# Table of Contents

## GS I

1. **Paper 1 Topic: Modern Indian history from about the middle of the eighteenth century until the present**
   - Significant events, personalities, issues. ............................................................... 6
2. Independence Day ............................................................................................................. 6
3. DoNER (Ministry Of Development Of North Eastern Region, North East India) Minister Remembers Tirot Sing’s Contribution to Freedom Struggle .................................................. 6
4. **Paper 1 Topic: Salient features of Indian Society, Diversity of India** .......................... 6
5. More toilets only mean more scavengers, says Bezwada Wilson ................................. 6
6. ICHR plans encyclopedia of village folklore from across India ........................................ 8
7. **Paper 1 Topic: Indian culture will cover the salient aspects of Art Forms, Literature and Architecture from ancient to modern times.** ................................................................. 8
8. Buddhist remains unearthed in A.P. ................................................................................. 8
9. Topic – Paper -1: Geography of India ............................................................................. 10
10. Heavy rainfall not linked to global warming, says IIT study .......................................... 10
11. India to run short of high-tech minerals ........................................................................ 10

## GS II

12. **Paper 2 Topic: Separation of powers between various organs dispute redressal mechanisms and institutions.** .......................................................................................... 12
13. Mahadayi tribunal term extended .................................................................................. 12
14. **Paper-2: Salient features of constitution** .................................................................. 12
15. Tax is not a barrier to free trade, says SC ..................................................................... 12
16. Blow to AAP as HC says L-G is Delhi’s administrative head .......................................... 13
17. **Paper 2 Topic: Structure, organization and functioning of the Executive and the Judiciary Ministries and Departments of the Government; pressure groups and formal/informal associations and their role in the Polity.** ......................................................................................................................... 13
18. ‘HCs have just a few minutes to hear each case’ .............................................................. 13
19. EC to now review national, State status of political parties every 10 years .................... 14
20. **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.** ................................................................. 14
21. Now, direct election of local body chiefs to be scrapped ................................................. 14
22. **Paper 2 Topic: Statutory, regulatory and various quasi-judicial bodies.** ....................... 15
23. Central Board for Workers’ Education renamed ............................................................ 15
24. NHRC registering more cases, says there is more awareness ......................................... 15
25. **Paper 2 Topic: Government policies and interventions for development in various sectors and issues arising out of their design and implementation.** ......................................................... 16
26. ‘Fail-safe’ system .......................................................................................................... 16
27. Madras HC disposes of pleas challenging classical status to Kannada, Telugu, Malayalam 16
28. LS passes bill on higher compensation for employee’s injury ......................................... 16
29. Parliament passes bill for easier debt recovery ............................................................... 16
30. MPs petition PM for hike in MPLAD Fund .................................................................... 17
Gujarat’s new land acquisition Bill approved by the President of India

Should the Indian Standard Time (IST) be advanced to 6 hours?

Central Agricultural University (Amendment) Bill, 2016

Centre accepts some suggestions of collegium

Centre notifies Good Samaritan SOPs

Central Scheme for Assistance to Civilian Victims of Terrorist / Communal / Left Wing Extremist Violence and Cross Border Firing and Mine/IED Blasts on Indian Territory

Dignity and Self-Respect: a new mantra for Swachh Bharat Mission

No role in Lokpal nominations: Centre to SC

First Phase of Saurashtra Narmada Avataran For Irrigation Project

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

- Special status for Andhra Pradesh: MPs raise slogans
- In botched sterilisation deaths, India matches Bangladesh
- MAA– a programme to promote breastfeeding
- Govt pledges ‘foot & mouth disease’ free India, extends scheme to 16 more states
- GM mustard trials: CIC asks govt to reveal bio-safety data
- Prices of essential drugs capped
- Cabinet approves introduction of the “Surrogacy (Regulation) Bill, 2016”
- Indians spend 8 times more on private hospitals than on govt. ones
- Pellet guns are here to stay; committee suggests alternatives
- First meeting of newly constituted National Council of Senior Citizens held
- 327% rise in agrarian riots in 2015, NCRB report shows

**Paper 2 Topic: Development industry**

- Foreign funds pour in: 3,000 NGOs get over Rs. 22,000 cr.

**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.**

- Paid maternity leave increased to 6 months
- Sakshi Malik announced brand ambassador of Beti Bachao, Beti Padhao campaign
- South India’s first Children’s Court in Hyderabad

**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.**

- NSEL settlement scandal is back in spotlight
- New steps to enhance transparency in Power Sector
- Web Portal for Star Rating of Major Mineral Mines
- Digital Locker Authority soon to push paperless governance
- POCSO e-Button
- PM’s annual award for extraordinary and innovative work instituted
- Centre moves on vote totaliser machines
Annual Report of ‘Crime in India – 2015’ ...........................................................................................................33

Paper 2 Topic: Bilateral, regional and global groupings and agreements involving India and/or affecting India’s interests. ..............................................................................................................................33

- Call to remove IP clauses from trade pact ................................................................................................................33
- BRICS Women Parliamentarians’ Forum adopts Jaipur Declaration ........................................................................33
- Myanmar to support Silk Road, BCIM .........................................................................................................................34
- India and Germany join hands on skill agenda .............................................................................................................34
- Join agreement against parental abduction: U.S. ............................................................................................................34
- Cabinet approves signing of Air Services Agreement between India and Fiji ................................................................35
- India, U.S. to sign logistics agreement .......................................................................................................................35
- India, Myanmar sign four agreements .....................................................................................................................35

Paper 2 Topic: Effect of policies and politics of developed and developing countries on India’s interests, Indian diaspora..............................................................................................................................................36

- Saudi King orders resolution of foreign workers’ issues .............................................................................................36
- U.S.’ security assistance to Pakistan falls by 73 per cent since 2011 ...........................................................................36
- Silk Road’ train to reach Afghanistan ..........................................................................................................................37

Paper 2 Topic: Important International institutions, agencies and fora, their structure, mandate. 37

- India to reject UN team’s request to visit Kashmir, expose Pakistan’s role in unrest ............................................37

GS III .........................................................................................................................................................................39

Paper 3 Topic: Indian Economy and issues relating to planning, mobilization of resources, growth, development and employment .............................................................................................................39

- Bill to amend Sarfaesí, debt recovery tribunal Acts cleared by Lok Sabha ..................................................................39
- Cabinet nod for changes to FDI regulations in NBFCs ....................................................................................................39
- Centre may ease regulatory norms for Exim Bank, ECGC ................................................................................................40
- Provide loans to women SHGs at 7 per cent: RBI to banks ............................................................................................41
- Banks to issue Masaia bonds, RBI opens currency markets ..........................................................................................41
- CBDT signs 20 Unilateral Advance Pricing Agreements with Indian taxpayers .............................................................42

Paper 3 Topic: Effects of liberalization on the economy, changes in industrial policy and their effects on industrial growth..............................................................................................................................................42

- Steel industry seeks extension of MIP ............................................................................................................................42
- Frequently Asked Questions (FAQs) on Goods and Services Tax (GST) .......................................................................43
- Ministry wants SEZs’ tax sops to continue ......................................................................................................................47

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 ................................................................................................................................................................................................48

- More cold chains, food parks to boost farm incomes ....................................................................................................48
- 9 new breeds of indigenous livestock registered ............................................................................................................49

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 ................................................................................................................................................................................................50

- Drones better than satellites to gauge crop loss, says panel .............................................................................................50
Paper 3 Topic: infrastructure.................................................................................................................. 50
TRAI for strict quality norms .................................................................................................................. 50
CAG uncovers roads to nowhere .............................................................................................................50
India set to seize big opportunity in logistic costs saving through Sagarmala .................................. 51
Suresh Prabhu announces four new trains .............................................................................................52
Maharashtra becomes first state to sign MoU for regional air links .....................................................52

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 ......................................................................................................................................................52

ScatSat- 1 to help in predicting cyclones ...............................................................................................52
Doppler radar to boost weather forecasting ...........................................................................................53
Fly on rails: Global tenders floated to induct Maglev trains ................................................................53
Deep Brain Stimulator ............................................................................................................................53
Global Innovation Index: India moves up to 66th rank this year .............................................................54

Paper 3 Topic: Awareness in the fields of IT, Space, Computers, robotics, nano-technology, bio-
technology and issues relating to intellectual property rights ..............................................................54

Move over chemo, now harness the immune system to fight cancer ....................................................54
NASA to explore asteroid Bennu during its close encounter with Earth ..............................................55
First human genetic editing trial in China ...............................................................................................56
IBM’s technology may help detect cancer early .....................................................................................56
Sorting bioparticles at the nanoscale .......................................................................................................56
AYUSH drugs to get trial guidelines .......................................................................................................56
It’s another giant leap, says Moon Express co-founder .........................................................................57
India climbs 15 spots in innovation ranking ..........................................................................................57
Ques satellite ...........................................................................................................................................58
Indians online to hit 730 mn by 2020 .....................................................................................................59
U.S. set to hand over Internet’s naming system to ICANN ....................................................................59
India ranks 39th in Asia Pacific on fixed broadband ..............................................................................60
NASA set to launch asteroid space dust probe ......................................................................................60
Centre sets up panel to suggest steps to promote card payments .........................................................61
ISRO successfully test-fires scramjet engine ............................................................................................62
NASA’s Juno Spacecraft Completes Its First, And Closest, Jupiter Flyby ...........................................62

Paper 3 Topic: conservation, pollution;..................................................................................................62
Dwindling prey bad news for big cats, wolves, says study ................................................................. 62
NGT steps in to check Periyar pollution .................................................................................................62
Emissions from ships can impact monsoon activity over Bay of Bengal .............................................63
NHAI collaborates with PFC under Adopt a Green Highway Program .............................................63
BARC develops portable kit for detection of Chromium contamination of water ..........................64
BRO Launches Ambitious Tree Plantation Drive ....................................................................................64
Sunshine, seaweed help to break down dye waste ..............................................................................64
DAILY CURRENT EVENTS

AUGUST 2016

Poor air quality across 41 cities in 2015, says CPCB survey .................................................. 65
Gujarat becomes the first state to distribute 2 crore LED Bulbs under UJALA .......................... 66

Paper 3 Topic: disaster management ......................................................................................... 66
Kudankulam plant safest in the world, says Russian official ....................................................... 66
NDRF rescues 10,000 people ....................................................................................................... 67
‘Don’t blame nature, bolster disaster preparedness,’ says parliamentary panel on Chennai deluge 68
Report on the Spot Study of Water Situation in Drought Affected Areas of the country ........ 68

Paper 3 Topic: Security challenges and their management in border areas; linkages of organized crime with terrorism ................................................................................................................. 69
Madhukar Gupta Committee on India-Pakistan border submits report .................................. 69

Paper 3 Topic: Linkages between development and spread of extremism ................................ 69
Former BSF D-G to head Naga ceasefire monitoring group ..................................................... 69
14 killed as Bodo rebels attack market in Kokrajhar ................................................................. 71

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 .............................................................. 72
Marans want money-laundering case shifted; ED opposes their bail ....................................... 72
Ponzi schemes not under our purview: SEBI ............................................................................ 72
Maharashtra to have own law for internal security ................................................................. 74
‘Cybercrimes have risen 4-fold in 3 years’ ............................................................................. 74
MHA oversight for all NGOs? .................................................................................................. 74

Paper 2 Topic: Role of external state and non-state actors in creating challenges to internal security 75
India plans anti-terror drive at NAM ......................................................................................... 75

Facts for Prelims .............................................................................................................................. 76
Norway considers a birthday gift for Finland ............................................................................ 76
Former Karnataka Lokayukta charged with abetting corruption, extortion .......................... 76
Global Green Award/ Mission Bhagiratha/ Sachet ................................................................. 77
Gaofen-3/ Amitabh Kant Committee ......................................................................................... 78
Kudankulam Nuclear Power Project (KKNPP)/ Croatia/ Central Silk Board ....................... 78
Lothal ........................................................................................................................................... 80
Daimond Quadrilateral/ Greenland Sharks/ s-400/ Rhino Horn Verification .......................... 80
Krishna Pushkaralu/ LPG Subsidy Savings/ MS Subbalakshmi/ 100 million for 100 million/ Bharatavani 82
Smart Ganga City Programme ................................................................................................. 82
Navroz/ RMSC ............................................................................................................................ 83
SAARC Youth Conference/ Sakshi Malik .................................................................................... 83
Airlender 10 ............................................................................................................................... 83
PV Sindhu/ Project Alloy/ XMU-MP-1 ......................................................................................... 84
Ujita Patel- New RBI Governor/ Longest Glass Bridge/ New eel species ............................... 84
Knight of order of Arts and Letters/ Bavar 373/ Assocham study ........................................ 85
Sunita Jain/ National Sports Awards 2016 ............................................................................... 85

© www.insightsonindia.com 5 © www.insightsias.com
Akashvani Maitree/ India: 7th Wealthiest country .........................................................86
Sugamya Pustakalay/ Udaipur Declaration .................................................................86
World’s largest marine protected area Papahanaumoknakea/ 19th SAARC Summit.....86
Pharma Sahi Daam/ Mera Aspatal/ SAARCSTAT/ West Bengal is now Bengal & Bangla87
Operation Muskaan-II/ Asli Tarakki ..................................................................................87

GS I

Paper 1 Topic: Modern Indian history from about the middle of the eighteenth century until the present
significant events, personalities, issues.

Independence Day

India is celebrating its 70th Independence day today. The country became independent from British colonialism on this day in 1947.

Background:
On the 15th day of August, 1947, India’s freedom struggles finally found closure. British Raj, or as all know it, the British colonial rule in India ended on this day.

Why 15th August was chosen?

Based on Mountbatten’s inputs the Indian Independence Bill was introduced in the British House of Commons on July 4, 1947 and passed within a fortnight. It provided for the end of the British rule in India, on August 15, 1947, and the establishment of the Dominions of India and Pakistan, which were allowed to secede from the British Commonwealth.

The date was chosen by Lord Mountbatten himself because he had considered this date to be lucky. It was on this day during the World War II, that the Japanese Army surrendered to the allies.

Sources: the hindu.

DoNER (Ministry Of Development Of North Eastern Region, North East India) Minister
Remembers Tirot Sing’s Contribution to Freedom Struggle

The sacrifices of Tirot Sing, the legendary freedom fighter from Meghalaya, were recently commemorated. The function was part of a 15-day campaign undertaken by the Government of India to hold a series of programmes across the country to commemorate the sacrifices of the freedom fighters at their respective places of origin.

About Tirot Sing:

Tirot Sing was one of the greatest freedom fighters to hail from the northeast. In the attempt to prevent the Khasi Hills from falling into colonial hands, Tirot Sing, a Khasi chief, had raised the battle cry against the invasive British forces on April 4, 1829, but was eventually captured and defeated. He died in captivity in Dhaka on July 17, 1835.

Sources: pib.

Paper 1 Topic: Salient features of Indian Society, Diversity of India.

More toilets only mean more scavengers, says Bezwada Wilson

The Ramon Magasaysay award has turned the spotlight on manual scavengers again but the shadow of Swach Bharat looms over them, says one of this year’s awardees, Bezwada Wilson — one of the founders and convener of the Safai Karmachari Andolan, a civil society movement that aims to eradicate manual scavenging.

Many of these toilets will be constructed in areas where sanitation facilities, including septic tanks and running water, are not available. Who will remove the waste there?

There are two lakh manual scavengers in India today, nearly all of them concentrated in North India.

The Safai Karmachari Andolan and its convener firmly believe the perpetuation of caste-based occupations in the country has trapped Dalits in demeaning occupations like manual scavenging.

Safai Karmachari Andolan (SKA)

- It is a civil society movement committed to the total eradication of manual scavenging and the rehabilitation of all scavengers for dignified occupations.
- In 1994, Bezwada helped found Safai Karmachari Andolan (SKA) along with S. R. Sankaran and Paul Diwakar.
- SKA’s goal is to end the practice of manual scavenging and help those engaged in it find dignified work.
SKA trains teams to work towards the elimination of manual scavenging in various Indian states. SKA initially worked on the state level, until 2003 when Bezwada and four other team members moved to Delhi to launch the Safai Karmachari Andolan nationwide.

Bezwada Wilson
- He is an Indian activist and one of the founders and National Convenor of the Safai Karmachari Andolan (SKA)
- He is well known as one of the leading figures of the Dalit movement in India.
- His work at SKA, a community-driven movement, has been recognized by the Ashoka Foundation which has nominated him a Senior Fellow.
- On July 27, 2016, he was honoured with the Ramon Magsaysay Award.

What is Manual Scavenging?
"Manual scavenger" means a person engaged in or employed for manually carrying human excreta and the expression "manual scavenging" shall be construed accordingly.

**Statistics**

The practice of manual scavenging, officially banned since decades in India, continues with impunity in several States.

- The latest Socio-Economic Caste Census data reveals that 1, 80, 657 households are engaged in this degrading work for a livelihood.
- Maharashtra, with 63,713, tops the list with the largest number of manual scavenger households, followed by Madhya Pradesh, Uttar Pradesh, Tripura and Karnataka, as per Census data.

**Measures taken by the government to end manual scavenging**

- In 1968-81, the Ministry of Home Affairs took up the Centrally Sponsored Scheme for Liberation of Scavengers by way of conversion of existing dry latrines into low cost pour flush latrines and providing alternative employment to the unemployed scavengers as one of the measures for removal of Untouchability and providing financial assistance in selected towns.
- A Task Force constituted by the Planning Commission in July 1989 on the subject suggested for separate scheme for liberation and rehabilitation. It also explored the bases for the enactment of certain legislation to ban construction and continuation of dry latrines and prohibit the practice of manual scavenging.
- In 1992, the scheme of 'Liberation of Scavengers' was bifurcated.
- For conversion of dry latrines into water borne flush latrines, an Integrated Low Cost Sanitation (ILCS) Scheme, was started.
- The National Scheme for Liberation and Rehabilitation of Scavengers and their Dependents (NSLRS) was started for providing alternative employment to the liberated scavengers and their dependents.
- Taking into consideration the seriousness of the problem and the requests of the State Governments, Parliament enacted the “Employment of Manual Scavengers and Construction of Dry Latrines(Prohibition) Act, 1993”. The Act, inter alia, provides that no person shall:-
  - engage in or employ for or permit to be engaged in or employed for any other person for manually carry human excreta; or
  - Construct or maintain a dry latrine
Nevertheless, there were reports of existence of manual scavenging. The Houselisting and Housing Census, 2011 reported that there are about 26 lakh insanitary latrines in the country. Accordingly, the Parliament passed the ‘Prohibition of Employment as Manual Scavengers and their Rehabilitation Act, 2013’ (MS Act, 2013) which came into effect from 6th December, 2013

The objectives of 2013 Act

- Eliminate the insanitary latrines.
- Prohibit:-
  - Employment as Manual Scavengers
  - Hazardous manual cleaning of sewer and septic tanks.
- Survey of Manual Scavengers and their rehabilitation

Main features of the 2013 Act

- Definitions of manual scavengers and insanitary latrines widened to cover not only dry latrines but other insanitary latrines as well.
- Offences under the Act are cognizable and non-bailable and attract stringent penalties.
- Vigilance/Monitoring Committee at sub-Division, District, State and Central Govt. levels.
- National Commission for Safai Karamcharis (NCSK) would, inter alia, monitor implementation of the Act and enquire into complaints regarding contravention of the provisions of the Act.
- Provision of construction of adequate number of sanitary community latrines in urban areas, within three years from the date of commencement of this Act to eliminate the practice of open defecation.

Constitutional safeguards:

- Article 14: Equality before law. (Right to Equality)
- Article 16 (2): Equality of opportunity in matters of public employment
- Article 19 (1)(g) : Right to Freedom (Protection of certain rights regarding freedom of speech), to practice any profession, or to carry on any occupation, trade or business.
- Article 21 : Protection of life and personal liberty
- Article 23 : Prohibition of child labour in human beings and forced labor

ICHRI plans encyclopedia of village folklore from across India

ICHRI is planning a mammoth encyclopedia of Indian villages complete with its heroes, myth, ballads and history as well as histories of princely states.

Why?
This initiative aims to connect people better with the oral and folk traditions.

What else?
Along with this, ICHR is also planning to conduct a study of the princely States of modern India and studies to fill the gaps between the Harappan civilisation and the 6 century BC. The idea behind doing the history of princely states is to showcase their contribution and how Indian culture was protected by them.

Is it necessary?
According to historians, the present generations are gradually delinking themselves from their cultural heritage. Hence, they think it’s their responsibility to collect, preserve and transmit this knowledge of history for the generations to come.

How it will be carried out?
The students of history will be taken as apprentices, as barefoot historians, and will be encouraged to collect information of the villages around them. For these projects, the ICHR would seek part funding by corporate houses.

Sources: the hindu

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

Buddhist remains unearthed in A.P.

- Buddhist remains on a mound called ‘Ernamma Pallu Dibba’ behind the Zilla Parishad High School at Ghantasala in Krishna district were unearthed on Sunday.
- limestone pillars carved with half-lotus medallions, two limestone panels and a fragment of a Buddha image were visible
- These remains, basing on the style of art and architecture are datable to the 3rd Century AD — i.e., Ilkhwaku times

Background

- Emergence of Buddhism and Jainism helped in the development of early architectural style.
- Buddha’s burial mounds and places of major events in his life became important landmarks of the significant architectural buildings in the country. These became important sites for Buddha’s order of monks and nuns — the sangha.
- Monasteries (viharas), and centres of preaching, teaching and learning came up at such places. Congregational halls (chaitya) for teaching and interaction between the common people and the monks were also built up.
From now on religion began to influence architecture. While Buddhists and Jains began to build stupas, Viharas and Chaityas, the first temple building activity started during the Gupta rule.

**Salient features of Buddhist Stupa**
The Buddhist Stupas were built at places where Buddha’s remains were preserved and at the major sites where important events in Buddha’s life took place. Stupas were built of huge mounds of mud, enclosed in carefully burnt small standard bricks.

- The Buddhist Stupa is a form of architecture, comprising a hemispherical dome, a solid structure into which one cannot enter.
- The stupa is a glorified, beautified, enlarged funerary mound: what was once the resting place of the bones and ashes of a holy man.
- Tradition has it that after the great demise of Lord Buddha, Emperor Ashoka decided to construct a large number of stupas throughout his dominion in memory of the Master and enshrine in them relics such as pieces of bones, teeth, hair etc., over which the Stupas were constructed.
- Originally the stupa was made of bricks and surrounded by a wooden railing.
- The existing stupa at Sanchi encloses the original stupa and has been enlarged and enclosed within the stone railing or balustrade, when stone was adopted in the place of wood.
- To the stupa which consisted of a domical structure, a base, sometimes circular, sometimes square, was added in the 1st century B.C., a circumambulatory path as well as the stone railing with four elegantly carved gateways in the four cardinal directions.
- In place of the original wooden umbrella, which was put up to signify the stupa represented and was built over the ashes of the Lord or his immediate disciples, a sign of royalty and dignity, developed in the course of time an interesting composition on top of the dome, the Harmika; a square Buddhist railing from which rises the shaft that holds the imperial umbrella, sometimes single and later on multiplied to three or even more, diminishing in size as they go upwards.
- The Sanchi Stupa has a diameter of 120’ and a height of 54’.
- About these gateways one thing stands that most of early Indian architecture was of wood and timber and that these are true imitations in stone of early wooden construction.
- One was built at his birthplace Lumbini; the second at Gaya where he attained enlightenment under the Bodhi Tree, the third at Sarnath where he gave his first sermon and the fourth at Kushinagar where he passed away attaining Mahaparinirvana at the age of eighty.

**Architectural elements of excavated caves**

- The excavated cave is the magnificent prayer hall or Chaitya is found at Karle in the Poona
- This has been excavated from the living rock and is unparalleled for its lofty and elevated impression. The size is truly stupendous.
- With well proportioned great and bulky pillars, carrying capitals of great originality holding up a vaulted roof that has real rafters of timber inserted into it, a ribbing inherited and copied from wooden structure.
The columns are strong and bulky, surmounted by sculptured capitals. In the far distance there is a stupa with a wooden umbrella on top and astonishingly the original wood has survived unharmed to this date.

**Railings and Gateways**

- The railing and gateways at Bharhut, Sanchi and Bodh Gaya are the most famous in the north and at Amravati and Nagarjunakonda in the South.
- Upright pillars and cross bars, based on wooden construction, were made and provided the occasion for dome of the finest low relief carvings to be found anywhere in Indian art.
- On these surfaces are carved the favourite symbols of Buddhism, the lotus, elephant, bull, lion and horse and some of the Jataka stories of the previous births of Buddha, depicted in low relief with such exuberant details that they are considered a landmark in the story of Indian art.

**Heavy rainfall not linked to global warming, says IIT study**

- A study carried out by researchers at IIT Bombay has found that extreme rainfall events over India do not have significant association with land surface air temperature over India and sea surface temperature over the central Indian Ocean.
- The results are contrary to the general notion that increased summer temperature is responsible for extreme summer monsoon rainfall events witnessed in some parts of India.
- The claim is not really that climate change is not important. But the novel results indicate that the local warming is not the controlling factor.
- The clues are in the rapid warming of the Indian Ocean and the changing roles of the Arabian Sea, Bay of Bengal and the Indian Ocean in monsoon variability and extremes. It is the nonlocal controls that are of great importance.
- The new generation climate model and historical simulations tend to over-estimate the association between extreme rainfall events and temperature.
- We must be careful while using climate change for estimating future changes in extreme rainfall with increasing temperature over India and Central Indian Ocean.

**India to run short of high-tech minerals**

- India will be woefully short of critical minerals necessary for developing clean-energy applications, infrastructure for its solar mission and for manufacturing high-technology products in the future.
- The country will be heavily dependent on China in the coming years to source these materials for its manufacturing sector, says a report commissioned by the Department of Science and Technology.
- The study, conducted by the think-tank Council on Energy Environment and Water, identifies 12 minerals out of 49 that were evaluated as 'most critical' for India's manufacturing sector by 2030.
These are beryllium, chromium, germanium, limestone, niobium, graphite, rare earths, rhenium, strontium, tantalum and zirconium.

Other minerals like limestone and graphite, while currently abundantly available in India, are deemed ‘critical’ because extractable resources could be scarce in the future.

For others, the report says, India is 100 per cent import-dependent for seven out of 12 identified critical minerals and does not have any declared resources for them, except light rare-earths (found along with monazite sands) and beryllium.

Rare earths are a group of 17 minerals necessary for making everything from nuclear reactors to flat-screen televisions, and, China currently controls 94 per cent of their global supply.

Firming up trade

India, therefore, will need to firm up diplomatic trade channels and long-term supply contracts.

Almost a quarter of India’s GDP now comes from manufacturing, though this is currently dominated by low-value industries.

The pricey minerals are used in industries and sectors such as aerospace, automobiles, cameras, defence, entertainment systems, laptops, medical imaging, nuclear energy, and smartphones.
• China is currently a leading global supplier for six out of the 12 mineral resources identified as critical for India by 2030.
• Though India is endowed with vast mineral resources — it is among the top five nations with reserves of rare-earth minerals — its potential is untapped
• For instance, minerals and metals such as bismuth, cadmium, gallium, germanium, indium, molybdenum, rhenium, selenium and tin are generally recovered as a by-product during processing of primary ores (lead, zinc, copper, molybdenum and aluminum).

‘Lost opportunity’
• “India has high production for these primary metals, yet no sign of by-product recovery [except tin] is evident so far. This is a lost opportunity, and demands suitable R&D interventions and policy support,
• The CEEW study comes on the heels of the National Mineral Exploration Policy, 2016 (NMEP).

GS II

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

Mahadayi tribunal term extended

The government has issued a notification extending the term of Mahadayi tribunal for a year. This could prolong the dispute between Karnataka and Goa over river water sharing.

• An extension of term is provided in the normal course if the tribunal’s work is not completed within the stipulated period.
• Under proviso to Section 5 (2) of the Inter-State River Water Disputes Act, the power is vested in the government which appointed the tribunal to extend its tenure.

Background:
A water disputes tribunal set up under the Act is originally meant to complete its assigned work in three years. If the work is not completed, the government can extend its tenure by a year and further by a second year. The tribunal is yet to examine few witnesses. Its current tenure expires on August 20.

About the dispute:
The Karnataka government and Goa government are fighting on sharing of waters of the Mahadayi river (called Mandovi in Goa).

• Mahadayi, also known as the Mandovi river, is known as a lifeline in the northern parts of Karnataka. The river originates and flows for 28 kilometer in Karnataka and goes through Maharashtra and Goa before meeting the Arabian Sea.
• In order to divert 7.56 tmcft of water to the Malaprabha river basin, Karnataka government proposed to build canals to link Kalasa and Banduri, the tributaries of Mahadayi. However, objecting the move, Goa government argued that if Karnataka implemented the Kalasa-Banduri project, it would prove disastrous for the ecologically sensitive Western Ghats as the proposed project was deep inside the forest.
• Karnataka had petitioned the tribunal seeking release of 7.56 tmcft of water for Kalasa-Banduri Nala project. The tribunal, which gave its interim order after hearing arguments from both Karnataka and Goa, had rejected the state’s plea citing various grounds including ecological damage that the project may cause.

The Kalasa-Banduri Nala is a project undertaken by the Government of Karnataka to improve drinking water supply to the Districts of Belagavi, Dharwad and Gadag.
Sources: the hindu.

Paper-2: Salient features of constitution

Tax is not a barrier to free trade, says SC

A day after Parliament passed the Goods and Services Tax Bill for a uniform comprehensive tax regime to promote hassle-free trade, a nine-judge Constitution Bench of the Supreme Court on Thursday said tax should not act as a barrier to free trade, commerce and intercourse.
“It is this freedom of trade, commerce and intercourse which allows a trader to move from place to place within the country without obstruction. A trader moves constantly and so long as his fundamental right is protected under Article 19, there is no question of a fiscal restriction being an obstruction,” Chief Justice Thakur

Background

- Entry tax is imposed by the State governments on the movement of goods from one State to another.
- The Bench is hearing petitions from private manufacturers and companies against the varied entry tax levied by different States.
- The debate was on the contours of Article 301 of the Constitution dealing with freedom, trade and commerce.
- Article 301: Freedom of trade, commerce and intercourse Subject to the other provisions of this Part, trade, commerce and intercourse throughout the territory of India shall be free
- The Bench is hearing on the validity of separate entry taxes on goods mandated by the statutes of various State governments, which did not heed the Centre’s plea to wait for the passage of the GST Bill in Parliament.

Blow to AAP as HC says L-G is Delhi's administrative head

- The Delhi High Court on Thursday held that the Lieutenant Governor was its “administrative head” and that it “continues to be a Union Territory.”
- The High Court also set aside the AAP government’s contention that the L-G was supposed to act “only on the aid and advice of the Ministers” even as it declared “illegal”
  - the commission of inquiry ordered by the AAP government into the CNG Fitness scam in the transport department
  - also the Commission of Inquiry to go into the alleged irregularities in the functioning of the Delhi and District Cricket Association (DDCA).

Notifications quashed

- The court also quashed several notifications issued by Chief Minister Arvind Kejriwal after returning to power in February 2015, terming them “illegal” as they were issued “without concurrence of the L-G.”
- The Delhi Government’s senior standing counsel Rahul Mehra said they would file a Special Leave Petition against the judgment in the Supreme Court.

Paper 2 Topic: Structure, organization and functioning of the Executive and the Judiciary Ministries and Departments of the Government; pressure groups and formal/informal associations and their role in the Polity.

‘HCs have just a few minutes to hear each case’

“State of The Indian Judiciary” report was released recently by the Bangalore-based research organisation DAKSH under the “Rule of Law Project”. The project aims to investigate the problem of pendency of cases. As of April 1, 2016, DAKSH had data for more than 40 lakh cases in its database covering 21 high courts and 475 district courts.

