a challenge in many developing countries.
- Crop diversity is the resource to which plant breeders must turn to develop varieties that can withstand pests, diseases, and remain productive in the face of changing climates. It will therefore underpin the world food supply.



- Also, the Seed Vault ensures that unique diversity held in gene banks in developing countries is not lost forever if an accident occurs.
- A backup copy will exist in Svalbard.

Sources: the hindu.

14. Asian Infrastructure Investment Bank (AIIB)

Context:

- The Asian Infrastructure Investment Bank (AIIB) has approved \$1.5 billion in loans to India for infrastructure projects in 2018.
- The funds are meant for investment in energy, roads and urban development projects.
- Of the loans committed by the multilateral bank, around \$200 million will be invested under the National Investment and Infrastructure Fund (NIIF) framework.

About AIIB:

What is it?

- The AIIB was established as a new multilateral financial institution aimed at providing “financial support for infrastructure development and regional connectivity in Asia.”
- It was founded in October, 2014, and has its headquarters in Beijing.
- Its goals are also to boost economic development in the region, create wealth, prove infrastructure, and promote regional cooperation and partnership.

Funding:

- The value of AIIB’s authorized capital amounts to \$100 billion, with almost \$30 billion invested by China.
- India is not only one of the founding members of AIIB but is also the 2nd largest shareholder in AIIB.

What’s important?

- **For Prelims:** AIIB- structure, voting and share of countries.
- **For Mains:** AIIB- significance, need for infrastructure funding.

Sources: the hindu.

GS PAPER - III

Paper 3 Topic: Indian Economy and issues relating to planning, mobilization of resources, growth, development and employment.

1. Gift City gets unified regulator

Context:

- The International Financial Service Centre (IFSC) at Gift City, Gujarat has received a major boost with the Finance Minister proposing a unified regulator for the special finance zone along with tax benefits for non-residents and non-corporate entities operating there.
- This assumes significance as various government agencies and regulators, including the Reserve Bank of India and Securities and Exchange Board of India (SEBI), have oversight on entities that operate in the zone.

Way ahead:

- The announcement of setting up of unified regulator for IFSC in India would help India achieve its full potential in the global financial markets. Globally, most of the financial centres host unified regulator in the same centre. This decision would help in establishing GIFT IFSC as a global financial hub.

What are the services an IFSC can provide?

- Fund-raising services for individuals, corporations and governments.
- Asset management and global portfolio diversification undertaken by pension funds, insurance companies and mutual funds.
- Wealth management.
- Global tax management and cross-border tax liability optimization, which provides a business opportunity for financial intermediaries, accountants and law firms.
- Global and regional corporate treasury management operations that involve fund-raising, liquidity investment and management and asset-liability matching.
- Risk management operations such as insurance and reinsurance.
- Merger and acquisition activities among trans-national corporations.

What is an IFSC?

- An IFSC caters to customers outside the jurisdiction of the domestic economy.
- Such centres deal with flows of finance, financial products and services across borders.
- London, New York and Singapore can be counted as global financial centres.
- Many emerging IFSCs around the world, such as Shanghai and Dubai, are aspiring to play a global role in the years to come.

Sources: the hindu.

2. LTCG tax on equity

Context:

- The government has re-introduced LTCG tax on equity shares. Investors have to pay 10% LTCG tax on gains exceeding ₹one lakh on the sale of shares or equity mutual funds held for more than one year. Previously, short-term capital gains (STCG) tax of 15% was levied.
- The Centre said if the gains exceeded ₹one lakh in a year, then 10% LTCG tax had to be paid without the benefit of indexation (adjusting the profit against inflation to compute the real taxable gains).

LTCG tax is good for the following reasons:

1. One, it corrects, somewhat, the prevailing imbalance on market investments because though investment instruments

What is LTCG?

- LTCG or long-term capital gains refer to the gains made on any class of asset held for a particular period of time.
- In case of equity shares, it refers to the gains made on stocks held for more than one year. In other words, if the shares are bought and held for more than a year before selling, then the gains, if any, on the said sale are referred to as long term capital gains or LTCG.

are taxed gains from holding shares for long are not. Even short-term capital gains – money made by selling shares after holding for less than a year – are taxed at 15%.

2. Two, investors who park wealth in the stock markets would be encourage to deploy the capital in ways that are more economically productive, say, in manufacturing activities.
3. Three, it makes the government seem a little less pro-rich, little more benevolent towards the no-so-rich as much of the capital gains are collected by corporates, not individuals.

Way ahead:

- LTCG tax should be seen as part of a broader policy framework to boost capital investments while providing the government more money for genuine public goods.

Sources: the hindu.

3. Separate debt office at Centre

Context:

- NITI Aayog Vice-Chairman Rajiv Kumar has made a strong case for setting up an independent debt management office, saying better servicing of loans could lead to substantial reduction in India's interest payments.

Need for an independent debt management office:

- At present, government debt is managed by the Reserve Bank of India (RBI). However, for better management of India's debt servicing obligations, an independent debt management office must be set up. Interest payment is such a large part of the revenue expenditure that better management of debt servicing could substantially reduce interest payment.
- A separate agency, which assigns specific responsibilities and is accountable on its own, will lead to a more transparent and efficient system. This is also seen as a necessary step towards deepening of the bond market.

Way ahead:

- The merits of setting up an independent Debt Management office has been adequately debated for more than two decades now and there is very little scope left for any new deliberations on this.
- Many developed countries have shifted to independent agencies over the years. And the fact that none of these countries have revisited their decision or have asked central banks to reassume the responsibilities of debt management further reinforces the sustainable advantages of such a transition.

Sources: the hindu.

4. National Productivity Council

Context:

- The National Productivity Council observed National Productivity Day on February 12th. It is the 60th Anniversary of the National Productivity Council and is being celebrated as Diamond Jubilee Year.

Theme:

- “Industry 4.0 Leapfrog Opportunity for India ” has been selected as the theme for the National Productivity Week -2018.

About Industry 4.0:

- Industry 4.0 or the **fourth industrial revolution** as it is called, is emerging globally as a powerful force and is being called as the next industrial revolution. It is characterized by the increasing digitization and interconnection of products, value chains and business models. Industry.
- Industry 4.0 would mean the **convergence of real and virtual worlds**-the next phase in bringing together conventional and modern technologies in manufacturing. This will result in the “Smart Factory”, which is characterized by versatility, resource efficiency, ergonomic design and direct integration with business partners.



National Productivity Council:**What is it?**

- NPC is national level organization to promote productivity culture in India. Established by the Ministry of Industry, Government of India in 1958, it is an autonomous, multipartite, non-profit organization with equal representation from employers' & workers' organizations and Government, apart from technical & professional institutions and other interests.
- NPC is a constituent of the Tokyo-based **Asian Productivity Organisation (APO)**, an Inter Governmental Body, of which the Government of **India** is a **founder** member.

Functions:

- NPC teams up with its clients to work out solutions towards accelerating productivity, enhancing competitiveness, increasing profits, augmenting safety and reliability and ensuring better quality.
- It provides reliable database for decision-making, improved systems and procedures, work culture as well as customer satisfaction both internal & external.
- The solutions can be all-encompassing or specific depending on the nature of the problem.
- The council also helps monitor, review and implement the identified strategies.

Organization:

- The Union Minister for Industry is the President of the NPC, and the Secretary (Industrial Policy and Promotion) is its Chairman.

Sources: the hindu.

5. Merger of PSU non-life insurers

Context:

- Finance minister Arun Jaitley had proposed a merger of these three PSU general insurers in the Union Budget on February 1. The proposed merger of three public sector insurance firms may be completed by early 2019.
- The three public sector general insurance companies to be merged are – National Insurance (NIC), Oriental Insurance (OIC) and United India Insurance (UII).

Purpose:

- There are a lot of operational advantages and savings that will accrue from this proposed merger. The trigger for central government to go for merger of three general insurers is mainly to boost up their solvency ratio and divest part of its holding in the market. Merger will also stop the unhealthy competition between the government-owned insurers. It is hoped that this merger will make companies stronger.

Concerns:

- There is also a concern that post merger, there will be unhealthy competition between two government-owned general insurers – New India Assurance and the new company that emerges out of the proposed merger. Also, it will be a big task to build the brand equity for a new entity in a highly competitive market.

Way forward:

- Few experts are of the view that the government should go one step further and merge all the four public sector general insurers.

What's important for:

- **Prelims:** names of PSU insurers to be merged.
- **Mains:** Reasons for merger.

Sources: the hindu.

6. Privatising public sector banks

Context:

- Industry body FICCI has called for privatisation of public sector banks (PSBs), saying that the recapitalisation efforts by the government have had little effect on improving their health.

Need for Privatisation:

- There is a continuous pressure on the government finances on account of the weak performance of the banks.
- Privatisation would reduce the drain on the exchequer and the money saved could be used for developmental schemes and programmes of the government.

Benefits of private banks:

- Private banks will bring innovations in products, technology and customer servicing and a market-based discipline to lending. Private banks, knowing that they cannot count on government's protection, are unlikely to engage in the sort of risky lending that characterised public bank lending.
- Also, they will not be subject to the same pressure from politicians and others in government that has destroyed the public sector banks.

Way ahead:

- The public-sector banks, which constitute almost 70% of the Indian banking system, are saddled with burgeoning stressed assets. The government has already injected over ₹2.6 lakh crore in the public-sector banks through recapitalisation in the last eleven years, which has had limited impact in improving the health of public sector banks thus far.
- Therefore, **recapitalisation of PSBs alone is not a permanent solution** and will not be effective unless the inherent issues related to governance, productivity, risk management, talent, customer service, etc. are resolved. The government should shrink unproductive public sector banks and move forward with increasing private sector participation in the banking sector.

What's important?

- **For Prelims:** Nothing much.
- **For Mains:** Privatisation- issues, benefits and challenges.

Sources: the hindu.

Paper 3 Topic: Inclusive growth and issues arising from it.

1. CriSidEx

Context:

- CriSidEx, India's First MSE Sentiment Index, has been launched by CRISIL and SIDBI.

About CriSidEx:

- **What is it?** CriSidEx is a composite index based on a diffusion index of 8 parameters and measures MSE business sentiment on a scale of 0 (extremely negative) to 200 (extremely positive). CriSidEx will have 2 indices, one for the 'survey quarter' and another for the 'next quarter' once a trend emerges after few rounds of the survey, providing independent time series data.
- **Benefits:** The crucial benefit of CriSidEx is that its readings will flag potential headwinds and changes in production cycles and thus help improve market efficiencies. And by capturing the sentiment of exporters and importers, it will also offer actionable indicators on foreign trade.

Significance of MSME:

- MSME sector is backbone of the economy. It is one of the largest employer in the country and with the vast population where employment either in government or in the large industry itself has limited potential.
- This is one sector where people not only exhibit their entrepreneurial skills, become part of large value chains but also become job creators in the process. And that is the reason why a bulk of the jobs in manufacturing, trading have been created in this particular sector.

2. RBI to link base rate with MCLR from 1 April

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

Significance of this move:

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

What necessitated this?

- A large portion of bank loans remain linked to the base rate despite the introduction of the MCLR in April 2016. Weak monetary transmission during a rate cut cycle has been one of the central bank's pet peeves.
- The MCLR is more sensitive to monetary policy transmission and is closely linked to the actual deposit rates. MCLR is calculated on the basis of incremental cost of funds, making it a more reliable benchmark rate as compared to the base rate, usually calculated by taking into account average cost of funds.



What is MCLR?

- The Marginal Cost of Funds based Lending Rate (MCLR) system was introduced by the Reserve Bank to provide loans on minimal rates as well as market rate fluctuation benefit to customers.
- This system has modified the existing base rate system of providing home loans.
- In this system, banks have to set various benchmark rates for specific time periods starting from an overnight to one month, quarterly, semi-annually and annually.

How is it different from base rate regime?

- MCLR is based on the risk taking capacity of borrowers, where banks prepare marginal cost of funds lending rates.
- Unlike base rate regime, these rates are expected to get revised on monthly basis along with the repo rate including other borrowing rates.
- Banks decide the actual lending rate** based on the floating rate by adding the component of spread to MCLR which becomes the final lending rate.

Sources: the hindu.

Paper 3 Topic: *Effects of liberalization on the economy, changes in industrial policy and their effects on industrial growth.*

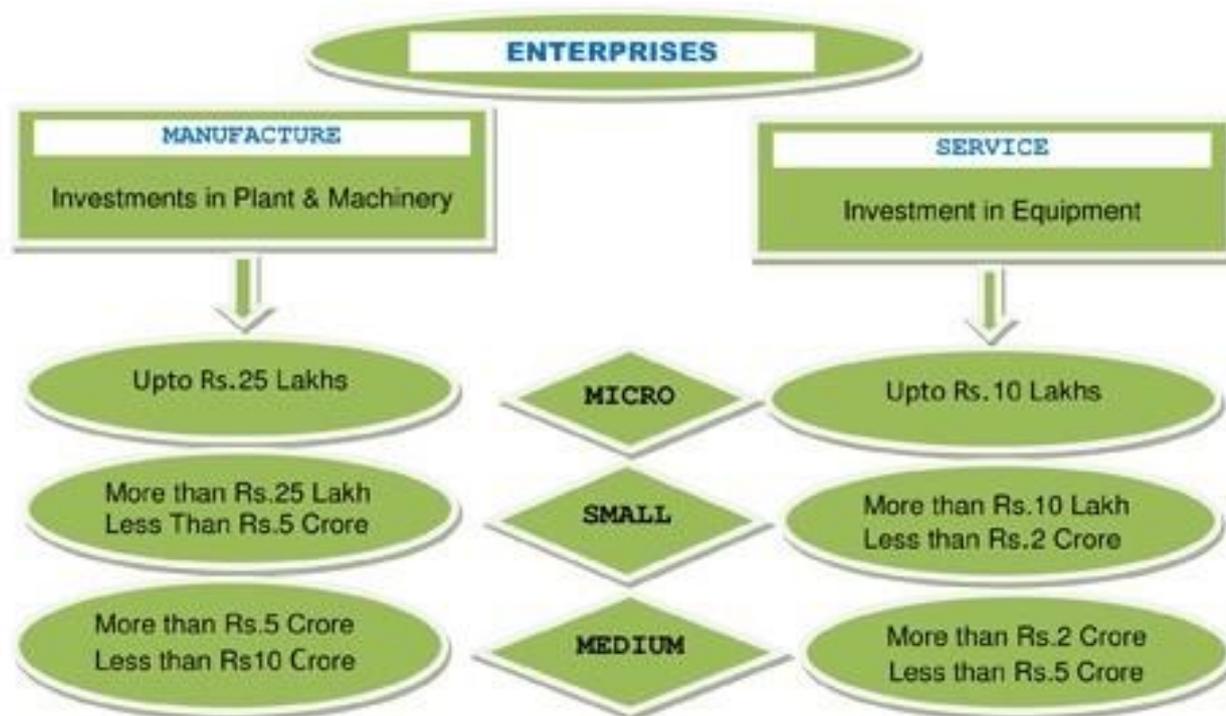
#. Change in the basis of classifying Micro, Small and Medium enterprises

Context:

- The Union Cabinet has approved change in the basis of classifying Micro, Small and Medium enterprises from 'investment in plant & machinery/equipment' to 'annual turnover'.

Section 7 of the Micro, Small and Medium Enterprises Development (MSMED) Act, 2006 will accordingly be amended to define units producing goods and rendering services in terms of annual turnover as follows:

- A micro enterprise will be defined as a unit where the annual turnover does not exceed five crore rupees;
- A small enterprise will be defined as a unit where the annual turnover is more than five crore rupees but does not exceed Rs 75 crore;
- A medium enterprise will be defined as a unit where the annual turnover is more than seventy five crore rupees but does not exceed Rs 250 crore.
- Additionally, the Central Government may, by notification, vary turnover limits, which shall not exceed thrice the limits specified in Section 7 of the MSMED Act.

**Background:**

- At present the MSMED Act (Section 7) classifies the Micro, Small and Medium Enterprises (MSMEs) on the basis of investment in plant and machinery for manufacturing units, and investment in equipment for service enterprises.
- The criterion of investment in plant and machinery stipulates self declaration which in turn entails verification if deemed necessary and leads to transaction costs.

Significance of this move:

- The change in the norms of classification will enhance the ease of doing business. The consequent growth and will pave the way for increased direct and indirect employment in the MSME sector of the country.
- This will also encourage ease of doing business, make the norms of classification growth oriented and align them to the new tax regime revolving around GST (Goods & Services Tax).

Sources: pib.

Paper 3 Topic: *Inclusive growth and issues arising from it.***1. Inverted duty structure****Context:**

- The Union Budget has reinforced the correction of the inverted duty structure (IDS) which has adversely impacted manufacturing for decades.

Reforms:

- The Budget has raised customs duties significantly. The goods and services tax (GST), especially the IGST or Integrated GST component, has begun to erode the advantage that the IDS was giving to foreign exporters in Indian markets. Also, the Finance Minister, in Budget 2014, had announced the beginnings of a reversal of the IDS in electronics and has sustained that effort in subsequent Budgets.

INVERTED STRUCTURE

- Higher import duty on raw materials than the finished goods making import of finished goods cheaper
- Dehydrated culture media attracts a customs duty of 10% while the micro-organism attracts a duty of 30%
- It has a variety of industrial, pharmaceutical, biotech, food safety and life science applications
- Sea-weed attracts a duty of 10%, while the raw material Agar attracts a duty of 30%
- Solar modules attract nil import duty while the import duty on components ranges between 5-10%

What is Inverted duty structure?

- An IDS means higher duty on intermediate as opposed to final/finished goods, with the latter often enjoying concessional custom duty under some schemes.
- Inverted duty structure is a situation where import duty on finished goods is low compared to the import duty on raw materials that are used in the production of such finished goods.
- For example, suppose the tariff (import tax) on the import of tyres is 10% and the tariff on the imports of natural rubber which is used in the production of tyres is 20%; this is a case of inverted duty structure.

Concerns associated with IDS:

- When the import duty on raw materials is high, it will be more difficult to produce the concerned good domestically at a competitive price. Several industries depend on imported raw materials and components. High tax on the raw materials compels them to raise price. On the other hand, foreign finished goods will be coming at a reduced price because of low tax advantage. In conclusion, manufactured goods by the domestic industry becomes uncompetitive against imported finished goods.
- The disadvantage of the inverted duty structure increases with the increased use of imported raw materials. An inverted duty structure discourages domestic value addition.

Sources: the hindu.

2. Ombudsman scheme for NBFCs**Context:**

- The Reserve Bank of India (RBI) has issued an ombudsman scheme for non-banking finance companies (NBFCs), offering a grievance redressal mechanism for their customers.
- The scheme will come into effect immediately.

Details:**Who will be the ombudsman?**

- An officer at the RBI not below the rank of general manager will be appointed by the regulator as the ombudsman with territorial jurisdiction being specified by the central bank.
- The tenure of each ombudsman cannot exceed three years and can be reduced by the regulator if needed.

Who can file the complaint?

- Any customer or person can file a complaint with the ombudsman on various grounds like non-payment or inordinate delay in payment of interest, non-repayment of deposits, lack of transparency in loan agreement, non-compliance with RBI directives on fair practices code for NBFCs, levying of charges without sufficient notice to the customers and failure or delay in returning the securities documents despite repayment of dues among others.
- Only written complaints or those in electronic format will be accepted.

Appeal:

- If a complaint is not settled by agreement within a specified period as the ombudsman may allow the parties, he may, after affording the parties a “reasonable opportunity to present their case, either in writing or in a meeting, pass an award either allowing or rejecting the complaint”.
- The scheme also allows a person to appeal in case of dissatisfaction with any award by the ombudsman.

