



CENTRE FOR AMBITION
(An Institute for Civil Services)

BACKGROUNDER MAY 2016

Army depot turns to the sun to destroy old ammunition

In a major breakthrough, the central ammunition depot of the Army in Maharashtra has devised a method of **utilising solar energy for disposing ammunition** which have completed their shelf life. This is the first of its kind development in the world in field of demilitarisation of ammunition.

Details:

- This method uses **steam generated by concentrated solar technology (CST)**. The steam is used to melt explosive material inside shells of munitions with calibres ranging from 40 mm to 130 mm.
- In CST, mirrors are used to concentrate solar energy to convert water to steam which is directed on the shells.
- Medium and high calibre ammunition is filled with Tri-Nitro-Toulene (TNT), which has a melting point of 80 degree Celsius which can be melted with steam.
- Shells treated this way are rendered 100% free from explosives and the recovered TNT filling can be re-casted for reuse.

Modi launches LPG scheme for poor women

Prime Minister Narendra Modi recently launched the **Pradhan Mantri Ujjwala Yojana**, which aims to provide five crore LPG connections to women in Below Poverty Line (BPL) households over the next three financial years, at a cost of Rs. 8,000 crore.

- The scheme was launched at Ballia in Uttar Pradesh.

About the scheme:

The Cabinet Committee on Economic Affairs, in March 2016, had given its approval to Pradhan Mantri Ujjwala Yojana. The scheme is being implemented by the Ministry of Petroleum and Natural Gas.

- The scheme will be partially funded from the savings accruing to the government from LPG users who gave up their subsidy as part of the Give It Up programme.
- The new users who receive LPG connections under the scheme will not have to pay the security deposit, while the Rs. 1,600 administrative costs, cost of pressure

regulator booklet and safety hose will be borne by the government.

- The households will be selected using the socio-economic and caste census data. Consumers will have the option to purchase gas stove and refills on EMI.

Currently, India has 16.64 crore active LPG consumers with a requirement of about 21 million tonnes per annum.

UJALA Scheme

The union government has launched National LED programme – **Unnat Jyoti by Affordable LEDs for All (UJALA)** in Madhya Pradesh.

- The scheme is being implemented by **Energy Efficiency Services Limited (EESL)**, a joint venture of PSUs under the Union Ministry of Power.
- UJALA is a flagship project of the Govt. of India where it wants every home in India to use LED bulbs so that the net power or energy consumption rate comes down and the carbon emission rates can also be checked.

Key features of the scheme:

- Under this Programme, 3 crore LED Bulbs will be distributed in the next 6 months in the State.
- Under the scheme, people of Madhya Pradesh will get energy efficient 9W LED bulbs at an upfront payment of just 85 rupees per LED bulb.
- 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 (www.delp.in).
- The distribution of LED bulbs will happen through DISCOM offices, DISCOM bill collection centres, designated EESL kiosks, Weekly haat markets, etc.

Real Estate Act comes into force

The much awaited and widely acclaimed Real Estate (Regulation and Development) Act, 2016 has come into force from May 1, 2016.

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- In this regard, Union Ministry of Housing and Urban Poverty Alleviation (HUPA) has notified 69 of the total 92 sections of the Act.
- The Act has set into motion the process of making necessary operational rules and creation of the institutional infrastructure to make the Act effective on ground.
- As per the notification, Rules under the Act have to be formulated by the Union and State Governments within a maximum period of six months from the act coming into force that is by 31 October 2016 under Section 84 of the Act.