Highlights of the report:

- The average hearing time for listed cases on a particular day in an Indian high court is as little as two minutes. The time taken per hearing has been computed based on the working hours of judges and number of cases “listed” on a particular day.
- About 50% cases listed are adjourned. For instance, if 80 cases are listed, some 40 are adjourned, 35 don’t reach and just five are heard.
- The report highlights problems faced by litigants, including the accused in criminal cases. It says 31% of individuals accused of bailable offences claimed that they continue to be in jail as they cannot afford bail or guarantors to stand surety. It also shows that less than 3% of litigants used legal aid, despite being eligible to take the benefit of government-appointed lawyers.
- The report also notes that time spent on a case, the frequency/infrequency of hearings, and change in judicial personnel not only impact understanding of pendency, but also adversely affects the concept of fair hearing, which is a fundamental promise that the judiciary makes to the litigants.

Situation in different states:

- In the Patna High Court, a hearing lasts for around two minutes on an average, as judges hear around 150 cases every day. In Tripura High Court the average time per hearing is 15 minutes with judges hearing around 20 cases a day.
- The number of days between two hearings also varies across high courts. For instance, the most frequent hearings are held in the Calcutta High Court, with 16 days between hearings. They are most far apart in the Delhi High Court with 80 days between two hearings.
The research also found that around 82% of cases in high courts have been pending for 10 to 15 years. The Allahabad High Court has the highest average pendency among all Indian high courts, with a case pending for an average of a little more than three years and nine months, whereas the High Court of Sikkim has the lowest average pendency of 10 months.

**Way ahead:**
This finding is key to judicial reform, as it is an indicator of the stress faced by judges on a daily basis. The report suggests that putting a cap on the number of hearings will allow reduction in judicial workload and may improve efficiency and also reduce the number of times litigants have to visit courts.

Sources: the hindu.

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**EC to now review national, State status of political parties every 10 years**

Election Commission (EC) has amended rules, whereby it will now review the national and state party status of political parties every ten years instead of the present five.

- Recognition as a national or a State party ensures that the election symbol is not used by any other political entity in polls across India.

**Details:**
- The commission has amended paragraph 6C of the Election Symbols (Reservation and Allotment) Order, 1968 to affect the change. It was last amended in 2011.
- This change in rules will ensure that ruling parties do not lose their status due to anti-incumbency factor after every election.
- However, the criteria of being recognised as a national and state party will remain unchanged.

**To obtain a national status, political parties have to fulfill any of the three conditions:**
- Winning 2% seats or 11 seats in the Lok Sabha from at least three different states in the latest general election.
- Recognition as a state party in at least four states.
- Polling 6% of the total valid votes in at least four states, in addition to winning four Lok Sabha seats.

A political party shall be treated as a recognised political party in a State, if and only if the political party fulfills any of the following conditions:
- At General Elections or Legislative Assembly elections, the party has won 3% of seats in the legislative assembly of the State (subject to a minimum of 3 seats).
- At a Lok Sabha General Elections, the party has won 1 Lok Sabha seat for every 25 Lok Sabha seat allotted for the State.
- At a General Election to Lok Sabha or Legislative Assembly, the party has polled minimum of 6% of votes in a State and in addition it has won 1 Lok Sabha or 2 Legislative Assembly seats.
- At a General Election to Lok Sabha or Legislative Assembly, the party has polled 8% of votes in a State.

**Benefits:**
- If a party is recognised as a State Party, it is entitled for exclusive allotment of its reserved symbol to the candidates set up by it in the State in which it is so recognised, and if a party is recognised as a `National Party` it is entitled for exclusive allotment of its reserved symbol to the candidates set up by it throughout India.
- Recognised `State` and `National` parties need only one proposer for filing the nomination and are also entitled for two sets of electoral rolls free of cost at the time of revision of rolls and their candidates get one copy of electoral roll free of cost during General Elections.
- They also get broadcast/telecast facilities over Akashvani/Doordarshan during general elections.
- Political parties are entitled to nominate “Star Campaigners” during General Elections. A recognized National or State party can have a maximum of 40 “Star campaigners” and a registered un-recognised party can nominate a maximum of 20 ‘Star Campaigners’.
- The travel expenses of star campaigners are not to be accounted for in the election expense accounts of candidates of their party.

Sources: the hindu.

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**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.

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**Now, direct election of local body chiefs to be scrapped**

A Bill has been introduced in the TN Assembly to empower councillors to elect the chairpersons in all local bodies in the State.

**Why go for indirect election?**

It was recently brought to the notice of the government that in certain circumstances, the chairmen do not get the cooperation of councillors and vice-versa and thereby, there have been impediments in the proceedings of councils and to arrive at consensus in passing resolutions to provide civic services to the public.

Hence, in order to have uniform election procedures in all the urban local bodies in the State, the government has proposed to elect the Chairman of the Municipalities and Town Panchayats indirectly by the councillors or members from among themselves, as the case may be.

**Background:**

In June this year, the State government had introduced and eventually passed a Bill that scrapped the direct election of Mayors in Municipal Corporations and enabled councillors to elected one of them as Mayor for the Municipal Corporation.

Sources: the hindu.
### Central Board for Workers' Education renamed

The government has renamed Central Board for Workers' Education as "Dattopant Thengadi National Board for Workers Education and Development".

**About Dattopant Thengadi:**
Born on 10th November, 1920 Shri Dattopant Thengadi devoted entire his life for the upliftment of the poor people and promotion of social harmony in the country.
- He was a great thinker, intellectual and efficient organizer, a towering personality in the Labour Movement in India and founder of many national level social organizations.
- Dattopant Thengadi contributed very immensely for the economic growth of the county and was a well-known trade unionist of national repute.

**About the board:**
The Dattopant Thengadi National Board for Workers Education and Development having national network is a Central Autonomous Body, under Government of India, Ministry of Labour & Employment.
- It is engaged in generating awareness about various subjects relating to labour, industry, nation and other socio-economic issues, besides Government’s schemes amongst both organized and unorganized/ rural sector workers for the last 59 years in the country.
- It has been working since 1958 with its network of 50 Regional Directorates, 9 Sub Regional Directorates, 6 Zonal Directorates.
- The Headquarter is situated at Nagpur. It also has an Apex National Training Institute i.e. Indian Institute of Workers' education at Mumbai.

Sources: pib.

### NHRC registering more cases, says there is more awareness

NHRC data have revealed that cases registered by the National Human Rights Commission have gone up over the past three years, but those where monetary relief was recommended have in fact declined.

**Highlights of the data:**
- The cases where relief was recommended fell 26% from 2013-2014 to 2015-2016. For the same time period, the number of cases registered by the Commission rose 20%.
- In 2013-2014, 98,136 cases were registered and monetary relief was recommended in 443. While the number of cases lodged in 2014-2015 rose to 1.14 lakh, the cases where relief was granted decreased to 378. The trend continued in 2015-2016, with 1.17 lakh cases being registered and relief being recommended in 326 cases.
- However, according to NHRC officials, there are several reasons behind fewer cases ending with monetary relief. Some cases had been taken up by the courts or State human rights commissions, others were closed or disposed off for lack of a clear offence being established.
- Complaints where someone lost their life or was hurt were clearer cases for compensation. Four types of complaints – custodial death (judicial and police), death in police encounter and alleged fake encounters – accounted for almost 2% of cases lodged in 2015-2016, but 35% of cases were relief was granted.
- Over the three years, cases related to the police remained the top contributor to the NHRC’s load, accounting for 30% of total cases registered in 2015-2016.

**About NHRC:**
It is a statutory body established in 1993.

**Composition:**
- It consists of a Chairman and 4 members. Chairman should be a retired Chief Justice of India. Members should be either sitting or retired judges of the Supreme Court or a serving or retired Chief Justice of a High Court and 2 persons having practical knowledge in this field.
- Ex officio members are the chairmen of National Commission for Scheduled Caste, National Commission for Scheduled Tribes, National Commission for Minorities and National Commission for Women.

**Appointment:**
- The chairman and members are appointed on the recommendation of a 6 member committee consisting of Prime Minister, Speaker of the Lok Sabha, Deputy Chairman of the Rajya Sabha, leaders of opposition in both the houses of parliament and Union Home Minister.
- Term: Term of the chairman and members is 5 years or 70 years whichever is earlier. After retirement they are not eligible for further reappointment.
- Removal: President has to refer the matter to Supreme Court and if after enquiry Supreme Court holds it right then they can be removed by the President.

**Other facts:**
- Its recommendations are just advisory and not binding in nature.
- It submits Annual report to the Central government and to the concerned state governments.

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

### ‘Fail-safe’ system

- The government has called for a ‘fail-safe’ system in which passengers and cargo are safe even in case of “failure of any system of the train tracks or controls.”
- The government said the developer shall be responsible for a third-party inspection of the entire train system.
- The developer will be given a free-hand in running the train services, fixing schedule, fares and add-on services on board, the EoI document added.
- The developer will be required to submit the funding plan for the investment along with their audited financial statements for the last five years.

### Madras HC disposes of pleas challenging classical status to Kannada, Telugu, Malayalam

Madras High Court has disposed of a batch of public interest litigation petitions which challenged the classical language status accorded to Kannada, Telugu, Malayalam and Odia.

**What has the court said?**

The court has made it clear that only experts can verify whether the languages satisfy the norms set for according the classical status. Also, the court could not be converted into a forum for debate on such matters. If the petitioner still felt that the particulars furnished by the respective States would not satisfy the criteria, the court said: “It is open to them to approach the authorities. Similarly, they can also give suggestions for determination of the type of literature that can be the benchmark for qualification for consideration to the concerned authorities.”

**Classical languages:**

In 2004, the Government of India declared that languages that met certain requirements could be accorded the status of a “Classical Language in India”. Languages so far declared to be Classical are Tamil, Sanskrit, Kannada, Telugu, Malayalam, and Odia.

Criteria to determine the eligibility of languages to be considered for classification as a “Classical Language”:

1. High antiquity of its early texts/recorded history over a period of 1500–2000 years.
2. A body of ancient literature/texts, which is considered a valuable heritage by generations of speakers.
3. The literary tradition should be original and not borrowed from another speech community.
4. The classical language and literature being distinct from modern, there may also be a discontinuity between the classical language and its later forms or its offshoots.

**Sources:** the hindu.

### LS passes bill on higher compensation for employee’s injury

The Lok Sabha has unanimously passed the Employee’s Compensation (Amendment) Bill, 2016. The bill provides for higher compensation in case an employee is injured in industrial accident and has a provision for hefty penalty in case any violation by the employers.

- The Bill amends the Employee’s Compensation Act, 1923. The Act provides payment of compensation to employees and their dependants in the case of injury by industrial accidents, including occupational diseases.

**Key features in the Bill:**

**Duty to inform the employee of the right to compensation:** The Bill introduces a provision which requires an employer to inform the employee of his right to compensation under the Act. Such information must be given in writing (in English, Hindi or the relevant official language) at the time of employing him.

**The penalty for failure to inform:** The Bill penalises an employer if he fails to inform his employee of his right to compensation. Such penalty may be between 50,000 to one lakh rupees.

**Appeals from the Commissioner’s order:** The Act permits appeals against the Commissioner’s orders related to compensation, distribution of compensation, an award of penalty or interest, etc. However, this is only if the amount in dispute is at least 300 rupees. The Bill raises this amount to 10,000 rupees. It permits the central government to further raise this amount.

**Withholding payments pending appeal:** Under the Act, if an employer has appealed against a Commissioner’s order, any payments towards the employee can be temporarily withheld.

**Sources:** pib.

### Parliament passes bill for easier debt recovery

Parliament has passed the Enforcement of Security Interest and Recovery of Debts Laws and Miscellaneous Provisions (Amendment) Bill, 2016. The Bill empowers banks to confiscate security in the case of loan default, a development that assumes significance in view of the episode surrounding industrialist Vijay Mallya.

**Highlights of the Bill:**

- The Bill allows a 30-day time limit to clear this application of taking possession of the collateral security. The Bill allows for the time limit to be extended to 60 days, if district magistrate (DM) is unable to pass an order within 30 days, due to some circumstances.
- The Bill will empower a magistrate to help banks take over the management of a company, in case it is unable to repay loans. This will be done in case the banks convert their outstanding debt into equity shares, and consequently hold a stake of 51% or more in the company.
- The Bill adds that ARCs may be incorporated under Companies Act, 2013 or any other law and allows the RBI to do this by issuing guidelines.
The Bill provides that stamp duty will not be charged on the transfer of financial assets in favour of ARCs. This benefit will not be provided if asset is acquired for any purpose other than reconstruction or securitisation.

The Bill allows the RBI to remove the Chairman or director of an ARC if the business is being conducted in a manner detrimental to public interest. The Bill also provides that the Chairman or director will be given an opportunity of being heard, before being removed.

It also prohibits the lease or assignment of assets by secured creditor if payment is received by him. In addition, the Bill prohibits these actions if the creditor receives payment before (i) publication of notice for auction, or (ii) invitation of quotation or tender.

The Bill provides that secured creditors will not be able to take possession over the collateral unless it is registered with the central registry. Further, these creditors, after registration of security interest, will have priority over others in repayment of dues.

It also provides that banks and financial institutions will be required to file cases in tribunals having jurisdiction over the defendant’s area of residence or business. The Bill allows banks to file cases in tribunals having jurisdiction over the area of bank branch where the debt is pending.

The Bill provides that certain procedures under the Act will be undertaken in electronic form. These include presentation of claims by parties and summons issued by tribunals under the Act.

Sources: the hindu.

### MPs petition PM for hike in MPLAD Fund

A delegation of MPs has petitioned Prime Minister Narendra Modi for an increase in the Member of Parliament Local Area Development (MPLAD) Fund. The delegation has asked that the fund, currently Rs. 5 crore for a five-year term (Rs. 1 crore for each year), be increased to Rs. 25 crore.

**About MPLAD scheme:**

It was launched in December, 1993, to provide a mechanism for the Members of Parliament to recommend works of developmental nature for creation of durable community assets and for provision of basic facilities including community infrastructure, based on locally felt needs.

**Salient features:**

- MPLADS is a centrally-sponsored plan scheme fully funded by the government of India under which funds are released in the form of grants in-aid directly to the district authorities.
- Works, developmental in nature, based on locally felt needs and always available for the use of the public at large, are eligible under the scheme.
- Preference under the scheme is given to works relating to national priorities, such as provision of drinking water, public health, education, sanitation, roads, etc.
- The funds released under the scheme are non-lapsable: the liability of funds not released in a particular year is carried forward to the subsequent years, subject to eligibility.
- The MPs have a recommendatory role under the scheme. They recommend their choice of works to the concerned district authorities who implement these works by following the established procedures of the concerned state government.
- The district authority is empowered to examine the eligibility of works sanction funds and select the implementing agencies, prioritise works, supervise overall execution, and monitor the scheme at the ground level.
- The district authorities get the works executed through the line departments, local self governments or other government agencies. In some cases, the district authorities get the works executed through reputed non government organisations.
- The Lok Sabha Members can recommend works in their respective constituencies. The elected members of the Rajya Sabha can recommend works anywhere in the state from which they are elected. Nominated members of the Lok Sabha and Rajya Sabha may select works for implementation anywhere in the country.

Sources: the hindu.

### Gujarat’s new land acquisition Bill approved by the President of India

The Gujarat Land Acquisition Bill 2016, that dilutes the Centre’s stringent provisions of the Land Acquisition Act 2013, has been given approval by the President and will take effect on August 15th.

**Contentious provisions in the Bill:**

- The Bill has done away with social impact assessment for projects related to defence and social infrastructure like building public roads, canals and schools and affordable houses and also for acquisition of land for industrial corridors.
- It empowers the authorities to exempt projects “vital to defence of national security of the country”, “infrastructure and electrification project or affordable housing for the poor” or “industrial corridors set up by the State or its undertakings” and “infrastructure projects under public-private partnership” from social impact assessment or consent clauses as incorporated in the central Act.
- It also allows the State or its undertakings to acquire land up to one kilometre on both sides of designated railway lines or highways in industrial corridor projects.

Sources: the hindu.

### Should the Indian Standard Time (IST) be advanced to 6 hours?

Experts have proposed advancing the Indian Standard Time (IST) by half an hour. Stating that such a change is the need of the hour, scientists have said that advancing the IST by half an hour will save energy by upto three billion units every year.

**Background:**

The time zone for India is based on 82.5° E longitude, passing through Mirzapore, U.P. This makes it five hours and 30 minutes ahead of the Coordinated Universal Time (UTC), based on the prime meridian. This is defined as the Indian Standard Time (IST), and has been official time since independence in 1947.
What’s the new proposal?
Experts have suggested a change in IST to six hours ahead of UTC, instead of the present five-and-a-half hours. This would shift the longitude on which IST is based from 82.5° E to 90° E longitude at Bengal-Assam border.

Why?
According to experts, this shift may reduce the energy demand in the evenings as domestic lighting will be reduced by about 16%. This has many economic and operational benefits. It also saves about Rs 1500 crore per annum for the nation.

Analysis:
From West to East, India spans from 68° 7' E to 97° 25' E of the 0° longitude or the prime meridian. A spread of more than 29° implies almost two hours time difference in sunrises and sunsets between east and west part of the country. However, it is essential for a country to follow a standardised time so that offices, transport systems and communication systems can function smoothly. The current IST (UTC+5:30hrs) means that people in northeastern states have to work late into the dark, even though sun rises and sets early in their region. The current IST generates a heavy load in electricity, especially in the evenings which most companies find hard to meet and imposes substantial economic loss to the nation.

Sources: toi.

Central Agricultural University (Amendment) Bill, 2016
Parliament has passed the Central Agricultural University (Amendment) Bill, 2016.

Key facts:
- The bill seeks to amend the Central Agricultural University Act, 1992, that was enacted for the establishment and incorporation of a university for the north-eastern region in order to promote development and research in agriculture and allied sectors.
- The bill includes Nagaland under the jurisdiction of Imphal Central Agriculture University (CAU). The amendment will help Nagaland to reap the benefit of the Imphal Central Agriculture University, established for the entire north eastern region.
- After inclusion of Nagaland under jurisdiction of the CAU, the College of Veterinary Sciences in Nagaland would produce the much-needed professional manpower in the fields of animal husbandry, which will facilitate socio-economic growth in the region.
- The new college would help familiarise the farmers with new techniques, thereby contributing to the production and productivity of domestic animals in the State of Nagaland.

Sources: pib.

Centre accepts some suggestions of collegium
The Central government has accepted some recommendations of the Supreme Court collegium on draft memorandum of procedures for appointment of judges.

Suggestions accepted:
- Lifting the proposed cap on the number of jurists and lawyers for appointment as judges in the Supreme Court. The draft sent to the Chief Justice of India in March had recommended that up to three judges from among jurists and lawyers could be appointed.
- Seniority is now being considered to be the main condition. The government had earlier proposed merit-cum-seniority as the criterion for elevation of judges.

What has not been accepted?
The government has not changed its stand on the proposed clause under which it will have powers to reject any candidate recommended by the collegium on grounds of public interest and national security. The collegium had earlier rejected the proposal. However, the revised draft proposes that the government will communicate to the collegium the reasons for rejecting any name recommended by it.

Background:
In December 2015, the supreme court, after restoring the collegium system, had directed the Centre to frame a new MoP. The court had directed the government to do this in consultation with the Chief Justice of India, who would in turn take into confidence his four senior-most puisne judges of the Supreme Court and who are part of the collegium.
Later, the Court had raised concerns over some issues in the draft Memorandum of Procedure (MoP). The Supreme Court had asked the government to re-consider these clauses.
Sources: the hindu.

**Centre notifies Good Samaritan SOPs**

The Centre has issued a notification ensuring that the affidavit of “Good Samaritan”, a person who voluntarily declares himself to be an eyewitness, shall be treated by the investigating officer as a final statement.

**Background:**
The notification is in response to Supreme Court directions in an October 2014 case of SaveLIFE Foundation asking the Centre to issue directions to save Good Samaritans until Parliament frames a law.
The court had directed the government to frame Standard Operating Procedures (SOPs) for the examination of a Good Samaritan. In March, the court approved the guidelines and the SOPs issued by the government with certain modifications.

**Details:**
- According to the notification, the affidavit of Good Samaritan, if filed, shall be treated as a complete statement by the police official while conducting the investigation. In case, the statement is to be recorded, the complete statement shall be recorded in a single examination.
- The crux of the guidelines is that no bystander rushing to the rescue of an accident victim should be subject to civil or criminal liability and/or be forced to be a witness.
- Also, any disclosure of personal information or offer to be a witness, in the event of the Good Samaritan also being an eyewitness to an accident, ought to be voluntary. Further, the examination of such a volunteer as a witness shall be done only on a single occasion and without harassment or intimidation.

Centre, in April 2016, had issued notification for protection of Good Samaritans. Guidelines include:
- Assuring Good Samaritans anonymity and protecting them from any civil or criminal liability for taking the victim to the nearest hospital.
- They shall be treated respectfully and without discrimination on the grounds of gender, religion, nationality, caste or any other.
- Complete anonymity in case the Good Samaritan does not want to reveal his name or details.
- Use of video-conferencing in case of any further interaction with him by the authorities and provision for the police to examine him at his residence or office or any place of his convenience.

Sources: the hindu.

**Central Scheme for Assistance to Civilian Victims of Terrorist / Communal / Left Wing Extremist Violence and Cross Border Firing and Mine/IED Blasts on Indian Territory**

The Union Cabinet has given its approval to enhance the grant of compensation to the civilian victims under the scheme titled “Central Scheme for Assistance to Civilian Victims of Terrorist/ Communal/Left Wing Extremist (LWE), Cross Border Firing and Mine/IED blasts on Indian Territory” from Rs.5 lakhs to Rs.5.5 lakhs.

The highlights of the scheme are as follows:
- For the first time, civilian victims of cross border firing along the Indo-Pak border will be given a compensation of Rs. 5 lakh similar to those who die due to terrorism or LWE violence.
- Now onwards, any civilian who dies anywhere in the country due to terror attack, LWE violence, firing from across the border, shelling or IED explosion will be given Rs.5 lakh as compensation uniformly. The amount will be given to the next of kin of the victim.
- 5 lakh will also be given to those who receive 50% or more disability or incapacitation due to the same reasons.
- The compensation amount will be given subject to the condition that no employment has been provided to any of the family members of the victims by State or Central Government.
- Families of the victims would be eligible to get assistance under the scheme even if they have received any other assistance, by way of payment of ex-gratia or any other type of relief from the Government or any other source except when a similar scheme is already being implemented by the Central Government.

Sources: pib.

**Dignity and Self-Respect: a new mantra for Swachh Bharat Mission**

A government commissioned report by Tata Institute of Social Sciences (TISS) on Swachh Bharat mission in urban areas has flagged how success of this flagship programme is dependent on ensuring effective intervention by government departments and particularly municipal bodies rather than authorities just placing the onus on people and communities.

**Background:**
Urban development ministry had engaged TISS for conducting consultative meetings with citizens groups for scaling up citizen engagement in this scheme to make it into a full-fledged ‘jan andolan’.

**Details:**
- According to the report, inability of municipal bodies, ineffective cleanliness and poor processing of both solid and liquid waste has been the major road block in achieving visible improvement in cleanliness in urban areas.
- The government is taking the cue from the TISS report and working toward bringing in “a paradigm shift” by encouraging “technocrat approach” to make the cleanliness mission a success.
- The report also stressed on the need for total sanitation and focusing on making the urban poor move away from a “life of denial and indignity to one filled with opportunities and dignity.”
- The TISS report favoured a long term association between the governments and specialists including ad agencies and behavioral scientists for clearly articulating the real value of sanitation.
- The government is also considering recommendation of TISS that a “statutory National Council for Sanitation” should be set up for “robust governance and implementation with representation for civil society, academia, technocrats, policy makers,
government officials and other stakeholders.” The Council can suggest required legal reforms to enhance functioning of the Mission besides promoting evidence based policy making.

Sources: the hindu.

**No role in Lokpal nominations: Centre to SC**

The Centre has informed the Supreme Court that application by sitting judges for appointment as Lokpal will not compromise judiciary’s independence since the government does not have a role in the selection process anymore.

- Submitting its affidavit, in response to a PIL filed by NGO Common Cause, the government said the role of the executive was circumscribed to merely facilitating the selection process, and hence there was no question of conflict of interest.
- The Lokpal rules underwent a course correction in 2014 in which the Centre was stripped of its powers to shortlist and recommend names to the Lokpal Search Committee.

**Background:**
The government had notified amendments to the rules, giving autonomy to the Lokpal search committee to shortlist and recommend names independently for selection of Chairman and members of the anti-corruption body. Under the amended provisions of the Rule 10, it is for the Search Committee to decide how to make selections, and the role of the Central Government, under the amended sub-rule (2) of Rule 10 is now limited to providing ‘such assistance as may be required by the Search Committee. The Central government will not have any role in inviting applications or nominations from any quarter.

What will the search committee do now?

The search committee will shortlist and recommend names to the selection committee, which is to be headed by the PM, and will include Speaker of Lok Sabha, Leader of Opposition or Leader of the single largest opposition party in Lok Sabha, Chief Justice of India or a sitting Supreme Court judge nominated by him, and a jurist nominated by the President on the basis of recommendations of the first four members.

Sources: the hindu.

**First Phase of Saurashtra Narmada Avataran For Irrigation Project**

The first phase of **SAUNI (Saurashtra Narmada Avataran Irrigation) Yojana** was recently launched by PM Modi at Sanodara of Jamnagar district of Gujrat.

**About the Project:**
The first phase of the SAUNI project will cover 105 villages, including 47,943 hectares of land.

- **Farmers can reap both Kharif and Rabi crop** — as opposed to Kharif crop cultivation so far — once the project makes more water accessible for agriculture.
- Though the project will not be added to the command area under irrigation, it will strengthen the existing network by providing 1 acre million cubic feet of surplus Narmada water from the Sardar Sarovar Dam through a new pipeline network connecting existing dams.
- It is a Rs. 12,000 crore project, announced in 2012.
It aims to fill up nearly 115 dams of Saurashtra region which faces shortage of water for irrigation and drinking. Under the project, dams and reservoirs of Rajkot, Jamnagar and Morbi would be filled up with the water of Narmada river. Through this scheme, the excess overflowing flood water of Narmada river will be distributed to various reservoirs in eleven districts of Saurashtra region through 1,126-km-long four-link pipelines. The scheme will supply water for irrigation to agricultural land of about 10.22 lakh acres and drinking water to 731 villages and 31 towns.

Sources: the hindu.

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

**Special status for Andhra Pradesh: MPs raise slogans**

- The Lok Sabha was adjourned twice when members from the YuvaJana Sramika Rythu Congress Party (YSRCP) and Telugu Desam Party raised slogans demanding special status for A.P.
- Finance Minister Arun Jaitley assured them that the government was looking at their demand. “Some members have concerns over particular issues. The Government stands by its commitment. We are trying to find a solution to these issues,” Mr. Jaitley said.

**Background**

- Andhra Pradesh is asking for Special Category Status not Special Status, there’s a big difference between Special Status and Special Category Status.
- **Special Status** is guaranteed by the Constitution of India through an Act passed by the two-third majority in both houses of the Parliament (example – J&K)
- **Special Category Status (SCS)** is granted by the National Development Council, an administrative body of the government.

**What are the parameters?**

1. Low resource base, hilly & difficult terrain
2. Low population density or sizeable share of tribal population
3. Backwardness, border states/ sharing the international border
4. Economic & infrastructural backwardness
5. Non-viable nature of state finances

**Which States are receiving it right now?**

Assam, Jammu and Kashmir, Nagaland, Arunachal Pradesh, Manipur, Sikkim, Himachal Pradesh, Meghalaya, Tripura, Uttarakhand and Mizoram. (Total 11)

**What are the benefits which states get?**

- The Planning Commission allocates funds to states through central assistance for state plans. Central assistance can be broadly split into three components
  - Normal Central Assistance (NCA)
  - Additional Central Assistance (ACA)
  - Special Central Assistance (SCA)

- NCA, the main assistance for state plans, is split to favor special category states: the 11 states get 30% of the total assistance while the other states share the remaining 70%.

- The nature of the assistance also varies for special category states; NCA is split into 90% grants and 10% loans for special category states, while the ratio between grants and loans is 30:70 for other states.

- For allocation among special category states, there are no explicit criteria for distribution and funds are allocated on the basis of the state’s plan size and previous plan expenditures.

- Allocation between non special category states is determined by the Gadgil Mukherjee formula which gives weight to population (60%), per capita income (25%), fiscal performance (7.5%) and special problems (7.5%).

- Special category states also receive specific assistance addressing features like hill areas, tribal sub-plans and border areas.

- Beyond additional plan resources, special category states can enjoy concessions in excise and customs duties, income tax rates and corporate tax rates as determined by the government.

**In botched sterilisation deaths, India matches Bangladesh**

- Botched sterilisation surgeries in 2015-16 claimed at least 113 lives, and the death rate is on par with countries such as Bangladesh and Indonesia, the Centre has stated in an affidavit submitted in Supreme Court.
- Indonesia and Bangladesh are much poorer than India in terms of per capita GDP and Purchasing Power Parity .
- The IMF has ranked India at seventeenth on PPP; Indonesia and Bangladesh are at 16th and 44th positions, respectively.
- India ranked 130 among 188 countries in 2014 in Human Development Report released by UNDP Bangladesh was at 142nd.
- The Bench sought to know the latest statistics on the exact number of deaths that have taken place in sterilisation camps across the country. It also asked Chhattisgarh government what actions it has taken after 13 women died following botched sterilisation surgeries at state-run camps in Bilaspur.
- As per data submitted by the ministry, no death occurred in 2015-16 in Chhattisgarh, which had reported the maximum — 19 deaths in 2014-15. In all, 140 people died in such surgeries across the country in 2014-15, the government told the court.

**MAA- a programme to promote breastfeeding**

Government has launched National Breastfeeding Promotion Programme – MAA (mothers’ absolute affection) to ensure adequate awareness is generated among masses, especially mothers, on the benefits of breastfeeding.
Details:

- The goal of the Programme is to enhance optimal breastfeeding practices, which includes initiation of breastfeeding within an hour of birth, exclusive breastfeeding for the first six months, and continued breastfeeding for at least two years.
- The government will train nurses in government hospitals, Accredited Social Health Activists (ASHA), Auxiliary Nurse Midwives (ANM) to provide relevant information and counselling support to mothers for breastfeeding.
- Monitoring and impact assessment is also an integral part of MAA programme. Progress will be measured against key indicators, such as availability of skilled persons at ground for counselling, improvement in breastfeeding practices and number of accredited health facilities.
- Dedicated funds—Rs 4.3 lakhs per district, have been allocated to states for the programme, which is in addition to the funds approved under National Health Mission’s annual project implementation plans.
- To ensure effective roll-out of the programme ministry of health has established MAA secretariat and a steering committee will be created in all states and at the district level.
- The programme will be monitored by UNICEF and other partners. Unicef has roped in actor Madhuri Dixit as brand ambassador to promote breastfeeding.

Importance of breast feeding:

- 13%: children die below 5 yrs of age, owing to poor breastfeeding practices.
- 823 000: child deaths can be averted every year.
- 1,56,000: child deaths could be reduced in India with breastfeeding.
- 4 million: respiratory infection episodes can be reduced.
- 9 million: Diarrhoea episodes can be reduced.
- 15 times: children are more likely to die of pneumonia who are not breastfed.
- 11 times: children are more likely to die of diarrhoea.
- 20,000: mothers’ deaths due to breast cancer can be averted globally if mothers breastfeed for more than a year.
- 3 to 4 points: Increase in IQ, depending on the duration of breastfeeding.
Indian Scenario:
- 7%: deliveries take place in hospitals.
- 6%: children receive breastfeeding within one hour of birth.
- 9%: exclusively breastfed for the first six months.
- 5%: children between 6-8 months given complementary foods.