Compensation:

- The ombudsman may also award compensation not exceeding one hundred thousand rupees to the complainant, taking into account the loss of time, expenses incurred, harassment and mental anguish suffered by the complainant.

Report:

- The ombudsman will be required to send a report to the RBI governor annually on 30 June containing general review of the activities of his office during the preceding financial year and other information required by the central bank.

What's important?

- **For Prelims:** Ombudsman.
- **For Mains:** Need for ombudsman.

Sources: the hindu.

Paper 3 Topic: Major crops cropping patterns in various parts of the country, different types of irrigation and irrigation systems storage, transport and marketing of agricultural produce and issues and related constraints; e-technology in the aid of farmers.

1. Government reboots eNAM

Context:

- In a bid to engage more farmers on the electronic National Agriculture Market (eNAM) platform, the government has unveiled mobile payment facility BHIM, and other features in regional languages as well.
- The eNAM has been strengthened with features like MIS dashboard for better analysis, BHIM and other mobile payment facilities, enhanced features on mobile app such as gate entry and payment via mobiles, integration of farmers database and e-learning module.

About eNAM:

- It is an online platform with a physical market or mandi at the backend.
- It is an instrument to create a national network of physical mandis which can be accessed online.
- It seeks to leverage the physical infrastructure of mandis through an online trading portal, enabling buyers situated even outside the state to participate in trading at the local level.

Sources: the hindu.

2. Operation Greens

Context:

- The government recently interacted with the stakeholders including Farmer Producer Organisations and farmers, to gather input on their concerns and suggestions thereof on the modalities of Operation Greens.

Significance of Operation Greens:

- Operation Green (OG) wants to replicate the success story of Operation Flood, in fruits and vegetables, starting with three basic vegetables—tomatoes, onions and potatoes (TOP).
- The main objective of OG is to reduce price volatility in these commodities, and thereby helping farmers augment incomes on a sustainable basis, as also provide these basic vegetables to consumers at affordable prices.

Way ahead:

- The litmus test of the success of this OG would be if it can contain roller-coaster rides of booms and busts in prices, and avert scenes of farmers dumping potatoes and tomatoes on roads, as is happening in several parts of India today.
- Also, containing prices going through the roof compelling the government to put bans on exports, de-stocking or even having income-tax raids on traders.

What is Operation Greens?

- 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.
- It was announced by Finance Minister Arun Jaitley in his budget speech.

What's important?

- **For Prelims:** Operation Greens, Operation Flood.

Sources: pib.

3. GOBAR-Dhan Yojana

Context:

- The government is planning to create an online platform for trading cow dung and agricultural waste under its recently announced waste to wealth scheme, GOBAR-DHAN (Galvanising Organic Bio Agro Resources) scheme.

Benefits of the scheme:

- This is hugely helpful for the country as India is home to the highest cattle population in the world, close to 300 million in number, with a daily output of 3 million tonnes of dung.
- The Scheme will encourage the farmers to consider dung and other waste not just as a waste but as a source of income.
- It will provide many benefits to the rural people. It will be easier to keep the village clean and sanitized, livestock health will improve and farm yields will increase.
- Biogas generation will increase self-reliance in energy utilized for cooking and lighting.
- Farmers and cattle herders will be helped in augmenting their income. There will be novel opportunities for newer jobs linked to waste collection, transportation, biogas sales etc.
- The scheme also provides a stable fuel supply in the market for oil companies and accessible credit in the market through government schemes and banks for entrepreneurs.

What is the GOBAR-Dhan Yojana?

- The Galvanizing Organic Bio-Agro Resources Dhan (GOBAR-DHAN) scheme was first announced by Finance Minister Arun Jaitley during his budget speech on February 1.
- The scheme would focus on managing and converting cattle dung and solid waste in farms to compost, biogas and bio-CNG.
- It will help in keeping the village clean while increasing the income of farmers and cattle herders.

What's important?

- For Prelims:** GOBAR Dhan Yojana.
- For Mains:** Alternative sources of income for farmers, clean fuel generation.

Sources: the hindu.

Paper 3 Topic: Issues related to direct and indirect farm subsidies and minimum support prices; Public Distribution System objectives, functioning, limitations, revamping; issues of buffer stocks and food security; Technology missions; economics of animal-rearing.

#. Rajasthan announces Rs8,000 crore farm loan waiver

Context:

- Rajasthan government** has announced one-time farm loan waiver of up to Rs 50,000/- for small and marginal farmers in the state, which would cost Rs 8,000/- crore to the exchequer.
- The government has also announced setting up a farmer loan relief commission where farmers can approach and present their side for getting relief on merit basis.

Background:

- In India, farm loan waivers have been announced intermittently by both the central and state governments to provide relief to farmers facing distress due to natural calamities/crop failure.
- According to a 2017 report by the RBI, farm loan waiver amounting to Rs 88,000 crore likely to be released in 2017-18 by seven states, including Uttar Pradesh and Maharashtra, may push inflation on permanent basis by 0.2%.

Drawbacks of loan waivers:

- Firstly, it covers only a tiny fraction of farmers. The loan waiver as a concept excludes most of the farm households in dire need of relief and includes some who do not deserve such relief on economic grounds.
- Second, it provides only a partial relief to the indebted farmers as about half of the institutional borrowing of a cultivator is for non-farm purposes.

- Third, in many cases, one household has multiple loans either from different sources or in the name of different family members, which entitles it to multiple loan waiving.
- Fourth, loan waiving excludes agricultural labourers who are even weaker than cultivators in bearing the consequences of economic distress.
- Fifth, it severely erodes the credit culture, with dire long-run consequences to the banking business.
- Sixth, the scheme is prone to serious exclusion and inclusion errors, as evidenced by the Comptroller and Auditor General's (CAG) findings in the Agricultural Debt Waiver and Debt Relief Scheme, 2008.
- Lastly, schemes have serious implications for other developmental expenditure, having a much larger multiplier effect on the economy.

What needs to be done?

- **Proper identification:** For providing immediate relief to the needy farmers, a more inclusive alternative approach is to identify the vulnerable farmers based on certain criteria and give an equal amount as financial relief to the vulnerable and distressed families.
- **Enhance non- farm income:** The sustainable solution to indebtedness and agrarian distress is to raise income from agricultural activities and enhance access to non-farm sources of income. The low scale of farms necessitates that some cultivators move from agriculture to non-farm jobs.
- Improved technology, expansion of irrigation coverage, and crop diversification towards high-value crops are appropriate measures for raising productivity and farmers' income. All these require more public funding and support.

Way ahead:

- The magic wand of a waiver can offer temporary relief, but long-term solutions are needed to solve farmer woes.
- There are many dimensions of the present agrarian crisis in India. The search for a solution therefore needs to be comprehensive by taking into consideration all the factors that contribute to the crisis.
- Furthermore, both short- and long-term measures are required to address the numerous problems associated with the agrarian crisis.

What's important?

- **For Prelims:** Which states announced farm loan waivers in last one year.
- **For Mains:** Advantages and Disadvantages of farm loan waivers.

Sources: the hindu.

Paper 3 Topic: Infrastructure: Energy, Ports, Roads, Airports, Railways etc.

1. Jal Marg Vikas Project

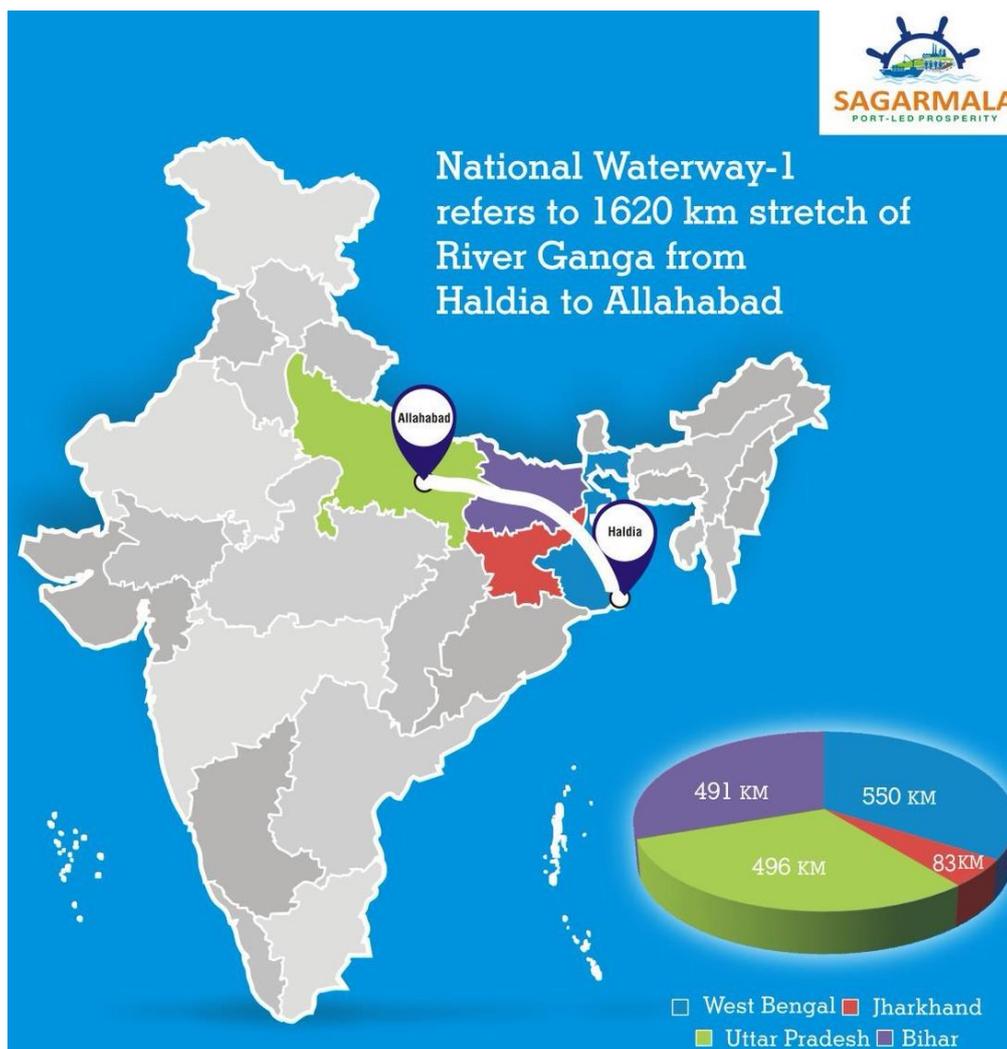
Context:

- Inland Waterways Authority of India (IWAI) has inked pact with the World Bank for Jal Marg Vikas Project to enhance navigation on National Waterway-1.

About Jal Marg Vikas Project:

- **What is it?**
 - The Jal Marg Vikas Project seeks to facilitate plying of vessels with capacity of 1,500-2,000 tonnes in the Haldia- Varanasi stretch of the River Ganga.
 - The major works being taken up under JMVP are development of fairway, Multi-Modal Terminals, strengthening of river navigation system, conservancy works, modern River Information System (RIS), Digital Global Positioning System (DGPS), night navigation facilities, modern methods of channel marking etc.
- **Implementation:** The JMVP, which is expected to be completed by March, 2023, is being implemented with the financial and technical support of the World Bank. The project will enable commercial navigation of vessels with the capacity of 1500-2,000 tons on NW-I.
- **Benefits of this project:** Alternative mode of transport that will be environment friendly and cost effective. The project will contribute in bringing down the logistics cost in the country. Mammoth Infrastructure

development like multi-modal and inter-modal terminals, Roll on – Roll off (Ro-Ro) facilities, ferry services, navigation aids. Socio-economic impetus; huge employment generation.



Environmental challenges:

- Though the project is ambitious in its intent, it does not account for the monetary value of the environmental costs that are imposed upon society. The river Ganga meanders across the landscape and spreads over its riverbed making pools and shallow areas. Fish and turtles lay eggs in these shallow areas. But thanks to dredging, which is already being done in the Ganga under the NW-1 project, the river is now channelised in one deep channel. The river no longer meanders and no longer has pools and shallow areas, destroying the habitat of fish and turtles. The stretch of the Ganga near Varanasi has been declared as a turtle sanctuary and studies in other countries indicate that large numbers get hit by fast-moving tourist boats because turtles move slowly.
- The stretch of the Ganga near Bhagalpur has been declared a wildlife sanctuary for the conservation of the Ganges Dolphin. This animal does not have eyes. It navigates and catches its prey by the sound made by the movement of other aquatic creatures. The plying of large barges will create a high level of sound and make it difficult for them to survive. The paint on ships and barges will also pollute the water. The carbon dioxide released by the ships will be absorbed more by the water because of its proximity and this too pollutes the river.

What can be done to minimize impacts in sensitive zones?

- A ban on dredging in protected habitat areas. In other areas that are known to be the habitat of valued aquatic species, no dredging should be allowed in the breeding and spawning seasons.
- The speed of barges travelling along the protected areas of the sanctuaries should be restricted to 5km per hour. All vessels plying on the Ganga should be fitted with noise control and animal exclusion devices so that aquatic life is not unduly disturbed. All vessels will also have to comply with 'zero discharge' standards to prevent solid or liquid waste from flowing into the river and affecting its biodiversity.

Way forward:

- It is time to ensure that the small direct benefits from cheaper transportation shall not have large environmental costs.

Facts for Prelims:

- NW 1: Ganga-Bhagirathi-Hooghly river system from Allahabad to Haldia was declared as National Waterway No.1. States covered under NW-1: States: Uttar Pradesh, Bihar, Jharkhand, West Bengal.

Sources: the hindu.

2. “Development of Solar Cities” scheme**Context:**

- The Ministry of New and Renewable Energy under its scheme “Development of Solar Cities” has approved/sanctioned 60 Cities including 13 Pilot and 5 Model Cities up to 12th Five-year Plan period.

About Development of Solar Cities scheme:

- The Ministry of New and Renewable Energy is implementing a programme on ‘Development of Solar Cities’ which aims to reduce a minimum of 10% of the projected demand of conventional energy of the city through renewable energy installations and energy efficiency measures. Sixty Cities are proposed to be developed as Solar Cities during the Eleventh Plan period including four Model Solar Cities and 10 Pilot Solar Cities. The Master plan for each Solar City is being prepared to assess and utilize various renewable sources including Solar, Wind, Municipal Waste etc.
- The criteria set by the ministry for the identification of cities include a city having population between 50,000 to 50 lakh (with relaxation given to special category states including northeast states), initiatives and regulatory measures already taken along with a high level of commitment in promoting energy efficiency and renewable energy.

Solar City – India

- The “Development of Solar Cities” programme by the Ministry of New and Renewable Energy (MNRE) GOI is an immense opportunity for contributing towards a sustainable India in the coming years.
- As part of the 11th Five year plan ,demand forecasting for the years 2013 and 2018, this programme is a crucial step towards supporting Indian cities for the development of renewable energy and energy efficiency projects and curbing conventional energy demand by 10% in the next five years.

Need for Solar Cities:

- Urbanization and economic development are leading to a rapid rise in energy demand in urban areas in our country leading to enhanced Green House Gas (GHG) emissions. Many cities around the world are setting targets and introducing policies for promoting renewable energy and reducing GHG emissions and the countries like Australia and USA are developing the solar cities.
- Several Indian cities and towns are experiencing rapid growth in the peak electricity demand. The local governments and the electricity utilities are finding it difficult to cope with this rapid rise in demand and as a result most of the cities/towns are facing electricity shortages. In this context, the “Development of Solar Cities” programme is designed to support/encourage Urban Local Bodies to prepare a Road Map to guide their cities in becoming ‘renewable energy cities’ or ‘solar cities’.

The Solar City programme aims:

- To enable and empower Urban Local Governments to address energy challenges at City – level.
- To provide a framework and support to prepare a Master Plan including assessment of current energy situation, future demand and action plans.
- To build capacity in the Urban Local Bodies and create awareness among all sections of civil society.
- To involve various stakeholders in the planning process.
- To oversee the implementation of sustainable energy options through public – private partnerships.

Sources: pib.

3. India's first 'Highway Capacity Manual' released

- 'Indo-HCM', country's first ever Highway Capacity Manual (HCM) has been released.

About Indo- HCM:

- The manual has been developed by CSIR-CRRI on the basis of an extensive, country-wide study of the traffic characteristics on different categories of roads like single lane, two-lane, multi-lane urban roads, inter-urban highways and expressways and the associated intersections on these roads.
- It will guide road engineers and policy makers about road expansion.
- The manual lays down guidelines for when and how to expand or manage different types of roads and their intersections and the level of services to be put in place.
- It has been developed based on the unique nature and diversity of traffic on Indian roads.

Benefits of this manual:

- India was among the very few South Asian countries which did not have the practice of having a country specific HCAP manual. The US and Danish authorities had pioneered the practice of having a key document to set highway construction standards all across their countries. This manual would now help in the scientific planning and expansion of road infrastructure in the country.

Way ahead:

- Highways are crucial for country's development and there is a need to follow successful best practices in the world regarding construction of roads and highways.
- The government should popularise the use of new material like fly-ash, plastic, oil slag and municipal waste in road construction.
- Researchers and engineers should also expedite formulation of a good design for safe and effective speed breakers for Indian roads.

Sources: the hindu.

4. Govt drops the idea of an India EV policy

Context:

- The government has decided against formulating an electric vehicle (EV) policy in an apparent U-turn from its position so far, providing a breather to many carmakers that are unprepared for an abrupt shift to the clean-fuel technology.
- The existing FAME (incentive) scheme may continue for another two years.

Background:

- The government's decision to have an EV policy had created uncertainty in the automobile industry for the past year, although several companies had outlined their strategies for EVs or lobbied the government to drop the idea.

About FAME India scheme:

- **What is it?**

With an aim to promote eco-friendly vehicles, the government had launched the Faster Adoption and Manufacturing of (Hybrid &) Electric Vehicles in India (FAME-India) scheme in 2015.

- **Aim:**

The FAME India Scheme is aimed at incentivising all vehicle segments, including two-wheelers, three wheeler auto, passenger four-wheeler vehicle, light commercial vehicles and buses. The scheme covers hybrid and electric technologies like a strong hybrid, plug-in hybrid and battery electric vehicles.

- **Facts:**

FAME India – Faster Adoption and Manufacturing of Hybrid and Electric vehicles in India – is a part of the National Electric Mobility Mission Plan. The scheme envisages Rs 795 crore support in the first two fiscals. It is being administered by the Heavy Industries Ministry.

Way ahead:

- Electric vehicles (EVs) seem to be gaining in prominence as part of the renewable energy zeitgeist.
- However, mainstreaming electric vehicles will require an overhaul of the country's energy and transport infrastructure. For example, EV charging stations will have to be set up on a war footing, and electricity generation will have to improve significantly even as it piggybacks on the push for solar energy.
- EV technology (especially the battery) will have to become much cheaper before it can perform well in a price-sensitive market like India.

What's important?

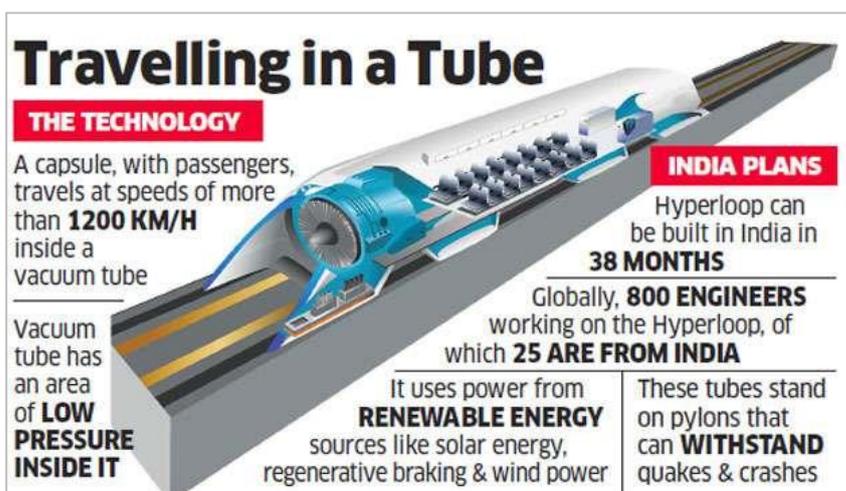
- **For Prelims:** FAME scheme.
- **For Mains:** Need for EV policy.