Key features:

- The law aims to protect homebuyers from real estate developers who fail to deliver on time, and regulate India's murky real estate sector in the country.
- It ensures the timely completion and delivery of flats to the consumer by ensuring that strict regulations will be imposed on developers to ensure timely construction and delivery. It further provides that consumers are entitled to a full refund with interest, if there has been a long delay in the delivery of a flat.
- The law mandates that developers need to share final project plans as part of their disclosure terms, with no room for iterations. It also imposes a 10% project cost penalty and upto 3 years in jail.
- The developers need to deposit 70% of the collections from buyers in separate accounts towards the cost of construction including that of land.
- The law also ensures that all clearances are completed before the launch of a project. Liability of developers for structural defects has been increased from 2 to 5 years and they can't change plans without the consent of two thirds of allottees.
- Also, Real Estate Regulatory Authority will be formulated within one year as per the mandate of Act. Regulatory Authorities will have to dispose of complaints in 60 days and Appellate Tribunals will be required to adjudicate cases in 60 days.

NABARD collaborates with German government for a special programme

National Bank for Agriculture and Rural Development (Nabard) has collaborated with the German government for a special programme on 'Soil Protection and Rehabilitation for Food Security'.

Details:

- As part of the collaboration, Nabard is anchoring two major programmes — soil conservation and rehabilitation of degraded land for food security in Maharashtra and Madhya Pradesh and innovation of watershed development for rehabilitation of degraded soils and climate change adaptation in five states (Andhra Pradesh, Telangana, Maharashtra, Gujarat and Rajasthan).
- The programme is part of the German government's recently introduced special initiative 'One World, No Hunger' on addressing the food security needs of countries.
- 'One World, No Hunger' addresses areas such as food and nutrition security, promotion of innovation, protection and sustainable use of natural resources in rural areas and promotion of responsible land use and access to land.
- **India is the only country in Asia chosen for this initiative.**

Facts for Prelims:

- The Supreme Court has banned diesel taxis from operating in the national capital. Earlier in December last year, SC had directed that all diesel taxis be converted to CNG by March 1. The deadline was later extended to March 31 and then again to April 30.
- India's first new conventional submarine in 16 years, **Kalvari**, has finally begun its sea trials off Mumbai, giving much-needed fillip to the Navy. Kalvari is Indian Navy's **first indigenous Scorpene-class stealth submarine**. Kalvari is the **first of the India's six Scorpene-class submarines** being built under the much-delayed **Project 75**. The vessels are being built by Mazagon Dock Limited (MDL) in collaboration with French company DCNS.
- Union Urban Development Minister Venkaiah Naidu recently flagged-off the much awaited East-West corridor of Bangalore Metro Rail Corporation Limited (BMRCL) – south India's **first underground metro**.

India should send Marine to Italy, U.N. arbitration court rules

An Italian marine accused of killing two Indian fishermen in 2012 could return home as an international tribunal asked India and Italy to approach the Supreme Court of India to relax his bail conditions.

- In its interim ruling, the UN's Permanent Court of Arbitration in The Hague ruled that Sergeant Salvatore Girone be allowed to return home until the dispute is resolved through arbitration.

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- The verdict is the first big pronouncement of the PCA (Permanent Court of Arbitration, The Hague), after Italy approached it in June 2015.

Background:

Two Italian marines — Massimiliano Latorre and Mr. Girone are facing the charge of murdering two Indian fishermen in 2012 off the Kerala coast. The fishermen were killed when the marines on duty aboard MV Enrica Lexie, an Italian-flagged oil tanker, fired at them.

Way ahead:

The order is **binding for both countries as there is no appeal process in the UN tribunal**. Technically, the Supreme Court has the power to keep the accused marine in India till the tribunal delivers its verdict in the jurisdiction case.

For his return to his homeland, the tribunal has suggested conditions such as Girone surrendering his passport so that he doesn't travel abroad and reporting his presence to an Italian authority designated by the Indian top court.

About PCA:

The Permanent Court of Arbitration (PCA) is an international organization based in The Hague, the Netherlands. The PCA was created in The Hague by treaty in 1899.

- It is not a court and does not have permanent judges. The PCA is a permanent bureaucracy that assists temporary tribunals to resolve disputes among states (and similar entities), intergovernmental organizations, or even private parties arising out of international agreements.
- The cases span a range of legal issues involving territorial and maritime boundaries, sovereignty, human rights, international investment, and international and regional trade.