Sources: the hindu

Govt pledges ‘foot & mouth disease’ free India, extends scheme to 16 more states

 Seeking to end Foot & Mouth Disease (FMD) — one of the most devastating contagious viral animal diseases affecting all susceptible cloven-footed animals — from India, the agriculture ministry has conceived a ‘FMD Mukta Bharat’ (FMD Free India) programme to cover all the states which have not yet been covered under the six monthly vaccination scheme.

Details:
Sixteen states and one Union Territory (UT) are yet to be covered under intensive FMD vaccination at six monthly intervals. It has now been decided to take up FMD vaccination in these states and UT under Rashtriya Krishi Vikas Yojana (RKVY) during 2016-17.

Why be concerned about this?
As per the estimates by the Indian Council of Agricultural Research (ICAR), direct loss due to milk and meat is to the tune of Rs 20,000 crore per annum due to FMD. It could be much more if the indirect losses due to reduced work capacity, abortions, subsequent infertility and sterility (that account for the reduced milk production subsequently) were taken into account.

What has the government done to prevent this disease?
In order to prevent the economic losses arising due to Foot and Mouth Disease, a location specific programme called ‘Foot and Mouth Disease Control Programme (FMD-CP)’ is under implementation since 10th Plan Period.

Gradually, the FMD-CP was expanded during 11th & 12th Plan Period. As of now, it covers 351 districts in 13 states and 6 UTs — Andhra Pradesh, Telangana, Maharashtra, Kerala, Tamil Nadu, Gujarat, Punjab, Haryana, Uttar Pradesh, Karnataka, Goa, Rajasthan, Bihar, Puducherry, Delhi, Andaman & Nicobar, Dadar & Nagar Haveli, Daman & Diu and Lakshadweep.

About Foot-and-mouth disease:
Foot-and-mouth disease is an infectious and sometimes fatal viral disease that affects cloven-hoofed animals, including domestic and wild bovids. The virus causes a high fever for two or three days, followed by blisters inside the mouth and on the feet that may rupture and cause lameness.

Spread:
Foot-and-mouth disease (FMD) has severe implications for animal farming, since it is highly infectious and can be spread by infected animals through aerosols, through contact with contaminated farming equipment, vehicles, clothing, or feed, and by domestic and wild predators.

- The virus responsible for the disease is a picornavirus, the prototypic member of the genus Aphthovirus. Infection occurs when the virus particle is taken into a cell of the host. The cell is then forced to manufacture thousands of copies of the virus and eventually bursts, releasing the new particles in the blood. The virus is genetically highly variable, which limits the effectiveness of vaccination.
- Susceptible animals include cattle, water buffalo, sheep, goats, pigs, antelope, deer, and bison. Humans are very rarely infected.

Can Humans be affected?
Humans can be infected with foot-and-mouth disease through contact with infected animals, but this is extremely rare. Some cases were caused by laboratory accidents. Because the virus that causes FMD is sensitive to stomach acid, it cannot spread to humans via consumption of infected meat, except in the mouth before the meat is swallowed. Symptoms of FMD in humans include malaise, fever, vomiting, red ulcerative lesions (surface-eroding damaged spots) of the oral tissues, and sometimes vesicular lesions (small blisters) of the skin.

Sources: the hindu

GM mustard trials: CIC asks govt to reveal bio-safety data

The Central Information Commission (CIC) has directed the environment ministry to reveal safety data regarding trials of genetically modified (GM) mustard without further delay.

- CIC has noted that any attempt to postpone or delay the disclosure will block the public discussion on the controversial issue.
- The CIC has also directed the ministry to put in the public domain bio-safety data pertaining to all other GMOs (genetically modified organisms) in the pipeline.

Background:
CIC, in April, had pulled up the environment ministry over its lack of transparency on trials of GM crops and had directed it to make public all information, including bio-safety data, related to the field trials of the GM mustard crop before 30 April. However, instead of furnishing information, the authority requested for two more months. Further, it sought another extension, this time for 90 days.

What has the CIC said?
The CIC said that it finds no sufficient reason to extend the time for another 90 days to give information which the MoEFCC was supposed to disclose on its own under proactive disclosure provisions of the Right to Information Act, 2005.

About the issue:
The GM mustard in question—DMH-11—has been developed by the Centre for Genetic Manipulation of Crop Plants of Delhi University. If it gets the green light from the environment ministry’s GEAC, it will be the first GM food crop to be commercially cultivated in India. Right now, only GM cotton is allowed. GEAC is the environment ministry’s regulator for GMOs and transgenic products.

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**Prices of essential drugs capped**

NPPA has fixed/revised ceiling prices of 22 scheduled formulations of Schedule-I under Drugs (Price Control) Amendment Order, 2016 and retail price of 13 formulations under DPCO, 2013. 22 essential drugs include drugs used for treatment of cancer, HIV, bacterial infections and malaria among others.

**Background:**

The calculation for essential drugs is based on the simple average of all medicines in a particular therapeutic segment with sales of more than 1%. The government had notified the DPCO 2013, which covers 680 formulations, with effect from 15 May, 2014, replacing the 1995 order that regulated prices of only 74 bulk drugs.

**National Pharmaceutical Pricing Authority (NPPA)**

NPPA was established, inter alia, to prescribe the prices of controlled bulk drugs and formulations and to enforce prices and availability of the medicines in the country, under the Drugs (Prices Control) Order, 1995. The organization is also entrusted with the task of recovering amounts overcharged by manufacturers for the controlled drugs from the consumers.

**Functions of National Pharmaceutical Pricing Authority:**

- To implement and enforce the provisions of the Drugs (Prices Control) Order in accordance with the powers delegated to it.
- To deal with all legal matters arising out of the decisions of the Authority.
- To monitor the availability of drugs, identify shortages, if any, and to take remedial steps.
- To collect/maintain data on production, exports and imports, market share of individual companies, profitability of companies etc, for bulk drugs and formulations.
- To undertake and/or sponsor relevant studies in respect of pricing of drugs/pharmaceuticals.
- To recruit/appoint the officers and other staff members of the Authority, as per rules and procedures laid down by the Government.
- To render advice to the Central Government on changes/revisions in the drug policy.
- To render assistance to the Central Government in the parliamentary matters relating to the drug pricing.

Sources: the hindu.

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**Cabinet approves introduction of the “Surrogacy (Regulation) Bill, 2016”**

The Union Cabinet has given its approval for introduction of the “Surrogacy (Regulation) Bill, 2016”. Once passed, the new legislation will apply to all of India except Jammu and Kashmir.

**Salient features of the Bill:**

- The draft surrogacy Bill aims at regulating commissioning of surrogacy in the country in a proper manner.
- The Bill aims to prevent exploitation of women, especially those in rural and tribal areas.
- The Bill promises to ensure parentage of children born out of surrogacy is “legal and transparent.”
- The new Bill proposes complete ban on commercial surrogacy.
- As per the Bill, only legally—wedded Indian couples can have children through surrogacy, provided at least one of them have been proven to have fertility-related issues.
Foreigners, even Overseas Indians, are barred from commissioning surrogacy.
A woman will be allowed to become a surrogate mother only for altruistic purpose and under no circumstances money shall be paid to her, except for medical expenses.
Unmarried couples, single parents, live—in partners and homosexuals cannot opt for surrogacy as per the new bill.

**Why legislation in this regard is necessary?**

India has emerged as a surrogacy hub for couples from different countries and there have been reported incidents concerning unethical practices, exploitation of surrogate mothers, abandonment of children born out of surrogacy and racket of intermediaries importing human embryos and gametes.

Widespread condemnation of commercial surrogacy prevalent in India has also been regularly published in different print- and electronic media since last few years highlighting the need to prohibit commercial surrogacy and allow ethical altruistic surrogacy.

The 228th report of the Law Commission of India has also recommended for prohibiting commercial surrogacy and allowing ethical altruistic surrogacy to the needy Indian citizens by enacting a suitable legislation.

**What is surrogacy?**

Surrogacy is when another woman carries and gives birth to a baby for the couple who want to have a child. There is also gestational surrogacy, wherein eggs from the mother are fertilised with the father’s/donor’s sperm and then the embryo is placed into the uterus of the surrogate, who carries the child to term and delivers it. In this case, the biological mother is still the woman whose eggs are used, while the surrogate is called the birth mother.

**Why opt for surrogacy?**

Couples opt for surrogacy when traditional means of conceiving a child have failed, this also includes in-vitro fertilisation, or it is dangerous for the couple to get pregnant and give birth. The following medical conditions usually necessitate surrogacy:
- Malformation of or infection in the womb.
- Absence or removal of womb by hysterectomy.
- Recurring miscarriages.
- Repeated failure of IVF.
- Other conditions that make impossible or risky for a woman, such as severe heart disease.

Sources: pib.

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**Indians spend 8 times more on private hospitals than on govt. ones**

The National Health Accounts (NHA) Estimates data for the financial year 2013-14 was recently released. The data was released by the Health Ministry after almost a decade. The NHA monitors the flow of resources in the country’s health system and provides details of health finances.

**Highlights:**

**Private Vs. Public Hospitals:**
- Indians spent eight times more on private hospitals and twice as much on transporting patients compared to costs in government hospitals during financial year 2013-14.
- Households spent Rs. 64,628 crore on private hospitals compared to just Rs. 8,193 crore on government hospitals.
- A total of Rs. 18,149 crore was spent on patient transportation services, like use of an ambulance.
- Considering all revenue sources, including government funding, expenditure on private hospitals — Rs. 88,552 crore — was double that on government hospitals — Rs. 41,797 crore.

**Healthcare spending as a percentage of GDP:**
- India spent a total of Rs. 4.5 lakh crore on healthcare in 2013-14 at 4% of the GDP, of which Rs. 3.06 lakh crore came from households.
- Public spending is abysmally low, constituting around 29% of the total health expenditure — 1% of GDP.
- There has been a marginal improvement from 2004-05, when the share of government spending was just 22%.
- Preventive care gets just 9.6% of the total money that flows in India’s healthcare system. The current expenditure on preventive care is estimated at Rs 40,627 crore. All the government-funded national health programmes such as the National Disease Control Programmes are covered under this category.

**Out-of-pocket (OOP) expenditure:**
- Out-of-pocket (OOP) expenditure is the money individuals pay on their own rather than being covered by insurance or health benefits.
- Indians’ out-of-pocket (OOP) expenditure on healthcare has been estimated to be around Rs. 2.9 lakh crore or 66% cent of total health expenditure (THE) in the country. This is alarmingly high and India stands among the highest in this metric worldwide.
- The share of OOP as a percentage of Current Health Expenditure (CHE) has however, decreased from 69.4% in 2004-05 to 64.2% in 2013-14. The CHE comprises 93%, the rest 7% going to Capital Expenditure.
- Half of all the household money that is spent on healthcare — around Rs. 1.5 lakh crore — goes to pharmacies. This includes chemists, community and independent pharmacies.

Sources: the hindu.
Pellet guns are here to stay; committee suggests alternatives

A seven-member expert committee headed by T.V.S.N Prasad, Joint Secretary, Ministry of Home Affairs (MHA) that was constituted to look into the alternatives to pellet guns has been submitted to the Home Secretary.

Suggestions made by the committee:

- No blanket ban on the use of pellet guns. At the most, it will be used in rarest of rare cases.
- Chilli grenade shells can be used as alternatives.
- Other alternatives are Pelargonic Acid Vanillyl Amide (PAVA) also called Nonivamide and other non-lethal ammunition like ‘stun lac cells’ and Long Range Acoustic Device (LRAD) which create deafening noise to paralyse people.
- Henceforth, pellets will not be of metal but of soft material like polymer, soft plastic, rubber and even paper.

Background:

More than 400 people have been injured in J&K due to pellet guns to control the violence which erupted after Hizbul Mujahideen commander Burhan Wani was killed in an encounter on July 8. The government is facing severe criticism for using the pellet guns and several political parties have asked for its complete withdrawal.

Sources: the hindu

First meeting of newly constituted National Council of Senior Citizens held

The first meeting of the newly constituted National Council of Senior Citizens was recently held under the chairmanship of the Minister of Social Justice & Empowerment Shri Thawarchand Gehlot.

National Council of Senior Citizens:

The mandate of the National Council of Senior Citizens is to advise the Central and State Governments on the entire gamut of issues related to the welfare of senior citizens and enhancement of their quality of life, with special reference to the following:-

- Policies, programmes and legislative measures.
- Promotion of physical and financial security, health and independent and productive living.
- Awareness generation and community mobilization.

Key facts:

- The council is chaired by the Minister of Social Justice & Empowerment.
- The Council is mandated to meet at least twice a year.
- The council was originally known as National Council for Older Persons (NPOP). It was renamed in 2012.

Sources: pib

327% rise in agrarian riots in 2015, NCRB report shows

Recently released “Crime in India” report has made the following observations on riots in India:

- Incidents of rioting remained almost the same in 2015 as compared to 2014, but as communal riots decreased, big increases were seen in other categories — agrarian, sectarian and student riots and caste conflicts.
- Recorded incidents of agrarian riots jumped 327% from 628 in 2014 to 2,683 in 2015. The number of people arrested increased from 3,540 to 10,353.
- Sectarian riots — defined as violence between sects of the same religion not considering caste conflict — showed a significant jump in incidents and convictions from a low base in 2014. Much of these incidents occurred in Uttar Pradesh.
- There is a decrease in communal riots — from 1,227 in 2014 to 789 in 2015.
- 20% of the overall 65,255 riots were reported in Bihar followed by Maharashtra (8,336) and Uttar Pradesh (6,813).
- Kerala tops the crime rate list, with 16.3 riot cases per lakh people, followed by Bihar (12.9) and Karnataka (10.6).
- More than half of the total 1,960 political incidents occurred in Kerala. Uttar Pradesh had the maximum number of caste conflicts (724) followed by Tamil Nadu (426).
- Chennai recorded the lowest rate of total crimes among major cities (154.3 per 1 lakh population). Among all cities, only Surat (86.9), Kannur and Dhanbad had better rates.
- The number of people arrested for student riots (3,600) increased — more than double compared to that in 2014 (1,474). The incidents of student riots increased by 85%, from 261 to 485.
- Kerala is the hotbed of political riots in the country with more than half (1,031) of the overall 1960 incidents.
- More than half of the student riots reported in 2015 took place in Uttar Pradesh and Kerala.
- Reported cases on rape and assault on women showed only marginal change from 2014. Rape cases decreased by 5.7% while assault cases went up by merely 0.22%.

Sources: the hindu
Paper-2: Development industry

Foreign funds pour in; 3,000 NGOs get over Rs. 22,000 cr.

A total of 3,068 non-governmental organisations (NGOs) received foreign funding above Rs. 22,000 crore in 2014-15, according to government data presented in response to a question in Parliament.

- As much as Rs. 7,300 crore — or 33 per cent of the total — went to NGOs based in Delhi and Tamil Nadu alone.
- In fact, 80 per cent of this funding went to NGOs based in seven States — Delhi, Andhra Pradesh, Maharashtra, Kerala, Tamil Nadu, Karnataka and West Bengal.
- As of July 2016, 33,091 NGOs were registered under the Foreign Contribution Regulation Act, which regulates foreign funding to these bodies.

Background

- As many as 14,222 NGOs were barred from receiving foreign funds in the past four years for violating norms.
- The Ministry of Home Affairs is mandated to administer the Foreign Contribution (Regulation) Act, 2010, for regulating the receipt and utilisation of foreign contribution by the associations.
- A ‘person’, as defined in Section 2(i)(m) with the exclusion of those mentioned in Section 3 of FCRA, 2010, having a definite cultural, economic, educational, religious or social programme can receive foreign contribution after it obtains the prior permission of the Central Government, or gets itself registered with the Central Government.

Paid maternity leave increased to 6 months

The Union Cabinet has approved amendments to the Maternity Benefit Act of 1961 to increase paid leave for expectant mothers from three months to six and a half months. The Maternity Benefit (Amendment) Bill of 2016 will now be introduced in the Rajya Sabha.

Details:

- The amendment bill seeks to increase maternity leave to 26 weeks in all establishments, including private sector. The act is applicable to all establishments employing 10 or more persons.
- The bill also provides 12 weeks leave for commissioning and adopting mothers and makes it mandatory to provide creche facility for establishment where the number of workers is 50 and above. At present, the Maternity Benefit Act does not provide any maternity leave for commissioning or adopting mothers.

Significance of these amendments:

Maternal care to the Child during early childhood is crucial for growth and development of the child. The amendments will help 18 lakh women workforce in organised sector. They also help women devote time to take care of their babies and enable an increase in the women’s labour force participation (WFLPR) rate in India. The labour force participation rate (LFPR) in India is around 40%, but for females, it is only 22.5%. The gap in male-female labour force participation is such that the LFPR for rural women above 15 years is only 35.8%, while for rural males it is more than double at 81.3%, according to a 2015 research paper by the government policy think tank NITI Aayog.

Background:

The Maternity Benefit Act, 1961, protects the employment of women during the time of maternity and entitles them of a full paid absence from work to take care for the child.

Sources: the hindu

Sakshi Malik announced brand ambassador of Beti Bachao, Beti Padhao campaign

India’s Olympic Bronze medalist Sakshi Malik was announced as the new brand ambassador of Beti Bachao, Beti Padhao campaign recently.

- Sakshi became the first Indian woman wrestler to clinch a medal at the recently concluded Olympics. She won bronze medal in wrestling in the 58 kg category.

About BBBP:

Beti Bachao, Beti Padhao Andolan is a programme aimed at generating awareness and improving the efficiency of delivery of welfare services meant for women. It is set up with an initial corpus of Rs 100 crore.

Aim: The adverse and declining child sex ratio (CSR) across the States is a major cause of concern as it has fallen from 927 in 2001 to 918 in 2011. The BBBP seeks to arrest the trend and over time to reverse it.

Implementation:

- A 100 critical low CSR districts in all States and UTs have been identified for focused and convergent action by the Ministries.
- The Ministry of WCD is the nodal Ministry for this initiative and will carry out training to stakeholders, community mobilization and sensitization. It will also embark upon a range of advocacy measures and activities, not limited to the 100 low CSR districts but all across the country.
- All forms of media and social media platforms would be used for this.

Sources: the hindu
South India’s first Children’s Court in Hyderabad

South India’s first Children’s Court was recently inaugurated in Hyderabad. After Goa and Delhi, Telangana has become the third state to have a child friendly court and sixth in the country with features like separate waiting rooms for children and a video camera trial for the accused, mandated under the Protection of Children from Sexual Offences (POCSO) Act-2012.

**Background:**
POCSO stipulates child-friendly court rooms be put in place across all states at the earliest in the interest of children in need of care. However, such courts are currently functional only in two states – Delhi and Goa.

**Features of Children’s court:**
- The child (witness/victim) will be allowed direct interaction with the judge, while the accused (who will be at a different location) will be able to view and hear the proceedings via two-way video conferencing in the courtroom.
- A two-way video communication system, allows the child witness to identify the accused on camera. This also enables the judge to ask questions to the child and the accused without any physical interface.
- The judge and the police personnel will be in plain clothes in the children’s court and unlike a normal court set-up, the child will not be allowed to come face to face with the alleged offenders to make sure he/she is not intimidated while the court proceedings are on. Thus, providing a non-threatening atmosphere.

Sources: the hindu.

**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.

**NSEL settlement scandal is back in spotlight**

The Enforcement Directorate on July 12, arrested prime accused in the Rs.5600 crore National Spot Exchange Limited (NSEL) scam and founder of Financial Technologies (India), Jignesh Shah under Section 19 of the Prevention of Money Laundering Act (PMLA). Shah is the founder of FTIL, which owns 99.99 per cent in the now defunct NSEL.

**Background**
- The NSEL (National spot Exchange Ltd) scam or NSEL fraud is a systematic and premeditated fraud perpetrated in the commodity market on Jignesh Shah owned National Spot Exchange (NSEL) which is based in Mumbai, India.
- The NSEL is a company promoted by Financial Technologies India Ltd and the NAFED (only 100 shares given for misusing the NAFED brand who was touted as a co-promoter).
- The NSEL scam was a Ponzi scheme and is estimated to be a Rs. 5600 crore (around US$0.95 billion) fraud that came out to light after the National Spot Exchange failed to pay its investors in commodity pair contracts after 31 July 2013.
- 13000 investors from India lost about Indian Rupees 5600 Crores when the fraud was discovered and it was found that NSEL had neither the money nor the stocks to pay them back.
- The abrupt suspension in trading activities was triggered by a government directive after it was found that the spot exchange was offering so-called paired contracts.
- In the days to come it emerged that the exchange was in the midst of a huge settlement scam with hardly any commodity to settle the contracts.

**What’s at the core of the problem?**
- A product that wasn’t approved by the government.
- A spot exchange is not supposed to offer forward contracts, but NSEL, it is now widely believed, offered 20-25 day (and some say 40-day) forward contracts.
- Worse, there have been reports that some of these contracts are so-called “naked” contracts—which means there is no underlying commodity.

**What’s the fear?**
That there is no underlying commodity is the fear. NSEL says it will sell the commodity and meet its payment obligations, but what if there are no commodities.

**Surely, there are warehouse receipts?**
Yes, but these have been issued by a group company and there’s no clarity on the presence of commodities.

**How were forward trades allowed in a spot market?**
- Spot exchanges were allowed to conduct forward trading in one-day contracts (where an individual can keep the contract open for two days), through a special Government notification in early 2008.
- NSEL used this exemption to launch one-day forward contracts with a settlement cycle of 20-30 days.
- But this exemption on forward trades came with the condition that the respective exchanges should not allow short selling.

**Two Legal Battles**
- Stakeholders – FTIL, NSEL, investor associations, defaulters, brokerages along with the government and its probe agencies.
- The Mumbai Police EOW has also attached assets worth around Rs.5,000 crore of the defaulting trading members. EOW sent a notice to FTIL for freezing all its assets. FTIL has challenged the notice in the Mumbai high court but is yet to get a stay against it.
- Investor associations have focused their action around two legal battles aimed primarily at FTIL.
Solution 1 – NSEL-FTIL merger
- The investor associations are well aware that recovering the money from the defaulters by way of court decrees and injunctions will be a long-drawn affair and so have smartly lobbied for the merger of the defunct exchange with its cash-rich parent entity FTIL.
- The merger would force FTIL to assume all the liabilities of the Mumbai-based spot exchange. The merger would also make FTIL a party to the ongoing litigations involving NSEL.
- Investor groups tasted success in October 2014 when the Ministry of Corporate Affairs (MCA) issued a draft order proposing to merge NSEL with FTIL. The final order was issued in February this year.

Solution 2 – Supersede FTIL
- The other case, which the investor associations are strongly pursuing, is about superseding the board of FTIL so that the government can appoint their own nominees to manage the company’s operations.
- The case is being heard at the Company Law Board (CLB) in New Delhi.

FTIL’s response
- The merger is easily said than done. FTIL has challenged the forced merger order at the Mumbai High Court, questioning the rationale of “public interest” put forth by the government while invoking Section 396 of the Companies Act, 1956.
- FTIL has been arguing that attempt to supersede the board is a clear sign that the government does not want any kind of opposition to FTIL-NSEL merger.
New steps to enhance transparency in Power Sector

In a bid to enhance transparency in power transmission sector of the country, the government has launched the ‘TARANG’ Mobile App, ‘e-Trans’ & ‘DEEP’ e-bidding web portals. These are developed by Rural Electrification Corporation Transmission Projects Company Limited (RECTPCL), a subsidiary of REC Ltd.

- These measures are aimed at enhancing ease, accountability & transparency and would boost confidence of investors in power transmission sector. Better price discovery shall ultimately benefit the power consumers in India.

Details:

TARANG: It is a powerful monitoring tool that tracks upcoming transmission projects and monitor the progress of Inter-State & Intra-State transmission systems in the country, being developed through Regulated tariff mechanism as well as Tariff Based Competitive Bidding(TBCB) route. TARANG shall also include status of stalled/delayed transmission systems in country which would enable the stakeholders viz. Ministry of Power, State Governments, all private sector transmission developers and PSUs like Power Grid Corporation of India Ltd., for expeditious completion of such projects. Green Energy Corridors, an important component of our renewable energy mission, would also be monitored through TARANG.

‘e-Trans’: It is a web platform for e-bidding and e-reverse auction for Tariff Based Competitive Bidding (TBCB) in transmission projects. Till date transmission sector providers have been participating in transmission bids through manual mode. With e-Trans, the interface will be electronic.

‘DEEP (Discovery of Efficient Electricity Price) e-Bidding’ portal: It is for medium term (1-5 years) purchase of power. The Portal will provide a common e-bidding platform with e-reverse auction facility to facilitate nation-wide power procurement through a wider network so as to bring uniformity and transparency in the process of power procurement.

Sources: pib.

Web Portal for Star Rating of Major Mineral Mines

The Ministry of Mines through Indian Bureau of Mines has developed a template for Scheme of Star Rating of Mines. The main objective of this system is to bring all mines to a minimum standard of Star Rating in the shortest possible time frame to adopt sustainable practices.

The star rating will be based on the following parameters:

- Scientific and systematic mining to mitigate environmental impact.
- Addressing social impacts of resettlement and rehabilitation of mining affected people.
- Local community engagements and welfare programmes for socio-economic development of local community.
- Progressive and final mine closure to ensure for restoration of mined out land in better conditions then original.
- Adoption of international standards for mining operations and reporting.

Details:

- Based on the performance of the mining leases, a one to five star rating would be given to the mines.
- The Star Rating will be done initially for mines of major minerals.
- The positive impact of getting higher Star Rating will drive miners to quickly adopt sustainable mining practices.
- The Scheme of Star Rating will be a vital step for ensuring compliance of environmental protection and social responsibility by the mining sector.

The main advantages of the Star Rating of Mines will be:

- Comprehensive mitigation of environmental impacts on land, air and water by mining activities.
- Collation of various technical, environmental and social data of the mining sector at one platform by IBM, which would be utilised to enable better management and monitoring of the compliance of various conditions laid down by statutory authorities for mining.
- In addressing cumulative impacts in mining areas through coordinated and collective action in the long run by helping in formulation of Comprehensive Regional Plans - a robust Environment & Social Management framework.
- Availability of the information on mining as well as the conservation activities in public domain to enable greater transparency to enable effective participation of stakeholder and speedy resolution of conflicts.
- Reduced delays in obtaining various clearances (environmental, forest, mining plan, etc.) for mines. Self-certification to be allowed for the approvals for scheme of mining.
- The progressive and final mine closures will be monitored to ensure that the lessee leaves the area after proper management of any adverse impact over the mined area.
- Encourage adoption of highest standards and sharing and good practices.

Sources: pib.

Digital Locker Authority soon to push paperless governance

The Centre is planning to appoint an authority to administer and manage its Digital Locker initiative, one of the key projects under Digital India programme, as it looks to push paperless governance.

Proposal:

Digital Locker Advisory Group has advised the government to appoint Controller of Certifying Authorities (CCA) to take up the role of the Authority for regulation purposes, while Standardisation Testing and Quality Certification (STQC) may be made responsible for drafting and maintenance of specifications and audits.

Functions to be performed by the authority:

- The Digital Locker Authority will be responsible for granting licenses and to authorise a private entity to offer these services.
It will prepare standards and guidelines, while also ensuring compliance by service providers. These guidelines include those for data retention and migration, audit and security and privacy.

The authority will also need to notify the fee or service charges a subscriber will have to pay for availing Digital Locker services from authorized service providers. Currently, the services are offered for free.

**About DigiLocker:**
It is dedicated personal storage space, linked to each resident’s Aadhaar number. DigiLocker can be used to securely store e-documents as well as store Uniform Resource Identifier (URI) link of e-documents issued by various issuer departments. The e-Sign facility provided as part of DigiLocker system can be used to digitally sign e-documents.

- The initiative was launched by the Department of Electronics and Information Technology, under the Ministry of Communications and IT.
- Here, the users can store their documents such as insurance, medical reports, PAN card, passport, marriage certificate, school certificate and other documents in the digital format.
- With this, the government is trying to create an electronic version of documents, which can be easily verified and stored in printable format.
- At present, the digital locker gives 10MB of free space for individuals to store documents and links of government department or agency-issued e-documents. The government is also planning to subsequently increase the storage space to 1 GB.

**Benefits:**
- It will minimize the use of physical documents and will provide authenticity of the e-documents.
- It will provide secure access to Govt. issued documents.
- It will also reduce administrative overhead of Govt. departments and agencies and make it easy for the residents to receive services.

Sources: the hindu.

**POCSO e-Button**
An online complaint box for reporting child sexual abuse, the POCSO e-Box was recently launched.

**About POCSO e-Box:**
Protection of Children from Sexual Offences (POCSO), e-Box, is an online complaint management system for easy and direct reporting of sexual offences against children and timely action against the offenders under the POCSO Act, 2012.

- E-Box is very simple to operate and will help to maintain the confidentiality of the complaint.

**How a complaint is registered?**
The e-Box is incorporated in the home page of National Commission for Protection of Child Rights (NCPCR) website http://ncpcr.gov.in/ where a user has to simply push a button named POCSO e-Box.

- This will navigate to a page with a window containing an animation movie. The animation movie reassures the child that whatever has happened to him/her is not his/her fault and she/he need not feel guilty and that NCPCR is a friend which will help her.
- After the user presses the arrow on this page, it navigates to another page where he/ she has to select at least one picture option (describing the category of harassment) and fill the form with details such as mobile number, e-mail and description of the harassment followed by the ‘submit’ button. The complaint is then registered and a unique auto-generated complaint number is flashed.

**Background:**
Sexual offences against children are rampant but only a small percentage gets reported. According to a study, about 53% of children surveyed, reported having faced one or the other form of sexual abuse in their lifetime. In most cases, the offender is a family member/near relative or an acquaintance. The child victim in such cases generally does not report these offences. Sexual abuse scars the psyche of the affected child for entire life. A child who is sexually abused has to face very serious consequences such as cognitive impairment, violent and risk behaviour including depression and anxiety. Feeling shame and guilt with poor interpersonal relationship & self esteem are other consequences of sexually abused children.

**About POCSO Act:**
Being concerned about offences against children, the Government enacted POCSO Act, 2012 to protect them from offences of sexual assault, sexual harassment and pornography, while safeguarding the interest of the child at every stage of the judicial process.

- This is achieved by incorporating child friendly mechanisms for reporting, recording of evidence, investigation and speedy trial of offences through designated Special Courts.
- Any human being up to the age of 18 years is recognised as a child under the POCSO Act.

Sources: pib.
PM’s annual award for extraordinary and innovative work instituted

The Department of Administrative Reforms has announced the institution of the Prime Minister’s Annual Award for Excellence in Public Administration to honour “extraordinary and innovative work” done by districts and the organisations of the Central and State governments in implementing the priority programmes of the Government of India.

Details:
- The award will be given away every year for excellence in implementing the priority programmes and extraordinary and innovative work done by the organisations of the Central and State government and the districts in ‘public governance’.
- At least five priority programmes shall be chosen for the awards. For the awards to be presented on the Civil Services Day 2017, the five programmes identified are Pradhan Mantri Krishi Sinchayee Yojana, Deendayal Upadhyaya Gram Jyoti Yojana, Pradhan Mantri Fasal Bima Yojana, Start-Up India/Stand-Up India and e-National Agriculture Market (National e-Mandi).
- The awards shall also be given to the organisations of the Central and State governments and the districts for innovations in environment conservation, disaster management, water conservation, energy, education and health, women and child-centric initiatives.
- For the 2017 awards, the period of consideration is from April 1, 2015 to December 2016. To ensure rationality and equity, the States and the Union Territories have been put in three groups: Group 1-North-East States (eight) and the Hill States (Jammu and Kashmir, Himachal Pradesh and Uttrakhand); Group 2-Union Territories (seven); and Group 3-the remaining 18 States.
- For each group in an identified priority programme, there would be one award and the maximum number of awards would be 15. In addition to the awards for priority programmes, two awards shall be given to organisations of the Central and State governments and districts for innovation in public governance.
- The award shall consist of a trophy and a scroll and the awarded district/organisation will be given an incentive of Rs. 10 lakh to be utilised for executing the project/programme or bridging the resource gaps in any area of public welfare.