Sources: the hindu.

5. Hyperloop Between Mumbai and Pune

Context:

- The Virgin Group has signed an "intent agreement" with Maharashtra to build a hyperloop transportation system between Mumbai and Pune, which aims to reduce the travel time between the two mega cities to 20 minutes from the three hours at present. The hyperloop route will link central Pune with the megapolis as well as the Navi Mumbai international airport.

**What is hyperloop transportation system?**

- It is a transportation system where a pod-like vehicle is propelled through a near-vacuum tube connecting cities at speeds matching that of an aircraft.
- The hyperloop concept is a brainchild of Tesla founder Elon Musk. US-based Hyperloop Transport Technology (HTT) claimed it costs \$40 million per kilometre to build a hyperloop system while building a high-speed train line would cost almost twice. The hyperloop system is being designed to transport passengers and freight.

How it operates?

- In hyperloop transportation, custom-designed capsules or pods are expected to zip smoothly through continuous steel tubes which are held at partial vacuum. The pod which sandwiches the passenger compartment between an air compressor upfront and a battery compartment in the rear is supported by air caster skis at the bottom.
- The skis float on a thin layer of air provided under high pressure, eliminating rolling resistance and allowing for movement of the pods at high speeds. These capsules are expected to be driverless with estimated speeds of 1,000 km/h. Linear induction motors that are placed along the tube control the speed of the pod. Electronically-assisted acceleration and braking determines the speed of the capsule.

The Problems Plaguing the Hyperloop:

- Constructing a tube hundreds of kilometers long would be an engineering marvel in of itself. However, introducing a tube hundreds of kilometers long that operates at a near perfect vacuum which can support the force of capsule weighing thousands of kilograms as it travels hundreds of kilometers an hour is nothing short of sci-fi fantasy.
- Small scale experiments reveal the fundamentals of the idea are sound. Although, in the real world, there are too many factors that cannot be accounted for with a small scale design. In the real world, there are tens of thousands of kilograms of atmospheric pressure which threatens to crush any vacuum chamber.

- There is also the problem with thermal expansion which threatens to buckle any large structure without proper thermal expansion capabilities. The Hyperloop would also be stupendously expensive. There are many unavoidable problems facing the Hyperloop that threaten the structural integrity, and every human life on board. The problems can be addressed, but at a great cost.

Sources: the hindu.

6. Delhi Mumbai Industrial Corridor (DMIC)

Context:

- The Delhi Mumbai Industrial Corridor (DMIC), a mega infrastructure project with an estimated investment of \$100 billion, has attracted interest from companies based out of Canada, the U.S., Singapore and Taiwan.

About DMIC:

What is it?

- Delhi-Mumbai Industrial Corridor is a mega infra-structure project of USD 90 billion with the financial & technical aids from Japan, covering an overall length of 1483 KMs between the political capital and the business capital of India, i.e. Delhi and Mumbai. A MoU in this regard was signed in 2006.

Components:

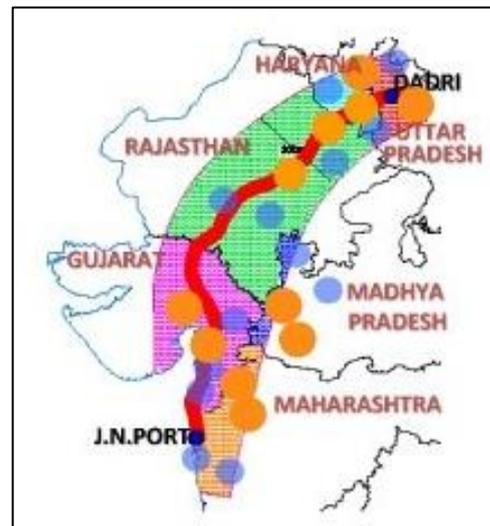
- The project would include six mega investment regions of 200 square kilometres each and will run through six states Delhi, Western Uttar Pradesh, Southern Haryana, Eastern Rajasthan, Eastern Gujarat, and Western Maharashtra.

Aim:

- The project aims to develop an environmentally sustainable, long lasting and technological advanced infrastructure utilizing cutting age Japanese technologies and to create world class manufacturing and investment destinations in this region.

What's important?

- **For Prelims:** DMIC.
- **For Mains:** Need for infrastructure development.



Sources: the hindu.

7. National Urban Housing Fund

Context:

- The Union Cabinet has given approval for creation of National Urban Housing Fund (NUHF) for Rs.60,000 crores.

About National Urban Housing Fund (NUHF):

- NUHF will facilitate raising requisite funds in next four years so that flow of Central Assistance under different verticals i.e. Beneficiary Linked Construction (BLC), Affordable Housing in Partnership (AHP), In-Situ Slum Redevelopment (ISSR) and Credit Linked Subsidy Scheme (CLSS) is sustained and construction of houses to address the gap in Urban Sector progresses smoothly.
- This fund will be situated in Building Materials and Technology Promotion Council (BMTPC), an autonomous body registered under the Societies Registration Act, 1860 under the Ministry of Housing and Urban Affairs.

Efforts by government to improve Urban housing:

- With an estimated slum population of about 65 million and another 0.9 million homeless people in urban India, the Housing for All / Pradhan Mantri Awas Yojana (PMAY-HFA), which aims to provide a home to all

urban poor by 2022, is an important urban policy thrust. The government has so far sanctioned 39.4 lakh houses under Pradhan Mantri Awas Yojana (Urban).

Way ahead:

- Housing, despite all the noise the government makes about it, does not get either policy bandwidth or adequate funding, particularly when it comes to mass housing in urban areas for the not-poor (they're not rich either) middle class. This needs to change.
- Governments – both at the Central and State levels – need to lead the way as developers of affordable and liveable housing stock in cities. And they need to look seriously at not only building to sell, which is what they have been doing, but building to let. In other words, publicly owned housing which is available for use by private individuals.

What's important?

- **For Prelims:** PMAY.
- **For Mains:** Urban Housing- Need, challenges and solutions.

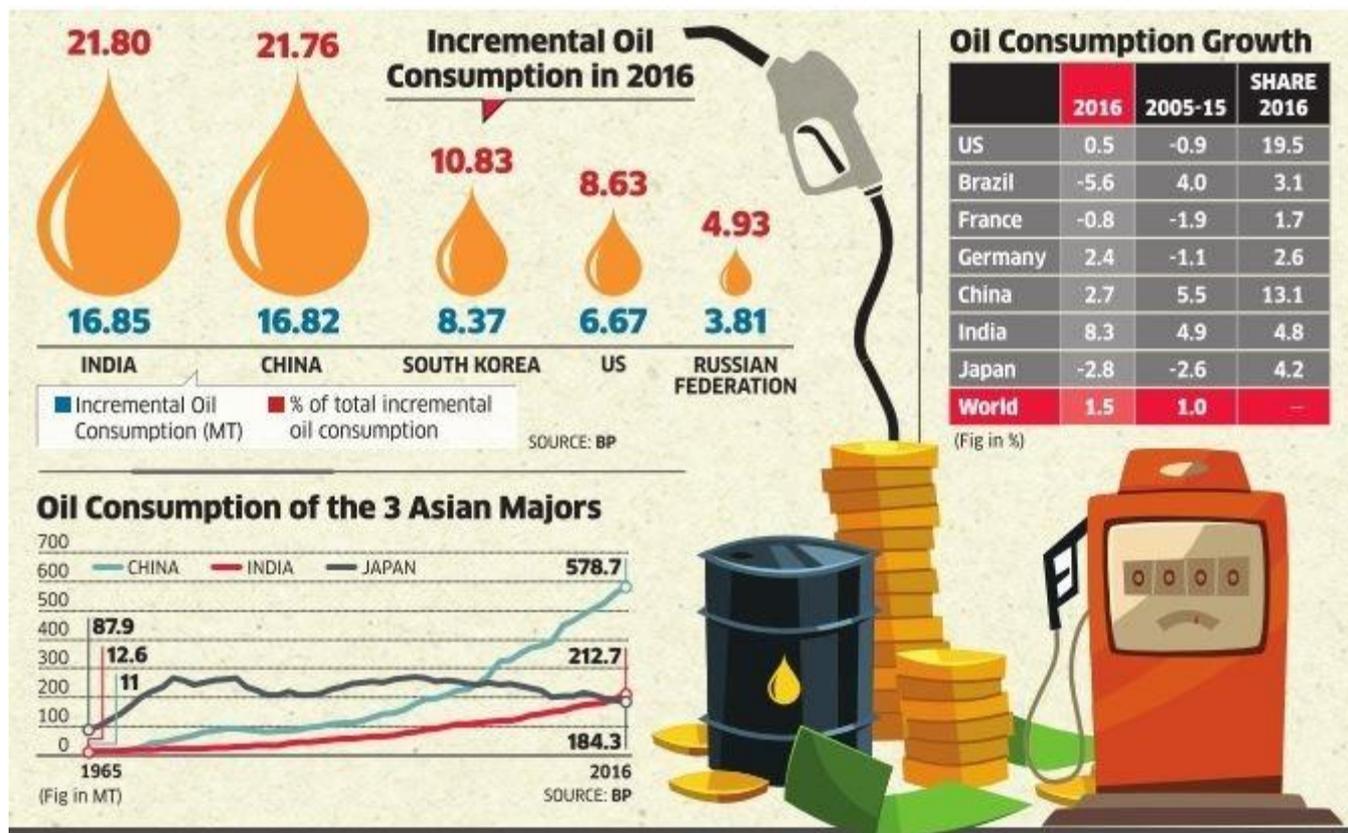
Sources: pib.

8. Strategic Petroleum Reserve (SPR) Programme

Context: India has invited Saudi participation in Indian Strategic Petroleum Reserve (SPR) Programme.

About SPR programme:

- To ensure energy security, the Government of India had decided to set up 5 million metric tons (MMT) of strategic crude oil storages at three locations namely, **Visakhapatnam, Mangalore and Padur** (near Udupi). These strategic storages would be in addition to the existing storages of crude oil and petroleum products with the oil companies and would serve as a cushion during any external supply disruptions.
- In the 2017-18 budget, it was announced that two more such caverns will be set up **Chandikhole** in Jajpur district of **Odisha** and **Bikaner** in **Rajasthan** as part of the second phase.
- The construction of the Strategic Crude Oil Storage facilities is being managed by Indian Strategic Petroleum Reserves Limited (ISPRL), a Special Purpose Vehicle, which is a wholly owned subsidiary of Oil Industry Development Board (OIDB) under the Ministry of Petroleum & Natural Gas.



Need for strategic oil reserves:

- In 1990, as the Gulf war engulfed West Asia, India was in the throes of a major energy crisis. By all accounts India's oil reserves at the time were adequate for only three days. While India managed to avert the crisis then, the threat of energy disruption continues to present a real danger even today.
- It is unlikely that India's energy needs will dramatically move away from fossil fuels in the near future. Over 80% of these fuels come from imports, a majority of which is sourced from West Asia. This is a major strategic risk and poses a massive financial drain for an embattled economy and its growing current account deficit.
- To address energy insecurity, the Atal Bihari Vajpayee government mooted the concept of strategic petroleum reserves in 1998. Today, with India consuming upwards of four million barrels of crude every day (January 2015 figures), the case for creating such reserves grows stronger.

Facts for Prelims:

- In January 2016, India signed a deal with the United Arab Emirates that allows the Gulf OPEC country to fill half of the underground crude oil storage facility of ISPRL at Mangalore.
- Therefore, the UAE's Abu Dhabi National Oil Company will store about 6 million barrels of oil at Mangalore.

What's important?

- **For Prelims:** India's strategic oil reserves- locations, ISPRL.
- **For Mains:** Energy security, need for SPR.

Sources: the hindu.

9. National Technology Centre for Ports, Waterways and Coasts at IIT Chennai**Context:**

- The Ministry of Shipping and IIT Chennai have signed an MoU to set up National Technology Centre for Ports, Waterways and Coasts (NTCPWC), at IIT Chennai.

Functions:

- It will act as a technology arm of the Ministry of Shipping for providing engineering and technological inputs and support for Ports, Inland Waterways Authority of India and other institutions.
- It will carry on applied research in the areas of 2D and 3D Modelling of ocean, coastal and estuarine flows, sediment transport and morphodynamics, navigation and maneuvering, dredging and siltation, port and coastal engineering-structures and breakwaters.
- It will provide indigenous software and technology, make technical guidelines and standards and address port and maritime issues with models and simulations.
- The centre will not only help generate new technology and innovations but also work towards their successful commercialization.
- It will provide learning opportunities for the people working in Ministry of Shipping.

About NTCPWC:

- NTCPWC is being set up under the Shipping Ministry's flagship programme Sagarmala.
- Envisioned as a world class state-of-the-art centre, NTCPWC will be a hub for latest technology tools and reduce our dependence on foreign institutions.
- It will also reduce the cost of research drastically and result in cost and time savings for work in the port and maritime sector.

About Sagarmala:

- The Sagarmala project seeks to develop a string of ports around India's coast.
- The objective of this initiative is to promote "Port-led development" along India's 7500 km long coastline.
- It aims to develop access to new development regions with intermodal solutions and promotion of the optimum modal split, enhanced connectivity with main economic centres and beyond through expansion of rail, inland water, coastal and road services.
- The Union Ministry of Shipping has been appointed as the nodal ministry for this initiative.

What's important?

- **For Prelims:** NTCPWC, Sagarmala.
- **For Mains:** NTCPWC- need and significance, need for R & D, Sagarmala- Significance and challenges.

Sources: pib.

Paper 3 Topic: Science and Technology- developments and their applications and effects in everyday life Achievements of Indians in science & technology; indigenization of technology and developing new technology.

1. Agni-I missile**Context:**

- Indigenously developed Agni-I ballistic missile that can carry a nuclear payload was recently flight tested as part of a user trial by the Army from a test range off the Odisha coast. It was 18th version of Agni-I, which could achieve all parameters within the stipulated time period.

**About Agni 1 missile:**

- Agni-1 is an indigenously developed surface-to-surface, single-stage nuclear capable missile. It was developed by the Advanced Systems Laboratory or ASL in collaboration with the Defence Research Development Laboratory (DRDL) and the Research Centre Imarat (RCI). The missile was integrated by the Bharat Dynamics Limited, Hyderabad.
- Weighing around 12 tonnes, the 15-metre-long Agni-I can carry payloads up to 1,000 kg and is capable of hitting a target beyond 700 km. The missile is also capable of carrying nuclear warheads.
- The sophisticated Agni-I missile is propelled by a solid rocket propellant system and is equipped with a specialised navigation system that ensures it reaches the target with a high degree of precision. The missile was inducted into service in 2004.

Sources: the hindu.

2. Prithvi-II**Context:**

- India has successfully test-fired its indigenously developed nuclear capable Prithvi-II missile as part of a user trial by the Army from a test range in Odisha.

About Prithvi-II:

Inducted into the Armed forces of the country in 2003, the nine-metre-tall, single-stage liquid-fuelled Prithvi-II is the first missile to have been developed by the DRDO under the Integrated Guided Missile Development Programme (IGMDP).



- Prithvi-II is capable of carrying **500-1,000 kilogram** of warheads and is thrust by **liquid propulsion** twin engines. The state-of-the-art missile uses advanced inertial guidance system with manoeuvring trajectory to hit its target.
- Prithvi-II is **indigenously** developed and is **nuclear-capable surface-to-surface**. With a strike range of **350 km**, Prithvi-II is powered by twin-engines which use liquid propulsion. It also uses advanced **inertial guidance system** with manoeuvring trajectory to hit its target.
- Notably, Prithvi is **India's first indigenously-built ballistic missile**. It is one of the five missiles being developed under the country's Integrated Guided Missile Development Programme.

Sources: the hindu.

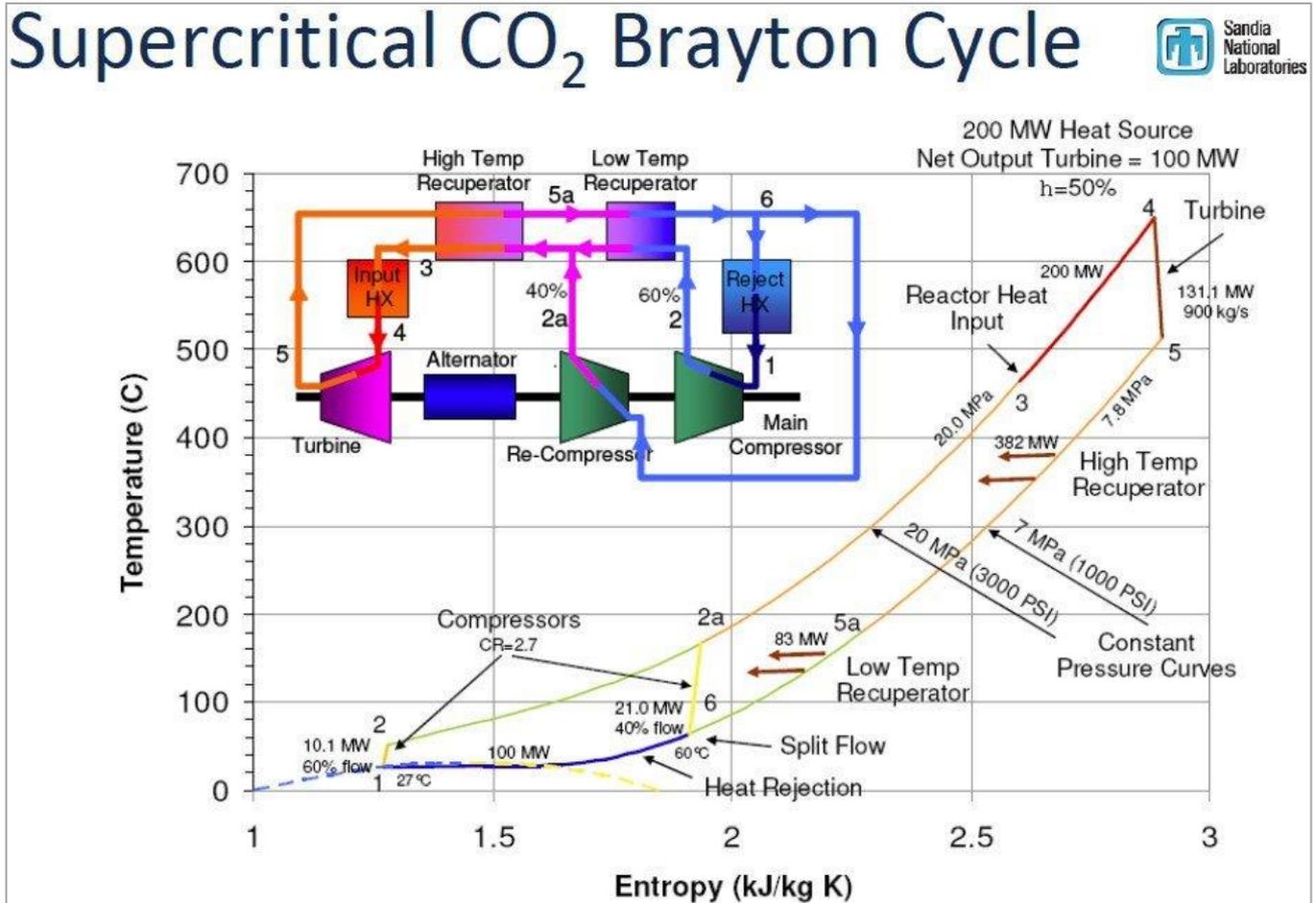
3. Super critical carbon di oxide Brayton test loop facility

Context:

- Indian scientists have developed a super critical carbon di oxide Brayton test loop facility that would help generate clean energy from future power plants including solar thermal.
- This next generation technology loop was developed indigenously by Indian Institute of Science, Bangalore.
- The facility is part of the Indo-US consortium – Solar Energy Research Institute for India and the United States (SERIUS).