Rajya Sabha clears mining law amendment

The Rajya Sabha has cleared the **Mines and Minerals (Development and Regulation) Amendment Bill of 2016**.

- This paves the way for merger and acquisition activity involving firms holding captive mining leases that were allotted in the past without adopting the auction route.

Highlights:

- The Bill amends the Mines and Minerals (Development and Regulation) Act, 1957. The Mines and Minerals (Development and Regulation) Act, 1957 regulates the mining sector in India and specifies the requirement for

obtaining and granting mining leases for mining operations.

- The Bill adds a new Fourth Schedule to the Act. It includes bauxite, iron ore, limestone and manganese ore and are defined as notified minerals. The central government may, by notification, amend this Schedule.
- The Bill creates a new category of mining license i.e. the prospecting license-cum-mining lease, which is a two stage-concession for the purpose of undertaking prospecting operations (exploring or proving mineral deposits), followed by mining operations.
- It also allows mergers and acquisitions worth billions of dollars in the domestic market as the provision of non-transfer of concessions granted through auction was coming in the way of banks and financial institutions to liquidate stressed assets where a company or its captive mining lease is mortgaged.

Non-trade issues at WTO, lack of legal experts worry India

India recently indicated that developing nations, including India, are facing a double disadvantage at the World Trade Organisation's (WTO) Dispute Settlement Body (DSB).

Concerns:

These nations are challenged not only by the lack of a sufficient pool of trade law experts to represent them effectively at the DSB but also by certain efforts to bring within the body's ambit non-trade issues such as labour and environment.

Background:

India has been advocating that certain issues, including labour and environment, must be kept out of the WTO's purview and instead be dealt with by the global bodies concerned such as the International Labour Organisation and the United Nations Framework Convention on Climate Change. The developed world, however, is keen that the WTO addresses, what they call, global trade's new challenges, including labour and environment.

The **Dispute Settlement Body (DSB)** of the World Trade Organization (WTO) makes decisions on trade disputes between governments that are adjudicated by the Organization.

Supreme Court panel to monitor MCI

Endorsing a Parliamentary Standing Committee report of March 2016 that medical education and profession in the country is at its lowest ebb and suffering from total system failure due to corruption and decay, the Supreme Court has set up a three-member committee, headed by former Chief

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Justice of India R.M. Lodha, to oversee the functioning of the Medical Council of India (MCI) for at least a year.

▪ In doing so, the court has exercised its extraordinary powers under Article 142 of the Constitution. It empowers the Supreme Court to pass such “decree or order as may be necessary for doing complete justice between the parties”.

Background:

Court was bound to take this route as the government had not acted on the report of the Parliamentary Standing Committee on Health and Family Welfare. Its report on ‘The functioning of the Medical Council of India’ was tabled in Parliament on March 8, 2016.

Other details:

- According to the court, the Justice Lodha committee will have the authority to oversee all statutory functions under the MCI Act. All policy decisions of the MCI will require approval of the Oversight Committee.
- The Committee will be free to issue appropriate remedial directions. The Committee will function till the Central Government puts in place any other appropriate mechanism after due consideration of the Expert Committee Report.

About MCI:

The Medical Council of India (MCI) is the statutory body for establishing uniform and high standards of medical education in India.

- The Council grants recognition of medical qualifications, gives accreditation to medical schools, grants registration to medical practitioners, and monitors medical practice in India.
- The Medical Council of India was first established in 1934 under the Indian Medical Council Act, 1933. The Council was later reconstituted under the Indian Medical Council Act, 1956 that replaced the earlier Act.

Important functions performed by the council:

- Establishment and maintenance of uniform standards for undergraduate medical education.
- Regulation of postgraduate medical education in medical colleges accredited by it..
- Recognition of medical qualifications granted by medical institutions in India.
- Recognition of foreign medical qualifications in India.

- Accreditation of medical colleges.
- Registration of doctors with recognized medical qualifications.
- Keeping a directory of all registered doctors (called the Indian Medical Register).