Parameters:
The awards for priority programmes will be based on the pre-determined parameters, and the awards for innovations will be based on an innovative idea/scheme/project to meet stakeholders’ requirements, bringing perceptible improvements in the systems and building institutions, making public delivery systems responsive, transparent and efficient, especially by leveraging technology.

Selection process:
A screening committee, to be chaired by an officer of the rank of Additional Secretary, will short-list districts/organisations, examining the applications in consultation with the nodal Ministry/Department, along with officers of the rank of Joint Secretaries and experts from the NITI Aayog. An expert committee, chaired by the Secretary of the Department of Administrative Reforms & Public Grievances, will consider the spot-study reports and shortlist the districts/organisations for making recommendations to the empowered committee chaired by the Cabinet Secretary. The empowered committee would submit its recommendations to the Prime Minister.
Sources: the hindu.

Centre moves on vote totaliser machines

The Union government is working on the issue of introducing “totaliser machines” for mixing of votes from various booth for counting, as recommended by the Election Commission. The Supreme Court, while hearing a writ petition recently, had given the government eight weeks’ time to take a final decision.
- To look into the issue, a team of Union Ministers has been constituted. The team will deliberate on the Election Commission’s proposal in November 2008. The Law Commission had also recommended the use these machines.

About totalizer machines:
The machine is expected to prevent disclosure of voting patterns across polling stations during counting, which will allay the fears of voters against any pre-poll intimidation or post-poll victimisation by any candidate. It enhances voter secrecy.
- The main intention behind this proposal is that the current system reveals the voting trends in each polling station, thus leaving the voters in that vicinity open to harassment, intimidation and post-election victimisation.
- The totaliser machines are analogous to the physical mixing of paper ballots from different booths in an earlier era. In that sense, they are also an extension of the principle of secret ballot.

Background:
Prior to the introduction of EVMs, ballot papers could be mixed, wherever it was considered absolutely necessary under the Conduct of Election Rules in light of apprehended intimidation and victimisation of electors. However, EVMs do not permit this.
Sources: the hindu.

www.insightsonindia.com
Annual Report of ‘Crime in India – 2015’

63rd edition of ‘Crime in India – 2015’ report was recently released.

Key facts:
- The National Crime Records Bureau publishes the report on annual basis.
- First edition was published for the year 1953.
- The report contains information on police recorded criminal cases pertaining to the calendar year 2015.
- The data for the publication has been collected from 36 States/UTs and 53 Mega Cities (having population of more than 10 lakhs).

Some of the highlights of the reports include:
- A decrease of 4.7% under crimes against Scheduled Tribes.
- A decrease of 4.4% under crimes against Scheduled castes.
- A decrease of 3.1% under crimes against women.
- 28,69,195 cases under IPC were investigated in 2015. Out of 1,05,02,256 IPC cases, 13,25,989 cases were tried by the courts in 2015, showing conviction rate as 46.9% under IPC crimes.
- Out of 46,46,419 cases, investigation completed in 43,46,003 cases. Cases chargesheet rate was 98.1% and conviction rate was 92.4% under Special & Local Laws (SLL) cases.
- Properties worth Rs. 8,21,040 lakh were stolen during the year 2015 and against this loss, properties worth Rs. 1,35,019 lakh were recovered.
- A total of 73,26,099 offence cases [29,49,400 Indian Penal Code (IPC) cases and 43,76,699 SLL cases] were reported in 2015, an increase of 1.3% over 2014.
- An increase of 5.3% under crimes against children (from 89,423 in 2014 to 94,172 cases in 2015). Kidnapping and abduction constituted 44.5% of total cases of crimes against children.
- Increase of 25.8% under crimes against Human Trafficking (6,877 cases in 2015 compared to 5,466 cases in 2014).
Sources: pib.

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

Call to remove IP clauses from trade pact

Ahead of the next round of Regional Comprehensive Economic Partnership (RCEP) trade talks, humanitarian aid organisation Médecins Sans Frontières (MSF) has called for the removal of intellectual property provisions — known as the TRIPS-plus provisions — from the agreement.

Why?
According to the MSF, the TRIPS-plus provisions like patent term extensions and data exclusivity could hinder access to affordable drugs.

About Regional Comprehensive Economic Partnership:
The RCEP is among the proposed three mega FTAs in the world so far – the other two being the TPP (Trans Pacific Partnership, led by the US) and the TTIP (Trans -atlantic Trade and Investment Partnership between the US and the EU).
- The agreement (FTA) is proposed between the ten member states of the Association of Southeast Asian Nations (ASEAN) (Brunei, Burma (Myanmar), Cambodia, Indonesia, Laos, Malaysia, the Philippines, Singapore, Thailand, Vietnam) and the six states with which ASEAN has existing FTAs (Australia, China, India, Japan, South Korea and New Zealand).
- RCEP negotiations were formally launched in November 2012 at the ASEAN Summit in Cambodia.
- RCEP is viewed as an alternative to the TPP trade agreement, which includes the United States but excludes China.
Sources: the hindu.

BRICS Women Parliamentarians’ Forum adopts Jaipur Declaration

The meeting of women Parliamentarians from BRICS nations concluded recently in Jaipur.
- During the meeting the parliamentarians expressed commitment to work together in the field of economic growth, social inclusion and environmental protection.

Jaipur declaration:
- At the end of the meeting, ‘Jaipur Declaration’ was adopted.
- The Declaration calls upon international financial institutions to extend support to developing and least developed countries and help them gain easier access to new and affordable technologies as envisaged under the UN Framework Convention on Climate Change and the Paris Agreement.
- The Declaration mentions the need to address climate change and protection of ecological system and forest as well as food security, expeditious parliamentary approval of SDG related legislation and adequate budgetary resources.
- It also emphasizes on plans for incorporating gender concerns and greater involvement of women parliamentarians in integrating citizens in the development process.
- The need to inform and educate citizens about the developmental schemes and institutionalisation of the BRICS Women Parliamentarians’ Forum were also taken up in the declaration which was unanimously adopted.
Sources: et.
Myanmar to support Silk Road, BCIM

Myanmar’s State Counsellor Aung San Suu Kyi, during her recent visit to China, announced Myanmar’s support to China backed Silk Road initiative and Bangladesh-China-India-Myanmar (BCIM) economic corridor.

- She also sought China’s support for her country’s infrastructure projects while taking into consideration the demands of environmental groups back home, who oppose such foreign-backed initiatives.

**About BCIM:**
The Bangladesh China India Myanmar Economic Corridor is an initiative conceptualised for significant gains through sub-regional economic cooperation within the BCIM.

- The multi-modal corridor will be the first expressway between India and China and will pass through Myanmar and Bangladesh.
- The project will link Kolkata with Kunming, the capital of China’s Yunnan province, passing through Myanmar and Bangladesh, with Mandalay and Dhaka among the focal points.
- The economic advantages of the BCIM trade corridor are considerable, most notably: access to numerous markets in Southeast Asia, improvement of transportation infrastructure and creation of industrial zones.

Sources: the hindu

India and Germany join hands on skill agenda

India and Germany are deepening their collaboration in the area of skill development. In this regard, an implementation agreement has been signed between the Ministry of Skill Development and Entrepreneurship (MSDE) and (German International Cooperation (GIZ), to initiate a new project focused on adapting elements of the German dual system in select industrial clusters in India.

**Details:**

- This new project will run for three years starting August 2016 with a budget of 22.6 Crores INR – made available by the German Government.
- The project aims to foster conditions which will help create and improve cooperative workplace-based vocational training in India’s industrial clusters.
- The project will be implemented in three selected clusters, which include the Automobile cluster in Maharashtra and Electronics cluster in Bangalore.
- German technical assistance will be used to enhance industry institute partnerships between Indian and German organizations, build capacity of local training institutions and foster industry linkages which will help adapt elements of the German dual system, into the Indian context.
- This new project will also play an important role in supporting MSDE’s existing programmes to scale up apprenticeship training.
- The project will be implemented under the umbrella of the ‘Joint Memorandum of Understanding (MoU) in the field of Skill Development and Vocational Education and Training (VET), signed during the Indo-German intergovernmental consultations in October 2015.

Sources: pib

Join agreement against parental abduction: U.S.

The United States has urged India to join ‘Hague Abduction Convention’ to safeguard the rights of children born to Indian-American couples.

**Why?**
Almost a hundred children born to Indian-American couples are facing an uncertain future due to the trauma of separation of their parents and the complex legal issues involved.

**Why India should sign this convention?**
To create a more effective response to deal with abduction cases and prevent inter-country parental child abduction.

What is Inter-country parental child abduction?
Inter-country parental child abduction is a situation that is attained when one parent takes a child or children to a foreign country to prevent the other parent from seeking custody of the child.

**Indian scenario:**
India’s case-load (regarding IPCA) is second largest in the United States which is followed by Mexico. At least 90 children from 80 Indian-American families were affected by separating parents and the legal problems involved. As more and more Indians are studying and working in the U.S, such cases are growing in number and it is necessary to get a better mechanism to deal with this.

**About Hague Abduction Convention:**
The Hague Convention on the Civil Aspects of International Child Abduction or Hague Abduction Convention is a multilateral treaty developed by the Hague Conference on Private International Law (HCCH) that provides an expeditious method to return a child internationally abducted by a parent from one member country to another.

- The Convention entered into force between the signatories on 1 December 1983.
- The Convention was drafted to ensure the prompt return of children who have been abducted from their country of habitual residence or wrongfully retained in a contracting state not their country of habitual residence.
- The primary intention of the Convention is to preserve whatever status quo child custody arrangement existed immediately before an alleged wrongful removal or retention thereby deterring a parent from crossing international boundaries in search of a more sympathetic court.
- The Convention applies only to children under the age of 16.
- 94 states are party to the convention. Philippines is the latest country to accede to the convention.

Sources: the hindu
Cabinet approves signing of Air Services Agreement between India and Fiji

The Union Cabinet has given its approval for signing of new Air Services Agreement (ASA) between India and Fiji. The Agreement is for updation of the existing Air Services Agreement (ASA) between the two countries which was signed in January, 1974.

The essential features of the Air Services Agreement are as follows:

- Both countries shall be entitled to designate one or more airline.
- The designated airlines of either country shall have the right to establish offices in the territory of the other country for the promotion and sale of air services.
- The designated airlines of the two countries shall have fair and equal opportunity to operate the agreed services on specified routes. The routes and frequencies shall be decided subsequently.
- The designated airline will be free to decide tariffs in respect of the agreed services at reasonable levels based on the commercial considerations.
- The designated airline of each party can enter into cooperative marketing arrangements with the designated carriers of same party and other party.
- Apart from the above, the ASA also has the provisions relating to Revocation or Suspension of Operating Authorization, Principles governing operations of agreed services, commercial opportunities, safety related clause etc. that were incorporated in the line of Indian model ASA.
- The existing Route Schedule annex to the ASA has also been revised and new points of call have been added for enhanced connectivity. Now Indian carriers can operate to any points in Fiji from points in India whereas the carriers of Fiji can establish direct operation to Delhi, Mumbai and Chennai in India and by code share with Indian carriers to Bangalore, Kolkata, Hyderabad apart from points given for direct operation. Besides this, Kochi, Varanasi, Ahmedabad and Amritsar may be served through domestic code share operations.

Sources: pib.

India, U.S. to sign logistics agreement

India and the US are set to sign a key logistics agreement during Defence Minister Manohar Parrikar’s upcoming visit to the country which will enable both militaries to use each other’s assets and bases for repair and replenishment of supplies.

- The agreement is known as ‘Logistics Exchange Memorandum of Agreement’ (LEMOA). The agreement was announced during the visit of Carter to India in April this year.

About the agreement:

The agreement will give two nations access to logistic support from each other besides refueling and birthing facilities.

- It requires both countries to provide their bases, fuel and other kinds of logistics support to each other’s’ fighter jets and naval warships.
- Logistical support with regard to weapons facilities would involve non-offensive military equipment.
- This support will involve cashless transactions on a reciprocal basis.
- It would be particularly beneficial at the time of disaster relief operations like the one India undertook in the wake of the Asian Tsunami in 2004.

Sources: the hindu.

India, Myanmar sign four agreements

India and Myanmar have signed four agreements following bilateral talks between Prime Minister Narendra Modi and visiting Myanmar President Htin Kyaw. This is the first presidential visit from Myanmar to India after Nobel laureate Aung San Suu Kyi’s National League for Democracy (NLD) came to power in March this year.

Details:

- The first agreement pertains to construction of 69 bridges on the Tamu-Kalewa section of the trilateral highway connecting India, Myanmar and Thailand.
- The second agreement is on upgrading the Kalewa-Yargi section of the trilateral highway.
- The third agreement is on cooperation in the field of renewable energy.
- Fourth agreement is on cooperation in the field of traditional medicines.

Sources: the hindu.
Saudi King orders resolution of foreign workers’ issues

Saudi Arabia’s King Salman has ordered authorities to address “once and for all” the grievances of distressed foreign workers, especially Indians and the Filipinos, stranded in the Kingdom after not being paid for months.

- The king has ordered the authorities to oblige companies who have contracts with the government to pay the salaries of their employees in accordance with the government’s Wage Protection Programme.

Background:
The King’s directives come amid increasing complaints by workers that they have not been paid their salaries for months. Mainly affected are India and Philippines communities. Currently, a total of 7,700 affected Indian workers are living in 20 camps in the country and the Indian embassy is in the process of collecting information about others residing in different parts of Saudi Arabia.

What is the issue?
The Saudi government was forced to cut its spending last year on the back of plummeting oil prices. As a result, it created pressure on the financials of local construction companies. Such firms employ foreign workers and rely on state contracts. The resultant strain on the firms led to nearly 10,000 workers being laid off, and left them with no money to even eat food. More than 2,500 Indians are said to be living in labour camps with no food for the past 10 days.

What has the Indian government done?
The government has announced that it will be evacuating all the workers that are stuck there and bring them back home. Indian Minister of State for External Affairs V.K. Singh also visited Saudi Arabia to resolve the issue. The citizens are likely to be evacuated by airlifting them. The Centre will also be urging authorities in Saudi Arabia to help with exit visas and release the arrears of Indian workers as well.

A Crisis Management Group has also been set up by the Ministry of Labour to settle all issues related to Indian workers. The Saudi government will soon be appointing a lawyer and the exact procedure regarding the issue of salary and other dues pending to the Indian workers there will be established in the next 2-3 days.

Sources: the hindu.

U.S.’ security assistance to Pakistan falls by 73 per cent since 2011

According to a report, the US’s security assistance to Pakistan has declined by 73% since 2011 due to the deterioration in ties following the killing of al-Qaida chief Osama bin Laden. The report prepared by the Congressional Research Service (CRS) covers both military and economic assistance given between 2002 and 2015 as well as those earmarked for fiscal years 2016 and 2017.

Details:
- Besides decline in security assistance, the report also shows a 53% decrease in economic assistance since 2011.
- Recently, the US decided not to pay $300 million in military reimbursements to Islamabad over its alleged reluctance to act against the Haqqani network. The cancelled $300 million payments were in the form of Coalition Support Fund CSF, under which Pakistan has received $14 billion since 2002. Nearly half the CSF assistance to Pakistan is used for food and ammunition.
- The data shows that CSF accounts for 43% of $32.2 billion worth of US government financial transfers to Pakistan from 2002 to 2015. Economic aid comprises 33% of transfers at $10.6 billion followed by 24% in security aid at $7.6 billion.
Silk Road’ train to reach Afghanistan

China recently launched its first cargo train to Afghanistan. The train carrying 84 containers departed from Nantong City, east China’s Jiangsu Province, to the Afghanistan city of Hairatan.

- It is China’s first cargo train service to Afghanistan and it takes about 15 days passing through Kazakhstan and Uzbekistan. Hairatan is the border town located close to Uzbekistan.
- This move is aimed at consolidating ties with Kabul, as part of the One Belt One Road (OBOR) initiative along the ancient Silk Road.
- The decision to run a cargo train follows concerted effort by China to play a leading role in imparting political stability to Afghanistan, in tune with the scaling down of NATO forces from the country.

OBOR:
One Belt, One Road (OBOR) initiative aims to connect major Eurasian economies through infrastructure, trade and investment.
- The “Belt” is a network of overland road and rail routes, oil and natural gas pipelines, and other infrastructure projects that will stretch from Xi’an in central China through Central Asia and ultimately reach as far as Moscow, Rotterdam, and Venice.
- The “Road” is its maritime equivalent: a network of planned ports and other coastal infrastructure projects that dot the map from South and Southeast Asia to East Africa and the northern Mediterranean Sea.

India to reject UN team’s request to visit Kashmir, expose Pakistan’s role in unrest

India is set to reject a UNHRC move to send a team to Jammu and Kashmir, pointing out that the domestic human rights panel was already at work while other institutions like Parliament and the Supreme Court had also discussed the situation in the state.

- In its reply to UNHRC, India has said that a visit by a UN Human Rights Council team is not required. It has also explained several measures the Indian government has taken to restore normalcy in J&K besides pointing to Pakistan’s overt role in aggravating the situation in Kashmir by way of its open support to jihadi organisations instigating violence in India.

Background:
The UNHRC letter to India came after Pakistan urged it to investigate “human rights violations” in Kashmir.

About UNHRC:
It is an inter-governmental body within the United Nations system responsible for strengthening the promotion and protection of human rights around the globe and for addressing situations of human rights violations and make recommendations on them.
- It meets at the UN Office at Geneva and members are elected by the UN General Assembly.
- The term of each seat is three years, and no member may occupy a seat for more than two consecutive terms.
- The council works closely with the Office of the High Commissioner for Human Rights and engages the United Nations’ special procedures.
- The General Assembly can suspend the rights and privileges of any Council member that it decides has persistently committed gross and systematic violations of human rights during its term of membership. The suspension process requires a two-thirds majority vote by the General Assembly.

Sources: the hindu.
INSIGHTS TEST SERIES FOR UPSC PRELIMINARY EXAM 2017 (GS PAPER I)

HIGHLIGHTS
- NCERT and other Standard Books based highly conceptual Tests for General Studies Paper - 1
- Emphasis on Self Study by providing practical Timetable for whole year that can be followed on a regular basis
- 32 Full Length Tests Each with 100 High Quality Questions
- Focus on enabling you to get 130+ score in Paper - 1
- Analysis of your Performance in different categories after Each Test
- All India Ranking of Individual and Cumulative Tests
- Duration of test series is for one year. Date of your ranking and performance in tests will be removed before the beginning of 2018 Test Series.
- Revision Tests to allow time for regular revision

ADVANTAGES
- High quality 32 Full Length Tests widely acclaimed for their quality questions and right approach to preparing for UPSC civil services Preliminary exam (General Studies Paper -1)
- Detailed solutions to each question with exhaustive explanations make Insights tests unique.
- Wide coverage of all authentic and primary sources which UPSC is fond of sourcing questions for its exams.
- We take it very serious to focus more on concepts rather than on facts. Questions will help you build your concepts from scratch.
- You will fall in love with NCERT books and find them more important than any other sources once you start solving our tests. You will know when you solve our first few tests.
- Questions are framed from standard books and online sources which are recommended by every topper, every year.
- A detailed Study Plan comes with a Timetable to follow on regular basis to prepare for and solve each test.
- All India Ranking will help in assessing your preparation levels.
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Bill to amend Sarfaesi, debt recovery tribunal Acts cleared by Lok Sabha

In an important step aimed to resolve bad loans, the Lok Sabha on Monday passed a bill to amend the existing Securitisation and Reconstruction of Financial Assets and Enforcement of Security Interest (Sarfaesi) Act, and the debt recovery tribunal (DRT) Act.

The amendments are aimed at

- faster recovery and resolution of bad debts by banks and financial institutions
- making it easier for asset reconstruction companies (ARCs) to function.
- put in place an enabling infrastructure to effectively deal with non-performing assets in the Indian banking system along with the new bankruptcy law which came into effect earlier this year


- The government had introduced the Bill in May. The bill was referred to a joint Parliament committee which submitted its report last month. The bill will amend four acts—Sarfaesi Act, 2002, the Recovery of Debts due to Banks and Financial Institutions Act, 1993, the Indian Stamp Act, 1899 and the Depositaries Act, 1996.
- The bill will now go to the Rajya Sabha for its approval. The government has accepted all the recommendations of the joint committee.
- The bankruptcy law is now becoming operational. One of the big challenges we face is the enforcement of interest and recovery of bad debts. Securitization law and DRT law need to be amended for quick disposal of disputes
- DRTs were envisaged as an alternative to civil courts and for ensuring quick disposal. But things need to move faster.
- Procedures in front of DRTs cannot be similar to civil courts

Background

- Indian banks have been under stress with many of them reporting losses and surge in non-performing assets (NPAs) after the Reserve Bank of India (RBI) pushed lenders to classify visibly stressed assets as NPAs after an asset quality review in 2015-16.
- Total stressed assets of state-run banks as of 31 March were at 14.5% of total advances, and according to recent report released by RBI, this may increase further.
- The gross non-performing asset (NPA) ratio of state-run banks may rise to 10.1% by March 2017 from 9.6% as of March 2016, RBI's financial stability report said, warning that under a severe stress scenario, it may rise to 11% by March 2017.
- Flaws in the existing recovery process have added to the problem of bad loans. For instance, more than 70,000 cases are pending before DRTs.

Salient Features of the Bill

- The bill gives RBI powers to audit and inspect ARCs and the freedom to remove the chairman or any director and appoint central bank officials to its board. The central bank will be empowered to impose penalties for non-compliance with its directives, and regulate the fees charged by these companies to banks at the time of acquiring such assets.
- The bill will also pave the way for the sponsor of an ARC to hold up to 100% stake. It will also enable non-institutional investors to invest in security receipts issued by ARCs and mandate a timeline for possession of secured assets.
- To be sure, RBI already regulates these entities, but the bill expands the regulator's powers. It also increases the penalty amount that can be levied by RBI to Rs.1 crore from Rs.5 lakh.
- The bill proposes to widen the scope of the registry that will house the central database of all loans against properties given by all lenders.
- It also proposes to bring hire purchase and financial lease under the ambit of the Sarfaesi Act, and enable secured creditors to take over a company and restore its business on acquisition of controlling interest in the borrower company.
- As part of the overhaul of DRTs, the bill proposes to speed up the process of recovery and move towards online DRTs. To this effect, it proposes electronic filing of recovery applications, documents and written statements.
- DRTs will be the backbone of the bankruptcy code and deal with all insolvency proceedings involving individuals. The debtor will have to deposit 50% of the amount of debt due before filing an appeal at a DRT. It also seeks to make the process time-bound. A district magistrate has to clear an application by the creditor to take over possession of the collateral within 60 days.
- Political will is necessary and that seems to be missing. Bankruptcy and insolvency code has been passed. In spite of passage of laws, we have not seen much progress on either curtailing black money or on NPAs of banks. Total stressed assets have crossed Rs.8.8 trillion
- The bill also proposes to amend the Indian Stamp Act to exempt deeds of assignment signed at the time of an ARC buying a loan from a bank from the levy of stamp duty.
- The amendments carry the work forward done in the insolvency and bankruptcy code. Automation will help in increasing the pace of recovery, but this requires an investment. Currently, the problem is that many DRTs from time to time do not have presiding officers


Cabinet nod for changes to FDI regulations in NBFCs

The Cabinet has approved a proposal to amend rules for foreign investment in non-banking finance companies (NBFCs).

As per the new norms:

- Foreign investment in 'other financial services' that are not regulated by any regulators or by a government agency can be made via the approval route.
Minimum capitalisation norms as mandated under FDI policy have been eliminated as most of the regulators have already fixed minimum capitalisation norms.

**Background:**
The present regulations on NBFCs stipulates that FDI would be allowed on automatic route for only 18 specified NBFC activities after fulfilling prescribed minimum capitalisation norms mentioned therein.

**NBFCs:**
- Non-bank financial companies (NBFCs) are financial institutions that provide banking services without meeting the legal definition of a bank, i.e. one that does not hold a banking license. These institutions typically are restricted from taking deposits from the public depending on the jurisdiction. Nonetheless, operations of these institutions are often still covered under a country’s banking regulations.

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The Reserve Bank of India is entrusted with the responsibility of regulating and supervising the Non-Banking Financial Companies by virtue of powers vested under Reserve Bank of India Act, 1934.

NBFCs lend and make investments and hence their activities are akin to that of banks; however there are a few differences as given below:
- NBFC cannot accept demand deposits.
- NBFCs do not form part of the payment and settlement system and cannot issue cheques drawn on itself.
- Deposit insurance facility of Deposit Insurance and Credit Guarantee Corporation is not available to depositors of NBFCs, unlike in case of banks.

Sources: the hindu.

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**Centre may ease regulatory norms for Exim Bank, ECGC**

The Commerce Ministry is considering measures to strengthen state-owned export promotion firms — Exim Bank and Export Credit Guarantee Corporation (ECGC). The ministry is also planning to free them from strict regulatory norms to help boost exports.

**Measures being considered include:**
- More financial support from the government to augment companies’ capital.
- Allowing them to retain the dividend amount instead of the current practice of paying it to the government.
- Freeing them from the stringent regulatory norms — removing Exim Bank from the supervision of banking regulator RBI and the ECGC from insurance regulator IRDAI’s ambit.
- Increasing leverage ratio of EXIM bank, a mix of owners’ equity and debt to finance the company’s operations, from a low level of around 11 times the bank’s Net-Owned Funds (NOF) to at least 15 times its NOF initially and then more at a later stage.
Why such measures are necessary?
Such reforms are necessary to ensure a major turnaround in the country’s merchandise exports, which contracted 6.84% year-on-year to $21.69 billion in July.

About EXIM bank:
Export–Import Bank of India was established in 1982 under the Export–Import Bank of India Act 1981. Since its inception, Exim Bank of India has been both a catalyst and a key player in the promotion of cross border trade and investment. Over the period, it has evolved into an institution that plays a major role in partnering Indian industries, particularly the Small and Medium Enterprises, in their globalisation efforts, through a wide range of products and services offered at all stages of the business cycle, starting from import of technology and export product development to export production, export marketing, pre-shipment and post-shipment and overseas investment.

About ECGC:
The ECGC Limited is a company wholly owned by the Government of India. It provides export credit insurance support to Indian exporters and is controlled by the Ministry of Commerce. Government of India had initially set up Export Risks Insurance Corporation (ERIC) in July 1957. It was transformed into Export Credit and Guarantee Corporation Limited (ECGC) in 1964 and to Export Credit Guarantee Corporation of India in 1983.

Functions:
- Provides a range of credit risk insurance covers to exporters against loss in export of goods and services as well.
- Offers guarantees to banks and financial institutions to enable exporters to obtain better facilities from them.
- Provides Overseas Investment Insurance to Indian companies investing in joint ventures abroad in the form of equity or loan and advances.

Sources: the hindu.

Provide loans to women SHGs at 7 per cent: RBI to banks
The Reserve Bank has asked banks to provide loans to women self-help groups (SHGs) at 7% per annum, as per the government’s revised guidelines for 2016-17. All women SHGs are eligible for interest subvention on credit up to Rs 3 lakh at 7% per annum under Deendayal Antyodaya Yojana-National Rural Livelihoods Mission.

Details:
- As per the RBI notification, the banks will lend to all the women SHGs in rural areas at 7% in 250 districts.
- However, SHGs availing capital subsidy under SGSY in their existing credit outstanding will not be eligible for benefit under this scheme.
- All banks will be subvented to the extent of difference between the weighted average interest charged and 7%, subject to the maximum limit of 5.5% for 2016-17.
- This subvention will be available to all the banks on the condition that they make SHG credit available at 7% annually in the 250 districts.
- Further, the SHGs will be provided with an additional 3% subvention on the prompt repayment of loans.

Deen Dayal Antyodaya Yojana – NRM:
Aajeevika – National Rural Livelihoods Mission (NRLM) was launched by the Ministry of Rural Development (MoRD) in June 2011. Aided in part through investment support by the World Bank, the Mission aims at creating efficient and effective institutional platforms of the rural poor, enabling them to increase household income through sustainable livelihood enhancements and improved access to financial services.

- Under the scheme, the poor would be facilitated to achieve increased access to rights, entitlements and public services, diversified risk and better social indicators of empowerment.
- In November 2015, the program was renamed Deen Dayal Antyodaya Yojana (DAY-NRLM).

Sources: the hindu.

Banks to issue Masala bonds, RBI opens currency markets
The Reserve Bank of India has announced a slew of debt market reforms to simplify participation and enhance liquidity, besides allowing the use of newly-introduced instruments such as Masala Bonds. The measures accept many of the recommendations made by HR Khan Committee.

Measures announced:
- RBI will allow commercial banks to issue rupee bonds in overseas markets — known as Masala bonds, both for their capital requirement and for financing infrastructure and affordable housing.
- The aggregate limit of partial credit enhancement (PCE) provided by banks will be enhanced. The aggregate PCE that will be provided by the financial system for a given bond issue will be increased from the present level of 20% to 50% of the bond issue size, subject to the PCE provided by any single bank not exceeding 20% of the bond issue size and the extant exposure limits.
- Brokers in corporate bond repos will be permitted and the platform for repo in corporate bonds will be authorized.
- It has also been decided to seek suitable legal amendments to enable it to accept corporate bonds under the Liquidity adjustment Facility (LAF).
- In order to ease access to the foreign exchange market for hedging in over the counter (OTC) and exchange-traded currency derivatives, the RBI has allowed entities exposed to exchange rate risk, both resident and non-resident, to undertake hedge transactions with simplified procedures, up to a limit of $30 million at any given time.
- Banks can also allow the customer an open position limit of up to $5 million. This is intended to improve liquidity and depth in the foreign exchange market and the limit will be revised from time to time.
- A working group will be formed to review the guidelines for hedging of price risk by residents in the overseas markets.
- To enhance participation in the corporate bond market, the RBI has decided that brokers authorised as market makers will be allowed to participate in the corporate bond repo market. This measure is expected to meet their funding and securities requirement arising out of market making activities. Currently, banks, primary dealers, mutual funds, insurance companies
are only allowed. In addition, foreign portfolio investors have been allowed to transact in corporate bonds directly without involving brokers.

- With an aim to reduce risk in banking sector, RBI has also proposed to limit exposure of a bank to a business group to up to 25% of its capital, down from the existing 55%.

**Masala Bond:**
Masala bond is a term used to refer to a financial instrument through which Indian entities can raise money from overseas markets in the rupee, not foreign currency. These are Indian rupee denominated bonds issued in offshore capital markets.

**It's significance:**
The rupee denominated bond is an attempt to shield issuers from currency risk and instead transfer the risk to investors buying these bonds. Currency risk is borne by the investor and hence, during repayment of bond coupon and maturity amount, if rupee depreciates, RBI will realize marginal saving.

**Main features:**
- Though raised in Indian currency, these bonds will be considered as part of foreign borrowing by Indian corporate and hence would have to follow the RBI norms in this regard.
- Under the automatic route, companies can raise as much as $750 million per annum through Masala bonds.

**Sources:** the hindu.

**CBDT signs 20 Unilateral Advance Pricing Agreements with Indian taxpayers**
The Central Board of Direct Taxes (CBDT) has entered into 20 Unilateral Advance Pricing Agreements (APAs) with Indian taxpayers. Many of these agreements also have a “Rollback” provision in them.

- The 20 APAs signed pertain to various sectors of the economy like Information Technology, Banking & Finance, Insurance, Human Resources, Pharmaceutical, Solar Energy, Oil & Gas, Foods & Beverages, Telecommunications and NGO.
- The international transactions covered in these agreements include Software Development Services, IT enabled services, Investment Advisory Services, KPO services, Contract manufacture, Contract R&D services and Import of components etc.
- With these signings, the total number of APAs entered into by the CBDT has reached 98. This includes 4 bilateral APAs and 94 unilateral APAs.