What is super critical carbon dioxide?

- The term “supercritical” describes the state of carbon dioxide above its critical temperature of 31°C and critical pressure of 73 atmospheres making it twice as dense as steam.



About the technology:

- This is India's first test-bed for next generation, efficient, compact, waterless super critical carbon dioxide Brayton cycle test loop for power generation. The technology is perhaps the first test loop coupled with solar heat source in the world.
- This test loop is designed to generate the necessary data for future development of scaled up S-CO₂ power plants, which would require overcoming several technological challenges –developing critical components such as the turbine, compressor and heat exchangers that can work at the desired pressure and temperature ranges and using materials that can withstand these conditions.

Significance of this technology:

- The efficiency of energy conversion could be significantly increased by as much as 50% or more if S-CO₂ is operated in a closed loop Brayton cycle.
- Besides increasing power generation and making the process more efficient, there are other advantages of using this new technology.
- Smaller turbines and power blocks can make the power plant cheaper, while higher efficiency would significantly reduce CO₂ emissions for fossil fuel based plants.

- Moreover, if the power plant used solar or nuclear heat source, it would mean higher capacity at lower operating costs.

Applications:

- This early stage research could potentially be useful for meeting the energy needs of the country.
- The new generation high efficiency power plants with closed cycle CO₂ as the working fluid have the potential to replace steam based nuclear and thermal power plants, thus reducing the carbon foot print significantly.

Way ahead:

- This breakthrough research could potentially be game changer for meeting the energy needs of the country in terms of higher efficiency and capacity at lower operating costs and size.
- This effort has already been identified as a possible national initiative for the next generation of solar thermal power plants.
- This gives India an opportunity to become a world leader in this technology, and fulfil a major objective of the National Solar Mission which emphasizes indigenous manufacturing.

Sources: the hindu.

4. Rustom 2

Context:

- Defence Research and Development Organisation has successfully completed the test flight of its Rustom 2 drone at the Aeronautical Test Range.
- Rustom 2 is part of the Rustom line of Unmanned Aerial Vehicles (UAVs) that includes Rustom-I, Rustom-H and Rustom-C.



Key facts:

- Rustom 2 drone is a medium-altitude, long-endurance unmanned aerial vehicle, developed on the lines of predator drones of the United States. The objective of this drone is to carry out surveillance for the armed forces with an endurance of 24 hours.
- The drone was developed **for use by all three services of the Indian armed forces**, primarily for intelligence, surveillance and reconnaissance (ISR) operations.
- The medium-altitude prototype can fly at over 22,000 ft and is a long-endurance (MALE) UAV that has an approximate flight time of 20 hours.
- It can fly at around 280 km/h and carry a variety of payloads like Medium Range Electro Optic (MREO), Long Range Electro Optic (LREO), Synthetic Aperture Radar (SAR), Electronic Intelligence (ELINT).
- **Rustom 2 can fly missions on manual as well as autonomous modes.** The onboard way-point navigation system allows the drone to conduct missions autonomously.

Significance of drones:

- Modern warfare is heavily dependent on drones and India had deployed its imported drones effectively during the surgical strikes it carried out across the Line of Control in Pakistan in September 2016.

What's important?

- **For Prelims:** Key features of Rustom 2.
- **For Mains:** Drones- uses and challenges.

Sources: pib.

5. National Science Day 2018

Context:

- National Science Day is celebrated on 28th of February every year in order to commemorate the invention of the Raman Effect in India by the Indian physicist, Sir Chandrasekhara Venkata Raman on the same day in the year 1928.
- For his great success in the field of science in India, Chandrasekhara Venkata Raman was awarded and honored with the Nobel Prize in the Physics in the year 1930.

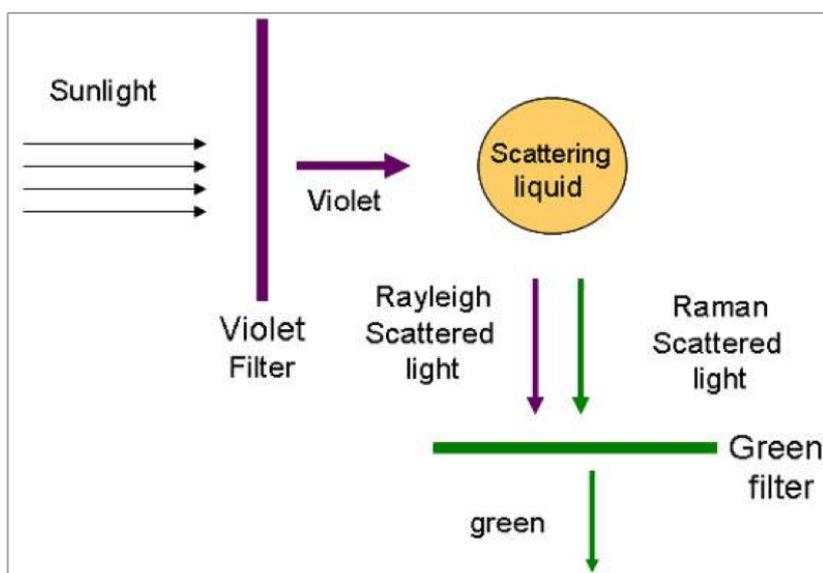
Theme: "Science and Technology for a Sustainable Future".

What is Raman effect?

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

Raman's experiment:

- The violet light of the solar spectrum is isolated with a violet filter and passed through the liquid sample. Most of the light emerging from the liquid sample is the same color as the incident violet beam: the so-called Rayleigh scattered light (the scattering of light by particles in a medium, without change in wavelength).
- It accounts, for example, for the blue colour of the sky, since blue light is scattered slightly more efficiently than red).
- However, Raman, along with K S Krishnan was able to show that some of the scattered light was a different color, which they could isolate by using a green filter placed between the observer and the sample.



What's important?

- For Prelims:** National science day, Raman effect.
- For Mains:** Achievements of Indians in the field of science and technology.

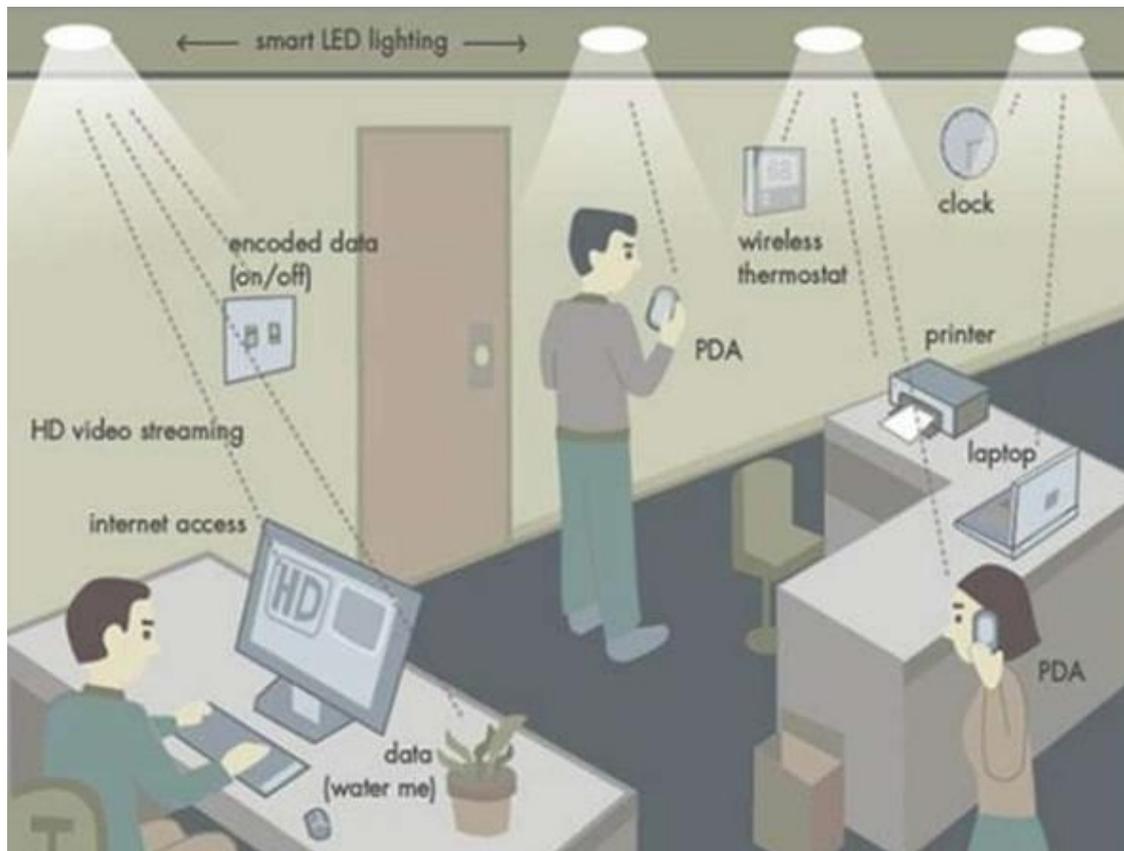
Sources: pib.

Paper 3 Topic: Awareness in the fields of IT, Space, Computers, robotics, nano-technology, bio-technology and issues relating to intellectual property rights.

1. LiFi technology

Context:

- In a recent pilot project, the ministry of electronics and IT successfully tested a technology called LiFi (Light Fidelity), which uses LED bulbs and light spectrum to transmit data at speeds as high as 10 GB per second over a 1-km radius. Indications are strong that it will be soon launched in India on a commercial basis.
- The idea is to connect difficult terrains of the country that can't be reached by fiber but have access to electricity. The technology can be used to connect hospitals where regular internet signals interfere with certain equipment as well as to provide underwater connectivity.



How it works?

- Li-Fi is a Visible Light Communications (VLC) system. This means that it accommodates a photo-detector to receive light signals and a signal processing element to convert the data into 'stream-able' content. Unlike Wi-Fi, which uses radio waves, Li-Fi runs on visible light.
- Here, data is fed into an LED light bulb (with signal processing technology), it then sends data (embedded in its beam) at rapid speeds to the photo-detector (photodiode). The tiny changes in the rapid dimming of LED bulbs is then converted by the 'receiver' into electrical signal. The signal is then converted back into a binary data stream that the user would recognise as web, video and audio applications that run on internet enables devices.
- An LED lightbulb is a semi-conductor light source meaning that the constant current of electricity supplied to an LED lightbulb can be dipped and dimmed, up and down at extremely high speeds, without being visible to the human eye.

Advantages:

- Li-Fi could make a huge impact on the internet of things too, with data transferred at much higher levels with even more devices able to connect to one another.
- Li-Fi offers great promise to overcome the existing limitations of Wi-Fi by providing for data-heavy communication in short ranges.
- Due to its shorter range, Li-Fi is more secure than Wi-Fi.
- Since it does not pollute, it can be called a green technology for device-to-device communication in the Internet of Things (IoT).
- Li-Fi systems consume less power.

Limitations of Li-Fi:

- As visual light can't pass through opaque objects and needs line of sight for communication, its range will remain very restricted to start with. In order to enjoy full connectivity, more capable LED bulbs will need to be placed at various places.
- Li-Fi requires the lightbulb is on at all times to provide connectivity, meaning that the lights will need to be on during the day.

What is Li-Fi?

- Li-Fi, or light fidelity, invented by German physicist and professor Harald Haas, is a wireless technology that makes use of visible light in place of radio waves to transmit data at terabits per second speeds—more than 100 times the speed of Wi-Fi.

- Li-Fi is likely to face interference from external light sources, such as sunlight and bulbs, and obstructions in the path of transmission, and hence may cause interruptions in communication.
- Also, initially, there will be high installation costs of visual light communication systems as an add-on to lighting systems.

Sources: et.

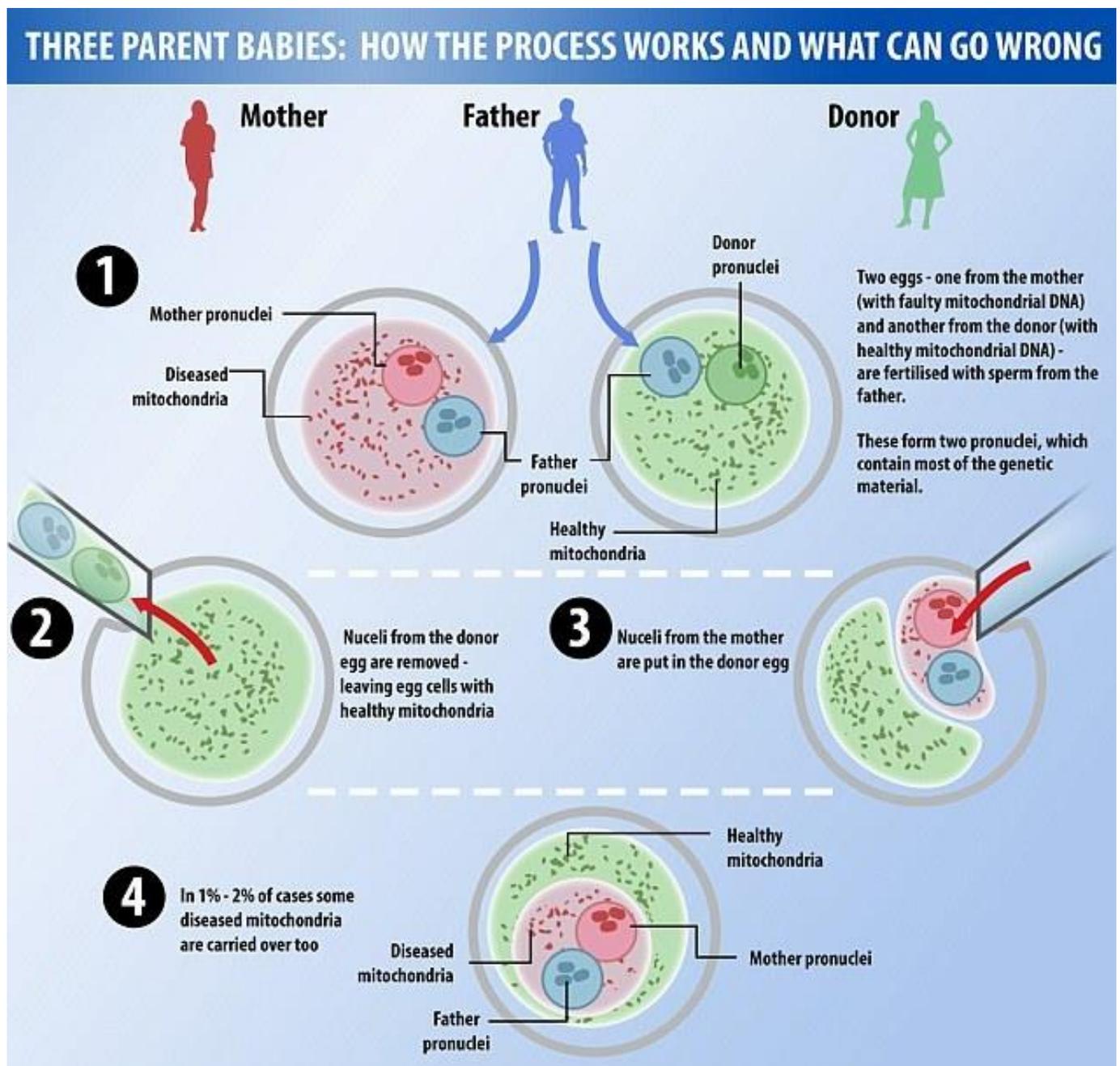
2. THREE-PARENT BABIES PERMITTED IN U.K

Context:

- Regulators in the United Kingdom have given doctors the green light to perform mitochondrial donation therapy on two British women. The controversial form of IVF results in “three-parent babies,” and the women will be the first in the U.K. to undergo the procedure.

Facts for Prelims:

- The births will not be the first using this technique – that milestone was reached in New York, as revealed by scientists in 2016. Since then, other pregnancies and births have been reported in Ukraine.
- However, the UK is the only country so far to have officially approved the use of a mitochondrial replacement therapy (MRT) technique, and only to prevent children from inheriting severe mitochondrial disorders.



What are mitochondria?

- Mitochondria are tiny rod-like structures in cells which act as power houses, generating the energy that allows our bodies to function. Unusually, they have their own DNA, distinct from the genetic material within the cell nucleus.
- Mitochondrial DNA (mtDNA) makes up about 0.1% of a cell's total DNA and does not affect individual characteristics such as appearance and personality.

Concerns:

- Mitochondrial transfer passes on genetic changes from one generation to another. That raises ethical concerns because any unexpected problems caused by the procedure could affect people who are not yet born, and so cannot give their consent to have the treatment. Mitochondria are not completely understood, and the DNA they hold might affect people's traits in unknown ways. For that reason, some scientists believe mitochondria should be better understood before the procedures are legalised.
- Some people are opposed on religious or ethical grounds, particularly with pro-nuclear transfer technique which involves creating and then destroying a fertilised egg in order to treat another embryo. Others believe that there will be inevitable "carry over" of defective mitochondria from the affected mother's fertilised egg to the donor egg. These mutant mitochondria could multiply during embryonic development to cause disease, perhaps in way we do not yet understand. This is why, they say, we need to do more research before allowing it to be used on people.

Way ahead:

- There ought to be a better understanding of the implications and the completion of review of outstanding experiments on their safety before they are actually taken up.

Sources: the hindu.

About MRT technique:

- MRT techniques essentially swap a woman's defective mitochondrial DNA with that of a donor.
- The resulting embryo's DNA will mostly come from the two parents who supplied the egg and sperm, but a tiny proportion – a fraction of a percentage – will come from the donor.

3. SpaceX Falcon Heavy**Context:**

- SpaceX Falcon Heavy, the world's most powerful rocket, was recently launched from the Kennedy Space Centre in the United States' Florida toward an orbit near Mars.
- Falcon Heavy is being considered mainly as a potential equipment carrier to deep space destinations.

The mission:

- The mission is a test flight, pioneered by rocket firm SpaceX which is helmed by Tesla CEO Elon Musk. The rocket is loaded with Mr Musk's own red Tesla roadster. At the wheel is a mannequin dressed in a spacesuit nicknamed Starman. It is the first time that a car is being sent to the space.
- If the Tesla roadster survives its five-hour journey through the Van Allen Belt – a region of high radiation where it will be pelted with charged particles – it will attempt a final burn toward Mars.

About Falcon Heavy:

- Falcon Heavy is the most powerful operational rocket in the world with the ability to lift into orbit nearly 64 metric tons – a mass greater than a 737 jetliner loaded with passengers, crew, luggage and fuel.
- Only the Saturn V moon rocket, last flown in 1973, delivered more payload to orbit.

Sources: the hindu.



4. Global IP Index

Context:

- The US Chamber of Commerce’s intellectual property rights advocacy arm, Global Innovation Policy Centre, has released Intellectual Property Index.
- The index ranks economies based on 40 unique indicators that benchmark activity critical to innovation development surrounding patent, trademark, copyright, and trade secrets protection.
- The US tops the list with 37.98 points, followed by United Kingdom (37.97) and Sweden (37.03).
- New Delhi, however, gives no formal recognition to such rankings and has in the past even dismissed criticism heaped on its IPR regime by the US government as part of its annual US 301 report.