Indian Railways signed MoU with Haryana & Punjab to plant trees alongside Railway Track

Indian Railways has signed a Memorandum of Understanding (MoU) with forest departments of Haryana and Punjab to plant trees alongside Railway Track on Railway Land Boundary. The MoU paves way for planting 5 lakh trees during this season.

Highlights of the MoU:

- With this, Railway can contribute substantially towards the Green India Mission.
- Forest department is involved in the plantation as well as maintenance and disposal of trees, thus bringing in the much needed expertise in afforestation.
- The MoU also helps in protecting railway land from encroachment.
- Plantation along the railway track will be done by without declaring such land as protected forest with the provision for resumption of such land at any time by railways.
- All Zonal railways have been asked to execute similar agreement between their zones and concerned State Forest departments as early as possible.

Facts for Prelims:

- Indian IT major Wipro has signed a tripartite deal to set up Saudi Arabia’s first all-women business and technology park in collaboration with Saudi **Aramco** and **Princess Nourah University**.

Lok Sabha passes CAF Bill

Lok Sabha has unanimously passed the much awaited **Compensatory Afforestation Fund (CAF) Bill, 2015**.

- The Bill aims to ensure expeditious utilization of accumulated unspent amounts to the tune of around Rs 40,000 crore for increasing forest cover in India. The amount has been lying idle with an ad-hoc central body for over 10 years.

Highlights of the bill:

- The Bill establishes the **National Compensatory Afforestation Fund** under the Public Account of India, and a State Compensatory Afforestation Fund under the Public Account of each state.
- These Funds will receive payments for: (i) compensatory afforestation, (ii) net present value of forest (NPV), and (iii) other project specific payments. The National Fund will receive 10% of these funds, and the State Funds will receive the remaining 90%.
- These Funds will be primarily spent on afforestation to compensate for loss of forest cover, regeneration of forest ecosystem, wildlife protection and infrastructure development.
- The Bill also establishes the **National and State Compensatory Afforestation Fund Management and Planning Authorities** to manage the National and State Funds.

UN selects Mexican diplomat Patricia Espinosa as next chief of its climate change body

Former Mexican Foreign Minister **Patricia Espinosa** has been nominated to be the new U.N. climate chief, helping to bolster a 2015 Paris Agreement to shift the world economy from fossil fuels.

- The appointment needs to be approved by an 11-member U.N. bureau, whose members represent groups of governments worldwide and is now led by French Environment Minister Segolene Royal.

Background:

The UNFCCC has been in existence since 1994. With 196 countries and European Union (EU) as its members, it has near universal membership. It is the parent treaty of the 1997 Kyoto Protocol. The Kyoto Protocol has been ratified by 192 of the UNFCCC Parties. The ultimate objective is to stabilize greenhouse gas concentrations in the atmosphere at a level that will prevent dangerous human interference with the climate system. The framework set **no binding limits on greenhouse gas emissions** for individual countries and contains no enforcement mechanisms.

Tips are not salary income, still taxable: SC

In a major relief to the hospitality industry, the Supreme Court has held that tips paid by customers to staff for availing services in restaurants do not constitute salary, and therefore, the employer is not liable to deduct tax at source on such payments under income-tax laws.

- However, the court observed that such tips at the hands of employees would be chargeable as “income from other sources”.
- With this, the Supreme Court has set aside the Delhi High Court’s May 2011 judgment, which held that the receipt of such tips constitutes income at the hands of the recipient and is chargeable to income tax under the head “salary” under Section 15 of the Income-Tax Act.

What else the Court said?

According to the court, the employer merely acts in a fiduciary capacity as a trustee for payments that are received from customers, which they disburse to their employees for services rendered to the customer. The employer, therefore, has no obligation to withhold tax on such payments made to employees, regardless of whether the tips are received directly in cash, or collected through credit card by employer, and subsequently disbursed to employees.