**About APA:**
The APA Scheme was introduced in the Income-tax Act in 2012 and the “Rollback” provisions were introduced in 2014.

- The scheme endeavours to provide certainty to taxpayers in the domain of transfer pricing by specifying the methods of pricing and setting the prices of international transactions in advance.
- The taxpayer has the option to roll back the APA for four preceding years.
- Since its inception, the APA scheme has attracted tremendous interest and that has resulted in more than 700 applications having been filed in just four years.

**What is an advance pricing agreement?**
An APA, usually for multiple years, is signed between a taxpayer and the tax authority (CBDT) on an appropriate transfer pricing methodology for determining the price and ensuing taxes on intra-group overseas transactions.

**Sources:** pib.

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

**Steel industry seeks extension of MIP**
Even as the steel industry is urging the Centre to continue the minimum import price (MIP) protection scheme to guard against increased imports, user-industries have started protesting against any extension of the scheme.

**MIP scheme for Steel Industry**

- The MIP scheme was introduced in February, 2016 for six months.
- Post-MIP, the industry has been able to marginally improve its viability after a prolonged period of subdued prices and eroded profit margins
- While MIP cannot possibly be an all-encompassing framework for a complete turnaround of the Indian steel industry, it has provided a cushion against surging imports
- The Indian steel industry does not see MIP as a perpetual protectionist step, but as a necessary temporary measure that will allow time for recovery.
- The Indian steel industry’s outstanding loan is estimated at Rs.3,00,000 crore, of which 35 per cent may be stressed.
- MIP was imposed on February 5, 2016 on 173 steel items covering both flat and long products.
- The accelerating imports at predatory prices from three steel-surplus Asian countries has been a major concern for the domestic industry since September 2014.
- Steel imports, which had peaked in July 2015 registering a 114.6 per cent increase year-on-year, started to decline around November 2015 (when a provisional safeguard duty was imposed). Post-MIP it has dropped in range of 24.6 per cent and 43.1 per cent in the first quarter of the current fiscal.
Anti-dumping duty
- India is expected to impose an anti-dumping duty of up to $ 557 per tonne on imports of certain steel products from six countries.
- The Directorate General of Anti-Dumping and Allied Duties (DGAD), under the Commerce Ministry, has found that hot-rolled flat products of alloy or non-alloy steel have been exported to India from China, Japan, Korea, Russia, Brazil and Indonesia at “below-normal value”.

Frequently Asked Questions (FAQs) on Goods and Services Tax (GST)

(Below content is copied as it is from PIB Website)

Question 1. What is GST? How does it work?
- GST is one indirect tax for the whole nation, which will make India one unified common market.
- GST is a single tax on the supply of goods and services, right from the manufacturer to the consumer.
- Credits of input taxes paid at each stage will be available in the subsequent stage of value addition, which makes GST essentially a tax only on value addition at each stage.
- The final consumer will thus bear only the GST charged by the last dealer in the supply chain, with set-off benefits at all the previous stages.

Question 2. What are the benefits of GST?
- For business and industry
  - Easy compliance: A robust and comprehensive IT system would be the foundation of the GST regime in India. Therefore, all tax payer services such as registrations, returns, payments, etc. would be available to the taxpayers online, which would make compliance easy and transparent.
  - Uniformity of tax rates and structures: GST will ensure that indirect tax rates and structures are common across the country, thereby increasing certainty and ease of doing business. In other words, GST would make doing business in the country tax neutral, irrespective of the choice of place of doing business.
  - Removal of cascading: A system of seamless tax-credits throughout the value-chain, and across boundaries of States, would ensure that there is minimal cascading of taxes. This would reduce hidden costs of doing business.
  - Improved competitiveness: Reduction in transaction costs of doing business would eventually lead to an improved competitiveness for the trade and industry.
  - Gain to manufacturers and exporters: The subsuming of major Central and State taxes in GST, complete and seamless set-off of input goods and services and phasing out of Central Sales Tax (GST) would reduce the cost of locally manufactured goods and services. This would increase the competitiveness of Indian goods and services in the international market and give boost to Indian exports. The uniformity in tax rates and procedures across the country will also go a long way in reducing the compliance cost.
- For Central and State Governments
  - Simple and easy to administer: Multiple indirect taxes at the Central and State levels are being replaced by GST. Backed with a robust end-to-end IT system, GST would be simpler and easier to administer than all other indirect taxes of the Centre and State levied so far.
  - Better controls on leakage: GST will result in better tax compliance due to a robust IT infrastructure. Due to the seamless transfer of input tax credit from one stage to another in the chain of value addition, there is an in-built mechanism in the design of GST that would incentivize tax compliance by traders.
  - Higher revenue efficiency: GST is expected to decrease the cost of collection of tax revenues of the Government, and will therefore, lead to higher revenue efficiency.
- For the consumer
  - Single and transparent tax proportionate to the value of goods and services: Due to multiple indirect taxes being levied by the Centre and State, with incomplete or no input tax credits available at progressive stages of value addition, the cost of most goods and services in the country today are laden with many hidden taxes. Under GST, there would be only one tax from the manufacturer to the consumer, leading to transparency of taxes paid to the final consumer.
  - Relief in overall tax burden: Because of efficiency gains and prevention of leakages, the overall tax burden on most commodities will come down, which will benefit consumers.

Question 3. Which taxes at the Centre and State level are being subsumed into GST?
At the Central level, the following taxes are being subsumed:
- Central Excise Duty,
- Additional Excise Duty,
- Service Tax,
- Additional Customs Duty commonly known as Countervailing Duty, and
- Special Additional Duty of Customs.

At the State level, the following taxes are being subsumed:
- Subsuming of State Value Added Tax/Sales Tax,
- Entertainment Tax (other than the tax levied by the local bodies), Central Sales Tax (levied by the Centre and collected by the States),
- Octroi and Entry tax,
Question 4. What are the major chronological events that have led to the introduction of GST?
Answer: GST is being introduced in the country after a 13 year long journey since it was first discussed in the report of the Kelkar Task Force on indirect taxes. A brief chronology outlining the major milestones on the proposal for introduction of GST in India is as follows:

1. In 2003, the Kelkar Task Force on indirect tax had suggested a comprehensive Goods and Services Tax (GST) based on VAT principle.
2. A proposal to introduce a National level Goods and Services Tax (GST) by April 1, 2010 was first mooted in the Budget Speech for the financial year 2006-07.
3. Since the proposal involved reform/restructuring of not only indirect taxes levied by the Centre but also the States, the responsibility of preparing a Design and Road Map for the implementation of GST was assigned to the Empowered Committee of State Finance Ministers (EC).
4. Based on inputs from Govt of India and States, the EC released its First Discussion Paper on Goods and Services Tax in India in November, 2009.
5. In order to take the GST related work further, a Joint Working Group consisting of officers from Central as well as State Government was constituted in September, 2009.
6. In order to amend the Constitution to enable introduction of GST, the Constitution (115th Amendment) Bill was introduced in the Lok Sabha in March 2011. As per the prescribed procedure, the Bill was referred to the Standing Committee on Finance of the Parliament for examination and report.
7. Meanwhile, in pursuance of the decision taken in a meeting between the Union Finance Minister and the Empowered Committee of State Finance Ministers on 8th November, 2012, a ‘Committee on GST Design’, consisting of the officials of the Government of India, State Governments and the Empowered Committee was constituted.
8. This Committee did a detailed discussion on GST design including the Constitution (115th) Amendment Bill and submitted its report in January, 2013. Based on this Report, the EC recommended certain changes in the Constitution Amendment Bill in their meeting at Bhubaneswar in January 2013.
9. The Empowered Committee in the Bhubaneswar meeting also decided to constitute three committees of officers to discuss and report on various aspects of GST as follows:
   (a) Committee on Place of Supply Rules and Revenue Neutral Rates;
   (b) Committee on dual control, threshold and exemptions;
   (c) Committee on IGST and GST on imports.
1. The Parliamentary Standing Committee submitted its Report in August, 2013 to the Lok Sabha. The recommendations of the Empowered Committee and the recommendations of the Parliamentary Standing Committee were examined in the Ministry in consultation with the Legislative Department. Most of the recommendations made by the Empowered Committee and the Parliamentary Standing Committee were accepted and the draft Amendment Bill was suitably revised.
2. The final draft Constitutional Amendment Bill incorporating the above stated changes were sent to the Empowered Committee for consideration in September 2013.
3. The EC once again made certain recommendations on the Bill after its meeting in Shillong in November 2013. Certain recommendations of the Empowered Committee were incorporated in the draft Constitution (115th Amendment) Bill. The revised draft was sent for consideration of the Empowered Committee in March, 2014.
4. The 115th Constitutional (Amendment) Bill, 2011, for the introduction of GST introduced in the Lok Sabha in March 2011 lapsed with the dissolution of the 15th Lok Sabha.
5. In June 2014, the draft Constitution Amendment Bill was sent to the Empowered Committee after approval of the new Government.
6. Based on a broad consensus reached with the Empowered Committee on the contours of the Bill, the Cabinet on 17.12.2014 approved the proposal for introduction of a Bill in the Parliament for amending the Constitution of India to facilitate the introduction of Goods and Services Tax (GST) in the country. The Bill was introduced in the Lok Sabha on 19.12.2014, and was passed by the Lok Sabha on 06.05.2015. It was then referred to the Select Committee of Rajya Sabha, which submitted its report on 22.07.2015.

Question 5. How would GST be administered in India?
Answer: Keeping in mind the federal structure of India, there will be two components of GST – Central GST (CGST) and State GST (SGST). Both Centre and States will simultaneously levy GST across the value chain. Tax will be levied on every supply of goods and services. Centre would levy and collect Central Goods and Services Tax (CGST), and States would levy and collect the State Goods and Services Tax (SGST) on all transactions within a State. The input tax credit of CGST would be available for discharging the CGST liability on the output at each stage. Similarly, the credit of SGST paid on inputs would be allowed for paying the SGST on output. No cross utilization of credit would be permitted.

Question 6. How would a particular transaction of goods and services be taxed simultaneously under Central GST (CGST) and State GST (SGST)?
Answer: The Central GST and the State GST would be levied simultaneously on every transaction of supply of goods and services except on exempted goods and services, goods which are outside the purview of GST and the transactions which are below the prescribed threshold limits. Further, both would be levied on the same price or value unlike State VAT which is levied on the value of the goods inclusive of Central Excise.
A diagrammatic representation of the working of the Dual GST model within a State is shown in Figure 1 below.

**Figure 1: GST within State**

![Diagram of GST within State](image)

**Question 7.** Will cross utilization of credits between goods and services be allowed under GST regime?

**Answer:** Cross utilization of credit of CGST between goods and services would be allowed. Similarly, the facility of cross utilization of credit will be available in case of SGST. However, the cross utilization of CGST and SGST would not be allowed except in the case of inter-State supply of goods and services under the IGST model which is explained in answer to the next question.

**Question 8.** How will IT be used for the implementation of GST?

**Answer:** For the implementation of GST in the country, the Central and State Governments have jointly registered Goods and Services Tax Network (GSTN) as a not-for-profit, non-Government Company to provide shared IT infrastructure and services to Central and State Governments, tax payers and other stakeholders. The key objectives of GSTN are to provide a standard and uniform interface to the taxpayers, and shared infrastructure and services to Central and State/UT governments.

GSTN is working on developing a state-of-the-art comprehensive IT infrastructure including the common GST portal providing frontend services of registration, returns and payments to all taxpayers, as well as the backend IT modules for certain States that include processing of returns, registrations, audits, assessments, appeals, etc. All States, accounting authorities, RBI and banks, are also preparing their IT infrastructure for the administration of GST.

There would no manual filing of returns. All taxes can also be paid online. All mis-matched returns would be auto-generated, and there would be no need for manual interventions. Most returns would be self-assessed.

**Question 9.** How will Inter-State Transactions of Goods and Services be taxed under GST in terms of IGST method?

**Answer:** In case of inter-State transactions, the Centre would levy and collect the Integrated Goods and Services Tax (IGST) on all inter-State supplies of goods and services under Article 269A (1) of the Constitution. The IGST would roughly be equal to CGST plus SGST. The IGST mechanism has been designed to ensure seamless flow of input tax credit from one State to another. The inter-State seller would pay IGST on the sale of his goods to the Central Government after adjusting credit of IGST, CGST and SGST on his purchases (in that order). The exporting State will transfer to the Centre the credit of SGST used in payment of IGST. The importing dealer will claim credit of IGST while discharging his output tax liability (both CGST and SGST) in his own State. The Centre will transfer to the importing State the credit of IGST used in payment of SGST. Since GST is a destination-based tax, all SGST on the final product will ordinarily accrue to the consuming State.

A diagrammatic representation of the working of the IGST model for inter-State transactions is shown in Figure 2 below.
Question 10. How will imports be taxed under GST?

Answer: The Additional Duty of Excise or CVD and the Special Additional Duty or SAD presently being levied on imports will be subsumed under GST. As per explanation to clause (1) of article 269A of the Constitution, IGST will be levied on all imports into the territory of India. Unlike in the present regime, the States where imported goods are consumed will now gain their share from this IGST paid on imported goods.

Question 11. What are the major features of the Constitution (122nd Amendment) Bill, 2014?

Answer: The salient features of the Bill are as follows:

1. Conferring simultaneous power upon Parliament and the State Legislatures to make laws governing goods and services tax;
2. Subsuming of various Central indirect taxes and levies such as Central Excise Duty, Additional Excise Duties, Service Tax, Additional Customs Duty commonly known as Countervailing Duty, and Special Additional Duty of Customs;
3. Subsuming of State Value Added Tax/Sales Tax, Entertainment Tax (other than the tax levied by the local bodies), Central Sales Tax (levied by the Centre and collected by the States), Octroi and Entry tax, Purchase Tax, Luxury tax, and Taxes on lottery, betting and gambling;
4. Dispensing with the concept of 'declared goods of special importance' under the Constitution;
5. Levy of Integrated Goods and Services Tax on inter-State transactions of goods and services;
6. GST to be levied on all goods and services, except alcoholic liquor for human consumption. Petroleum and petroleum products shall be subject to the levy of GST on a later date notified on the recommendation of the Goods and Services Tax Council;
7. Compensation to the States for loss of revenue arising on account of implementation of the Goods and Services Tax for a period of five years;
8. Creation of Goods and Services Tax Council to examine issues relating to goods and services tax and make recommendations to the Union and the States on parameters like rates, taxes, cesses and surcharges to be subsumed, exemption list and threshold limits, Model GST laws, etc. The Council shall function under the Chairmanship of the Union Finance Minister and will have all the State Governments as Members.
Question 12. What are the major features of the proposed registration procedures under GST?
Answer: The major features of the proposed registration procedures under GST are as follows:
1. Existing dealers: Existing VAT/Central excise/Service Tax payers will not have to apply afresh for registration under GST.
2. New dealers: Single application to be filed online for registration under GST.
   iii. The registration number will be PAN based and will serve the purpose for Centre and State.
3. Unified application to both tax authorities.
4. Each dealer to be given unique ID GSTIN.
5. Deemed approval within three days.
6. Post registration verification in risk based cases only.

Question 13. What are the major features of the proposed returns filing procedures under GST?
Answer: The major features of the proposed returns filing procedures under GST are as follows:
1. Common return would serve the purpose of both Centre and State Government.
2. There are eight forms provided for in the GST business processes for filing for returns. Most of the average tax payers would be using only four forms for filing their returns. These are return for supplies, return for purchases, monthly returns and annual return.
3. Small taxpayers: Small taxpayers who have opted composition scheme shall have to file return on quarterly basis.
4. Filing of returns shall be completely online. All taxes can also be paid online.

Question 14. What are the major features of the proposed payment procedures under GST?
Answer: The major features of the proposed payments procedures under GST are as follows:
1. Electronic payment process- no generation of paper at any stage
2. Single point interface for challan generation- GSTN
3. Ease of payment – payment can be made through online banking, Credit Card/Debit Card, NEFT/RTGS and through cheque/cash at the bank
4. Common challan form with auto-population feature
5. Use of single challan and single payment instrument
6. Common set of authorized banks
7. Common Accounting Codes

Ministry wants SEZs' tax sops to continue

The Commerce Ministry has raised with the Finance Ministry the Special Economic Zone (SEZ) sector’s concerns about the lack of clarity in the proposed Goods & Services Tax (GST) regime on the continuation of tax & duty exemptions.

Concerns:
Currently, many tax and duty incentives have been offered to SEZ units and developers in the SEZ policy to help them attract investments, and in turn, generate employment and boost exports. However, the proposed GST regime does not provide clarity on these SEZ-related incentives.

Way ahead:
The Commerce Ministry has asked the Finance Ministry to continue incentives that are currently provided to the SEZs. As per the current norms, SEZs are tax and duty-free enclaves and are deemed to be foreign territory for purposes of taxes, duties and trade. Other exemptions provided include:
- Duty-free import and duty-free domestic procurement of goods for development, operation and maintenance of SEZ units.
- No Central Sales Tax (CST), service tax and State sales tax.
- Exemption from customs/excise duties for development of SEZs for authorised operations approved by the SEZ Board of Approval.
- No excise duty on raw material procurement by SEZs from Domestic Tariff Area (or DTA, which is the area outside the SEZs but within India) as such procurement is treated as exports from DTA to SEZ.

What is a Special Economic Zone (SEZ)?
SEZ is a geographical region that has economic laws different from a country’s typical economic laws. Usually the goal is to increase foreign investments.

Who can set up SEZs? Can foreign companies set up SEZs?
Any private/public/joint sector or state government or its agencies can set up an SEZ.

What is the role of state governments in establishing SEZs?
State governments will have a very important role to play in the establishment of SEZs. Representative of the state government, who is a member of the inter-ministerial committee on private SEZ, is consulted while considering the proposal. Before recommending any proposals to the ministry of commerce and industry (department of commerce), the states must satisfy themselves that they are in a position to supply basic inputs like water, electricity, etc.

The main objectives of the SEZ Act are:
- Generation of additional economic activity.
- Promotion of exports of goods and services.
- Promotion of investment from domestic and foreign sources.
- Creation of employment opportunities.
- Development of infrastructure facilities.

Sources: the hindu.
More cold chains, food parks to boost farm incomes

The government is planning to set up 100 new cold chain projects at a cost of Rs. 12,000 crore to Rs.13,000 crore.

- The centre has also kicked off the process to invite investors to set up six new mega food parks.
- These measures are aimed at boosting farm sector incomes by establishing farm to fork linkages.

**Background:**
India loses an estimated Rs.92,000 crore a year due to wasted food. Rs.9,000 crore has been invested in new cold storage capacity in the past two years and this has reduced 10% of the country’s food wastage.

**Mega Food Parks Scheme:**
The Scheme of Mega Food Park aims at providing a mechanism to link agricultural production to the market by bringing together farmers, processors and retailers so as to ensure maximizing value addition, minimizing wastages, increasing farmers’ income and creating employment opportunities particularly in rural sector.

**Aim of the Scheme:** The Scheme is aimed at providing modern infrastructure facilities along the value chain from farm gate to the market with strong backward and forward linkages.

**What these food parks provide?**
- They facilitate the efforts to increase the level of processing of agricultural and horticultural produce, with particular focus on perishables, in the country and thereby to check the wastage.

**How it operates?**
- The Scheme has a cluster based approach based on a hub and spokes model. It includes creation of infrastructure for primary processing and storage near the farm in the form of Primary Processing Centres (PPCs) and Collection Centres (CCs) and common facilities and enabling infrastructure at Central Processing Centre (CPC).
- The PPCs are meant for functioning as a link between the producers and processors for supply of raw material to the Central Processing Centres.
- CPC has need based core processing facilities and basic enabling infrastructure to be used by the food processing units setup at the CPC. The minimum area required for a CPC is 50 acres.
- The scheme is demand-driven and would facilitate food processing units to meet environmental, safety and social standards.

**Implementation and financial assistance:**
- Mega Food Park project is implemented by a Special Purpose Vehicle (SPV) which is a Body Corporate registered under the Companies Act. State Government/State Government entities/Cooperatives applying for setting up a project under the scheme are not required to form a separate SPV.
The financial assistance for Mega Food Park is provided in the form of grant-in-aid at 50% of eligible project cost in general areas and at 75% of eligible project cost in NE Region and difficult areas (Hilly States and ITDP areas) subject to maximum of Rs. 50 crore per project.

**Benefits:**
- Reduction in post-harvest losses.
- Maintenance of the supply chain in sustainable manner.
- Additional income generation for the farmers.
- Shifting the farmers to more market driven and profitable farming activities.
- It will be a one stop shop where everything will be available at a single location.
- As per experts, it will directly employ 10,000 people.
- Integrated food parks will help reduce supply chain costs.
- Wastage across the food value chain in India will also be reduced and quality and hygiene improvement to create food products in the country can also be seen.

**Sources:** the hindu.

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**9 new breeds of indigenous livestock registered**

Nine new breeds of indigenous farm animals have been registered by the Karnal-based Indian Council of Agricultural Research-National Bureau of Animal Genetic Resources (ICAR-NBAGR), taking the total number of indigenous breeds of livestock in the country to 160.

**Details:**
- Approval for the registration of the new breeds of livestock and poultry was recently given by the breed registration committee of the ICAR.
- The new germplasm of indigenous farm animals registered as breeds by the NBAGR includes one breed of cattle, two breeds each of goat and sheep, three breeds of pig, and one breed of chicken.
- Among the newly registered breeds, the cattle is found to be more disease resistant than the other known indigenous breeds.
- The newly identified and registered breeds include Badricow (Uttarakhand), Teressa goat (Nicobar Island), Kodi Adu goat (Tamil Nadu), Chevaadu sheep (Tamil Nadu), Kendrapada sheep (Odisha), Tenyi Vo pig (Nagaland), Nicobari pig (Nicobar Island), Doom pig (Assam) and Kaunayenchicken (Manipur).

**Background:**
Indigenous breeds of livestock and poultry are identified and registered as part of an exercise to conserve them, taking in view their area-specific suitability and heat/cold and disease resistance capabilities.
- The ICAR had initiated the mechanism for ‘Registration of Animal Germplasm’ through the NBAGR. It had in 2008 constituted a Breed Registration Committee that takes a call on registration of newly found indigenous breeds based on scientifically produced evidence.
- Registration of breeds is also aimed at creating a sense of ownership among local communities responsible for development of breeds.
- The registration of various unique populations as breeds shall also help in inventorisation, improvement, conservation and sustainable utilisation of animal genetic resources of the country.

**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.

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**Drones better than satellites to gauge crop loss, says panel**

According to a committee set up by NITI Aayog, drones are better than satellites in crop insurance schemes. The committee was tasked by NITI Aayog with studying how unmanned aerial vehicles (UAVs).

**Why drones are better than satellites?**

The current satellites would not be sufficient due to their non-availability during cloud cover, limited revisit possibility during the crop season and high price.

**How UAVs are better?**

UAVs gather data from low heights [i.e., below the cloud] and at very high resolution.

**Other recommendations made by the committee:**

- Sharing cadastral (land's location, ownership, tenure) details, Aadhaar card and bank account details should be made mandatory for effective crop insurance policies.
- Farmer field coordinates be made mandatory for issuance of insurance policy. This will help in tracking the crop field throughout the crop season without much ground monitoring, and, any kind of loss can readily be verified from satellite data.
- Pilot surveys that can estimate varying risk profiles for different regions of the country, and that for schemes such as PMFBY, drones are a better bet than satellite imagery.

**Way ahead:**

The committee is expected to submit its report to the National Institution for Transforming India (NITI Aayog) shortly.

Sources: the hindu.

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**Paper 3 Topic:** infrastructure.

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**TRAI for strict quality norms**

- The Telecom Regulatory Authority of India on Friday issued a consultation paper seeking to tighten the benchmarks for measuring the quality of service offered by telecos.
- While the regulator has sought stakeholders’ view on an appropriate way to calculate call drop rates, it has suggested that instead of measuring it for an entire service, the call drop rate be measured for smaller locations to identify problem areas.
- TRAI also elicited a debate for imposing financial disincentives in case of below par performance.

**The Telecom Regulatory Authority of India (TRAI)**

- established with effect from 20th February 1997 by an Act of Parliament, called the Telecom Regulatory Authority of India Act, 1997
- to regulate telecom services, including fixation/revision of tariffs for telecom services which were earlier vested in the Central Government.
- The TRAI Act was amended by an ordinance, effective from 24 January 2000, establishing a Telecommunications Dispute Settlement and Appellate Tribunal (TDSAT) to take over the adjudicatory and disputes functions from TRAI.
- TDSAT was set up to adjudicate any dispute between a licensor and a licensee, between two or more service providers, between a service provider and a group of consumers, and to hear and dispose of appeals against any direction, decision or order of TRAI.

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**CAG uncovers roads to nowhere**

According to the performance audit report of the Pradhan Mantri Gram Sadak Yojana (PMGSY) by CAG, tabled in Parliament recently, a total of 372 works under the rural road connectivity scheme were abandoned/proposed to be abandoned mid-way in 11 States, due to non-availability of land or land disputes. Of these, Rajasthan accounts for the highest – 213 abandoned works – followed by Odisha with 107 works.

**Highlights of the report:**

- In 26 States, 4,496 works were delayed from one month to 129 months. Among these, Bihar accounted for the highest number of delays at 1,243, due to paucity of funds and non-availability of material, followed by 572 in Odisha, 378 in Rajasthan due to land dispute, heavy rain, as well as paucity of funds, and 267 works in Uttar Pradesh.
- The report also found a few discrepancies, such as unconnected habitations that were shown as connected, non-inclusion of eligible habitations, etc, in 19 States.
- In seven States – Bihar, Gujarat, Jharkhand, Madhya Pradesh, Tamil Nadu, Tripura, and West Bengal – 73 road works were executed and shown as completed.
- To reduce systemic deficiencies and closer monitoring of the scheme, the CAG report urged the nodal Rural Development Ministry to create a Geographical Information System data base of rural roads information system for each State, and fix responsibility and accountability of agencies and individuals.

**About PMGSY:**

PMGSY was launched on 25th December 2000 as a fully funded Centrally Sponsored Scheme to provide all weather road connectivity in rural areas of the country. The programme envisages connecting all habitations with a population of 500 persons and above in the plain areas and 250 persons and above in hill States, the tribal and the desert areas.

**The objective was to give roads to villages:**

- With a inhabitants of 1000 persons & more by year 2003
- Having populace of 500 & more by 2007
Mount states, ethnic & desert region villages having a population of 500 & more by the year 2003, &
Mount states, ethnic & desert region villages having population of 250 & more by 2007.
Sources: the hindu.

India set to seize big opportunity in logistic costs saving through Sagarmala

A new report by Ministry of Shipping has said that Sagarmala project can save up to Rs 35,000-40,000 crore by 2025 per annum for India by optimizing logistics flows for key commodities. The study says that augmenting operational efficiency of ports and optimizing logistics evacuation can be a big boost to Indian trade.

What else the report says?
- Citing the example of maritime nations such as China, South Korea and Japan, the report says that ‘port-led development’ can be effectively used to save money.
- The project can give boost to Indian trade and help seize the big opportunity of growth in Indian cargo traffic at ports which is estimated to increase to 2.5 bn MMTPA by 2025.
- The study estimates the potential to save around Rs 35,000-40,000 crore per annum by optimizing logistics flows for key commodities by 2025.

Sagarmala:
The Sagarmala is a series of projects to leverage the country’s coastline and inland waterways to drive industrial development. Sagarmala, integrated with the development of inland waterways, is expected to reduce cost and time for transporting goods, benefiting industries and export/import trade.
The project is mammoth with 150 initiatives with a total outlay of ₹4 lakh crore, spread across four broad areas:
- One, modernise port infrastructure, add up to six new ports and enhance capacity.
- Two, improve port connectivity through rail corridors, freight-friendly expressways and inland waterways.
- Three, create 14 coastal economic zones or CEZs and a special economic zone at Jawaharlal Nehru Port Trust in Mumbai with manufacturing clusters to enable port-led industrialisation.
- Four, develop skills of fishermen and other coastal and island communities.

Implementation:
- To implement this, State governments would set up State Sagarmala committees, headed by the chief minister or the minister in charge of ports.
- At the central level, a Sagarmala Development Company (SDC) will be set up to provide equity support to assist various special purpose vehicles (SPVs) set up for various projects.
Sources: pib.

Suresh Prabhu announces four new trains
Union Railway Minister Suresh Prabhu has announced four new categories of trains, one for unreserved passengers and three for reserved ones. The introduction of new trains is an attempt to enhance railway services across the country.

New trains announced:
- Antyodaya Express: It is a long-distance, fully unreserved, super-fast train service for the common man. It will operate on dense routes.
- Humsafar: It is a fully third AC train.
- Tejas: It will run at 130 km an hour with local cuisine, Wi-Fi and other amenities on board.
- UDAY (Utkrisht Double-Decker Air-conditioned Yatri): It will be overnight train plying on the busiest routes to increase capacity by 40%.
Sources: the hindu.

Maharashtra becomes first state to sign MoU for regional air links
Maharashtra has become the first state to sign an MoU with the ministry of civil aviation and the Airports Authority of India for Regional Connectivity Scheme to develop 10 districts. This would lead to opening up of new destinations for both development and investments.

Details:
- The first phase will include Shirdi, Nanded, Amravati, Gondia, Nashik, Jalgaon, Solapur, Kolhapur, Ratnagiri and Sindhudurg.
- The MoU aims to facilitate regional air connectivity by making air travel affordable and move aviation sector in Maharashtra to next level.
- Maharashtra state government has also sought viability gap funding from the Centre for comprehensive airport connectivity development projects connecting one district with another through flights on dedicated routes.
- As per the agreement, the state will reduce the local tax on aviation fuel from existing 10% to 1% for 10 years, apart from providing essential land free of cost.
- The state will also provide electricity, water and necessary facilities at concessional rates.
- Under the scheme, the state will contribute 20% cost of viability gap funding, and the rest will be borne by the Centre.

Background:
The fully subsidised regional connectivity scheme (RCS) seeks to cap ticket prices so as to make flying more affordable and accessible to the common man and is part of the ambitious National Civil Aviation Policy 2016.
- Under the RCS, the Centre will subsidise 80% of the cost under a viability gap fund (VGF) scheme, while the states will meet the rest of the cost. In the case of the northeastern states, the central subsidy will be 90%.
- The RCS stipulates that air tickets for under a one-hour flight will be capped at ₹2,500, and the VGF will take care of the rest of the operational cost.

Sources: the hindu.

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.

ScatSat- 1 to help in predicting cyclones
India is set to acquire the capability for more accurate prediction and tracking of cyclones, with the launch of the ScatSat-1 satellite in September, ISRO chairman A.S.Kiran Kumar said on Thursday

Salient Features
- The indigenously developed weather forecasting satellite will be equipped with on board instruments to monitor sea surface winds and help predict the genesis of cyclones.
- The primary payload of ScatSat-1 is a scatterometer to keep a watch on the speed and direction of ocean winds that indicate the formation and strengthening of cyclones.
- The satellite will have the capacity to monitor temperature and humidity and transmit 48 images per day.
- The best thing about this 301 kg satellite is that it is being built at 60% of the actual cost, and in one-third of the estimated time.
- About 40% of satellite is made by recycling the leftover equipment from previous satellite missions.
It is a polar orbiting satellite that will take two days to cover the globe. The data will be used by NASA, European Organisation for the Exploitation of Meteorological Satellites, and National Oceanic and Atmospheric Administration as well.

Scheduled to launched by the PSLV-C35, the satellite is expected to replace Oceansat-2 which is out of service after completing its life span.