Performance of India:

- India has improved its performance both in relative and absolute terms. The index showed that India ranked 44th of 50 economies – a jump from 43rd of 45 economies one year ago – improving its performance both in relative and absolute terms.
- For the first time, India has broken free of the bottom 10% of economies measured, and its score represents the largest percentage improvement of any country measured. This is further evidence of a country on the move.
- India improved its score as it passed guidelines to strengthen the patentability environment for technological innovations, improved the protection of well-known marks, and initiated IP awareness and coordination programs, thereby implementing some tenets of the 2016 National IPR Policy.

Way ahead:

- In what is otherwise a very challenging environment for IP rights holders, India has demonstrated a long-standing and clear commitment to increasing awareness of the importance of IP rights and respect for creators and innovators.
- However, India has a long way to go. Among key areas of weaknesses are limited framework for protection of life sciences IP; patentability requirements outside international standards; lengthy pre-grant opposition proceedings; previously used compulsory licensing for commercial and nonemergency situations; limited participation in international IP treaties and no participation in international PPH (Patent Prosecution Highway) tracks.
- Additional, meaningful reforms are still needed to incentivize domestic innovation, attract foreign investors, and improve access to innovation.

Sources: the hindu.

Top 10

International IP Index, sixth edition

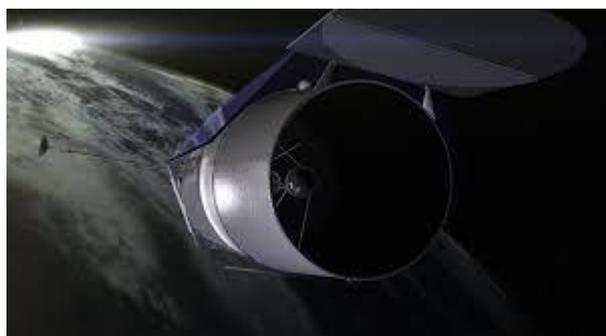
Ranking	Country	Score
1	United States	37.98
2	United Kingdom	37.97
3	Sweden	37.03
4	France	36.74
5	Germany	36.54
6	Ireland	35.98
7	Netherlands	35.33
8	Japan	34.58
9	Singapore	33.45
10	Switzerland	33.42

Source: US CHAMBER OF COMMERCE, GLOBAL INNOVATION POLICY CENTER STRAITS TIMES GRAPHICS

5. WFIRST

Context:

- The White House budget proposal has called for the cancellation of the Wide Field Infrared Survey Telescope (WFIRST), a move that could be interpreted as a warning to the mission’s leaders to rein in the program’s expanding costs. But if the cancellation goes through, some scientists worry it could hurt the international standing of the U.S. astrophysics community.
- WFIRST was tentatively scheduled to launch in the mid-2020s, to become NASA’s next “flagship mission,” a classification applied to large-scale missions with broad science objectives.
- Other NASA flagship missions include the Hubble Space Telescope, the Chandra X-Ray Telescope, and the upcoming James Webb Space Telescope.



About WFIRST:

- WFIRST, the **Wide Field InfraRed Survey Telescope**, is a NASA observatory designed to settle essential questions in the areas of dark energy, exoplanets, and infrared astrophysics.
- The telescope has a primary mirror that is 2.4 meters in diameter (7.9 feet), and is the same size as the Hubble Space Telescope's primary mirror.
- WFIRST will have two instruments, the **Wide Field Instrument**, and the **Coronagraph Instrument**.
- The **Wide Field Instrument** will have a field of view that is 100 times greater than the Hubble infrared instrument, capturing more of the sky with less observing time.
- As the primary instrument, the Wide Field Instrument will measure light from a billion galaxies over the course of the mission lifetime.
- It will perform a microlensing survey of the inner Milky Way to find ~2,600 exoplanets.
- The **Coronagraph Instrument** will perform high contrast **imaging and spectroscopy** of dozens of individual nearby exoplanets.

What's important?

- **For Prelims:** WFIRST, the Hubble Space Telescope, the Chandra X-Ray Telescope, and the upcoming James Webb Space Telescope.
- **For Mains:** Need for understanding dark energy and exoplanets.

Sources: nasa.

6. ESPRESSO Instrument

Context:

- The search for Earth-like planets just got a major upgrade: The European Southern Observatory's **Very Large Telescope (VLT)** in **Chile** successfully integrated the light from all four of its 8.2-meter (27 feet) unit telescopes into a new instrument, making VLT the optical telescope with the largest collecting area in the world. The instrument is called **ESPRESSO** (Echelle Spectrograph for Rocky Exoplanet and Stable Spectroscopic Observations).
- The upgrade will make it easier for scientists to use the observatory to search for faint, rocky planets around distant stars.

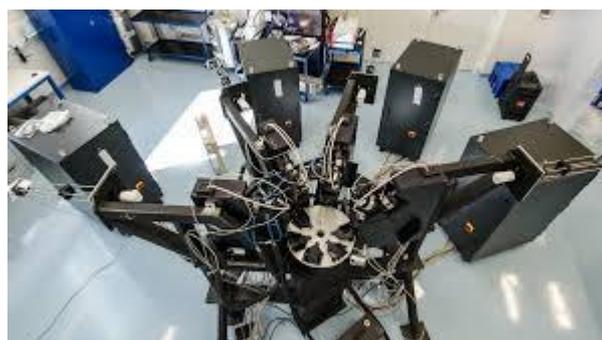
How it operates?

- Each of the VLT units sends its light to the instrument using mirrors, prisms and lenses.
- ESPRESSO can use the light from either all four telescopes at once or just one individual telescope. That design is intended to provide more flexibility in observing time.

What's important?

- **For Prelims:** VLT, ESPRESSO and Quasars.

Sources: toi.

**About ESPRESSO:**

- ESPRESSO is designed to exploit the light-gathering power of the individual telescopes. It has the light-collecting power of a 16-meter (52 feet) telescope. Light gathering is important for telescopes because, as they receive more photons of light, fainter objects appear brighter. Bigger telescopes typically see distant objects such as galaxies more easily because they have more light-gathering power.
- ESPRESSO has a second major scientific goal besides looking for Earth-like worlds: to seek variability in fundamental physics constants. ESPRESSO will observe faint and faraway quasars to uncover more about basic physics, and the combined light of the four telescopes will greatly benefit it in its observations.

7. Scientists find a potentially powerful new antibiotic in dirt

Context:

- Researchers have discovered a new class of antibiotics, which they have named malacidins, which can be extracted from soil bacteria that are notoriously difficult to culture in labs and study.

Significance of this discovery:

- The world is facing an epidemic of infections that no longer respond well to the drugs used to treat them—also known as super bugs. The findings of the research are encouraging. The researchers say that based on their research, malacidins may be able to attack and kill many types of super bugs.
- The new antibiotics fought off many common infections in lab and mice tests, eliminating some microbes that have become resistant to existing antibiotics.

What is a superbug?

- A superbug, also called multiresistant, is a bacterium that carries several resistance genes.
- These are resistant to multiple antibiotics and are able to survive even after exposure to one or more antibiotics.

What causes them to mutate like that?

- Like any living organism, bacteria can mutate as they multiply. Also like any living organism, bacteria have a strong evolutionary drive to survive.
- So, over time, a select few will mutate in particular ways that make them resistant to antibiotics. Then, when antibiotics are introduced, only the bacteria that can resist that treatment can survive to multiply further, proliferating the line of drug-resistant bugs.

Why is the medical community worried?

- Basically, superbugs are becoming more powerful and widespread than ever. Medical experts are afraid that we're one step away from deadly, untreatable infections.
- Antibiotic-resistance is passed relatively easily from one bacteria to the next, since it is transmitted by way of loose genetic material that most bacteria have in common.
- The World Health Organization (WHO) is afraid of a post-antibiotic world, where loads of bacteria are superbugs.
- Already, infections like tuberculosis, gonorrhoea, and pneumonia are becoming harder to treat with typical antibiotics.

Why India is more vulnerable?

- Bacteria spread easily in India because half of Indians defecate outdoors, and much of the sewage generated by those who do use toilets is untreated. As a result, Indians have among the highest rates of bacterial infections in the world and collectively take more antibiotics, which are sold over the counter here, than any other nationality.
- A study found that Indian children living in places where people are less likely to use a toilet tend to get diarrhoea and be given antibiotics more often than those in places with more toilet use.
- All those drugs that create resistance to antibiotics find their way into hospital sewage, which is mostly dumped untreated into rivers, canals and pits in the surrounding community where pregnant women can become infected.
- Equally worrisome has been the rapid growth of India's industrialised animal husbandry, where antibiotics are widespread. Most large chicken farms here use feed laced with antibiotics banned for use in animals in the United States.
- Also, antibiotics are still readily available over the counter, and people still self-medicate. The Indian government has notably failed to institute and implement real regulations to stop chemists from handing out antibiotics like cheap candy.

Way ahead:

- The global community needs to urgently address the indiscriminate use of antibiotics in an actionable manner, and fast-track research on the next generation of drugs.

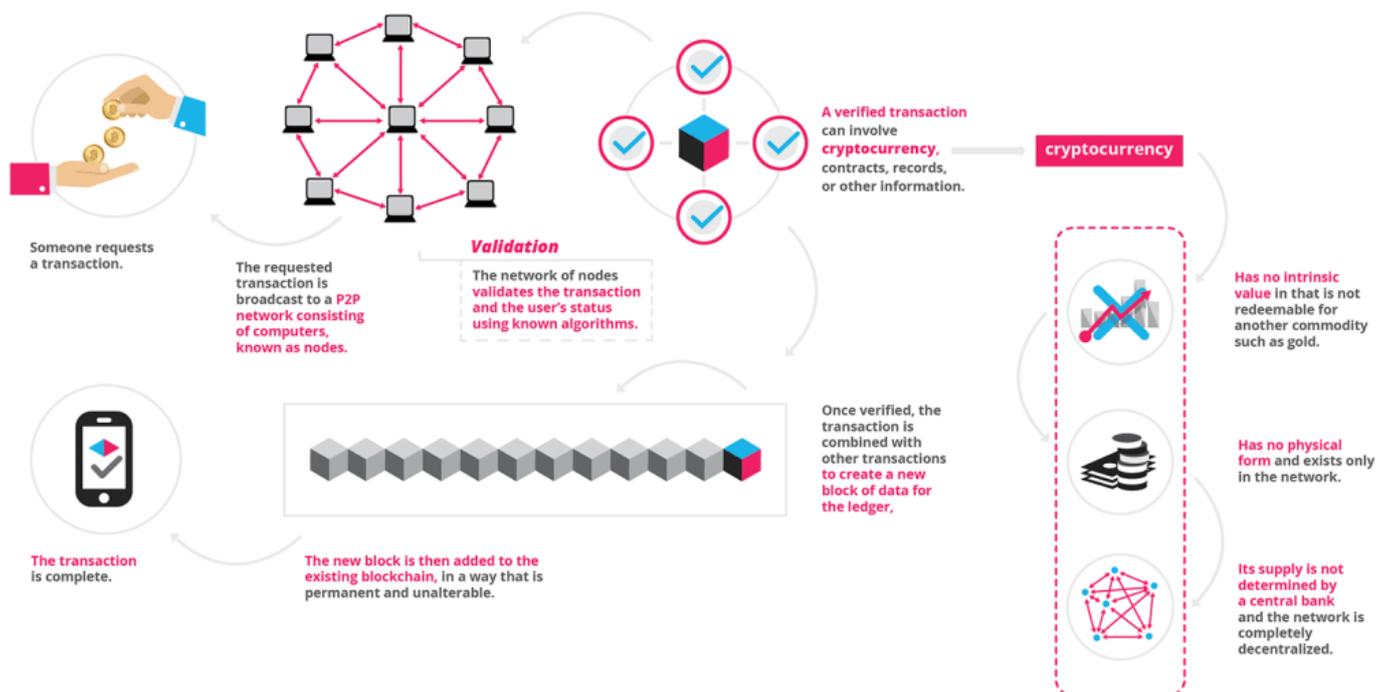
What's important?

- **For Prelims:** Malacidins. **For Mains:** Superbugs- concerns, effects and solutions.

8. Blockchain tech

Context:

- According to experts, the adoption of blockchain by India's banks could help avert frauds such as the one at Punjab National Bank as the disaggregated and transparent nature of the technology, which updates information across all users simultaneously, would have ensured that various officials would have instantly been alerted to the creation of the letters of undertaking (LoUs).



How it works?

- Blockchain enables two entities that do not know each other to agree that something is true without the need of a third party.
- As opposed to writing entries into a single sheet of paper, a blockchain is a distributed database that takes a number of inputs and places them into a block.
- Each block is then 'chained' to the next block using a cryptographic signature. This allows blockchains to be used as a ledger which is accessible by anyone with permission to do so.
- If everyone in the process is pre-selected, the ledger is termed 'permissioned'. If the process is open to the whole world, the ledger is called unpermissioned.

Benefits of blockchain technology:

- A blockchain is anonymous, protecting the identities of the users. This makes blockchain a more secure way to carry out transactions.
- The algorithm used in blockchain reduces the dependence on people to verify the transactions.

Concerns associated:

- Blockchain is still a (relatively) new technology and is not without its problems.
- For a start, there are ongoing concerns about privacy in the settlement and storage of securities – blockchain providers are working hard to address.
- Banks are also at threat with blockchain, since more and more firms (using their IT service providers from India and elsewhere) will build systems that can create and exchange 'blocks' with one another completely legally, without ever having to use the banks as a financial intermediary.

What is Blockchain?

- Blockchain is the digital and decentralized ledger that records transactions without the need for a financial intermediary, which in most cases is a bank.
- A blockchain is an anonymous online ledger that uses data structure to simplify the way we transact.
- Blockchain allows users to manipulate the ledger in a secure way without the help of a third party.

Way ahead:

- Blockchain is not a panacea for all issues facing the banking system today.
- However, blockchain is an ideal technology to ensure proof of integrity to the data and reduce incidents of fraud.

What's important?

- **For Prelims:** Blockchain- how it works.
- **For Mains:** Prevention of fraud, use of technology in this regard.

Sources: the hindu.

9. Society for Worldwide Interbank Financial Telecommunication

Context:

- The ₹11,500 crore fraud in the Punjab National Bank where fund transfer through an inter-bank messaging system was not reported to the core banking solution, followed by the cyberattack on the City Union Bank, has put the spotlight once again on SWIFT or the Society for Worldwide Interbank Financial Telecommunication.

**Background:**

- The SWIFT is a global member-owned cooperative that is headquartered in Brussels, Belgium.
- It was founded in 1973 by a group of 239 banks from 15 countries which formed a co-operative utility to develop a secure electronic messaging service and common standards to facilitate cross-border payments.
- It carries an average of approximately 26 million financial messages each day. In order to use its messaging services, customers need to connect to the SWIFT environment.

What is SWIFT?

- The SWIFT is a secure financial message carrier – in other words, it transports messages from one bank to its intended bank recipient.
- Its core role is to provide a secure transmission channel so that Bank A knows that its message to Bank B goes to Bank B and no one else.
- Bank B, in turn, knows that Bank A, and no one other than Bank A, sent, read or altered the message en route. Banks, of course, need to have checks in place before actually sending messages.

Significance of SWIFT:

- Messages sent by SWIFT's customers are authenticated using its specialised security and identification technology.
- Encryption is added as the messages leave the customer environment and enter the SWIFT Environment.
- Messages remain in the protected SWIFT environment, subject to all its confidentiality and integrity commitments, throughout the transmission process while they are transmitted to the operating centres (OPCs) where they are processed – until they are safely delivered to the receiver.

Sources: the hindu.

Paper 3 Topic: Conservation, environmental pollution and degradation, environmental impact assessment.

1. World Wetlands Day 2018

Context:

- World Wetlands Day is celebrated every year on 2 February. This day marks the date of the adoption of the Convention on Wetlands on 2 February 1971, in the Iranian city of Ramsar on the shores of the Caspian Sea.

Theme for 2018: "Wetlands for a Sustainable Urban Future".



Significance of urban wetlands:

- In focusing on the theme “wetlands for a sustainable urban future”, this year’s World Wetlands Day sheds light on the importance of wetlands for cities. Today, 50% of the world’s population live in urban areas. Forecasts expect the urban population to rise to 6.3 billion by 2050 – a more than eightfold increase since 1950. While the urban proportion of the world’s population will more than double from 1950 to 2050, the number of the world’s wetlands has already more than halved over the past 100 years.
- However, wetlands play a vital role for cities and for the whole of humanity. For instance, they serve as a source of drinking water; they reduce flooding and the vegetation of wetlands filters domestic and industrial waste and improves water quality.

Way ahead:

- Wetlands are at risk, from 1900 64% of wetlands around the world have disappeared with severe consequences for those who are living in close proximity with them, mostly Farmers.
- The International Community should make greater efforts to preserve these wetlands and put Farmers in the best conditions to take advantage of wetlands while respecting them.

About Ramsar convention:

- The Ramsar Convention is an international treaty for the conservation and wise use of wetlands.
- It is named after the Iranian city of Ramsar, on the Caspian Sea, where the treaty was signed on 2 February 1971. Known officially as ‘the Convention on Wetlands of International Importance especially as Waterfowl Habitat’ (or, more recently, just ‘the Convention on Wetlands’), it came into force in 1975.

Montreux Record:

- Montreux Record under the Convention is a register of wetland sites on the List of Wetlands of International Importance where changes in ecological character have occurred, are occurring, or are likely to occur as a result of technological developments, pollution or other human interference.
- It is maintained as part of the Ramsar List. The Montreux Record was established by Recommendation of the Conference of the Contracting Parties (1990). Sites may be added to and removed from the Record only with the approval of the Contracting Parties in which they lie.

Sources: the hindu.

2. New Project to Control Pollution of River Sal at Navelin, Goa

Context:

- The Centre has sanctioned a new project to control pollution in River Sal at Navelim town in Goa. The project was sanctioned by the Ministry of Environment, Forest & Climate Change under the National River Conservation Plan. The project would cost of Rs. 61.74 cr. Both the Centre and State will share the cost on 60:40 basis.
- Under the project, around 32 kms of sewers will be laid and sewage treatment plant of 3 million litres per day (MLD) constructed. The project is scheduled for completion by January, 2021.

Significance of the project:

- The project will help in reduction of pollution load in the river and improvement in its water quality, besides improving the environment and sanitation in the town.

Facts for Prelims:

- The third largest river in Goa, the Sal River is based in South Goa and starts in Cavelossim. It is one of the nine major rivers of Goa.
- The River measures 35 kilometers in length and has a basin size of 301 square kilometers. Being the only river that flows in a north-south direction prior to flowing in to the Arabian Sea at Betul, the Sal River is a geologically odd one because it runs parallel to the west of geological coast.

Way ahead:

- India is moving towards disaster, as water continues to grow scarce (with quantity remaining constant and quality deteriorating). While the reduction in quantity due to rise in population is causing water scarcity in several parts of the country, the reduced quality is not only furthering the scarcity, but also affecting health, agriculture, environment and the economy.
- As India moves closer to 2020, it is time the government focussed on overall scientific management of rivers. It is in India's interest that the government realises the importance of eradicating river apartheid at the earliest.
- River conservation will, therefore, have to be a joint effort of agriculturists, industrialists, urban managers, ecologists and economists apart from government regulators.

Sources: pib.

3. Minamata Convention

Context:

- The Union cabinet has approved a proposal for ratification of the Minamata Convention, a global treaty to protect human health and the environment from adverse effects of mercury.
- After joining the Convention, it will now be easier for India to get technological or financial assistance to address issues related to mercury.