Background:

The Delhi High Court in 2011 had ruled that when a tip is paid by way of a credit card by a customer—since such a tip goes into the account of the employer, after which it is distributed to employees—the receipt of such money from the employer would amount to “salary” within the extended definition contained in Section 17 of the Act. However, the High Court had also held that when tips are received by employees directly in cash, the employer has no role to play and would therefore be outside the purview of Section 192 of the Act.

Challenging the High Court judgment before the Supreme Court, ITC and others had argued that tips by customers are paid out of their own volition and discretion, and are in the nature of gratuitous payment made directly to the waiters/staff as a reward in appreciation of services rendered to them. ITC further added that employees cannot claim any vested right thereto, since the employer neither pays nor is bound to pay any amount to the employee as a tip.

Facts for Prelims:

- After the landmark Supreme Court judgment in April 2014 recognising transgender as third gender, the Delhi government has now decided to introduce the ‘**transgender**’ category in forms for registration of birth and death certificates. In the first move perhaps to recognise the third gender on official papers, the Delhi government has issued a notification asking all Registrar offices to duly make the changes in the forms.

Centre may appoint independent regulators for professional services

The government is planning to appoint independent regulators for services such as medicine, law, chartered accountancy, cost accountancy and company secretaryship.

- The bodies being referred to by the commerce ministry include Medical Council of India (MCI), Bar Council of India (BCI), Institute of Chartered Accountants of India (ICAI), Institute of Cost Accountants of India and Institute of Company Secretaries of India (ICSI). All these are **statutory bodies under an Act of Parliament**.

Why appoint independent regulators?

It is because the existing structure of a regulator-cum-professional body for these services has resulted in several alleged instances of conflict of interest. This has also hurt the credibility and reputation of these bodies and hampered India's attempts to secure Mutual Recognition Agreements (MRA) with other countries to enable easier temporary movement of skilled workers and professionals across borders.

Way ahead:

The government will soon initiate discussions in this regard with each of the ministries concerned (health, law and corporate affairs in this case). Then, separate Cabinet notes will be put up by the ministries on the need for independent regulators for these services.

The independent regulators will maintain distance from the professional bodies similar to the situation in developed countries.

Background:

The move comes in the backdrop of the Supreme Court recently citing a Parliamentary panel report to state that the MCI "was repeatedly found short of fulfilling its mandated responsibilities" and that the "quality of medical education was at its lowest ebb". The apex court, noting the instances of corruption in MCI, had set up an Oversight Committee to supervise the council's functions and scrutinise its policy decisions.

SC sends back draft on judges' appointment

The Supreme Court has raised concerns over two issues in the draft Memorandum of Procedure (MoP) for appointment of judges including the one relating to **government's right to reject a recommendation on concerns of national interest**. Other clauses include **clauses on the role of the Attorney-General of India in the appointment of Supreme Court judges and Advocates-General in the appointment process of High Court**

judges. The Supreme Court has asked the government to re-consider these clauses.

Present scenario:

Presently, the government is bound to comply if the Supreme Court collegium chooses to override its disapproval of a person recommended for judicial appointment. If the government returns the candidate's file to the collegium, and the latter reiterates its recommendation, the government has no choice but to comply.

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 seniormost puisne judges of the Supreme Court and who are part of the collegium.

The MoP for appointment of judges to the Supreme Court and the High Courts have "always been prepared" by the executive in consultation with the President and the CJI in consonance with the judgments of the Second Judges and Third Judges cases which ushered in and fine-tuned the collegium system.

Five factors were held by Supreme Court's own consequential judgment to be very important:

- First, the MoP may indicate the eligibility criteria, such as minimum age, for the guidance of the collegium (both at the level of the high court and the Supreme Court) for appointment of judges, after inviting and taking into consideration the views of state governments and the Government of India (as the case may be) from time to time.
- Second, the eligibility criteria and the procedure as detailed in the MoP for the appointment of judges ought to be made available on the website of the court concerned and on the website of the Department of Justice of the Government of India. The MoP may provide for an appropriate procedure for minuting the discussions including recording the dissenting opinion of the judges in the collegium while making provision for the confidentiality of the minutes consistent with the requirement of transparency in the system of appointment of judges.
- Third, in the interest of better management of the system of appointment of judges, the MoP may provide for the establishment of a secretariat for each high court and the Supreme Court and prescribe its functions, duties and responsibilities.