**What is scatterometer?**

- A scatterometer in the satellite will help predict formation of cyclones in the seas. Such predictions help in timely evacuation and minimise human casualties.
- A scatterometer is a microwave radar sensor. It measures the scattering effect produced while scanning the surface of the Earth from an aircraft or a satellite.
- It will measure the direction and speed of winds over the seas and oceans.

**Background**

- SCATSat-1 is an OceanSat-2 follow-up mission, actually a gap-filler mission between OceanSat-2 and -3, under development at ISRO (Indian Space Research Organization) with the objective to continue the global ocean wind vector data acquisition started by the OSCAT (OceanSat-2 Scanning Scatterometer).
- The satellite has been designed to withstand multiple system failures, unlike the last one.
- The information of global ocean surface winds is an important ingredient for weather forecasts. In particular, a need for global coverage of scatterometer data became evident, when NASA’s SeaWinds scatterometer on the QuikSCAT spacecraft ceased nominal operations in November 2009.
- Currently India is dependent on NASA’s ISS-RapidScat for prediction of cyclone forecasting and weather prediction.

**Doppler radar to boost weather forecasting**

In a bid to improve weather forecasting services, Indian Space Research Organisation has commissioned a Doppler weather radar at the Vikram Sarabhai Space Centre (VSSC), Thiruvanthapuram.

**The C-band Polarimetric Doppler weather radar (C-DWR)**

- It is the first of its kind in South India.
- The data generated by the DWR would be shared with the India Meteorological Department to supplement its prediction.
- It would be made available to researchers and other user agencies also.
- The only other C- DWR in the country is at Chirapunji.
- Two more units are coming up at Bhuj in Gujarat and Gopalpur in Odisha.
- The DWR is expected to aid rainfall estimation and detect thunderstorm, cyclones and other severe weather events within a radius of 400 km.

**Features**

- It has instruments to measure rainfall intensity, wind shear and velocity and locate a storm centre and the direction of a tornado or gust front.
- Equipped with a parabolic dish antenna and a foam sandwich spherical radome, the radar is designed to improve precision in long range weather forecasting and surveillance using the Doppler effect.
- It works by bouncing a microwave signal off a target and analysing how the object’s motion has altered the frequency of the return signal.

**Fly on rails: Global tenders floated to induct Maglev trains**

- The Indian Railways plans to introduce Maglev trains that can run at a top speed of 500 km an hour, in a bid to lure passengers from airlines.
- After receiving a proposal from a foreign investor, the Railways last week floated an expression of interest (EoI) for calling of a global tender to develop trains and tracks that operate on the principle of magnetic levitation (Maglev)
- According to the document, the developer will be responsible for designing, testing, building, running trials and operations of the levitation-based system between two key cities at a distance of 200-500 km.
- Maglev trains are in operation in China, Japan, Germany and South Korea. As the trains are propelled by magnetic forces, friction is eliminated, making transportation free of noise and vibration.
- Maglev (derived from magnetic levitation) is a transport method that uses magnetic levitation to move vehicles without touching the ground.
- With maglev, a vehicle travels along a guideway using magnets to create both lift and propulsion, thereby reducing friction by a great extent and allowing very high speeds.

**Deep Brain Stimulator**

Bhabha Atomic Research Centre and Sree Chitra Tirunal Institute for Medical Sciences & Technology (SCTIMST), Thiruvananthapuram have agreed to join hands to develop ‘Deep Brain Stimulator’ (DBS).

**What is DBS and how it operates?**

DBS involves implanting electrodes within certain areas of brain and the regular electrical pulses generated by a pacemaker-like device placed under the skin in upper chest regulates the abnormal impulses of the brain.

- The DBS consists of implanted pulse generator, electrodes and extension cables which interface with external Programmer module and wireless battery charger.
Applications:
DBS is used in typical neurological conditions of Essential tremor, Parkinson’s disease and Dystonia.

Current scenario:
These devices are currently being imported, limiting its wider usage due to the high cost. The planned joint development is targeted to provide an affordable alternative.

Sources: pib.

Global Innovation Index: India moves up to 66th rank this year

Global Innovation Index for the year 2016 has been released. The annual index — released by WIPO, Cornell University, and the multi-nation business graduate school INSEAD — has been ranking world economies since 2007 according to their innovation capabilities using more than 80 indicators, including education, R&D, patent filings, knowledge and technology inputs and institutions.

**Highlights:**
- India scored a major improvement in its Global Innovation Index ranking this year, moving up to the 66th place from 81 in 2015. India’s better performance in the latest index readings was due to its strengths in tertiary education, software exports, corporate R&D and market sophistication.
- Among middle income countries, India (25) came second after China (17) in innovation quality, overtaking Brazil (27).
- China figured at the 25th position (29 in 2015), the only middle-income country in the top 25.
- The report said India was starting to excel in ICT and creative goods exports, setting a good example of how policy was improving the innovation environment.
- In the sub-index for government effectiveness, which captures the perceptions of quality of civil services and degree of their independence from political pressures and the quality of policy formulation and implementation, India is ranked at 82, the same as last year.
- India has also moved down in the rule of law sub-index, from 63 last year to 66 now. The index points at lowered perceptions regarding the quality of contract enforcement, property rights, the police, and courts, as well as the likelihood of crime and violence.
- In the infrastructure indicator, India has stayed put in the 87th rank, not having progressed in the use of information technology.
- Overall, Switzerland emerged as the global leader followed by Sweden, the UK, the US and Finland. Switzerland had ranked first in the 2015 index as well.

Sources: et.

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

Move over chemo, now harness the immune system to fight cancer

- Harnessing the immune system to fight cancer, long a medical dream, is becoming a reality
- Use of **immunotherapy** rather than attacking the cancer directly, as chemo does, immunotherapy tries to rally the patient’s own immune system to fight the disease. This is a fundamental change in the way that we think about cancer therapy
- The immune system — a network of cells, tissues and biochemicals they secrete — defends the body against viruses, bacteria and other invaders. But cancer often finds ways to hide from the immune system or block its ability to fight.
- Immunotherapy tries to help the immune system recognise cancer as a threat, and attack it.

**What is Immunotherapy?**

- A widely used type of immunotherapy involves drugs that free immune cells to fight cancer by blocking a mechanism — called a checkpoint — that cancer uses to shut down the immune system.
- These drugs, called **checkpoint inhibitors**, have been approved by the Food and Drug Administration to treat advanced melanoma
NASA to explore asteroid Bennu during its close encounter with Earth

A near-Earth asteroid that is coming towards our planet after being dislodged by a gravitational pull can indeed strike us and cause massive destruction, but according to experts, it has a only a one in 2,700 chances of hitting. Such an event will not take place for 150 years and the people living in the year 2135 would know whether the asteroid named Bennu posed an actual threat to hit Earth.

**OSIRIS-REx Mission**

- It is headed by NASA and the University of Arizona, plans to launch an unmanned spacecraft on September 8 in efforts to reach Bennu in August 2018.
- OSIRIS-REx will launch from Cape Canaveral, Florida, on an Atlas V 411 rocket.
- In August 2018, OSIRIS-REx’s approach to Bennu will begin. It will use an array of small rocket thrusters to match the velocity of Bennu.
- The spacecraft will begin a detailed survey of the asteroid two months after slowing to encounter Bennu. After the selection of the final site, the spacecraft will briefly touch the surface of Bennu to retrieve a sample.
- The sampling arm will make contact with the surface for about five seconds, during which it will release a burst of nitrogen gas. This will cause rocks and surface material to be stirred up and captured in the sampler head.
- In March 2021, the window for departure from the asteroid will open and OSIRIS-REx will begin its return journey to Earth, arriving two and a half years later in September 2023.

**What are asteroids?**

- Asteroids are small, airless rocky worlds revolving around the sun that are too small to be called planets. They are also known as planetoids or minor planets.
- In total, the mass of all the asteroids is less than that of Earth’s moon. But despite their size, asteroids can be dangerous. Many have hit Earth in the past, and more will crash into our planet in the future.

**What Are The Differences Between An Asteroid, Comet, Meteoroid, Meteor and Meteorite?**

- **Asteroid:** A relatively small, inactive, rocky body orbiting the Sun.
- **Comet:** A relatively small, at times active, object whose ices can vaporize in sunlight forming an atmosphere (coma) of dust and gas and, sometimes, a tail of dust and/or gas.
- **Meteoroid:** A small particle from a comet or asteroid orbiting the Sun.
- **Meteor:** The light phenomena which results when a meteoroid enters the Earth’s atmosphere and vaporizes; a shooting star.
- **Meteorite:** A meteoroid that survives its passage through the Earth’s atmosphere and lands upon the Earth’s surface.

**Where asteroids are located?**

- Most asteroids lie in a vast ring between the orbits of Mars and Jupiter.
- Not everything in the main belt is an asteroid — for instance, comets have recently been discovered there, and Ceres, once thought of only as an asteroid, is now also considered a dwarf planet.
- Many asteroids lie outside the main belt. For instance, a number of asteroids called Trojans lie along Jupiter’s orbital path.
- Three groups — Atens, Amors, and Apollos — known as near-Earth asteroids orbit in the inner solar system and sometimes cross the path of Mars and Earth.

**Human Exploration of Asteroids**

- The first spacecraft to take close-up images of asteroids was NASA’s Galileo in 1991, which also discovered the first moon to orbit an asteroid in 1994.
- In 2001, after NASA’s NEAR spacecraft intensely studied the near-earth asteroid Eros for more than a year from orbit, mission controllers decided to try and land the spacecraft. Although it wasn’t designed for landing, NEAR successfully touched down, setting the record as the first to successfully land on an asteroid.
- In 2006, Japan’s Hayabusa became the first spacecraft to land on and take off from an asteroid. It returned to Earth in June 2010, and the samples it recovered are currently under study.
- NASA’s Dawn mission, launched in 2007, began exploring Vesta in 2011. After a year, it left the asteroid for a trip to Ceres, with a planned arrival time of 2015. Dawn was the first spacecraft to visit Vesta, and will also be the first to explore Ceres.

See the Video: https://www.youtube.com/watch?v=v0NBUeU3PGo
In 2012, a company called Planetary Resources, Inc. announced plans to eventually send a mission to a space rock to extract water and mine the asteroid for precious metals. Since then, NASA has begun to work on plans for its own asteroid-capture mission.

First human genetic editing trial in China

Chinese scientists will perform the world’s first genetic editing trial on humans this month, in an attempt to find a cure for lung cancer.

A group of oncologist at the West China Hospital of Sichuan University, Chengdu, will inject patients with cells that have been modified using the CRISPR-Cas9 gene-editing technique.

What is CRISPR?

- CRISPR, short for clustered regularly interspaced short palindromic repeats, was named “2015 Breakthrough of the Year” by the U.S. journal Science.
- It allows scientists to selectively edit genome parts and replace them with new DNA stretches.
- Cas9 is an enzyme that can edit DNA, allowing the alteration of genetic patterns by genome modification.
- CRISPR is a collection of DNA sequences that direct Cas9 where to cut and paste.

What doctors will do?

- Doctors will extract T cells, a type of immune cell, from the patient’s blood and then knock out the gene that encodes the PD-1 protein, which normally limits the cell’s capacity to launch an immune response.
- The edited cells will be multiplied in the lab before being reintroduced to the patients.
- ‘Cancer-fighting army’
  - This process will hopefully kick-start the T cells to launch an attack on the tumour cells.
  - It is like building a cancer-fighting army outside the patient body.


IBM’s technology may help detect cancer early

Scientists at IBM have developed a new lab-on-a-chip technology that can, for the first time, separate biological particles at the nanoscale and could help detect diseases such as cancer before symptoms appear.

- Researchers showed size-based separation of bioparticles down to 20 nanometres (nm) in diameter, a scale that gives access to important particles such as DNA, viruses and exosomes.
- Once separated, these particles can be analysed to potentially unveil signs of disease even before patients experience any physical symptoms and when the outcome from treatment is most positive.
- Until now, the smallest bioparticle that could be separated by size with on-chip technologies was about 50 times or larger, for example, separation of circulating tumour cells from other biological components.
- Exosomes are increasingly being viewed as biomarkers for the diagnosis and prognosis of malignant tumours. They are released in easily accessible bodily fluids such as saliva, urine or blood. They represent a precious biomedical tool as they can be used in the context of less invasive liquid biopsies to unveil the origin and nature of a cancer.

Existing challenges

- Researchers targeted exosomes with their lab-on-chip technology as existing scientific techniques face challenges for separating and purifying exosomes in liquid biopsies.
- Exosomes range in size from 20-140nm and contain information about the health of the originating cell that they are shed from.
- A determination of the size, surface proteins and nucleic acid cargo carried by exosomes can give essential information about the presence and state of developing cancer and other diseases.
- Researchers showed they could separate and detect particles as small as 20 nm from smaller particles, that exosomes of size 100 nm and larger could be separated from smaller ones, and separation can take place in spite of diffusion, a hallmark of particle dynamics at these small scales.

Sorting bioparticles at the nanoscale

Lab-on-a-chip technologies have become an incredibly helpful tool for physicians as they can be significantly faster, portable, easy to use and require less sample volume to help detect diseases. The goal is to shrink down to a single silicon chip all of the processes necessary to analyze a disease that would normally be carried out in a full-scale biochemistry lab.

What is nano-DLD?

- Nanoscale deterministic lateral displacement
- Using a technology called nanoscale deterministic lateral displacement, or nano-DLD allows a liquid sample to be passed, in continuous flow, through a silicon chip containing an asymmetric pillar array
- This array allows the system to sort a microscopic waterfall of nanoparticles, separating particles by size down to tens of nanometers resolution.

Watch Video: [https://youtu.be/O3e2_Ctty_M](https://youtu.be/O3e2_Ctty_M)

AYUSH drugs to get trial guidelines

- To bring research on Ayurvedic drugs and formulations closer to practices in Western medicine, the Indian Council of Medical Research has released a set of guidelines concerning standards that must be adhered to in testing medicines from AYUSH (Ayurveda, Yoga, Unani, Siddha and Homeopathy) schools.
- The draft guidelines say that research on traditional and folk medicines and patented and proprietary varieties of traditional medicines involving human participants must be done using the same ethical principles under which drug trials are conducted.
IPR and patents

- If a mix of medicinal systems are involved, then there ought to be experts from each of those fields supervising trials and if a product deriving from traditional knowledge were to be commercialised, the “legitimate rights/share of the tribe or community from which the knowledge was gathered should be taken care of appropriately while applying for Intellectual Property Rights and patents for the product”
- The guidelines deal with emerging fields of research such as synthetic biology and ethical rules governing medical diagnostics, and specify that all participants be made aware of the risks and not be offered undue inducements to participate in the trial of a new drug.

Clinical trials

- India has several sets of guidelines governing the conduct of clinical trials and stem cell research that are updated from time to time. However, there has been little clarity on how Ayurvedic formulations and other traditional medicines ought to be tested. This is a positive step and is important for traditional Indian formulations to be able to access international markets.
- A range of companies are employing new approaches such as genetic analysis or trying to determine the molecular basis of the effectiveness of traditional formulations.
- Among others, one of India’s top pharmaceutical companies, Sun Pharma, has entered into a deal with the International Centre for Genetic Engineering and Biotechnology to develop a herbal drug for dengue earlier this year.
- The ICMR guidelines are not a precursor to a law though adherence to them is required by India’s drug regulator to grant permission for trials.
- India has frequently seen controversies over the improper conduct of clinical trials and there is a proposed amendment to the Drug and Cosmetics Act that seeks to impose stricter penalties for those found violating clinical trial guidelines.

It’s another giant leap, says Moon Express co-founder

An Indian American entrepreneur has begun a countdown for launching a moon lander next year after the Federal Aviation Administration (FAA) announced it has approved his company’s venture.

Naveen Jain, the founder of Moon Express, termed the U.S. government’s approval for the MX-1E moon lander “another giant leap for humanity.”

Moon Express

- The company was co-founded in 2010 by space visionary, Dr Bob Richards, Naveen Jain and serial entrepreneur and artificial intelligence and space technology guru Dr Barney Pell.
- The MX-1 will ride to the moon orbit on a space vehicle from Rocket Lab USA.
- One of that company's backers is Khosla Ventures created by Vinod Khosla, the venture capitalist who is an Indian Institute of Technology-Delhi graduate and who co-founded Sun Microsystems.
- Moon Express CEO Bob Richards cited the discovery of water on the moon as an incentive for lunar ventures.
- The discovery was accomplished by the Indian Space Research Organization’s (ISRO) Chandrayaan-1 spacecraft with ISRO’s Moon Impact Probe (MIP) and NASA's Moon Mineralogy Mapper (M3).
- The recent discovery of water on the moon is an economic game changer for humanity’s future. Water is the oil of the solar system and the moon has become a gas station in the sky.
- Moon Express is the first private company to get government approval for a moon venture.
- The FAA described the MX-1E as a spacecraft that can orbit to the moon, make a soft landing on the lunar surface, and move on it by making “hops”.

Moon Express needed the FAA approval because the Outer Space Treaty requires private ventures to be authorised by a government that has signed the treaty.

India climbs 15 spots in innovation ranking

Global Innovation Index (GII) 2016 has been released. It is published by Cornell University, INSEAD, and the World Intellectual Property Organization, in partnership with other organizations and institutions.

GII 2016 Theme: “Winning with Global Innovation”

Highlights:

- Switzerland, Sweden, UK, U.S., Finland and Singapore lead the 2016 rankings.
- China joined the world’s 25 most-innovative economies, becoming the first middle-income country to enter the top 25 of the index in its nine editions of surveying the innovative capacity of over 100 economies.
- Despite China’s rise, an “innovation divide” persists between developed and developing countries amid increasing awareness among policymakers that fostering innovation is crucial to a vibrant, competitive economy.
- GII 2016 data indicate that global R&D grew by only 4% in 2014. This was a result of slower growth in emerging economies and tighter R&D budgets in high-income economies – this remains a source of concern.
- China moves to 17th place in innovation quality, making it the leader among middle-income economies for this indicator.
India’s performance:
- India climbed 15 spots, from 81 last year, to 66.
- India has maintained the top spot in the Central and South Asia regions.
- India scored high on tertiary education and R&D, the quality of its universities and scientific publications and its market sophistication.
- India ranks second on innovation quality among middle-income economies, overtaking Brazil.
- In information and communication technology service exports it ranks first in the world.

Way ahead for India:
India has all the ingredients needed to become a global driver of innovation including strong market potential, an excellent talent pool, and an underlying culture of frugal innovation. However, relative weaknesses exist in the indicators for business environment, education expenditures, new business creations and the creative goods and services production.
India has the ability to create a unique spot in innovation history to meet its own market requirements by using its cultural advantages of frugality and sustainability. Therefore, India’s priorities for innovation need to be in the areas of energy, water, transport, health care, food security and digital consumption. It should also strengthen its own talent pool and leverage global talent “in these market-pull areas”.
Sources: livemint.

Quess satellite
China has launched the world’s first quantum satellite- Quantum Experiments at Space Scale, or QUESS. It is an effort to establish communications that cannot be hacked.

Details:
- In its two-year mission, QUESS is designed to establish ‘hack-proof’ quantum communications by transmitting uncrackable keys from space to the ground.
- The satellite will be put into Earth orbit around 500 km above ground.
- The craft’s main instrument is a “Sagnac” interferometer that is used to generate two entangled infrared photons by shining an ultraviolet laser on a non-linear optical crystal.
- The main goals of QUESS will be to demonstrate quantum key distribution (QKD) between the satellite and two stations on the ground – the Nanshan 25 m telescope at the Xinjiang Astronomical Observatory in western China and the Xinglong Observatory in Yanshan, around 200 km south of Beijing.

How does it work?
The satellite will create pairs of so-called entangled photons – tiny sub-atomic particles of light whose properties are dependent on each other – beaming one half of each pair down to base stations in China and Austria.
- This special kind of laser has several curious properties, one of which is known as “the observer effect” – its quantum state cannot be observed without changing it.
So, if the satellite were to encode an encryption key in that quantum state, any interception would be obvious. It would also change the key, making it useless.

If it works, it will solve the central problem of encrypted communications – how to distribute keys without interception – promising hack-proof communications. The encrypted message itself can be transmitted normally after the key exchange.

**Background:**

Quantum communication boasts ultra-high security as a quantum photon can neither be separated nor duplicated. It is hence impossible to wiretap, intercept or crack the information transmitted through it. Quantum communications technology is nearly impossible to hack because any interference to transmission of information destroys it.

Sources: the hindu.

### Indians online to hit 730 mn by 2020

As per the report ‘The Future of Internet in India’, compiled by Nasscom and Akamai Technologies, the number of Internet users in India is likely to more than double to 730 million by 2020. As of December 2015, there were about 330 million Internet users in the country.

**Highlights of the report:**

- India, which has an Internet user base next only to China, will remain the fastest growing market.
- 75% of the new users would come from rural areas and a majority of new users are expected to consume data in local languages.
- Overall, the e-commerce market in India, which was valued at $17 billion in 2015-16, is expected to double to $34 billion by 2020. The number of online shoppers is likely to more than triple to 175 million in that time, from 50 million in 2015.
- By 2016, India will have an estimated 702 million smartphones in use and mobile phones will emerge as the preferred device for shopping, accounting for 70% of total online shopping.
- Currently, online ticketing and room booking facilities are used by more than 50 million Indians on a regular basis. By 2020, online travel is estimated to account for 40-50% of all travel-related transactions, up from 12% in 2015. The growth is being driven by demand as a larger, younger population comes online.
- In 2016, the fintech market will be worth $8 billion, having grown 20%.

**Way ahead:**

India’s Internet consumption has already exceeded the U.S. to become number two globally. By 2020, the Internet is expected to penetrate deeper in the hinterlands of the country, helping create more opportunities for everyone. This will also present a great opportunity for enterprises to harness the power of the Internet to innovate and scale up operations.

Sources: the hindu.

### U.S. set to hand over Internet’s naming system to ICANN

The U.S. is set to cede power of the Internet’s naming system to a non-profit organisation on October 1, ending the almost 20-year process to hand over a crucial part of the Internet’s governance.

**Details:**

- The U.S. will give up its power fully to Los Angeles-based ICANN (Internet Corporation for Assigned Names and Numbers), a non-profit organisation.
- The terms of the change were agreed upon in 2014, but it was not until now that the U.S. said it was finally satisfied that ICANN was ready to make the change.

**DNS:**

The Domain Naming System, DNS, is one of the Internet’s most important components. It pairs the easy-to-remember web addresses with their relevant servers. Without DNS, one would only be able to access websites by typing in its IP address, a series of numbers such as “194.66.82.10”.

**Background:**

The Internet Corporation for Assigned Names and Numbers (ICANN), in March 2016, submitted the plan for the global stewardship of the internet to the US government for review.

- The plan aims to maintain Internet governance under a “multi-stakeholder” model which avoids control of the online ecosystem by any single governmental body.
- The plan is the result of an inclusive, global discussion among representatives from government, large and small business, technical experts, civil society, researchers, academics and end users.
- It provides a comprehensive package to transition the US Government’s stewardship of the internet’s key technical functions, called the IANA (Internet Assigned Numbers Authority), and proposes ways to enhance ICANN’s accountability as a fully independent organization.

**About the Internet Corporation Assigned Names and Numbers (ICANN):**

ICANN is the global body that oversees operation and administration of the Internet domain name system. It was formed in 1998.

- It is a not-for-profit partnership of people from all over the world dedicated to keeping the Internet secure, stable and interoperable. It promotes competition and develops policy on the Internet’s unique identifiers.
- ICANN doesn’t control content on the Internet. It cannot stop spam and it doesn’t deal with access to the Internet. But through its coordination role of the Internet’s naming system, it does have an important impact on the expansion and evolution of the Internet.
- It is responsible for coordinating the maintenance and methodologies of several databases, with unique identifiers, related to the namespaces of the Internet – and thereby, ensuring the network’s stable and secure operation.
- ICANN is governed by an internationally diverse Board of Directors overseeing the policy development process. ICANN’s President directs an international staff, working from three continents, who ensure that ICANN meets its operational commitment to the Internet community.

Sources: the hindu.
India ranks 39th in Asia Pacific on fixed broadband

The United Nations Economic and Social Commission for Asia and the Pacific (ESCAP), in its report, has placed India at 39th position in terms of fixed broadband adoption among Asia Pacific countries. The report is named- ‘State of ICT in Asia and the Pacific 2016: Uncovering the Widening Broadband Divide’.

**Highlights:**

- India ranks lower than countries such as Bhutan, Sri Lanka and Bangladesh in fixed broadband subscriptions per 100 inhabitants in ESCAP countries in 2015.

According to the report, 1.3% of population in India subscribed to fixed broadband service in 2015.

- Hong Kong, New Zealand, Japan, Macao, Australia and Singapore topped the list of 53 countries covered in the report.
- Presently, more than half of the global fixed broadband subscriptions are from Asia and the Pacific (52.3%). The report pointed out that this was a dramatic increase from 2005 when subscriptions in the ESCAP region merely constituted 38.1% of the global total fixed broadband subscriptions. However, the subscriptions per 100 inhabitants in the ESCAP region is still behind Latin America and the Caribbean, and far lower than Europe and North America.
- Fixed broadband penetration in Asia and the Pacific is even below the world’s average of 11.2 subscriptions per 100 inhabitants in 2015.

Sources: the hindu.

NASA set to launch asteroid space dust probe

NASA is all set to begin its first robotic mission aimed at **scooping up 4.5-billion-year-old dust from an asteroid**. The $800-million NASA mission is called **OSIRIS-REx**, which stands for Origins, Spectral Interpretation, Resource Identification, Security-Regolith Explorer.

- The unmanned spacecraft will travel to an asteroid near Earth called Bennu to collect space dust that may reveal how the materials necessary for life — such as carbon and ice — made their way to our planet.

**Details:**

- Material returned is expected to enable scientists to learn more about the formation and evolution of the Solar System, initial stages of planet formation, and the source of organic compounds which led to the formation of life on Earth.
- If successful, OSIRIS-REx will be the first US spacecraft to return samples from an asteroid.
- The mission, developed by the University of Arizona’s Lunar and Planetary Laboratory, NASA Goddard Space Flight Center and Lockheed Martin Space Systems, is planned for launch in September 2016. The science team includes members from the United States, Canada, France, Germany, Great Britain, and Italy.

**Why asteroid in general and bennu in particular was chosen for the study?**

An asteroid was chosen as the target of study because an asteroid is a ‘time capsule’ from the birth of our Solar System.

- In particular, Bennu was selected because of the availability of pristine carbonaceous material, a key element in organic molecules necessary for life as well as representative of matter from before the formation of Earth.

**The science objectives of the mission are:**

- Return and analyze a sample of pristine carbonaceous asteroid regolith in an amount sufficient to study the nature, history, and distribution of its constituent minerals and organic material.
- Map the global properties, chemistry, and mineralogy of a primitive carbonaceous asteroid to characterize its geologic and dynamic history and provide context for the returned samples.
- Document the texture, morphology, geochemistry, and spectral properties of the regolith at the sampling site in situ at scales down to millimeters.
Measure the Yarkovsky effect (a thermal force on the object) on a potentially hazardous asteroid and constrain the asteroid properties that contribute to this effect.

Characterize the integrated global properties of a primitive carbonaceous asteroid to allow for direct comparison with ground-based telescopic data of the entire asteroid population.

Sources: the hindu.

Centre sets up panel to suggest steps to promote card payments

The Finance Ministry has set up a committee to consider incentives such as cash back schemes and tax rebates for promoting card and digital payments in a step towards discouraging cash transactions.

- The panel, which will review the payments system in the country and recommend measures for encouraging digital payments, has been set up following a decision taken by the Cabinet in February.
- The 11-member committee is headed by former Finance Secretary Ratan P Watal. The committee has been given a year’s time to submit its report.

Tasks to be performed by the committee:

- The committee will recommend various measures to incentivise transactions through cards and digital means, e.g., through tax rebates/incentives, introduction of cash back/lottery.
- It will study feasibility of creating a payments history of all card/digital payments and ensure that merchants/consumers can leverage the data to access “instant, low cost micro-credit” through digital means and create necessary linkage between the payment history and credit information.
- It will study and recommend need for changes, if any, in the regulatory mechanism under various laws, relevant for the purpose of promotion of payments by digital modes.
- It will study and recommend ways for leveraging Unique Identification Number or any other proof of identity for authentication of card/digital transactions and setting up of a centralised KYC Registry.
- The panel will also study introduction of single window system of payment gateway to accept all types of cards/digital payments of government receipts and enable settlements via NPCI or other agencies.

Sources: the hindu.
ISRO successfully test-fires scramjet engine

Indian Space Research Organisation (ISRO) recently successfully tested its own scramjet engines from Satish Dhawan Space Centre (SDSC) in Sriharikota in Andhra Pradesh. The mission was successful.

- In this mission, the ISRO has successfully demonstrated its capabilities in critical technologies like ignition of air breathing engines at supersonic speed, air intake mechanism and fuel injection systems.
- With this, India became the fourth country to demonstrate the flight testing of a scramjet engines. This mission is a milestone for ISRO's future space transportation system.

What is scramjet?
Rockets usually carry both fuel and oxidiser for easy combustion. Scramjet engine uses the oxygen from atmosphere to compress fuel, thus reducing the weight of rocket and increasing the efficiency.

- The scramjet engine is used only during the atmospheric phase of the rocket's flight.
- These engines have no moving parts. Instead of the rotating compressor and turbine in a jet engine, air is compressed and expanded by complex systems of shockwaves under the front of the aircraft, inside the inlet and under the fuselage at the rear.
- The scramjet engine can also liquefy the oxygen and store it on board.
- Scramjet engines will help bringing down launch cost by reducing the amount of oxidiser to be carried along with the fuel.
- Scramjet engines designed by ISRO uses hydrogen as fuel and the oxygen from the atmospheric air as the oxidiser.

Sources: the hindu.

NASA’s Juno Spacecraft Completes Its First, And Closest, Jupiter Flyby

NASA’s Juno spacecraft recently successfully completed the first of its 36 orbits of Jupiter. At the closest point in its orbit around the gas giant, Juno flew at a distance of just 2,600 miles above Jupiter’s atmosphere. This flyby, during which the spacecraft was traveling at a breakneck speed of 130,000 miles per hour, is the closest Juno will get to Jupiter during its prime mission.

Background:
Juno was launched in August 2011 and traversed nearly 2 billion miles of space to reach Jupiter. The spacecraft, named after the Roman god Jupiter’s wife, will spend the better part of the next year-and-half trying to peer through the thick clouds surrounding the massive gas giant.

- The primary goals of the $1.1 billion mission are to find out whether Jupiter has a solid core, and whether there is water in the planet’s atmosphere — something that may not only provide vital clues to how the planet formed and evolved, but also to how the solar system we live in came into existence.
- At the end of its mission, Juno will dive into Jupiter’s atmosphere and burn up — a “deobit” maneuver that is necessary to ensure that it does not crash into and contaminate the Jovian moons Europa, Ganymede and Callisto.

Sources: the hindu.

Paper 3 Topic: biodiversity, environment;

Paper 3 Topic: conservation, pollution;

Dwindling prey bad news for big cats, wolves, says study

- The world’s top land carnivores such as tigers, lions and jaguars are coming under threat as their prey dwindles in number, according to the first global study of feeding patterns.
- There are only 17 four-legged predators — big cats, wolves and wild dogs — that weigh more than 15 kilos and whose diet is at least 70 per cent meat. Collectively, these fearsome carnivores feed on nearly 500 species, ranging in size from mice to buffaloes.
- But a quarter of these are themselves listed as threatened by the International Union for the Conservation of Nature (IUCN), which tracks the health of the planet’s fauna and flora.
- An expanding human footprint has also reduced the vast areas these wide-ranging hunters need to thrive—on average, it takes about 10,000 kilos of prey to support 90 kilos of carnivore biomass, whether a scavenging dingo or a strapping lion.