**About Minamata convention:**

- The Minamata Convention on Mercury is a multilateral environmental agreement that addresses specific human activities which are contributing to widespread mercury pollution. Implementation of this agreement will help reduce global mercury pollution over the coming decades.
- The Minamata Convention is named after the Japanese city of Minamata, which experienced a severe, decades-long incidence of mercury poisoning after industrial wastewater from a chemical factory was discharged into Minamata Bay.
- The wastewater contained methylmercury, which bioaccumulated in fish and shellfish in the bay. Local people who consumed seafood from Minamata Bay became very sick, and many died or were left severely disabled.
- Major highlights of the Minamata Convention include a ban on new mercury mines, the phase-out of existing ones, the phase out and phase down of mercury use in a number of products and processes, control measures on emissions to air and on releases to land and water, and the regulation of the informal sector of artisanal and small-scale gold mining.
- The Convention also addresses interim storage of mercury and its disposal once it becomes waste, sites contaminated by mercury as well as health issues.

Background:

- Till now, the convention has 88 ratifications and 144 signatories including India, which signed it on 30 September 2014.
- India had actively participated in the negotiating process, making significant contributions in finalizing the treaty text but had not ratified it till now.

- India's neighbours – Sri Lanka, Bangladesh, Nepal and Pakistan – are also signatories to the convention. But only Sri Lanka has ratified it.

Way ahead:

- Mercury pollution is a global problem that requires global action. It moves with air and water, transcends political borders, and can be transported thousands of miles in the atmosphere.
- The Minamata Convention on Mercury is an opportunity for the global community to address this mounting problem before it gets worse.
- Over the next decades, implementation of this international agreement will help reduce mercury pollution from the specific human activities responsible for the most significant mercury releases to the environment.

Sources: pib.

4. Great Indian Bustard

Context:

- In a novel experiment, a group of farmers at the Lala Sanctuary in Kutch have decided not to use inorganic fertilizers and toxic pesticides so as to save the Great Indian Bustard (GIB).
- According to experts, when farmers use pesticides, GIB loses a major portion of its food – insects, locust, lizard among others – and the bird is forced to look for smaller insects in the grains, resulting in damage to the crops.



Facts for Prelims:

- Great Indian Bustard is listed in Schedule I of the Indian Wildlife (Protection) Act, 1972, in the CMS Convention and in Appendix I of CITES, as Critically Endangered on the IUCN Red List.
- It has also been identified as one of the species for the recovery programme under the Integrated Development of Wildlife Habitats of the Ministry of Environment and Forests, Government of India.
- This species was formerly widespread in India and Pakistan.

Sources: the hindu.

5. Compensatory afforestation (CA) funds

Context:

- The Ministry of Environment, Forest and Climate Change (MoEFCC) is in deliberation with the Ministry of Finance over the future of compensatory afforestation (CA) funds collected by the Centre.
- Currently, the CA funds, amounting to roughly Rs 50,000 crore, are with the ad hoc Compensatory Afforestation Fund Management and Planning Authority (CAMPA). The ad hoc body was created by the order of Supreme Court on July 10, 2009.



Background:

- Compensatory Afforestation Fund Act 2016 (CAF) has a provision for creating a national fund with contributions from user agencies—any person, organisation, company or department of the Central Government or state government making a request for diversion or de-notification of forest land for non-forest purpose.
- According to the Act, the fund will be used for “compensatory afforestation, additional compensatory afforestation, penal compensatory afforestation, net present value, catchment area treatment plan or any money for compliance of conditions stipulated by the Central Government while according approval under the provisions of the Forest (Conservation) Act, 1980.”

About CAMPA:

- The CAMPA was created as National Advisory Council under the chairmanship of the environment minister for monitoring, technical assistance and evaluation of compensatory afforestation activities.

Mandate:

- Lay down broad guidelines for State CAMPA.
- Facilitate scientific, technological and other assistance that may be required by State CAMPA.
- Make recommendations to State CAMPA based on a review of their plans and programmes.
- Provide a mechanism to State CAMPA to resolve issues of an inter-state or Centre-State character.

Sources: down to earth.

6. India State of Forest Report (ISFR) 2017

Context:

- The environment ministry has released the India State of Forest Report (ISFR) 2017. The ISFR report is published every two years. The India State of Forest Report **2017** is the **15th** such report in the series.
- The report, however, for the first time contains information on decadal change in water bodies in forest during 2005-2015, forest fire, production of timber from outside forest, state wise carbon stock in different forest types and density classes.

Highlights of the report:

- India's forest cover increased by 6,778 sq km over the last two years. The increase, based on satellite data and subsequent 'ground truthing', has put the total forest cover at 7,08,273 sq km which is 21.54% of the country's geographical area.
- Andhra Pradesh, Karnataka, Kerala, Odisha and Telangana saw increase in their green footprint during the last two years though there is a worrying decline in six northeastern states, including a shrinkage of 630 sq km in the eastern Himalayas.
- While overall green cover, including tree patches outside recorded forest areas, reported an incremental 1% increase (8,021 sq km) over the last assessment year in 2015, the quality of forests remain a hotly debated subject even as satellite monitoring has increased availability of data.
- Taking into account the density (canopy covering branches and foliage formed by the crowns of trees), forest cover is divided into 'very dense', 'moderately dense' and 'open' forest. The 'very dense' forest cover has increased over the last assessment of 2015, but the 'moderately dense' category reported a decline – a sign which environmentalists consider quite worrying.
- The report also shows the total mangrove cover stands at 4,921 sq km and has shown an increase of 181 sq km. All the 12 mangrove states have shown a positive change in the mangrove cover, as compared to the last assessment. Mangrove ecosystem is rich in biodiversity and provides a number of ecological services.

Facts for Prelims:

- Report shows that three states – Andhra Pradesh, followed by Karnataka and Kerala – have shown the maximum increase in forest cover. On the other hand, forest cover in states like Mizoram, Nagaland, Arunachal Pradesh, Tripura and Meghalaya has decreased in 2017 as compared to 2015.
- The report notes that there was an increase of 2,647 sq km in the extent of water bodies over the decade (2005-15) with all states and Union Territories (UTs) showing an increase except Arunachal Pradesh, Uttar Pradesh and Haryana. Maharashtra, Gujarat and Madhya Pradesh figure as the top three states reporting maximum increase in areas of water bodies including lakes and wetlands.
- Madhya Pradesh has the largest forest cover of 77,414 sq km in the country in terms of area, followed by Arunachal Pradesh and Chhattisgarh. In terms of percentage of forest cover with respect to the total geographical area, Lakshadweep with (90.33%) has the highest forest cover, followed by Mizoram (86.27%) and Andaman & Nicobar Island (81.73%).

Way ahead:

- India may be endowed with 16 major forest types, and 221 types and sub-types based on the Champion and Seth classification, but retains very little of its ancient forests after centuries of pre-colonial and colonial

exploitation. Latter-day development pressures are also taking their toll. Forest restoration should, therefore, aid the return of native vegetation.

- Increase in forest cover over the years is in sync with India's commitment to the Paris Agreement on climate change and the country would meet its target of creating additional carbon sink (2.5 to 3 billion tonnes of CO₂ equivalent) through increase in forest and tree cover by 2030.

Sources: the hindu.

7. Compensatory Afforestation Act

Context:

- The government has notified the draft Compensatory Afforestation Fund (CAF) Rules, 2018 to facilitate utilisation of over Rs50,000 crore among states to expand India's forest cover. The draft rules, which come nearly one and half years after the Compensatory Afforestation Fund (CAF) Bill was passed by Parliament in July 2016, specify the activities that would be allowed or restricted in a forest area.

Draft rules:

- **Utilization of funds:**
 - According to the proposed rules, 80% of the "net present value (NPV)" can be used for forest and wildlife management activities like assisted natural regeneration, artificial regeneration (by plantations), protection of plantations and forests, pest and disease control in forest, forest fire prevention and others. 20% of the NPV, in a financial year, "shall be utilised for strengthening the forest and wildlife related infrastructure, capacity building of the personnel of state forest departments and other associated agencies and organisations involved in utilisation of these monies".
- **Activities allowed:**
 - The draft rules also specified a list of activities that can be undertaken or are not allowed from the fund.
 - It allows activities like establishment, upgradation and maintenance of modern nurseries, purchase and maintenance of communication devices, construction, up-gradation and maintenance of inspection paths.
 - These activities "shall be taken up in consultation with the Gram Sabha or *Van Sanrakshan Samiti* (VSS) or Village Forest Committee as the case may be" and shall be in consonance with the provisions of FRA 2006.
- **Activities not allowed:**
 - The fund will not be used for activities like payment of salary, travelling allowances, medical expenses to regular employees of the state forest department, undertaking foreign visits, payment for legal services, purchase of cars, construction of residential and official buildings for officers above forest range officers.

Compensatory Afforestation Fund Act 2016:

- This act provides for setting up Compensatory Afforestation Fund Management and Planning Authority (CAMPA) at both central and state level to ensure expeditious and transparent utilization of amounts realized in lieu of forest land diverted for non-forest purpose.
- The act also seeks to establish the National Compensatory Afforestation Fund under the Public Account of India, and a State Compensatory Afforestation Fund under the Public Account of each state. The payments into the funds include compensatory afforestation, NPV, and any project-specific payments.

Criticisms:

- Environmentalists and forest rights activists have criticized the draft rules stating they violate the Forest Rights Act (FRA) 2006.
- They say these will result in further atrocities and crimes against tribals and forest dwellers.
- FRA Act mandates that *gram sabhas* (village councils) have both the right and the power to protect, manage and conserve their forests.

What's important?

- **For Prelims:** CAMPA.
- **For Mains:** Forest conservation, role of various stakeholders in conservation.

Sources: the hindu.

8. Mass nesting of olive ridleys begins in Odisha**Context:**

- Starting the mass nesting this year, more than 3,100 female olive ridley turtles have come out of the sea to the sandy beach of the Rushikulya rookery coast in Ganjam district of Odisha.
- The Rushikulya coast is considered to be a major nesting site in the world and lakhs of olive ridleys come here every year to lay eggs.

**About Olive Ridley turtles:**

- Also known as the Pacific ridley sea turtle, Olive turtles are a medium-sized species of sea turtle found in warm and tropical waters, primarily in the Pacific and Indian Oceans.
- They are best known for their behavior of synchronized nesting in mass numbers.
- The olive ridley is classified as Vulnerable according to the International Union for Conservation of Nature and Natural Resources (IUCN), and is listed in Appendix I of CITES.
- The Convention on Migratory Species and the Inter-American Convention for the Protection and Conservation of Sea Turtles have also provided olive ridleys with protection, leading to increased conservation and management for this marine turtle.

What's important?

- **For Prelims:** Olive ridley turtles, Rushikulya coast.

Sources: the hindu.

9. Swajal Yojana

Context: Swajal pilot project has been launched at Village Bhikampura, Karauli, Rajasthan.

About Swajal:

- Swajal is a **community owned drinking water programme** for sustained drinking water supply.
- Under the scheme, 90% of the project cost will be taken care by the Government and the remaining 10% of the project cost will be contributed by the community. The Operations and management of the project will be taken care by the local villagers.
- Besides ensuring the availability of clean drinking water to every household round the year, the project would also generate employment.

**Way ahead:**

- India is not a water scarce country. Along with having major rivers, we receive an average annual rainfall of 1170 millimeters. But lack of sensitisation with regard to both conservation of water and pollution of water sources has resulted in a large part of the population for whom water has become more of a curse than a boon.
- Infrastructure for storage of water must be developed properly to ensure that people have access to safe water across the country.

What's important?

- **For Prelims:** Swajal.
- **For Mains:** Need for groundwater conservation.

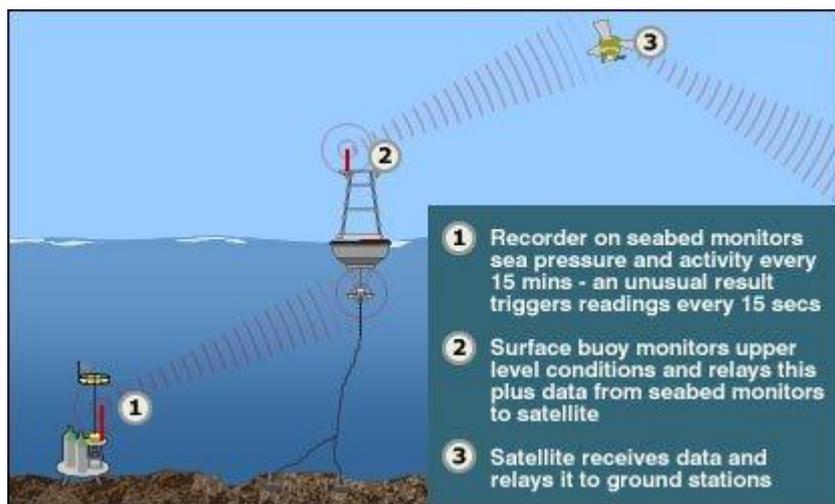
Sources: pib.

Paper 3 Topic: Disaster and disaster management.**1. India Tsunami Early Warning Centre (ITEWC)****Context:**

- In a written reply to a question in Rajya Sabha, Minister of State for Science and Technology and Earth Sciences Shri Y. S. Chowdary stated that latest scientific techniques have been added to ITEWC to provide early warnings for an impending tsunami to all countries in the Indian Ocean region.

About ITEWC:

- The Indian Tsunami Early Warning Centre (ITEWC) established at Indian National Centre for Ocean Information Sciences, (INCOIS – ESSO) Hyderabad, is an autonomous body under Ministry of Earth Sciences.
- Indian Tsunami Early Warning System comprises a real-time seismic monitoring network of broadband seismic stations. ITEWC receives data in real time from 350 seismic stations, 50 tsunami buoys and 300 tide gauges established in the Indian as well as the other oceans by other countries and international agencies.
- Intergovernmental Oceanographic Commission (IOC) of UNESCO has designated ITEWC as the Tsunami Service Provider (TSP) for the entire Indian Ocean Region.
- Since 2012, ITEWC is providing tsunami advisories and related services to about 25 countries”.

**Background:**

- On December 26, 2004, one of the deadliest earthquakes (9.3 magnitude), epicentred off the West coast of Sumatra, Indonesia, triggered a tsunami that killed over 2.3 lakh people across 14 countries, including 11,000 in India.
- Since then, India has made rapid strides in establishing an early warning system with the help of various organisations, and partnered with international agencies involved in the study of earthquakes, tsunami and other ocean-related natural disasters.

Generation of Tsunami:

- Even though tsunamis can be generated by various phenomenon, the most destructive tsunamis are generated from large, shallow earthquakes at subduction zones.
- Major tsunamis are produced by large earthquakes of magnitude greater than 7.0 associated with the movement of oceanic and continental plates.
- The waves can travel great distances from the source region, spreading destruction along their path.
- More than 80% of the world's tsunamis occur in the Pacific along its Ring of Fire subduction zones.
- Tsunamis are not as common in the Indian Ocean as in the Pacific.
- As compared to average eight tsunamis per year in the Pacific, Indian Ocean has one in three years or so.

Sources: pib.

2. Integrated Automatic Aviation Meteorological Systems (IAAMS)

Context:

- ‘Integrated Automatic Aviation Meteorological System (IAAMS)’ was recently inaugurated at **INS Garuda**. INS Garuda is the fourth air station to have been installed with this integrated system.

About IAAMS:

- IAAMS is an ambitious project of the Indian Navy to modernise the Meteorological infrastructure of the nine Naval Air Stations. The IAAMS project at INS Garuda will give a major fillip to aviation safety through automation of weather monitoring process.
 - Equipped with the state of the art **Meteorological Sensors** viz., Radar Vertical Wind Profiler, Transmissometer, Ceilometer and Automatic Weather Observation System, IAAMS undertakes automatic and continuous recording of relevant weather parameters that are vital for accurate weather forecasting.
 - It has a special alarm feature that alerts the duty staff about any abnormal change of weather parameters that may affect safe flying operations. The system can also provide automatic dissemination of routine weather reports of the air station as per World Meteorological Organization (WMO) standards to other Air Stations and to ATC tower without human intervention.

Sources: pib.

Paper 3 Topic: Various Security forces and agencies and their mandate.

#. Enforcement Directorate

Context:

- The Enforcement Directorate is grappling with a severe manpower crunch.
- The directorate is currently functioning with less than 50% of the approved strength of 2,064 posts.
- While there are 900 officials handling operations at various levels, there is a vacancy of more than 300 investigating officials, which has resulted in increased work pressure on the present set-up.

About Enforcement Directorate:

- **What is it?** It is a law enforcement agency and economic intelligence agency responsible for enforcing economic laws and fighting economic crime in India. It is part of the Department of Revenue, Ministry of Finance.
- **Objectives:** The prime objective of the Enforcement Directorate is the enforcement of two key Acts- the Foreign Exchange Management Act 1999 (FEMA) and the Prevention of Money Laundering Act 2002 (PMLA). Other objectives are primarily linked to checking money laundering in India.
- **Composition:** It comprises officers of the Indian Revenue Service, Indian Police Service and the Indian Administrative Service.
- **Background:** The origin of this Directorate goes back to 1 May 1956, when an ‘Enforcement Unit’ was formed, in Department of Economic Affairs, for handling Exchange Control Laws violations under Foreign Exchange Regulation Act, 1947. In the year 1957, this Unit was renamed as ‘Enforcement Directorate’.

Sources: the hindu.

Paper 3 Topic: Challenges to internal security through communication networks, role of media and social networking sites in internal security challenges, basics of cyber security; money-laundering and its prevention.

1. Bill to amend the Prevention of Money-laundering Act, 2002

Context:

- Government has introduced Bill to amend the Prevention of Money-laundering Act, 2002 through Finance Act, 2018.

- The Amendments aim at further enhancing the effectiveness of the Act, widen its scope and take care of certain procedural difficulties faced by the Enforcement Directorate in prosecution of PMLA cases.

Proposed amendments:

- Amendment in definition of “proceeds of crime”: A key proposed change is in the definition of “proceeds of crime”, which now also allows the ED to proceed against assets of equivalent value located even outside the country.
- Amendment in bail provisions: In a move to de-link PMLA proceedings from those in scheduled offences pursued by other agencies, an amended Section 45(1) proposes uniform applicability of bail conditions, instead of only those crimes listed in its schedule that attract more than three years’ imprisonment.
- The amendment to Section 8(8) allows the Special Court, if it deems fit, to consider the claims for the purposes of restoration of such properties also during the trial. The government has introduced a new Sub-Section (2) of Section 66, making it mandatory for the ED to share relevant details with other agencies.

PMLA 2002:

- Prevention of Money Laundering Act, 2002 is an Act of the Parliament of India enacted to prevent money-laundering and to provide for confiscation of property derived from money-laundering. PMLA and the Rules notified there under came into force with effect from July 1, 2005.
- The Act and Rules notified thereunder impose obligation on banking companies, financial institutions and intermediaries to verify identity of clients, maintain records and furnish information.

Sources: the hindu.

2. ‘Security Check Kiya’ campaign

Context:

- To create awareness around Internet safety, Google India has launched a public initiative “#SecurityCheckKiya”.

About the Campaign:

- It aims to protect young and first-time web users from account hijacking, safeguard Android devices from malicious apps and secure all their personal data if they lose their device. Under the campaign, Google encouraged users to take the first step of Security Check on Safer Internet Day which will be celebrated on February 6.
- People can follow a three-step action to stay safe on the web. To protect account hijacking, all Android devices and Gmail users can review their security settings and Google account activity with one click “Google Security”. This automatically scans for any vulnerability and guides users to keep their account safe.
- To safeguard Android devices from malicious apps, users can scan and check Android device for any harmful apps through Google Play Protect. Google Play Protect scans all apps for malware before and after you install them and is automatically enabled on your device. To secure all personal data if an Android device is lost, users can download “Find My Device” app and it will help you to easily locate a lost Android device and keeps device and information secure.

What necessitated this move?

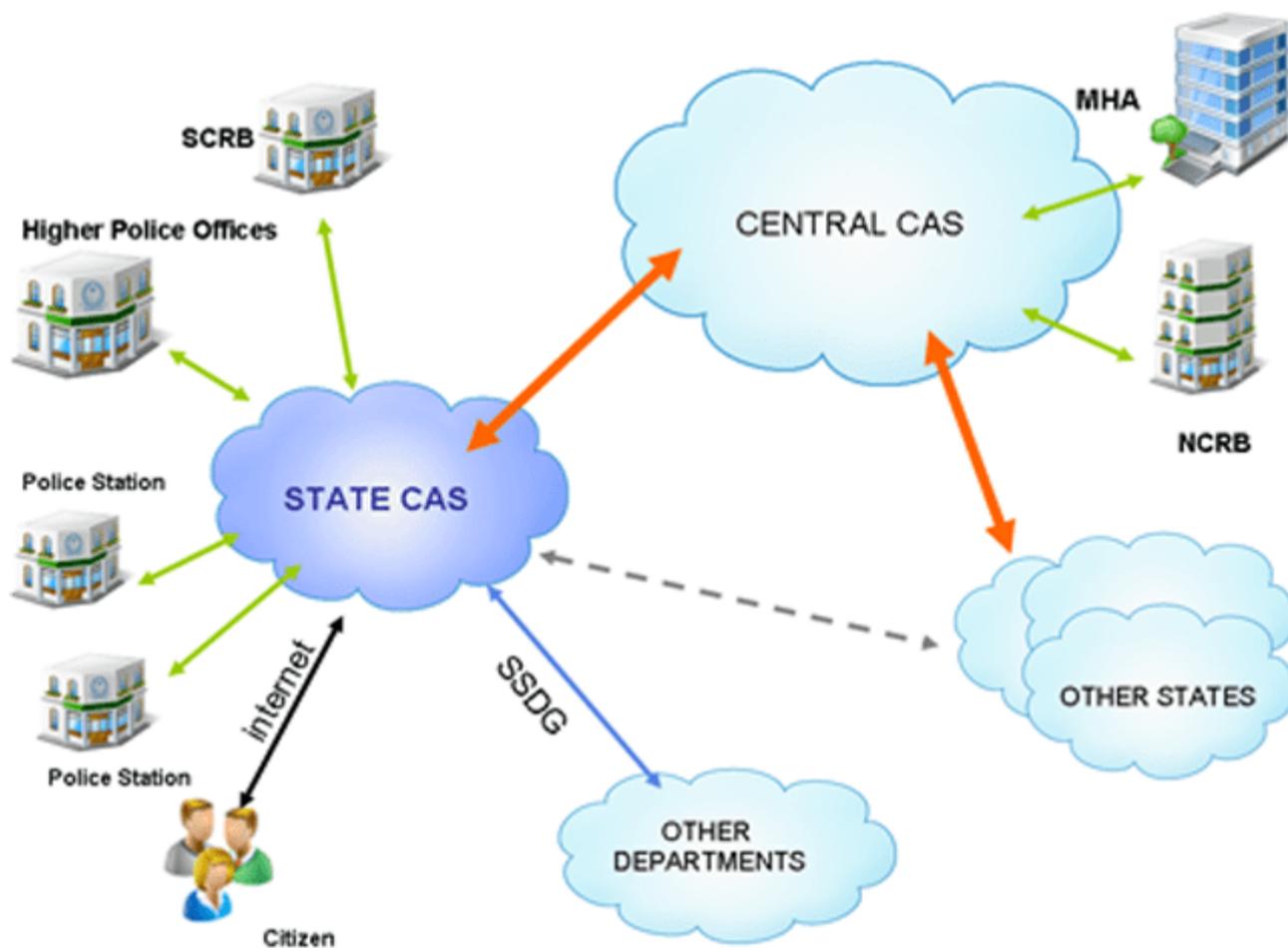
- With a large base of unsuspecting first time Internet users now coming online through easy access modes but lacking technical literacy, Indian users are increasingly vulnerable to bad actors and abuse on the web.

Sources: the hindu.

3. Crime and Criminal Tracking Network and Systems (CCTNS)

Context:

- Punjab government has launched the Crime and Criminal Tracking Network and Systems (CCTNS), a project to keep digitised records of FIRs and information on crimes and criminals.
- FIRs and General Diaries can now be updated online by police officials on CCTNS ‘Go-Live’. They would be provided Tablets for this purpose.



What it does?

- The Project will interconnect about 15000 Police Stations and additional 5000 offices of supervisory police officers across the country and digitize data related to FIR registration, investigation and charge sheets in all Police Stations.
- It will not only automate Police functions at Police station and higher levels but will also create facilities and mechanism to provide public services like registration of online complaints, ascertaining the status of case registered at the police station, verification of persons etc. In 2015, an additional objective of establishing a basic platform for an Inter-operable Criminal Justice System (ICJS) was added to the Project.

Benefits:

- The Full implementation of the Project with all the new components would lead to a Central citizen portal having linkages with State level citizen portals that will provide a number of citizen friendly services like Police Verification for various purposes including passport verification, reporting a crime including cyber-crime and online tracking of the case progress etc.
- The project will enable National level crime analytics to be published at increased frequency, which will help the policy makers as well as lawmakers in taking appropriate and timely action, it will also enable Pan-India criminal/accused name search in the regional language for improved inter-state tracking of criminal movement. This would lead to development of a national database of crimes and criminals.

What is CCTNS project?

- Crime and Criminal Tracking Network and Systems (CCTNS) is a project initiated in June 2009 which aims at creating a comprehensive and integrated system for enhancing the efficiency and effectiveness of policing at the Police Station level.
- This will be done through adoption of principles of e-Governance, and creation of a nationwide networked infrastructure for evolution of IT-enabled state-of-the-art tracking system around “investigation of crime and detection of criminals”. CCTNS is a Mission Mode Project (MMP) under the National e-Governance Plan of Govt. of India.

Need for CCTNS:

- The police of any state barely “talked” among themselves, or with the police of other states. Each police station was an island, where records were maintained manually.
- The National Crime Records Bureau and State Crime Records Bureaus were initial steps towards storage, sharing and accessing data, but the process was technologically primitive and cumbersome, Chidambaram felt. A seamless, technology-driven network in which any police station could “talk” to another police station in real time, was needed.

How will citizens benefit from CCTNS?

- Full implementation of the project will lead to the creation of a central citizen portal with links to state-level citizen portals. This will take several citizen-friendly services online – such as police verification for purposes including passports, reporting a crime, tracking the progress of a case, reporting of grievances against police officials, access to victim compensation fund, and legal services. A list of proclaimed offenders, sex offenders and most wanted criminals will also be published on the citizen portal.
- Investigating officers across the country will be able to access the crime and criminals database, and the police will get alerts, dashboards and other CCTNS features through mobile applications. National-level crime analytics will be published at an increased frequency, and police station staff will be able to directly search for information in other national databases such as UIDAI, NPR and the Transport database.

Way ahead:

- The success of this potential game-changer project will depend on data accuracy, and its judicious utilisation, and this is where the government needs to be extremely careful while going ahead on the creation of this national backbone for the justice system.

What’s important?

- **For Prelims:** CCTNS, difference between CCTNS and NATGRID.
- **For Mains:** CCTNS- need and benefits, smart policing, police reforms.

Sources: the hindu.

4. Cyber security incidents

Context:

- Over 53, 000 cyber security incidents like phishing, website intrusions and defacements, virus and ransomware attacks were observed in the country during 2017, as per CERT- In data.
- The types of cyber security incidents included phishing, scanning/probing, website intrusions and defacements, virus/malicious code, ransomware and denial of service attacks etc.

What has the government done to prevent such attacks?

- The government has taken a number of legal, technical and administrative measures to prevent incidents of cyber crime.
- These include enactment of the IT Act, 2000 that has adequate provisions for dealing with prevalent cyber crimes and establishment of National Critical Information Infrastructure Protection Centre (NCIIPC) for protection of critical infrastructure in the country. Besides, cyber crime cells have been set up in all states and union territories for reporting and investigation of cyber crime cases.

About NCIIPC:

- National Critical Information Infrastructure Protection Centre (NCIIPC) is an organisation created under Sec 70A of the Information Technology Act, 2000. It is designated as the National Nodal Agency in respect of Critical Information Infrastructure Protection.

What is critical information infrastructure?

- The Information Technology Act, 2000 defines Critical Information Infrastructure (CII) as “those computer

NCIIPC has broadly identified the following as ‘Critical Sectors’:

- Power & Energy.
- Banking, Financial Services & Insurance.
- Telecom.
- Transport.
- Government.
- Strategic & Public Enterprises.

resource, the incapacitation or destruction of which, shall have debilitating impact on national security, economy, public health or safety”.

What's important?

- For Prelims: NCIIPC.
- For Mains: security agencies, Cyber security- Challenges and solutions.

Sources: et.

5. Pakistan added to FATF grey-list

Context:

- Financial Action Task Force (FATF) has added Pakistan's name to the grey-list of terror-financing watch list.
- This was decided in a recently held meeting in Paris. Pakistan was previously on the list for three years until 2015.

Implications of this move:

- Pakistani analysts say being put on the FATF watchlist could deal a blow to Pakistan's economy, making it harder for foreign investors and companies to do business in the country.
- It would be counterproductive to put Pakistan on the watch list as it would hurt its capability to fight terrorism. Also, being put back on the grey list would heighten Pakistan's risk profile and some financial institutions would be wary of transacting with Pakistani banks and counterparties.
- Being placed on the FATF watchlist carries no direct legal implications, but brings extra scrutiny from regulators and financial institutions that can chill trade and investment and increase transaction costs.

About FATF:

What is it?

- The Financial Action Task Force (FATF) is an inter-governmental body established in 1989 on the initiative of the G7.
- It is a “policy-making body” which works to generate the necessary political will to bring about national legislative and regulatory reforms in various areas.

Objectives:

- The objectives of the FATF are to set standards and promote effective implementation of legal, regulatory and operational measures for combating money laundering, terrorist financing and other related threats to the integrity of the international financial system.

What it does?

- The FATF monitors the progress of its members in implementing necessary measures, reviews money laundering and terrorist financing techniques and counter-measures, and promotes the adoption and implementation of appropriate measures globally.
- In collaboration with other international stakeholders, the FATF works to identify national-level vulnerabilities with the aim of protecting the international financial system from misuse.

What's important?

- **For Prelims:** FATF.
- **For Mains:** Terrorist funding- prevention and issues.

Sources: the hindu.

6. Centre may enact law against fugitives

Context:

- The Union government may consider enacting the Fugitive Economic Offenders Bill to confiscate assets of those who flee the country and refuse to return after committing frauds in excess of Rs. 100 crore.
- A draft of the Bill, which is in consonance with similar legislation in several countries, has already been circulated.

Highlights of the draft Fugitive Economic Offenders bill:

- The bill flows from Finance Minister Arun Jaitley's 2017-18 Budget speech promising legislative changes or even a new law to confiscate the assets of such fugitives. It seeks to deter economic offenders from evading the process of Indian law by fleeing the country.
- The proposed law will be applicable in cases where the value of offences is over Rs 100 crore. The bill proposes to allow the Financial Intelligence Unit (FIU), the premier technical snoop wing under the finance ministry, to file an application for the declaration of fugitive economic offender for confiscation of their assets.
- The courts under PMLA would be entrusted with the responsibility to try the case. Also, the bill has provision for appointment of an administrator to dispose off the property to pay off the creditors. Besides, the provisions of the proposed law will override provisions of other existing laws. The burden of proof for establishing that an individual is a fugitive economic offender will be on the authorities.

Need for a law in this regard:

- There have been several instances of economic offenders fleeing the jurisdiction of Indian courts, anticipating the commencement, or during the pendency, of criminal proceedings.
- The absence of such offenders from Indian courts has several deleterious consequences— first, it hampers investigation in criminal cases; second, it wastes precious time of courts of law; third, it undermines the rule of law in India.

Who is a fugitive economic offender?

- A Fugitive Economic Offender is a person who has an arrest warrant issued in respect of a scheduled offence and who leaves or has left India so as to avoid criminal prosecution, or refuses to return to India to face criminal prosecution.

Sources: the hindu.

Facts for Prelims

1. Floating island to come up on Nekkampur Lake

- A floating island of 2,500 sq.ft with about 3,500 wetland plants will be introduced on the Nekkampur Lake in Hyderabad on the eve of **World Wetland Day on February 2nd**. It will be introduced by Dhruvansh, a voluntary organisation working for protection of water bodies.
- The 'island platform' has been designed using styrofoam, bamboo, gunny bags, coir and so on and could bear the weight of four persons, according to Madhulika Choudhary of the body.

2. Bhasha Samman

- **Context:** Magahi writer Shesh Anand Madhukar, who has been working extensively for the development of the language, has been honoured with this year's Sahitya Akademi Bhasha Samman award. He is the second writer of Magahi language to be given the award.
- **About Bhasha Samman:** Sahitya Akademi currently honours writers from 24 regional languages, but Bhasha Samman identifies those languages which are equally spoken in different parts of the country. The award is an attempt to make the writers of other languages feel equally important. The award comprises a Rs 1 lakh cheque and a memento.
- **About Magahi language:** The Magahi language, also known as Magadhi, is a language spoken in Bihar-Jharkhand region of eastern India. Magadhi Prakrit was the ancestor of Magadh, from which the latter's name derives. It is believed to be the language spoken by Gautama Buddha. It was the official language of the Mauryan court, in which the edicts of Ashoka were composed.

3. Geospatial world excellence award

- **Context:** Odisha has bagged Geospatial World Excellence Award-2018 for successful IT application on tracking of mineral production, dispatch and value accrued on real time basis through its i3MS website based software.
- **Geospatial World Excellence Awards:** Initiated in 2007, Geospatial World Awards is an internationally-acclaimed private award recognizing exemplary innovations and practices in the global geospatial industry. With the ceremony taking place at Geospatial World Forum every year, Geospatial World Awards have recognized over 150+ individuals and organizations till date.

4. New wildlife sanctuary at Ghodazari

- The Maharashtra government has approved Ghodazari in Chandrapur district as a new wildlife sanctuary in the state. The sanctuary, in the North East of Tadoba, will include 159 sq km of Brahmapuri forest.

5. Sela pass

- **Context:** Finance Minister Arun Jaitley today announced the government's plan to build a tunnel through the Sela Pass located at an elevation of 13,700 ft which will ensure faster movement of troops in Tawang, a strategically- located town in Arunachal Pradesh bordering China.
- **About the Sela pass:** The Sela pass is located between the Tawang and West Kameng districts of Arunachal Pradesh and considered crucial from strategic perspective. Sela Lake, near the summit of the pass, is one of approximately 101 lakes in the area that are sacred in Tibetan Buddhism.

6. Task force set up to study AI application in military

- The Department of Defence Production has constituted a task force headed by Tata Sons Chairman N Chandrasekaran to study use of artificial intelligence.
- **Significance of AI:** Experts believe that future progress of artificial intelligence (AI) has potential to have transformative impact on national security. It is also seen that AI is essentially a dual use technology. While it can fuel technology driven economic growth, it also has potential to provide military superiority.

7. Cochin Shipyard signs MoU with Russian firm

- The State-owned Cochin Shipyard and the United Shipbuilding Corporation (USC) of Russia have signed a Memorandum of Understanding (MoU) to collaborate and engage in design, development, and execution of contemporary, state-of-the-art vessels for inland and coastal waterways.
- USC, a joint stock company, is the largest shipbuilding holding in Russia incorporating around 40 enterprises including shipyards with more than 300 years experience which have been key contributors to the growth of inland waterways in Russia.

8. 'Exam Warriors'

- **What is it?**
It is a book authored by Prime Minister Narendra Modi for students facing exams. It aims to get through to students across the country on the threshold of examinations, and hopes to help them thread the needle with ease.

9. "Green Good Deeds" campaign

- **What is it?** The campaign has been launched by the Environment Ministry to sensitise the people and students, in particular, about climate change and global warming. The objective of the campaign is to restore and return the clean and green environment to the next generation.

10. Under-19 World Cup

- **Context:** India defeated Australia by 8 wickets to be crowned 2018 Under-19 World Cup Champions.
- **Facts:** India has become the only side in history to lift the coveted title for a record fourth time.

11. Sherin's Law

- **What is it?** It is a new proposed law in the US state of Texas.
- The Law would make it a felony to leave a child at home alone. The Law would also require that any adult who witnesses or has personal knowledge of an abused child report it to authorities within 48 hours.
- **Background:** The law is drafted in Sherin Mathews' name. The 3-year-old was found dead last October with her adoptive parents facing charges in her death.

12. Vinay Sheel Oberoi committee

- **Defence Minister** Nirmala Sitharaman has constituted a 13-member advisory committee to **monitor and expedite capital acquisition projects for the modernisation of the armed forces**. The committee is headed by Vinay Sheel Oberoi.
- The panel will suggest measures to improve the capital acquisition process. The committee will undertake an independent review and check the status of ongoing critical projects worth more than 500 crore rupees.

13. Tawang gets rhododendron park

- In a bid to conserve the dwindling rhododendron species of Tawang, a rhododendron park is being established in Tawang, Arunachal Pradesh. Over 30 species of rhododendron will be planted and conserved in the park. It will also have a modern nursery, an information centre, resting sheds, and a parking facility, among other things.
- **About Rhododendron:** Found in varied habitats from subtropical forest to alpine shrubs, rhododendrons range from dwarf shrubs to large trees. The smallest are *R. nivale* and *R. pumilum* at just 10 to 50 cm while the tallest species, *R. arboretum* grows over 40 metres tall.
- **Where they are found?** The cold, moist slopes and deep valleys of the eastern Himalayas form a conducive habitat for the luxuriant growth of Rhododendron species. Arunachal Pradesh is home to the highest number with 119 taxa (74 species, 21 sub species and 24 varieties) of the Rhododendron. The small State of Sikkim is home to 42 taxa (25 species, 11 sub-species and six varieties) while 10 taxa are found in Manipur, four in Mizoram and 11 in Nagaland.

14. THE World Rankings 2018

- TIMES Higher Education (THE) World University Ranking has released the rankings for educational institutes in Asia and only two Indian institutes have made their way to the top 50 Asian institutes. A total of 17 institutes from India have made their way to the top 200 Asian Universities. Though representation of India has increased in the list, several of the universities have fallen down the rankings in comparison to last year.
- The ranks as released by the THE World University Ranking are:
 - Indian Institute of Science (IISc) – world rank 29.
 - Indian Institute of Technology (IIT), Bombay – world rank 44.
 - Indian Institute of Technology (IIT), Kharagpur – world rank 60.
 - Indian Institute of Technology (IIT), Roorkee – world rank 65.
 - Indian Institute of Technology (IIT), Kanpur – world rank 81.
 - Indian Institute of Technology (IIT), Delhi – world rank 86.

15. “Swachh Bharat Sanitation Park” inaugurated in Delhi

- The **Ministry of Drinking Water and Sanitation**, in collaboration with the Environmental Sanitation Institute and Tata Trusts, has developed a Sanitation Park in New Delhi.
- Objective is to create awareness on various safe technological options.
- The Park demonstrates various options pertaining to toilet technologies and solid and liquid waste management technologies, with a brief description of these technologies.
- The Park also displays information regarding various interventions undertaken under the Swachh Bharat Mission, capturing the success stories and impact created under the Mission across the country.

16. 21st Indian Birding Fair

- The 21st Indian Birding Fair is happening at the Man Sagar Lake, Rajasthan. This year, this fair is dedicated to the **White Naped Tit bird**, which is quite rare in Jaipur and are at the verge of extinction.
- **About White Naped Tit bird:** White-Naped is a robust, strongly patterned, mainly black-and-white coloured bird with yellow in the flanks and sides of the breast. The bird is found in **Udaipur** and in some regions of **Kutch** as well. It is considered **vulnerable to extinction** because of the scarcity of suitable habitats.