NGT steps in to check Periyar pollution

The circuit bench of the National Green Tribunal (NGT) has ordered the inspection of all industrial units located on the banks of the Periyar river to check the feasibility of effluent treatment plants and to find out whether the effluents discharged into the river are within the prescribed parameter.
Background

- The National Green Tribunal has been established on 18.10.2010 under the National Green Tribunal Act 2010 for effective and expeditious disposal of cases relating to environmental protection and conservation of forests and other natural resources including enforcement of any legal right relating to environment and giving relief and compensation for damages to persons and property and for matters connected therewith or incidental thereto.
- It is a specialized body equipped with the necessary expertise to handle environmental disputes involving multi-disciplinary issues.
- National Green Tribunal Act, 2010 (NGT) [2] is an Act of the Parliament of India which enables creation of a special tribunal to handle the expeditious disposal of the cases pertaining to environmental issues.
- On 25 April 2014, the NGT said that the health of Yamuna will be affected by the proposed recreational facilities on the river. The NGT also recommended the Government to declare a 52 km stretch of the Yamuna in Delhi and Uttar Pradesh as a conservation zone.

Emissions from ships can impact monsoon activity over Bay of Bengal

Using surface and satellite data, researchers have found that aerosol plumes from ships produced severe pollution along the international shipping route in the Bay of Bengal.

Details:

- Researchers found that emissions from ships along the corridor (5-6 degrees North latitude) has directly heated the lower troposphere by two-and-half times compared to surrounding areas and also created a temperature gradient of around 0.1K/day on either side of the shipping route.
- Satellite measurement confirmed the presence of high levels of nitrogen dioxide (NO2) along the shipping corridor, which is 100 km wide. The measurements were made during 2011-2012. Compared with the surrounding regions, the concentration of NO2 was five times higher along the shipping corridor.
- Since NO2 can absorb solar radiation, the increased levels of this gas along the shipping route led to more heating of the atmosphere. In addition to gaseous emissions, ship exhaust also contains particulate matter such as black carbon.
- Along the shipping route, the black carbon concentration was elevated by a factor of four compared to surrounding regions; the lower troposphere solar heating rate was elevated by 0.1 degree C in cloud-free conditions.
- The emissions also led to increased concentration of cloud condensation nuclei (CCN). The CCN (at 0.4 per cent supersaturation) concentration is one order of magnitude (about 10 times) greater in the shipping corridor than the pristine regions of Bay of Bengal.
- The effects of CCN seen along the corridor may have significant impact on the monsoon activity over southern Bay of Bengal and implications for climate change mitigation strategies.

Sources: the hindu

NHAI collaborates with PFC under Adopt a Green Highway Program

National Green Highways Mission (NGHM) under NHA has collaborated with Power Finance Corporation Ltd. (PFC) for plantations work on NH 7 in Nagpur region (Borkhed – Wadner, & Khatara – Kelapur) covering 87 km stretch. Power Finance Corporation Ltd. has provided financial assistance of Rs. 13 crore for plantation and five year maintenance under their CSR funds.

- This marks the first collaboration with the National Green Highways Mission – NHAI under their ‘Adopt a Green Highways’ Program.

Adopt a Green Highway Program is an initiative by NGHM to engage Corporates, Public Sector Units, Governmental organizations, institutions and individuals under CSR and Public Private Partnership for developing green corridor along NHs.

National Green Highways Mission

NGHM was launched under the Green Highways Policy, 2015 to provide a holistic vision of developing eco-friendly and green National Highways.

- The mission aims to provide a green canopy along 100,000km of highways and create jobs for 1 million youth.
- The government has made it mandatory to set aside 1% of the total project cost of any national highway contract to a Green Fund for plantation.
- Main motto of this mission is to help the environment, help local communities, and generate employment by planting trees along all the highways in the country.

Sources: pib
BARC develops portable kit for detection of Chromium contamination of water

BARC has developed a simple, user friendly, quick and cost effective kit for onsite determination of Hexavalent Chromium Cr(VI), which meets IS10500 as well as EPA criterion.

- It provides the much needed solution to measure the level of Chromium contamination in drinking water and tap water, lakes, rivers as well as ground water.

How is it measured?
The procedure involves adding a specified amount of specific reagents to the water sample and identifying the developed colour. The colour develops within 5 minutes and the distinction can be made with naked eye. For ease of comparison a colour chart is provided with the kit.

Benefits of this kit:
- With this, water samples can be immediately categorized as being safe or toxic for drinking from Chromium(VI) point of view.
- The kit provides several advantages including on site detection and instantaneous results, elimination of use of sophisticated instruments for analysis, low investment on infrastructure for production of the kit, easy availability of raw materials and very good accuracy for the intended purpose.

Background:
Chromium is widely used in various industries like leather, steel, chrome plating, paint manufacturing, wood preservation etc. Untreated effluents from these industries cause widespread contamination of water.

Concerns:
Chromium in the environment primarily exists as Trivalent Chromium Cr(III) and Hexavalent Chromium Cr(VI). The latter is toxic and the World Health Organization has classified it as carcinogenic and can cause stomach ulcers and cancers and severe damage to kidneys and liver.

- As per Indian standard IS10500 for drinking water, the maximum permissible concentration of Cr(VI) in drinking water is 50 microgram per litre. The US Environmental Protection Agency (EPA) recommends a still lower permissible concentration of 10 microgram per liter.
- Detection of Cr(VI) at such low levels is not only technically challenging but also expensive and time consuming since it involves collection of water samples from affected areas, transport to laboratory, storage and finally analysis.

Sources: pib.

BRO Launches Ambitious Tree Plantation Drive

The Border Roads Organisation (BRO), under Ministry of Defence, has launched a massive tree plantation drive in the Northern & Eastern states of India.

- This is one of the biggest ever tree plantation drive undertaken by the BRO, organised with the aim to protect the ecology and increase the green cover along the border areas of the Country.

About BRO:
The Border Roads Organisation (BRO) develops and maintains road networks in India’s border areas and friendly neighbouring countries.

- It is staffed by officers and troops drawn from the Indian Army’s Corps of Engineers, Electrical and Mechanical Engineers, Army Service Corps, Military Police and army personnel on extra regimental employment.
- Officers from the Border Roads Engineering Service and personnel from the General Reserve Engineer Force (GREF) form the parent cadre of the Border Roads Organisation.
- Currently, the organisation maintains operations in twenty-one states, one UT (Andaman and Nicobar Islands), and neighbouring countries such as Afghanistan, Bhutan, Myanmar, and Sri Lanka.
- The BRO operates and maintains over 32,885 kilometres of roads and about 12,200 meters of permanent bridges in the country.

Sources: pib.

Sunshine, seaweed help to break down dye waste

The researchers have developed a photocatalyst using titanium dioxide doped with red seaweed polymer carrageenan to degrade the dyes. With this photocatalyst, scientists have been able to completely degrade three industrial dyes — methyl orange, methylene blue and reactive black-5 — in the presence of sunlight.

Details:
Titanium dioxide has conventionally been used for photocatalytic degradation of industrial dyes, but it takes a long time to degrade dyes. So the researchers doped titanium dioxide nanoparticles with sulphur and carbon by treating it with carrageenan.
The nanocomposite was found to behave as an excellent photocatalyst that helped degrade industrial dyes quickly in a single-step process. The energy required to activate the catalyst is less when it is doped and this makes the dye degradation faster. Visible light is mainly responsible for degradation.

Significance of nanocomposites:

The nanocomposites are thermally stable and can be reused up to six times with the degradation efficiency remaining at over 97%. The nanocomposite photocatalyst can safely and completely treat harmful dyes in an eco-friendly and cost-effective manner.

Background:
Despite stringent environmental regulations, a comprehensive method of treating industrial dye is not available. The methods available are expensive and do not completely break down the dye molecules to non-toxic constituents but merely concentrate the contaminants. Annually, more than 500 tonnes of non-degradable textile colour wastes are being disposed of in natural streams without adequate treatments.

Way ahead:
The researchers are planning to conduct studies during winter to assess the photocatalyst’s ability to break down the dyes when bright sunlight is not available.
Sources: the hindu.

Poor air quality across 41 cities in 2015, says CPCB survey

According to a latest analysis released by the Central Pollution Control Board (CPCB), in 2015, 41 Indian cities with a million-plus population faced bad air quality in nearly 60% of the total days monitored.

- Days wherein all monitored parameters like sulphur dioxide, nitrogen dioxide, and particulate matter are within the prescribed norms were considered good days while remaining monitoring days when value of one or the other parameter exceeds the norms were categorised as bad days.

Details:

- The three cities—Gwalior, Varanasi and Allahabad—which didn’t have even one single good air quality day was followed by Raipur with 2%, Lucknow with 3%, Delhi and Ghaziabad with 4% each among all the days when their air quality was monitored.
- Among the best, Coimbatore had 99% of good air quality days, Rajkot had 96%, Ahmedabad and Madurai 93% each, Vishakhapatnam, Surat and Chennai with 92% each.
- Most cities recorded high percentage of good days during monsoon season and low percentage of good days during winter season. Coastal cities have recorded higher percentage of good days compared to the land locked cities. Southern and western cities recorded higher percentage of good days.

Way ahead:
There is a need for strong national air quality planning strategy so that each and every city has a clear pollution source-wise plan which is to be implement in a time bound manner. Otherwise its implications on public health are going to a very serious.
Gujarat becomes the first state to distribute 2 crore LED Bulbs under UJALA

Under the Government of India’s Unnat Jyoti by Affordable LEDs for all (UJALA) scheme, Gujarat has become the  first state to distribute 2 crore LED bulbs.

- Gujarat has reached this milestone in just 96 days and over 42 lakh households have already benefitted from the scheme.
- Energy Efficiency Services Limited (EESL), under the administration of Ministry of Power, is distributing approximately 2 lakh bulbs daily in Gujarat.
- The distribution of 2 crore LED bulbs has led to an annual energy savings of 259 crore kWh which is equivalent to lighting up 5 lakh Indian homes for an entire year. Alongside the savings in units, the state has also benefitted from daily CO2 emission reduction of 5,000 tonnes. The programme has also helped the state to avoid 520MW of peak demand.

About UJALA scheme:
The main objective of the scheme is to promote efficient lighting, enhance awareness on using efficient equipment which reduce electricity bills and help preserve environment.
- The scheme is being implemented by Energy Efficiency Services Limited (EESL), a joint venture of PSUs under the Union Ministry of Power.
- The scheme will not only help reduce consumers their electricity bills but also contribute to the energy security of India.
- The scheme is being monitored in a transparent manner through a national dashboard (delp.in).
- The distribution of LED bulbs will happen through DISCOM offices, DISCOM bill collection centres, designated EESL kiosks, Weekly haat markets, etc.
- Under UJALA, over 15 crore LED bulbs have already been distributed across India. This is leading to annual energy savings of 19.48 crore kWh and resulting in avoidance of 3,900 MW of peak demand. Through the programme the estimated cumulative cost reduction of bills of consumers, annually is INR 7990 crores.

Sources: pib.

Paper 3 Topic: disaster management.

Kudankulam plant safest in the world, says Russian official

The Kudankulam Nuclear Power Plant (KKNPP) is the first in the world to have post-Fukushima safety enhancement requirements implemented and operated successfully. While Unit 1 at Kudankulam is functional and producing electricity after initial hiccups, Unit 2 had attained criticality on July 10 and is planned to be connected to the grid in August.
Safety Features
- There are a number of advanced active and passive safety systems which ensure unprecedented design-level nuclear and ecological safety of the plant.
- Double localising and protective containment, passive heat removal system from reactor plant automatically, core catcher, and closed industrial water intake are some of the safety features incorporated.
- The reactor is protected from the impact of any earthquake, tsunami, tornado and hurricane.
- Sea Water
  - Given that a large amount of seawater is drawn in to cool the reactors, measures have been taken to preserve the biological diversity of the Mannar Bay adjacent to Kudankulam.
  - Seawater is supplied from the so-called “bucket” constructed in the sea into the special facilities and systems which ensure that fish and plankton return to sea.

India and Russian Nuclear Cooperation
- As part of India-Russia nuclear cooperation, the Rosatom state nuclear corporation is scheduled to construct six units of VVER-1000 light-water reactors at Kudankulam.
- In December 2014, both sides announced a decision for the construction of at least 12 more units in India.
- On India’s request, additional safety measures are being enforced in Units 3 and 4 to withstand even higher seismic, climatic and technical impact.
- On Units 5 and 6, in November 2015, Russia submitted the technical-commercial offer and their design had been agreed upon.
- In February, a road map for construction of Units 5 and 6 prior to the General Framework Agreement (GFA) has been signed.
  - The GFA is expected to be signed in autumn this year.
  - Russia is awaiting India’s decision on another site for setting up additional reactors.

NDRF rescues 10,000 people
Over 10,000 people have been rescued from the flood-hit parts of the country, including Assam and Bihar.
- Forty-four self-contained rescue teams have been pre-positioned to assist the State governments in rescue and relief.
- Twelve flood rescue teams are engaged in relief and rescue in Assam.
- So far, over 10,000 people had been evacuated nationwide this monsoon.
- In addition to the rescue work, NDRF teams established medical camps in Assam and Bihar and provided medical care to 1,235 persons.

What is National Disaster Response Force (NDRF)?
- Two national calamities in quick succession in the form of Orissa Super Cyclone (1999) and Gujarat Earthquake (2001) brought about the realization of the need of having a specialist response mechanism at National Level to effectively respond to disasters.
- This realization led to the enactment of the DM Act on 26 Dec 2005. The NDMA was constituted to lay down the policies, plans and guidelines for disaster management.
- The DM Act has made the statutory provisions for constitution of National Disaster Response Force (NDRF) for the purpose of specialized response to natural and man-made disasters. Accordingly, in 2006 NDRF was constituted with 08 Bns (02 Bn each from BSF, CRPF, ITBP and CISF). As on date NDRF is having strength of 10 Bns.
Role and Mandate of NDRF
- Specialized response during disasters
- Proactive deployment during impending disaster situations
- Acquire and continually upgrade its own training and skills
- Liaison, Reconnaissance, Rehearsals and Mock Drills
- Impart basic and operational level training to State Response Forces (Police, Civil Defence and Home Guards)
- Vis-à-vis Community- All NDRF Bns are actively engaged in various:
  - Community Capacity Building Programme
  - Public Awareness Campaign
  - Exhibitions : Posters, Pamphlets, literatures

Uniqueness of NDRF
- The only dedicated disaster response force of the world.
- The only agency with comprehensive response capabilities having multi-disciplinary and multi-skilled, high-tech, stand alone nature.
- Experienced paramilitary personnel specially trained and equipped for disaster response.
- Capabilities for undertaking disaster response, prevention, mitigation and capacity building.

'Don’t blame nature, bolster disaster preparedness,' says parliamentary panel on Chennai deluge

A Parliamentary panel has rejected Union Home Secretary Rajiv Mehrishi’s contention that there cannot be preparation for a disaster like the Chennai floods which “occurs once in 100 years”.

Details:
- The Parliamentary Standing Committee on Home Affairs in its report on ‘Disaster in Chennai caused by torrential rainfall and consequent flooding’ has strongly recommended that the Ministry of Home Affairs, through its subordinate concerned agencies, bolster its disaster preparedness.
- The committee has also observed that the cost of preparing for the disaster is disproportionately high.
- The panel said it does not quite accept the argument that since the rainfall was unprecedented and was more than the hundred years’ average the damage was also huge. In the opinion of the committee, any natural disaster of bigger intensity has the propensity to cause damage. Thus instead of putting the blame on the forces of nature, advanced technology should be used to fight it.

Suggestions made by the committee:
- Separate action should be taken to prepare calamity map of all important cities by developing standard vulnerability indices so as to minimise loss of life, loss of private and public property and vital installations.
- The administration of both centre and state should work together and remain vigilant to tackle the situation.
- Natural disaster of high magnitude will always adversely affect people in large numbers and the administration has to respond in a fastest possible manner. Accordingly, the National Disaster Management Authority and all concerned bodies of central and state governments should have established procedures so that vital time is not lost in wriggling out procedural delays.
- The committee has also recommended that the guidelines prepared by NDMA should be scrupulously followed and they should also review town planning of each city by giving due importance to clear flood channels, proper drainage, safe passage to excess water in lakes, other water bodies, de-siltation of river bed, removal of illegal encroachment.

Background:
Devastating floods submerged Chennai and its neighbouring areas in November-December 2015 claiming the lives of over 400 people.

Sources: the hindu.

Report on the Spot Study of Water Situation in Drought Affected Areas of the country

The report of on the Spot Study of Water Situation in Drought Affected Areas of the country (2015-16) was recently submitted to the government. The study was carried out by Central Water Commission under the Ministry of Water Resources, River Development and Ganga Rejuvenation.
- Various long/short term measures to mitigate water scarcity situation have been recommended which are region/area/state specific.

Details:
- The study says that at almost all places minimum domestic water requirements are being met through importing water from other regions, by digging local deep bore wells and also by tankers.
- Ground water levels have been reported as falling in almost all regions of the country due to over exploitations and inadequate recharge for ground water.
- No specific observation on water quality has been reported at most of the areas except in Gujarat, where problem of salinity in coastal areas has been reported.
- According to the report, the water scarcity situation is prevailing in the country, but some pockets like Marathwada in Maharashtra, Bundelkhand in U.P. and MP, Telangana and Andhra Pradesh are more affected by water scarcity situation.

Main cause of water scarcity:
According to the report, the main cause of water scarcity in country is consecutive failure of monsoon, resulting low storages in dams, during last two years. Rainfall deficit in country as a whole during 2015 was 14% and in 2014 it was 12%. Earlier, year 2012 was also a rainfall deficit year with 11% deficit. Consecutive less rainfall also resulted less carryover storage in reservoirs.

Important recommendations made by the report:
- Construct water harvesting structures, create awareness among citizens for water conservation and construct new water storage structures.
Interlinking of rivers is also necessary in some regions of the country. This is especially necessary in regions like Marathwada of Maharashtra, Bundelkhand of UP and MP.

Renovation and repair of existing water bodies should also be carried out.

Water budgeting and planning the cropping patterns for the oncoming agricultural seasons is necessary in water scarce regions. The strategy for avoiding water intensive crops to the extent in consultation with the relevant expert departments is also crucial for checking such situation, according to the report.

Micro irrigation (sprinkler and drip) should be adopted to achieve more crops per drop.

Sources: pib.

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**Paper 3 Topic:** Security challenges and their management in border areas; linkages of organized crime with terrorism.

**Madhukar Gupta Committee on India-Pakistan border submits report**

A high powered committee of the National Security Council, headed by former home secretary Madhukar Gupta, recently presented its report on India-Pakistan border to Union Home Minister Rajnath Singh.

**Backgrounds:**

The Ministry of Home Affairs had constituted a committee under the chairmanship of former home secretary Madhukar Gupta in April 2016, for strengthening border protection and addressing the issue of gaps and vulnerability in border fencing along the India-Pakistan border.

The mandate of the committee was to study all types of gaps in fencing and all other vulnerabilities in the International Border and to suggest comprehensive approach to fix these gaps in fencing and other vulnerabilities on interim and permanent basis.

**Important recommendations made by the committee:**

- Use scientific technology such as laser fencing along with increased vigil along riverine border areas.
- Where physical fencing is not feasible due to difficult terrain, use ground sensors and thermal imaging.

The committee has given separate recommendations for four states which touch the international border with Pakistan as each state has separate topography and problems. Of the 3,323 km long Indo-Pak border, 1,225 kms falls in Jammu and Kashmir (including Line of Control), 553 kms in Punjab, 1,037 kms in Rajasthan and 508 kms in Gujarat.

Sources: pib.

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**Paper 3 Topic:** Linkages between development and spread of extremism.

**Former BSF D-G to head Naga ceasefire monitoring group**

Former Director General of BSF D.K. Pathak has been appointed as the new chairman of the Ceasefire Monitoring Group(CMG) that was created in 2001 to formalise a permanent peace accord with Naga groups.

This is the first time that a police officer has been appointed to the post, which has in the past been held by Army officials.

**What is the function of Ceasefire Monitoring Group(CMG) ?**

- Monitor the implementation of the agreed ground rules during the operation of ceasefire with the NSCN (Issac-Muivah), the NSCN (Khole-Kitovi) and the NSCN (Reformation) in Nagaland
- The main task of the CMG chairman is to help in creation of a conducive atmosphere by talking to the stakeholders on the ground that could pave way for a successful political negotiation and bring a final end to the decades-old insurgency problem in the northeastern border state.

**Background**

- The NSCN (Khaplang) first signed a bilateral ceasefire agreement with the Centre on April 28,2001, but it split in 2010, into one led by Khole Konyak and Kitovi Zhimomi.
- The NSCN (K) split again in 2015, forcing expelled members Wangtin and P. Tikhak to form the NSCN (R).
- The NSCN (K) unilaterally abrogated the ceasefire on March 27, 2015.

**HOW OLD IS THE NAGA POLITICAL ISSUE?**

- The British annexed Assam in 1826, and in 1881, the Naga Hills too became part of British India. The first sign of Naga resistance was seen in the formation of the Naga Club in 1918, which told the Simon Commission in 1929 “to leave us alone to determine for ourselves as in ancient times”.
- In 1946 came the Naga National Council (NNC), which, under the leadership of Angami Zapu Phizo, declared Nagaland an independent state on August 14, 1947.
- The NNC resolved to establish a “sovereign Naga state” and conducted a “referendum” in 1951, in which “99 per cent” supported an “independent” Nagaland.
WHEN DID THE ARMED MOVEMENT BEGIN?
- On March 22, 1952, Phizo formed the underground Naga Federal Government (NFG) and the Naga Federal Army (NFA).
- The Government of India sent in the Army to crush the insurgency and, in 1958, enacted the Armed Forces (Special Powers) Act.

WHEN DID THE PEACE EFFORTS START?
- Almost simultaneously with the resistance. On June 29, 1947, Assam Governor Sir Akbar Hyderi signed a 9-point agreement with moderates T Sakhrie and Aliha Imti, which was almost immediately rejected by Phizo.
- The Naga Hills, a district of Assam, was upgraded to a state in 1963, by also adding the Tuensang Tract that was then part of NEFA.
- In April the next year, Jai Prakash Narain, Assam Chief Minister Bimala Prasad Chaliha and Rev. Michael Scott formed a Peace Mission, and got the government and NNC to sign an agreement to suspend operations that September.
- But the NNC/NFG/NFA continued to indulge in violence, and after six rounds of talks, the Peace Mission was abandoned in 1967, and a massive counter-insurgency operation launched.

WHEN DID THE NSCN COME INTO BEING?
- On November 11, 1975, the government got a section of NNC leaders to sign the Shillong Accord, under which this section of NNC and NFG agreed to give up arms.
- A group of about 140 members led by Thuingaleng Muivah, who were at that time in China, refused to accept the Shillong Accord, and formed the National Socialist Council of Nagaland in 1980. Muivah also had Isak Chisi Swu and S S Khaplang with him.
- In 1988, the NSCN split into NSCN (IM) and NSCN (K) after a violent clash. While the NNC began to fade away, and Phizo died in London in 1991, the NSCN (IM) came to be seen as the “mother of all insurgencies” in the region.

WHAT DID THE NSCN (IM) WANT?
- A “Greater Nagalim” comprising “all contiguous Naga-inhabited areas”, along with Nagaland. That included several districts of Assam, Arunachal and Manipur, as also a large tract of Myanmar. The map of “Greater Nagalim” has about 1,20,000 sq km, while the state of Nagaland consists of 16,527 sq km.
- The claims have always kept Assam, Manipur and Arunachal Pradesh wary of a peace settlement that might affect their territories.
- The Nagaland Assembly has endorsed the ‘Greater Nagalim’ demand — “Integration of all Naga-inhabited contiguous areas under one administrative umbrella” — as many as five times: in December 1964, August 1970, September 1994, December 2003 and as recently as on July 27, 2015.

WHEN DID NSCN (IM) JOIN PEACE TALKS?
- Muivah, Swu and other top NSCN (IM) leaders escaped to Thailand in the early 1990s. While Nagaland Governor M M Thomas, a Church leader from Kerala, extracted the first positive response from the NSCN(IM), Prime Minister P V Narasimha Rao met Muivah, Swu and others in Paris on June 15, 1995.
- In November 1995, then MoS (Home) Rajesh Pilot met them in Bangkok. Subsequently, Prime Minister H D Deve Gowda met them in Zurich on February 3, 1997, which was followed by meetings with officers in Geneva and Bangkok. Prime Minister Atal Bihari Vajpayee met them in Paris on September 30, 1998.
- The Government of India signed a ceasefire agreement with NSCN (IM) on July 25, 1997, which came into effect on August 1, 1997. Over 80 rounds of talks between the two sides were held subsequently.
**June 1947: Naga-Akbar Hydari Agreement**
- Signed by The Naga National Convention and the Governor of Assam
- **THE AGREEMENT:** “That the right of the Nagas to develop themselves according to their freely expressed wishes is recognized.”
- **THE CATCH:** “The Governor of Assam as the Agent of the Government of the Indian Union will have a special responsibility for a period of 10 years to ensure the observance of the agreement, at the end of this period the Naga Council will be asked whether they require the above agreement to be extended for a further period or a new agreement regarding the future of Naga people arrived at.”

**July 1960: Sixteen-point Agreement with the Naga People’s Convention**
- Nagaland formed as a state, under the charge of the Ministry of External Affairs
- **THE AGREEMENT:** “No Act or law passed by the Union Parliament affecting the following provisions shall have legal force in the Nagaland unless specially applied to it by a majority vote of the Nagaland Legislative Assembly:
  - The Religious or Social Practices of the Nagas,
  - The Customary Laws and Procedure,
  - Civil and Criminal Justice so far as these concern decision according to the Naga Customary Law.”
- **THE CATCH:** “The Naga leaders expressed the view that other Nagas inhabiting contiguous areas should be enabled to join the new state. It was pointed out to them on behalf of the Government of India that Article 3 and 4 of the Constitution provided for increasing the area of any state, but it was not possible for the Government of India to make any commitment in this regard at this stage”.

**1964: Ceasefire Agreement**
- **THE AGREEMENT:** “The Government of India welcomes the steps intended to bring about peace in Nagaland and with this object in view... they will depute representatives, with whom will be associated the representatives of the Government of Nagaland, to take part in talks with leaders of the underground. To facilitate these talks and taking note of the letter of August 10, 1964... it has been ordered that with effect from September 6, 1964, and for a period thereafter of one month at present, the security forces will not undertake: a. jungle operations; b. raiding of camps of the underground; c. patrolling beyond one thousand yards of Security posts; d. searching of villages; e. aerial action; f. arrests; and g. imposition of labour by way of punishment.”
- **THE CATCH:** “Operations will be suspended as above on the understanding that the underground have accepted that during this period they will refrain from: (i) sniping and ambushing; (ii) imposition of fines; (iii) kidnapping and recruiting; (iv) sabotage activities; (v) raiding and firing on Security posts, towns and administrative centres; and (vi) moving with arms or in uniform in towns, villages and administrative centres, wherever there are Security posts and approaching within one thousand yards of Security posts.”

**1975: Shillong Agreement**
- Between Nagaland Governor L P Singh and underground leaders
- **THE AGREEMENT:** “The representatives of the underground organisations conveyed their decision, of their own volition, to accept, without condition, the Constitution of India. It was agreed that the arms, now underground, would be brought out and deposited at appointed places. Details for giving effect of this agreement will be worked out between them and representatives of the Government, the security forces, and members of the Liaison Committee.”
- **THE CATCH:** “It was agreed that the representatives of the underground organisations should have reasonable time to formulate other issues for discussion for final settlement.”

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### 14 killed as Bodo rebels attack market in Kokrajhar

- Fourteen persons, including two women, were killed in Kokrajhar district of Assam in broad daylight on Friday when militants dressed in Army fatigues opened fire and hurled bombs at a busy weekly market.
- Though the incident occurred 15 km from Kokrajhar town, an Army patrol van which was nearby when the firing started engaged the terrorists, killing one of them.
- The National Democratic Front of Bodoland (NDFB) is an armed separatist outfit which seeks to obtain a sovereign Bodoland for the Bodo people in Assam, India.
- It is designated as a terrorist organisation by the Government of India
- The **NDFB constitution, adopted on 10 March 1998, lists its objectives as the following**
  - Liberate Bodoland from the Indian expansionism and occupation;
  - Free the Bodo nation from the colonialist exploitation, oppression and domination;
  - Establish a Democratic Socialist Society to promote Liberty, Equality and Fraternity; and
  - Uphold the integrity and sovereignty of Bodoland.
**Marans want money-laundering case shifted; ED opposes their bail**

The Enforcement Directorate on Monday opposed the bail pleas of former Telecom Minister Dayanidhi Maran, his brother Kalanidhi Maran and the latter’s wife, Kaveri, in a money laundering case connected with the Aircel-Maxis deal.

**What is Money Laundering?**
- Money is the prime reason for engaging in almost any type of criminal activity.
- Money-laundering is the method by which criminals disguise the illegal origins of their wealth and protect their asset bases, so as to avoid the suspicion of law enforcement agencies and prevent leaving a trail of incriminating evidence.
- The ability to prevent and detect money-laundering is a highly effective means of identifying criminals and terrorists and the underlying activity from which money is derived.

**How is money laundered?**
Traditionally money laundering has been described as a process which takes place in three distinct stages.
1. **Placement**, the stage at which criminally derived funds are introduced in the financial system.
2. **Layering**, the substantive stage of the process in which the property is ‘washed’ and its ownership and source is disguised.
3. **Integration**, the final stage at which the ‘laundered’ property is re-introduced into the legitimate economy.

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**A Typical Money Laundering Scheme**

1. **Placement**
   - Dirty Money Integrates into the Financial System
   - Wire Transfer

2. **Layering**
   - Purchase of Luxury Assets
   - Commercial / Industrial Investments
   - Offshore/Onshore Banks
   - Transfer funds between various Offshore/Onshore Banks

3. **Integration**
   - Purchase of Luxury Assets
   - Financial Investments
   - KYCMap

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**What does ED do?**
Directorate of Enforcement is a specialized financial investigation agency under the Department of Revenue, Ministry of Finance, Government of India, which enforces the following laws:

- **Foreign Exchange Management Act, 1999 (FEMA)** – A Civil Law, with officers empowered to conduct investigations into suspected contraventions of the Foreign Exchange Laws and Regulations, adjudicate, contraventions, and impose penalties on those adjudged to have contravened the law.

- **Prevention of Money Laundering Act, 2002 (PMLA)** – A Criminal Law, with the officers empowered to conduct investigations to trace assets derived out of the proceeds of crime, to provisionally attach/confiscate the same, and to arrest and prosecute the offenders found to be involved in Money Laundering.

**What is 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

**Ponzi schemes not under our purview: SEBI**
The Securities and Exchange Board of India (SEBI) has denied any regulatory purview over ponzi schemes, squarely placing the responsibility of protecting investors on State governments.

**Background:**
This was clarified by the SEBI while responding to the Supreme Court’s poser as to what the government and the market regulator were doing to check the “menace” of schemes running across the country in various forms which robbed the poor and small investors of their hard-earned money.
What has the SEBI said?

Source: http://visual.ly/what-ponzi-scheme
Ponzi schemes are banned under the Prize Chit and Money Circulation (Banning) Act, 1978 and the State government concerned is the enforcement agency. Though it is a Central Act, the respective State governments are the enforcement agency of this law.

**What are Ponzi Schemes?**

A Ponzi can be any scheme in which the returns to promised to older investors are paid from the money collected from new investors, and not actual profits from the investments. Ponzi schemes were named after Charles Ponzi, a clerk in Boston who, almost a century ago, duped thousands of investors into speculating on phenomenal returns from the humble postage stamp.

- Those running a Ponzi scheme reel in their first set of investors by introducing them to a great opportunity. They may even pay up the fanciful returns out of their personal funds. But once investors begin to bite, they build a house of cards, using money from the stream of new entrants, to pay the older patrons.
- Even if profits are made from the investments, more often than not, the scheme operators siphon it off to private accounts. As long as new investors are willing to sign up, the Ponzi scheme works. But when the flow of fresh money dwindles, the house of cards collapses.