17. Janadriyah festival

- **Context:** **Saudi** is celebrating the annual Janadriyah festival. **India** is this year’s guest of honor.
- **About Janadriyah festival:** Janadriyah is the annual national heritage and culture festival named after the village on the northern outskirts of Riyadh. The festival encourages Saudis to celebrate their heritage and to bolster cultural exchange.

18. Manipur gets first woman Chief Justice

- Justice Abhilasha Kumari, Judge of the High Court of Gujarat was recently sworn in as the Chief Justice of the High Court of Manipur.
- She is the **first woman Chief Justice of the High Court of Manipur**.

19. Three new eel species found in Bay of Bengal

- Scientists have discovered three new species of eel along the northern Bay of Bengal coast in the past few months. Eels are found mostly at the **bottom of rivers and seas**. Across the world about 1,000 species of eels have been identified. In India, the number is around 125.
- **Key facts:** Dark brown with white dots on the dorsal side, *Gymnothorax pseudotile* was discovered at the Digha coast of the **Bay of Bengal**. The other two species, *Gymnothorax visakhaensis* (uniformly brown) and *Enchelycore propinqua* (reddish brown body mottled with irregular creamy white spots), were discovered from the Visakhapatnam coast of the Bay of Bengal. *Enchelycore propinqua* is the smallest of them measuring less than a foot.

20. World Radio Day

- **Context:** World Radio Day is celebrated on February 13th.
- **Theme of World Radio Day 2018:** Under the ambit of theme “Radio and Sports” are three sub-themes for World Radio Day 2018. They are: Diversity in Sports Coverage, Gender Equality in Sports Coverage and Peace and Development through Sports Coverage.
- **History of World Radio Day:** The idea of World Radio Day was first proposed by Spain’s Radio Academy in 2010. The following year, in 2011, UNESCO declared the first World Radio Day. February 13 was chosen to mark World Radio Day, coinciding with the anniversary of the United Nations Radio, the United Nation’s international broadcasting service which was established on February 13, 1946. World Radio Day was first celebrated in 2012, following its declaration by the UNESCO General Conference. It was subsequently adopted as an International Day by the United Nations General Assembly.

21. First Hindu Temple Project In Abu Dhabi

- **Context:** Prime Minister Narendra Modi recently officially launched the foundation stone-laying ceremony for the first Hindu temple in the capital of the UAE, home to over three million people of Indian origin.
- **Key facts:** Swaminarayan temple of the Bochasanwasi Shri Akshar Purushottam Swaminarayan Sanstha, the first Hindu temple in Abu Dhabi will come up on 55,000 square metres of land. The temple will be hand-carved by Indian temple artisans and assembled in the UAE. It will be completed by 2020, and open to people of all religious backgrounds. It will be the first traditional Hindu stone temple in the Middle East.

22. Mumbai 12th richest city in the world

- **Context:** Mumbai is placed at 12th position in New World Wealth’s list of top 15 wealthiest cities globally. Mumbai, also features among the top 10 cities in terms of billionaire population. The city is home to 28 billionaires, individuals with \$1 billion or more in net assets.
- **Top performers:** The list of 15 wealthiest cities was topped by New York with a total wealth of \$3 trillion. London ranked second in the list with \$2.7 trillion, followed by Tokyo (\$2.5 trillion), and San Francisco Bay area (\$2.3 trillion).

23. NTPC to supply 300 MW power to Bangladesh

- **Context:** State-run power giant NTPC’s arm NVVN has emerged as the lowest bidder for supply of 300 MW power to Bangladesh for 15 years at an estimated tariff of Rs 3.42 per unit. The company is expecting a revenue of Rs 900 crore every year for supplying 300 MW under a tender floated by Bangladesh Power Development Board (BPDB). At present, India exports approximately 600 MW electricity to Bangladesh.

- India already has power grid links with Bhutan, Nepal and Bangladesh, and is building power projects in the three countries. It also plans to develop power transmission links with Myanmar and Sri Lanka.

24. Soyuz rocket launches cargo freighter to International Space Station

- **Context:** A Russian Soyuz rocket has launched the cargo ship Progress 69 toward the International Space Station.
- **Progress 69** is packed with food, science gear and other vital supplies for the six-person Expedition 54 crew on the International Space Station.

25. International Conference for Reconstruction of Iraq

- The Kuwaiti capital is hosting the second day of an international conference aimed at raising funds for reconstructing Iraq. It will bring together a number of economically powerful countries, as well as regional and international organizations on contributions to rebuild Iraq after many years of war and conflicts.
- The conference will also touch on several developments and vital aspects pertaining to Iraq, including the participation of the private sector in the reconstruction process. The World Bank, as a major contributor to the event, will provide the required investment guarantees for private companies and institutions to participate in the development of Iraq.

26. Indira Gandhi Canal

- **Context:** Rajasthan Government has signed a new loan agreement with the **New Development Bank** for restructuring of Indira Gandhi Canal. The restructuring and repairing of Indira Gandhi Canal and its distributaries will help solve the problems of loss of water and water-locking in the agricultural fields. It will also ensure the supply of irrigation water to the farmers at the tail-ends of the Indira Gandhi Canal Project.
- **About Indira Gandhi Canal:** The Indira Gandhi Canal is one of the largest canal projects in India. It starts from the Harike Barrage at **Harike**, a few kilometers below the confluence of the **Satluj** and **Beas** rivers in the Indian state of **Punjab** and terminates in irrigation facilities in the **Thar Desert** in the north west of Rajasthan state. Previously known as the Rajasthan Canal.

27. Ramalingaswami Re-entry Fellowship Programme

- **Context:** Department of Biotechnology had recently organized a conclave meeting to celebrate the achievements and revisit the journey of the Ramalingaswami Re-entry Fellowship Programme over the years. The 8th Conclave was organized by National Institute of Plant Genome Research (NIPGR).
- **About the Programme:** The Ramalingaswami Re-entry Fellowship was conceived in the year 2006-07 with the idea of encouraging scientists (Indian Nationals) working outside the country and would like to return to the home country to pursue their research interests in Modern Biology, Biotechnology, Life Sciences and other related areas. The principal aim of the scheme is to improve the country's human resource capacity in life sciences, modern biology and biotechnology research – both in terms of development, translation and diffusion by means of attracting young scientists settled abroad.

28. India Pharma 2018 and India Medical Device 2018

- **Context:** India's biggest Annual Conference on Pharma Industry and Medical Devices – India Pharma 2018 and India Medical Device 2018 – has begun at Bengaluru. The event is being organized by Department of Pharmaceuticals (DoP), Ministry of Chemicals and Fertilizers, in collaboration with Federation of Indian Chambers of Commerce and Industry (FICCI).
- **Theme of the event:** Themed around 'Affordable, Quality Healthcare'.

29. Paschim Lehar

- **Context:** 'Paschim Lehar', a tri-service maritime exercise, is being held off India's western coast.
- **About the exercise:** The objective of the exercise is to build interoperability. This exercise includes participation of a large number of ships, submarines and aircraft from the Western Naval Command of the Indian Navy. Units from Eastern Naval Command, Indian Army, Indian Air Force and the Coast Guard are also participating to build interoperability.

30. India's Umang App, Aadhaar win awards at World Government Summit

- India's Aadhaar programme was recognised as the world's largest biometric enabled identification programme at the recently concluded World Government Summit 2018 in Dubai.
- **Umang app** was named winner of the Best M-Government Service Award for the Accessible Government category. The application provides users a unified platform that combines government departments and services, facilitating transactions for citizens.

31. Delhi hosts India's first radio festival

- India's first radio festival was recently held in Delhi. The festival was organised by the International Association of Women in Radio and Television, in collaboration with UNESCO. The event touched on the 2018's theme of World Radio Day – sports and radio – and traced the journey of creativity, music and social changes on the radio.
- **About IAWRT:** IAWRT is a global organization formed by professional women working in electronic and allied media with a mission to strengthen initiatives towards ensuring women's views and values are integral part of programming and to advance the impact of women in media. IAWRT organizes conferences, implements projects undertakes activities collaborates with and media organizations. It is in consultative status with the United Nations Economic and Social Council (ECOSOC). IAWRT is managed by international board, which oversees funding initiatives for a number of local chapters and member activities.

32. Venezuela, Libya Lose UN Vote for Third Time in 3 Years

- **Context:** Venezuela and Libya have been suspended from voting in the U.N. General Assembly for the third time in three years because of millions of dollars in unpaid dues to the world body.
- **Background:** Venezuela must pay a minimum of USD 25,200,296 to restore its voting rights and Libya must pay at least USD 6,594,842. Venezuela is mired in an economic and political crisis and Libya has two rival governments, each backed by an array of militias.

33. First large scale CO₂-injected project in Asia

- **Context:** Oil and Natural Gas Corporation (ONGC) plans to introduce carbon dioxide injection in its Gandhar field to recover an extra 20 million barrels of crude oil under the enhanced oil recovery (EOR) programme which is being undertaken to improve India's energy security.
- While the technology is a proven concept in the West specially the US and Canada, ONGC's project would be the first large scale CO₂-injected project in Asia.

34. National Banana Festival 2018

- **What and where?** National Banana Festival (NBF) 2018 is being held at Kalliyoor, Thiruvananthapuram, Kerala. The festival plays host to a buyer-seller meet, training programmes, documentary screenings, photography contest etc. The festival also includes a national seminar, exhibition, training programmes, farmers' meet and a host of other activities.
- **Who?** The festival is organised by Centre for Innovation in Science and Social action (CISSA) in partnership with Kalliyoor Grama Panchayat and a host of National and State organisations.

35. Theatre Olympics

- **Context:** India is hosting the 8th Edition of Theatre Olympics ‘The Biggest Theatre Celebration of the World’.
- **What?** The Theatre Olympics was established in 1993 in Delphi, Greece, as the first international theatre festival. With the tagline ‘Crossing Millennia’, this is an initiative to connect the cultural past with the present and future, bringing the richness and diversity of theatre heritage to the experiments and research of contemporary theatre. The first country to host the Theatre Olympics was Greece in 1995.
- **Who?** The Theatre Olympics, being held in India for the first time, is being organised by National School of Drama, under the aegis of Ministry of Culture.

36. Sci-tech Oscar Award

- **Context:** Vikas Sathaye, a Pune-born person has been honoured with the Scientific and Engineering Academy Award at the recently held Oscars Scientific and Technical Awards 2018 at Beverly Hills in Los Angeles, California. Sathaye and his team received the award for his contribution towards conceptualisation, designing, engineering, and the implementation of the ‘Shotover K1 Camera System’.
- **About Shotover K1 Camera System:** The Shotover K1 Camera System is a camera mount that is used in aerial filming. The camera mount gets attached to the base of a helicopter, which carries the camera and lens. The primary function of the camera mount is to eliminate any vibration from reaching the camera, thus ensuring a steady footage.
- **About the Awards:** The Academy’s Scientific and Technical Awards honor the men, women and companies whose discoveries and innovations have contributed in significant and lasting ways to motion pictures.

37. Saudi Arabia allows women to open their business without male consent

- **Context:** Women in Saudi Arabia have been given the go-ahead to start businesses without the permission of a male guardian.
- In the past women needed a guardian’s approval and had to visit a notary to document the founding of a company.

38. Saras

- **Context:** The indigenous light transport aircraft (LTA) Saras PT1N recently completed the second of the proposed 20 test flights.

What is Saras?

- SARAS PT1N is first Indian multi-purpose civilian aircraft in light transport aircraft category.
- It is an indigenous aircraft developed by the National Aeronautics Laboratories (NAL), which is overseen by the Council of Scientific & Industrial Research (CSIR).

39. Mizoram to get first regional agricultural centre with Israeli collaboration

- **Context:** A regional centre for agriculture has been set up with Israeli collaboration in Mizoram – the first of its kind in the northeast region. The centre has been set up to exclusively process citrus fruits.
- **Background:** There are 22 such centres operational in India, including in Haryana, Gujarat, Madhya Pradesh, Rajasthan and Punjab. The first such centre was established in 2008 in Haryana.

40. International Mother Language Day: 21 February

- **Context:** The United Nations’ (UN) International Mother Language Day annually celebrates language diversity and variety worldwide on February 21. With this, UNESCO aims at preserving it and promoting mother tongue-based multilingual education.
- **The theme of 2018’s** International Mother Language Day is ‘linguistic diversity and multilingualism for sustainable development.’

- **SDG4:** International Mother Language Day also supports target 6 of Goal 4 of the Sustainable Development Goals (SDGs): “Ensure that all youth and a substantial proportion of adults, both men and women, achieve literacy and numeracy.”
- **Background:** There are more than 7,000 languages in the world; India alone has about 22 officially recognised languages, 1635 rationalised mother tongues, 234 identifiable mother tongues, according to Census 2001.

41. India to host World Environment Day 2018

- **Context:** India is the global host of 2018 World Environment Day which will take place on June 5, 2018.
- **Theme:** “Beat Plastic Pollution”.
- **Background:** World Environment Day is a UN Environment-led global event, the single largest celebration of our environment each year, which takes place on June 5 and is celebrated by thousands of communities worldwide. Since it began in 1972, it has grown to become a global platform for public outreach that is widely celebrated across the globe.

42. Prithvi-II

- **Context:** Nuclear-capable medium range surface to surface missile Prithvi-II was successfully test-fired recently off the Odisha coast.

Key facts:

- Prithvi-II, which has a strike range of **350 km**, is capable of carrying 500-1,000 kg of warheads and is thrust by liquid propulsion twin engines.
- Prithvi is India’s first indigenously-built ballistic missile. It is one of the five missiles being developed under the country’s Integrated Guided Missile Development Programme.

43. YH Malegam committee

- **Context:** The Reserve Bank of India (RBI) has constituted an expert committee under the chairmanship of Y H Malegam.
- **What for?** To look into the entire gamut of issues relating to classification of bad loans, rising incidents of frauds and effectiveness of audits.

44. All-Women Railway Station In Jaipur’s Gandhinagar A First For Rajasthan

- **Context:** Gandhi Nagar railway station in Jaipur has now become India’s first and only major railway station run fully by women – from ticket checker to station manager.
- It is the country’s first all Women non suburban railway Station.

45. RBS hires ‘digital human’ Cora on probation

- **Context:** NatWest, a bank in UK, has developed a new “digital human” prototype called Cora to have conversations with customers and help them out with banking queries.
- **About Cora:** The digital teller answers simple questions on getting a mortgage or what to do if a customer loses their card. The AI-driven personality can answer more than 200 banking queries.

46. UP Cabinet approves ‘one district, one product’ scheme

- **Context:** The Uttar Pradesh Cabinet has approved ‘one district, one product’ scheme to promote products indigenous to every district.

Details:

- ODOP is aimed at giving a major push to traditional industries synonymous with the respective districts of the state.
- Under this, one product indigenous to every district would be showcased at the three-day UP Diwas event.

- This will boost economic development of the state, and also help in generation of five lakh new jobs annually.

Background:

- ODOP is basically a Japanese business development concept, which gained prominence in 1979.
- It is aimed at promoting a competitive and staple product from a specific area to push sales and improve the standard of living of the local population.
- Over time, it has been replicated in other Asian countries as well.

47. National Integration Tours

- **Context:** As part of the Indian Army's ongoing outreach programme to foster the spirit of National Integration across the entire swathe of the country, a tour for students from Manipur is being organised.

About:

- National Integration Tours are educational and motivational tours for youth of North Eastern States and J&K, with an aim to provide an insight into the rich heritage of the country as well as various developmental and industry initiatives that are underway.
- This initiative will expose them to various career options and enable them to interact with renowned personalities.

48. 5th International Data Science summit

- **Context:** 5th international data science summit was recently held in **New Delhi**.
- The conference was attended by around 130 delegates from Corporate Officers and executives involved in strategy, Government Policy Planners, Academic institutions, Electrical utilities, Researchers and Developers along with Standards Development Organizations.
- **Organizer:** Bureau of Indian Standards (BIS), the National Standards Body of India, in association with Data Science Foundation organized the summit.

49. 'Dhanush' ballistic missile

- **Context:** Nuclear-capable 'Dhanush' ballistic missile was recently test fired.
- **Key facts:**
 - It is a surface-to-surface missile. It has a strike range of 350 km.
 - It is a naval variant of the indigenously-developed 'Prithvi' missile.
 - It is capable of carrying a payload of 500 kg and hitting both land and sea-based targets.
 - The single-stage, liquid-propelled 'Dhanush', has already been inducted into the defence services.
 - It is one of the five missiles developed by the Defence Research and Development Organisation (DRDO) under the Integrated Guided Missile Development Programme (IGMDP).

50. Drypetes kalamii

- **What is it?** It is a new plant species identified by scientists from the Botanical Survey of India from two protected National Parks in West Bengal.

Key facts:

- Named Drypetes kalamii, it is a small shrub found to be shorter version of its close relative Drypetes ellisii.
- Standing just 1 metre tall, the newly described plant is **unisexual in nature**, which means they have separate male and female plants.
- By following the IUCN (International Union for Conservation of Nature) rules, the scientists have provisionally assessed **the plant to be "Critically Endangered"**.
- The new species is found in wet, shaded areas of subtropical moist semi-evergreen forests, at a height ranging 50-100 metres.
- With pale yellow flowers in clusters and bright orange to red fruits, **the plant is exclusive to the two national parks- Jaldapara and Buxa National Parks**.

51. SRIJAN

- **What is it?** 'SRIJAN' (**Station Rejuvenation Initiative through Joint ActioN**) is an idea competition for 635 Station Development on Indian Railways. It has been launched at MyGov portal.
- The winner for logo competition will get cash prize of Rs 75,000/-and for tagline also will get Rs 75,000/-.

52. UIDAI's Blue Coloured New Aadhaar Card

- **Context:** UIDAI has introduced a blue coloured '**Baal Aadhaar**' card for children below the age of 5 years. Blue coloured Aadhaar data does not include biometric information like fingerprints and iris scan.
- Once the child crosses the age of five, biometrics should be updated.
- Aadhaar, the 12-digit unique identity number issued by the Unique Identification Authority of India (UIDAI), is a compulsory identity card.
- It is **not mandatory** for children under 5 to get an Aadhaar card.
- However, it is needed for attending educational programmes overseas and availing of government scholarships.

53. September 22 as Rhino Day

- **Context:** The Assam government will be observing September 22 as Rhino Day to generate public awareness on protection of the one-horned pachyderm.
- **Key facts:** The greater one-horned rhinoceros is the largest of the three Asian rhinos and, together with African white rhinos, is the largest of all rhino species. It is listed as Vulnerable on the IUCN Red List. With at least half of the total population, India's Kaziranga National Park remains the key reserve for this species.

54. Viral load testing

- **Context:** The government has launched a scheme to provide free of cost viral load testing, at least once a year, for 1.2 million people who are living with HIV/AIDS (PLHIV) and are on treatment.
- **What is it?** The viral load is used to monitor the effectiveness of Antiretroviral Therapy (ART) over time. It measures the amount of HIV genetic material (RNA) in the blood and reports how many copies of the virus are present.

55. 4G network on Moon in 2019

- Vodafone is planning to create the first 4G network on the moon by 2019. The company has appointed Nokia as its technology partner for the 4G network. This will be the first privately-funded moon landing mission.

56. Maldives rejects India's Milan naval exercise invite

- Maldives has declined New Delhi's invitation to participate in the biennial naval exercise Milan.
- Milan: The biennial naval exercise, Milan, is being organised at the Andaman and Nicobar Islands. The aim of the exercise is to expand regional cooperation and combat unlawful activities in critical sea lanes.