Sources: the hindu.

### Maharashtra to have own law for internal security

Maharashtra Government has proposed an internal security act to deal with the challenges of terrorism and communal and caste violence. The proposed legislation, 'Maharashtra Protection of Internal Security Act, 2016,' would be the first such state-level act for internal security which will give more power to the police department if implemented.

**What's there in the draft?**

- It proposes ‘special security zones’ where movement of arms, explosives and inflow of unaccounted funds will be prohibited.
- Dams, defence institute bases, government buildings or facilities, nuclear reactors, transportation systems have been identified as ‘critical infrastructure sectors’ under the act.
- It proposes a ban or regulation of production, sale, storage, possession or entry of any devices or equipment or poisonous, chemical, biological or radioactive article or substances, or electronic content of potentially explosive nature or any inflow of funds in the SSZ, if it is a threat to the internal security or public order in the area.
- Every public establishment and government office shall carry out the security audit of its premises and every owner of the premises of the public establishment shall save video footage of public activities for a period of 30 days.
- It will be compulsory for all the private institutions to have CCTV surveillance and security arrangements as guided by the police.
- There would be a ‘state internal security committee’ with Home Minister as ex-officio Chairman, and include Minister of State (Home) and the Chief Secretary. It would oversee the implementation of this act and also review its implementation.
- The act provides strict action against those who hamper the critical assets by means of facilities systems and equipments which if destroyed, degraded or rendered unavailable would affect reliability or operability of the system jeopardizing the national security or economic security. The act also has brought a check over public agitation.
- As per the provisions in the act the prior police permission would be needed for any gathering where more than 100 people are expected. Many fear that this is a move to curtail public agitations. Even if the act clarifies that any bona fide act against the policies of the govt with a view to obtain their alteration by lawful and peaceful mean shall not be deemed as act intended to endanger the safety or the stability of the state.

Sources: the hindu.

### ‘Cybercrimes have risen 4-fold in 3 years’

According to a joint study by PwC and Assocham, the number of cyber crime cases registered in India has risen by 350% in the three-year period from 2011 to 2014. The study is titled- ‘Protecting Interconnected Systems in the Cyber Era.’

**Highlights:**

- The study notes that with the growing adoption of the Internet and smart-phones, India has emerged “as one of the favourite countries among cyber criminals.” But, in the past, attacks have been mostly initiated from countries such as the U.S., Turkey, China, Brazil, Pakistan, Algeria, Turkey, Europe, and the UAE.
- According to the study, a new breed of cyber criminals has now emerged, whose main aim is not just financial gains but also causing disruption and chaos to businesses in particular and the nation at large.
- In the U.S. alone, there has been an increase of nearly 50% in reported cyber incidents against its critical infrastructure from 2012 to 2015. Attackers can gain control of vital systems such as nuclear plants, railways, transportation or hospitals that can subsequently lead to dire consequences.

Sources: the hindu.

### MHA oversight for all NGOs?

The Home Ministry has asked the Finance Ministry to surrender its powers to monitor non-governmental organisations (NGOs) under the Foreign Exchange Management Act (FEMA). This move is aimed at bringing all NGOs which receive foreign contributions under one umbrella for better monitoring and regulation.

**Current practice:**

Currently, there are nearly 100 international NGOs and associations which receive foreign funds through their liaison offices and disburse them to NGOs across India. Few international donors are registered under FEMA but not the Foreign Contribution Regulation Act (FCRA), 2010.

- The Home Ministry monitors foreign funds donated to NGOs and organisations through the FCRA.
- And, FEMA is regulated by the Finance Ministry.
- Many NGOs and foreign donors do not want to register under the FCRA due to its stringent provisions.

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Why a common head is necessary?
There are certain NGOs which are registered under FEMA and continue to disburse foreign funds to various associations in India. Since FEMA is regulated by the Finance Ministry, there are many occasions when the Home Ministry is not able to monitor the flow of funds effectively. Hence, these powers should be given to the Home Ministry. This helps in better monitoring and regulation of NGOs.

Background:
The FCRA was brought into force to regulate flow of foreign funds to voluntary organisations with the objective of preventing any possible diversion of such funds to anti-national activities. The Ministry of Home Affairs is mandated to administer the Foreign Contribution (Regulation) Act, 2010, for regulating the receipt and utilization of foreign contribution by the associations/NGOs.

- Expeditious action is taken as and when adverse inputs of violations of provisions of the Act are received against any association. The NGOs/Civil Societies registered/given Prior Permission under Foreign Contribution (Regulation) Act, 2010 are required to follow the provisions of Act, Rules and instructions issued in this regard from time to time.
- The Government receives inputs from various security agencies, including Intelligence Bureau, from time to time, about the violations of FCRA, however, action is initiated against the alleged violators only after due scrutiny and following due process as prescribed in the said Act.
- If any NGOs/Civil Societies violate any of the provisions of the Act and Rules, then only, action is initiated as per provisions of Foreign Contribution (Regulation) Act, 2010. Actions include compounding of offence, putting in prior reference category, suspensions of registration, freezing of accounts, cancellation of registration, prosecution etc.

Sources: the hindu.

**Paper 2 Topic:** Role of external state and non-state actors in creating challenges to internal security.

**India plans anti-terror drive at NAM**

Ahead of the 71st session of the United Nations General Assembly, India is planning a major diplomatic outreach in order to push through the ‘Comprehensive Convention on International Terrorism’ (CCIT).

- In this regard, India is expected to launch a campaign during the September 13-18 Non Aligned Movement summit in Venezuela.

**CCIT:**

**What is it?**
It is a draft proposed by India in 1996 that is yet to be adopted by the UNGA.
**What does it call for?**
- Universal definition of terrorism: no good terrorist or bad terrorist.
- Ban on all groups regardless of country of operation, cut off access to funds and safe havens.
- Prosecution of all groups including cross border groups.
- Amending domestic laws to make cross-border terror an extraditable offence.
- It also addresses, among other things, the issue of Pakistan’s alleged support for cross-border terrorism in south Asia.

**Concerns expressed by various countries:**
- US + allies: concerns over definition of terrorism, including acts by US soldiers in international interventions without UN mandate.
- Latin American countries: concerns over international humanitarian laws being ignored.
- There are also concerns that convention will be used to target Pakistan and restrict rights of self-determination groups in Palestine, Kashmir etc.

Sources: the hindu.
Facts for Prelims
Norway considers a birthday gift for Finland

- Norway is pondering an unusual birthday gift for its neighbour Finland: an Arctic mountain peak.
- **Mount Halti** is the highest mountain in Finland, but its 4,478-foot summit is in Norway.

- To help commemorate the 100th anniversary of Finland’s declaration of independence from Russia on December 6, 1917, a group of Norwegians is urging the government to move a point on its border with Finland some 490 feet to the north and 650 feet to the east.
- Halti’s peak would become the highest point in Finland, surpassing a spur of the mountain that tops out at 4,344 feet.
- Norway’s highest peak, **Galdhopiggen**, has an elevation of 8,100 feet, making it nearly twice as high as Mount Halti, which is not even among the top 200 of Norway’s highest peaks.

Former Karnataka Lokayukta charged with abetting corruption, extortion

- A Special Investigation Team (SIT) of Karnataka Police Wednesday charged former Karnataka Lokayukta, **Justice Y Bhaskar Rao**, with abetting a corruption and extortion racket allegedly run from his office by his son Ashwin Rao during his tenure as Lokayukta between 2013 and 2015.

- Rao, who stepped down as the Lokayukta on December 7, 2015 after the Karnataka Assembly initiated an impeachment motion.

- His son and more than a dozen other people, who allegedly carried out the extortion racket in the Lokayukta office, are in jail, awaiting trial.
Global Green Award/ Mission Bhagiratha/ Sachet

- The seventh India-Japan International Conference on ‘Science and Technology: Future Challenges and Solutions’, was recently held in Mysore, Karnataka.

- **Global Green Award**: Dr. Dhrubajyoti Ghosh has received the Luc Hoffman award, one of the highest international awards in environmental leadership. Dr. Ghosh was involved in mapping East Kolkata Wetlands and calculating its economic value. He is the first Indian environmental activist to receive the Luc Hoffman award.
**Mission Bhagiratha:** PM Modi recently inaugurated a massive 40,000-crore Telangana state water grid ‘Mission Bhagiratha’. It aims to provide safe drinking water through a pipeline. The objective is to provide 100 liters of clean drinking water per person in rural households and 150 liters per person in urban households. This project aims to provide water to about 25,000 rural habitations and 67 urban habitations.

**New Gujarat CM:** Vijay Rupani has sworn in as the 16th Chief Minister of Gujarat after Anandiben Patel who resigned recently.

**TWRIS:** Telangana Irrigation Department has signed a memorandum of understanding with the Indian Space Research Organisation for setting up a Telangana Water Resources Information System (TWRIS) on the ‘Bhuvan’ web portal. The objective is to capture every field-level irrigation network including dams/barrages, anicuts, main and field channels, etc. and mark every irrigation structure on satellite visualisation tool Bhuvan (similar to Google Earth).

**Tiantong-01:** China has successfully launched its first satellite for mobile telecommunication, Tiantong-01. It is the first satellite of China’s homemade satellite mobile telecom system, and a key part of the country’s space information infrastructure.

**Sachet:** The RBI, in line with its efforts to curb illegal and unauthorised pooling of funds by unscrupulous firms, has launched a website – Sachet. The step aims at helping people get information about legalised entities, who are allowed to collect public deposits/ provide investment management services, entities barred from doing so, besides receiving on-the-ground information on illegal entities.

**Gaofen-3/ Amitabh Kant Committee**

**Gaofen-3:** It is a new high-resolution Synthetic Aperture Radar (SAR) imaging satellite launched by China recently. It was launched off on the back of a Long March 4C rocket. It was the 233rd flight mission by a Long March carrier rocket. It is also China’s first low orbit remote sensing satellite that has a lifespan of eight years.

**Amitabh Kant committee:** It is a committee set up by the government to look at easing the policy regime for e-commerce players, including the rules for foreign direct investment. The terms of reference of the committee would be to examine various issues in e-commerce sector and making recommendations for further liberalisation of the policy.

**Yaad Karo Kurbani:** It is a 15-day programme aimed to commemorate 75th anniversary of the Quit India Movement (QIM) and 70 years of Independence. It was recently launched by PM Modi at birthplace of freedom fighter Chandra Shekhar Azad at Alirajpur, Madhya Pradesh. The campaign is aimed at developing a feeling in every person that nation is first and individual is secondary.

**Kudankulam Nuclear Power Project (KKNPP)/ Croatia/ Central Silk Board**

**Kudankulam Nuclear Power Project (KKNPP):** First unit of KKNPP was recently dedicated to the nation. The 1,000-MWe KNPP-1 is the largest single unit of electrical power in India. The first Unit of the Kudankulam Nuclear Power Plant was built with the expertise of the Russians after a pact between the then Prime Minister Rajiv Gandhi and Soviet leader Mikhail Gorbachev in November 1988. The unit was synchronised with the southern grid on October 22, 2013, and became fully functional on December 31, 2014.
Nuclear Power Plants & Sites in India

- **Gorakhpur Haryana Anu Vidyut Parivahan (GHAVP), Haryana**
  - 4 x 700 MW

- **Narora Atomic Power Station (NAPS), Uttar Pradesh**
  - 2 x 220 MW

- **Chutka, MP**, Atomic Power Project (QMAPP)
  - 2 x 700 MW

- **Main Bawana, Rajasthan**
  - 4 x 700 MW

- **Kakrapar Atomic Power Station (KAPS), Gujarat**
  - 2 x 220 MW
  - 2 x 700 MW

- **Niti Virdi, Gujarat**
  - 6 x 1000 Plus* MW

- **Tarapur Atomic Power Station (TAPS), Maharashtra**
  - 2 x 160 MW
  - 2 x 540 MW

- **Jaitapur Nuclear Power Project (JNPP), Maharashtra**
  - 6 x 1050 MW

- **Kalpakkam Nuclear Power Project (KKNPP), Tamil Nadu**
  - 2 x 220 MW
  - 1 x 1000 MW
  - 4 x 1000 MW

- **Kudankulam Nuclear Power Plant (KKNPP), Tamil Nadu**
  - 2 x 1000 MW

- **Andaman and Nicobar Islands**
  - **Bhipur, West Bengal**
    - 6 x 1000 MW
  - **Kowada, Andhra Pradesh**
    - 9 x 1000 Plus* MW

**Capacity in Operation (5780 MW)**
**Capacity Under Commissioning (10000 MW)**
**Capacity Under Construction (2800 MW)**

*Out of these units, RAPS-1 (100 MW) is owned by the Department of Atomic Energy and managed by NPCIL.

**Kudankulam unit 1 synchronized with the southern grid on October 22, 2013 and declared commercial on December 31, 2014.

Map for representation only. Not to scale.
- **Croatia**: The Union Cabinet has given its approval for signing and ratification of an Agreement between India and Croatia on Economic Cooperation. India and Croatia had earlier signed an Agreement on trade and economic cooperation in September, 1994 with an aim to promote and develop bilateral trade and economic relations. Croatia is a sovereign state at the crossroads of Central Europe, Southeast Europe, and the Mediterranean. It is a member of the European Union (EU), United Nations (UN), the Council of Europe, NATO, the World Trade Organization (WTO) and a founding member of the Union for the Mediterranean.

- **Central Silk Board**: K M Hanumantharayappa has assumed charge as new Chairman of Central Silk Board, Union Ministry of Textiles. He is the 25th Chairman of the Central Silk Board. CSB is a statutory body established under the Central Silk Board Act, 1948. It functions under the aegis of Union Ministry of Textile.

**Lothal**: A Maritime Heritage Complex Committee with Secretary (Shipping) as Chairman has been constituted with members from related Ministries and Experts in Maritime Heritage for planning of a Maritime Heritage Complex at Lothal. Lothal is one of the most prominent cities of the ancient Indus valley civilisation, located in Gujarat. Lothal is famous for its dockyard—the world’s earliest known.

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**Diamond Quadrilateral/ Greenland Sharks/ s-400/ Rhino Horn Verification**

**Diamond Quadrilateral**: Six corridors on Diamond Quadrilateral connecting metropolitan cities and growth centers of the country (Delhi, Mumbai, Chennai & Kolkata) have been identified for feasibility studies for high speed rail connectivity viz: (i) Delhi-Mumbai, (ii) Mumbai-Chennai, (iii) Chennai-Kolkata, (iv) Kolkata-Delhi and both diagonals i.e. (v) Delhi-Chennai and (vi) Mumbai-Kolkata routes. Feasibility studies are being undertaken through Government to Government cooperation, with China and Spain respectively.
- **Longest living vertebrate: Greenland sharks** have been named the longest-living vertebrate on Earth. University of Copenhagen researchers estimated that these sharks live at least 400 years, nearly two centuries longer than the whales. They are the largest fish native to Arctic seas, with adults typically measuring between 13 and 16 feet and females consistently outgrowing the males. To determine the age of Greenland sharks, researchers examined the eye lens nuclei of 28 females, caught during scientific surveys. Analysis suggested that these sharks reach sexual maturity around the age of 150.
• **S-400:** It is the new advanced S-400 air defence missile system deployed by Russia to annexed Crimea.

• **Rhino horn verification:** The verification of rhino horns to check their genuineness and updating of the complete inventory of horns kept in various treasuries in the custody of Assam government since 1980, has begun in Assam. The first treasury to be opened will be Golaghat with the highest number of rhino horns in government custody with most from Kaziranga National Park. The rhino horns are scattered in 12 treasuries of Assam, the maximum being in Golaghat followed by Nagaon, Guwahati and Tezpur.

**Krishna Pushkaralu/ LPG Subsidy Savings/ MS Subbulakshmi/ 100 million for 100 million/ Bharatavani**

• **Krishna Pushkaralu:** It is a festival of River Krishna which normally occurs once in every 12 years and is celebrated with much glory. The Pushkaram is observed for a period of 12 days from the time of entry of Jupiter into Virgo (Kanya rasi). Krishna Pushkaralu 2016 recently began in Telangana.

• **Huge LPG subsidy savings:** CAG findings have revealed that about 92% of the Rs. 23,300-crore savings in subsidy payouts by the Petroleum Ministry in 2015-16 was due to the sharp fall in oil prices.

• **M.S. Subbulakshmi:** The United Nations will issue a stamp to mark the birth centenary of M.S. Subbulakshmi during celebrations for India’s Independence Day. Subbulakshmi, whose birth anniversary falls on September 16, performed at the UN fifty years ago, making her the first Indian to have the honour. Subbulakshmi was a Carnatic vocalist. She was the first musician ever to be awarded the Bharat Ratna, India’s highest civilian honour. She is the first Indian musician to receive the Ramon Magsaysay award, often considered Asia’s Nobel Prize.

• **100 million for 100 million:** It is a campaign launched by Nobel laureate Kailash Satyarthi recently. It targets 100 million youth, whose idealism, energy and enthusiasm would help liberate the 100 million children shackled in slavery and poverty across the world.

• **Bharatavani:** The government is planning to digitize as many as 165 important Tulu works and make available on-line on a Union government portal. They will be uploaded under the Bharatavani project, an initiative of the Union Ministry of Human Resource Development. Bharatavani project is about making available “knowledge in and knowledge about” all languages in the country in multimedia formats (text, audio, video and images) through an online portal.

**Smart Ganga City Programme**

• **Smart Ganga City programme:** The Union Government has launched the first phase of Smart Ganga City programme in 10 cities located along River Ganga. Haridwar, Rishikesh, Mathura, Varanasi, Kanpur, Allahabad, Lucknow, Patna, Sahibganj and Barrackpore are the cities/town where the programme will be implemented in the first phase. Under this programme, Sewage Treatment Plants (STPs) and improve drainage network will be set up on hybrid annuity mode on public private partnership basis.
Navroz/ RMSC

**Navroz festival:** It is a Parsi New Year festival. While the Balkans, the Caucasus, the Middle Easterns celebrate the festival on March 21, the first day of the Zoroastrian calendar, in India there is another version of the festival that is followed according to the Shabansahie calendar and falls during the later months of the year. The dates change every year since the calendar doesn’t account for leap years. Also known as Pateti, Navroz will be celebrated on August 17th this year in India. The festivities on this day symbolize happiness, harmony and amity for the Parsi community. The time of the festival is decided in Iran and then it is passed on to the entire Zoroastrian population in the world.

**Regional Maritime Security Course (RMSC):** In continuation of Indian Navy’s foreign cooperation initiatives, a Regional Maritime Security Course (RMSC) for officers of the rank of Colonel/ equivalent of Maritime Security Agencies from Friendly Foreign Countries (FFCs) at Naval War College, Goa recently commenced. The module includes International Relations Theory, International Maritime Law, UNCLOS, Energy and Natural Resources Security, Maritime Domain Awareness, Indian Ocean Studies as well as a table top Humanitarian Assistance and Disaster Relief/ Out of Area Contingency exercise. The course would provide a concrete forum for developing common understanding of regional maritime security issues, disseminate the IN perspective on the subject, as well as provide an opportunity for IN officers undergoing the Naval Higher Command Course to interact with the foreign participants, and understand the perspectives of regional navies, on issues of common concern.

**SAARC Youth Conference/ Sakshi Malik**

**SAARC Youth Conference:** The first ever South Asian Association for Regional Cooperation (SAARC) Youth Parliamentarians Conference is being held in Islamabad, Pakistan. The theme of the summit is ‘Peace and Harmony for Development’. The goal of the conference is to build bridges between the future leaders of South Asia on a platform that supports continued engagement and cooperation. It seeks to provide an opportunity for the youth and Parliamentarians to apprise respective Government leaders on where the youth of South Asia stands on a vision for the region ahead of the High Level Summit.

**Sakshi Malik:** She has become the first woman wrestler from India to bag an Olympic medal. She is also the fourth female athlete from the country to earn a medal in Olympics. She won a bronze medal. Overall, this is 25th medal for India in Olympic games.

**Airlander 10**

**Airlander 10:** It is the world’s largest and longest aircraft. It recently embarked on its maiden flight in central England. It is a hybrid airship made by Hybrid Air Vehicles in United Kingdom. Airlander 10 is a partly plane and partly airship filled with helium gas. It can stay airborne for more than two weeks unmanned.

**MoU between India and Bangladesh:** Indian Oil Corporation Ltd (IOCL) and the Roads and Highways Department of People’s Republic of Bangladesh have signed a Memorandum of Understanding. The MoU enables IOCL to send its trucks carrying Motor Spirit, High Speed Diesel, Superior Kerosene Oil & Liquefied Petroleum Gas from Meghalaya to Tripura via territory of Bangladesh. The validity of this facility is till end September, 2016. Both sides have also agreed to extend the transit facility for a further short period on need basis.
PV Sindhu/ Project Alloy/ XMU-MP-1

- P.V. Sindhu is the first Indian woman to receive Olympic Silver medal. She was defeated by Spanish player and world number one Carolina Marin. She received international attention as she broke into the Top 20 in the Badminton World Federation rankings released on 21 September 2012. On 10 August 2013, Sindhu became the first ever Indian women’s singles player to win a medal at the 2013 World Championships. On 30 March 2015, she received India’s fourth highest civilian honor, the Padma Shri. On 18 August 2016, at the 2016 Summer Olympics, she became the first Indian to reach the finals in the Badminton event of an Olympic games after beating Nozomi Okuhara of Japan in the semi-finals. She subsequently won the Silver medal at the 2016 Summer Olympics and became the first Indian shuttler to win a Silver medal and the youngest Indian overall to make a podium finish in the Olympics. She also became the second Indian female shuttler to win an Olympic medal after Saina Nehwal’s Bronze medal at 2012 Summer Olympics at London. (Wikipedia)

- **Project Alloy:** It is a virtual-reality headset unveiled by Intel recently. The head-mounted display consists of a set of goggles that contain the computing power needed to run the headset. The headset is a completely standalone device, with no need to hook up to a computer or external sensors, so wearers can move around and explore virtual environments with total freedom. The headset uses Intel’s RealSense cameras, which have depth-sensing capabilities, to allow, without the need for additional sensors, objects such as the user’s hands to be tracked and entered into the virtual world displayed within the goggles. The device creates mixed reality, which drags real-world objects into the virtual realm using 3D cameras.

- **XMU-MP-1:** It is a drug discovered by Chinese scientists, which can promote repair and regeneration in the liver, intestines and skin. In the future, the drug may well do away the need for organ transplant or complex biomaterial and cell therapies. The XMU-MP-1 has been proven to inhibit the activity of MST1/2, the central component of this pathway and promote cell growth in four different mouse models with acute and chronic injuries, including acetaminophen-induced injury, which is a common cause of liver failure worldwide.

Urjit Patel- New RBI Governor/ Longest Glass Bridge/ New eel species

- **New RBI governor:** Government has named Urjit Patel as the new Governor of Reserve Bank of India (RBI) for three years. He will be 24th Governor of RBI. He was previously Deputy Governor of RBI.

- **Longest glass bridge:** The world’s highest and longest glass-bottomed bridge was recently opened in China. The bridge connects two mountain cliffs known as the Avatar Mountains in Zhangjiajie, Hunan province.

- **New eel species:** Scientists have discovered a new species of eel, a snake-like fish, from the northern Bay of Bengal along the West Bengal coast. The species Gymnothorax indicus is slender-bodied, about one feet-long and edible.
The scientist said that the eel has 194 vertebrae. Its dorsal fin has a black margin. Globally, about 1,000 species of eels have been identified and, in India, the number is around 125. Though considered a delicacy in many countries like Japan, the consumption of eels in India is limited to coastal areas.

Knight of order of Arts and Letters/ Bavar 373/ Assocham study

- **Knight of the Order of Arts and Letters**: Actor Kamal Haasan will be awarded the prestigious Chevalier de L’Ordre Arts et Lettres or The Knight of the Order of Arts and Letters by the French Government. The order is a part of France’s premier award, the Legion of Honor, and he is only the second Tamil actor after the legendary Sivaji Ganesan to be chosen for the honour. The Knight of the Order of Arts and Letters is a recognition to people who have contributed to furthering arts in France and throughout the world.

- **Bavar 373 missile defence system**: It is a domestically built long-range missile defence system by Iran. The project started when the country was under international sanctions. The system was designed to intercept cruise missiles, drones, combat aircraft and ballistic missiles. The project was launched as an alternative to the Russian S-300 system, the delivery of which was suspended in 2010 due to sanctions imposed over Iran’s nuclear programme.

- **Assocham study**: According to a study, India is home to the third largest number of technology-driven start-ups in the world, with the U.S. and the U.K. occupying the top two positions. Bengaluru is host to the largest share of technology start-ups in the country, followed by Delhi NCR and Mumbai, while Hyderabad and Chennai are also quite popular.

Sunita Jain/ National Sports Awards 2016

- **Sunita Jain**: She is a Hindi scholar and writer, who recently received the prestigious **25th Vyas Samman** 2015 for her poetry collection Kshama. The award instituted by the **K K Birla Foundation** carries a cash prize of 2.50 lakh rupees. It is given annually to outstanding literary work in Hindi authored by an Indian citizen.

- **National Sports Awards 2016 announced**
The Union Government has announced the National Sports Awards for the year 2016. National Sports Awards are given every year to recognize and reward excellence in sports.

**Awarded as**:
- **Rajiv Gandhi Khel Ratna Award**: P. V. Sindhu, Sakshi Malik, Dipa Karmakar and Jitu Rai.
- **Dronacharya Award**: Bishweshwar Nandi, Nagapuri Ramesh, Sagar Mal Dhayal, Raj Kumar Sharma, S. Pradeep Kumar and Mahabir Singh.
- **Arjuna and Dhyan Chand awards** have also been announced for various sportspersons.

**Background**:
- **Rajiv Gandhi Khel Ratna**: The scheme was launched in the year 1991-92 with the objective of honouring sports persons to enhance their general status and to give them greater dignity and place of honour in society. Under this scheme, an amount of Rs. 5 lakhs is given as award for the most spectacular and outstanding performance in the field of sports by an individual sportsperson or a team.

- **DRONACHARYA AWARDS**: The Dronacharya Award, instituted in 1985, honours *eminent Coaches* who have successfully trained sportspersons or teams and enabled them to achieve outstanding results in international competitions.
**ARJUNA AWARDS:** The Arjuna Awards were instituted in 1961. To be eligible for the Award, a sportsperson should have had not only good performance consistently for the previous three years at the international level with excellence for the year for which the Award is recommended, but also have shown qualities of leadership, sportsmanship and a sense of discipline.

**Dhyan Chand Award** is India’s highest award for lifetime achievement in sports and games. The award is named after the legendary Indian hockey player Dhyan Chand.

### Akashvani Maitree/ India: 7th Wealthiest country
- **Akashvani Maitree:** It is All India Radio's new channel for Bengali listeners. It is an initiative which will provide a platform for blending content both from India and Bangladesh and preserving Bengali culture. Akashvani Maitree will serve as one more bridge of friendship between people of India and Bangladesh. The channel will be broadcast from a state-of-the-art brand new high power 1000Kw DRM transmitter with a capacity to reach the entire length and breadth of Bangladesh through medium wave and will be also available globally on its website and mobile app.

- **India 7th wealthiest country:** India is ranked seventh among top 10 wealthiest countries in the world, according to a report by New World Wealth. The United States topped the chart. With a total individual wealth of $5,600 billion, India stood at No. 7 in the list, ahead of Canada ($4,700 billion), Australia ($4,500 billion) and Italy ($4,400 billion), which came in at 8th, 9th and 10th slots, respectively. The US is the wealthiest in the world in terms of total individual wealth held ($48,900 billion) while China ($17,400 billion) stood second and Japan third with $15,100 billion. Others in the top 10 club were the United Kingdom, Germany and France.

### Sugamya Pustakalaya/ Udaipur Declaration
- **Sugamaya Pustakalaya:** It is an online library that makes accessible content available to print-disabled people. The library houses publications across diverse subjects and languages and multiple accessible formats. It has been created by Department of Empowerment of Persons with Disabilities (Divyangjan), Ministry of Social Justice and Empowerment in collaboration with member organizations of Daisy Forum of India and powered by TCS Access. Books are available in Accessible formats for people with visual impairment and other print disabilities. Over 2 lakhs books in diverse languages. Integrating libraries across India and the Globe, including the largest international library, Bookshare are available.

- **Udaipur Declaration:** It was adopted during the recently held two-day meeting of Ministers of Disaster Management of BRICS countries in Udaipur. With this, it has been decided to set up a dedicated Joint Task Force for Disaster Risk Management for regular dialogue, exchange, mutual support and collaboration among BRICS Countries.

### World’s largest marine protected area Papahanaumokuakea/ 19th SAARC Summit
- **World’s largest marine protected area:** U.S. is all set to expand a national monument off the coast of Hawaii, creating the world’s largest marine protected area. US President Obama has decided to quadruple the size of the Papahanaumokuakea Marine National Monument, originally created by ex-president George W. Bush in 2006. The Papahanaumokuakea Marine National Monument will contain some 582,578 square miles, more than twice the size of Texas. The designation bans commercial fishing and any new mining, as is the case within the existing monument. Recreational fishing will be allowed through a permit, as will be scientific research and the removal of fish and other resources for Native Hawaiian cultural practices.

- **Unique ID numbers to elephants:** Elephants that are in possession of the Karnataka Forest Department, private organisations and individuals will be implanted with a microchip, which are equipped with unique numbers. Nearly 60 elephants will now be identified with their number in order to aid the forest department in monitoring them. The initiative is being undertaken by the forest department to check false information private owners and, even forest authorities furnish during investigation processes.
19th SAARC Summit: 19th SAARC Summit will be held in Islamabad in November 2016. This was announced by Pakistan recently. 18th summit was held in Nepal.

Pharma Sahi Daam/ Mera Aspataal/ SAARCSTAT/ West Bengal is now Bengal & Bangla

Pharma Sahi Daam: It is a mobile App developed by NPPA which shows the MRP fixed by NPPA for various scheduled drugs on real time basis. It was recently launched by the government.

Mera Aspataal / My Hospital initiative: It is an initiative launched by the government of India at the recently concluded third National Summit on Good and Replicable Practices and Innovations in Public Health Facilities at Tirupati. It will be implemented in public and empanelled private hospitals. It is envisaged to empower the patient by seeking his / her views on quality of experience in a public healthcare facility. A multi-channel approach will be used to collect patients’ feedback i.e. web portal, mobile application, Short Message Service (SMS), Interactive Voice Response System (IVRS).

SAARCSTAT: Eighth Meeting of Heads of SAARC Statistical Organizations (SAARCSTAT) was recently inaugurated in Delhi. India is hosting the three-day meeting on “Trade Statistics – Merchandise & Services”. It is being attended by delegates from SAARC Member States and other international organizations including FAO, PARIS 21 and ADB.

West Bengal to Bengal and Bangla: The West Bengal Legislative Assembly has passed a resolution changing the name of the State to Bengal in English and Bangla in Bengali. Consent of the Parliament is necessary to effect the name change. The resolution, under Rule 169 of the rules of procedures of the House, was passed by a voice vote.

Operation Muskaan-II/ Asli Tarakki

Operation Muskaan-II: It is the second phase of ‘Operation Muskaan,’ a campaign to trace and rescue missing children. It was launched by the Union Ministry of Home Affairs. Thousands of children have been rescued under the campaign so far.

Asli Tarakki: It is a new campaign for Swachh Bharat Mission launched by the Ministry of Urban Development recently. It is aimed at sanitising six cities of the National Capital Region (NCR). Further, it will be replicated in other States if it succeeds. About 450 young men and women with “communication skills and leadership qualities” have been selected as “lead motivators” to spread awareness on Swachh Bharat Mission.