- Fourth, the MoP may provide for an appropriate mechanism and procedure for dealing with complaints against anyone who is being considered for appointment as a judge.
- Fifth, the MoP may provide for any other matter considered appropriate for ensuring transparency and accountability including interaction with the recommended persons by the collegium of the Supreme Court, without sacrificing the confidentiality of the appointment process.

SC 'no' to smaller pictorial warnings on tobacco packets

The Supreme Court has directed all tobacco companies to implement the rule mandating 85% pictorial warnings on packets of tobacco products. The court has also directed all petitions challenging the rule at various courts to be transferred and heard afresh by the Karnataka high court. The apex court has set a deadline of eight weeks to dispose of the matter.

- The court also said in the public interest, tobacco companies should act responsibly, adding any awareness created on the issue would help curb the ill effects of tobacco.

Background:

A notification by the health ministry on 24 September 2015 for implementation of the Cigarettes and other Tobacco Products (Packaging and Labeling) Amendment Rules, 2014 came into force on 1 April. It prescribed larger pictorial warnings, covering 85% of the size of the packets of tobacco products, including cigarettes and beedis.

Food in India untested for diabetes-linked chemical

A public interest litigation (PIL) moved before the Madras High Court has alleged that Alloxan – a chemical – is mixed with the white flour or 'maida' which induces diabetes.

- In this regard, the court has directed the Food Safety Commissioner to examine the allegation within three months and take action if it is found to be correct.
- Alloxan has been banned by the Food Safety and Standards Authority of India (FSSAI).

What is Alloxan?

It is chemical prepared from barbituric acid. It is used in laboratories to induce diabetes in rats and to test the efficacy of anti-diabetic medicines.

- Alloxan's structure mimics that of glucose, which allows it to be absorbed by the pancreas and once inside the organ, it destroys insulin-producing beta cells.

What's the concern now?

Global health literature suggests that its presence in flour implies that consumers are at increased risk of diabetes as well as heart disease.

Facts for Prelims:

- **Reliance Power** has won an in-principle approval of the **Bangladesh** government for the first phase of the 3,000 megawatt LNG-based power plant. This will be the largest foreign direct investment in Bangladesh with a potential investment of over US\$1.3 billion. This project can power the country's rising demand for electricity and will provide clean and green power contributing to the Bangladesh's goal of energy security.

- Rajya Sabha Chairman Hamid Ansari has accepted the resignation of Independent member Vijay Mallya. **A Member of Rajya Sabha who intends to resign has to intimate in writing under his hand addressed to the Chairman, his intention to resign his seat in the Council.** Also, as per **Rule 213** of Rajya Sabha procedures, the **resignation submitted by a member must be voluntary and genuine.**

- The Union Cabinet chaired by the Prime Minister Shri Narendra Modi has given its **ex-post facto** approval for the Memorandum of Understanding (MoU) signed in February, 2016 between Reserve Bank of India (RBI) and Central Bank of United Arab Emirates (UAE) on cooperation concerning **currency swap agreement**. The MoU commits that RBI and Central Bank of UAE will consider signing a bilateral Currency Swap Agreement on mutually agreed terms and conditions, after undertaking technical deliberations, subject to the concurrence of respective Governments. The MoU will further strengthen the close economic relationship and cooperation between India and United Arab Emirates. The swap agreement is also expected to facilitate invoicing of bilateral trade in local currencies.

LS clears decks for MPC

The Lok Sabha recently approved the **Finance Bill 2016** which included an amendment to the RBI Act clipping the central bank governor's powers to set monetary policy.

- The amendment made to the RBI Act through the Finance Bill removed the governor's powers to singularly set monetary policy vesting them in a six-member Monetary Policy Committee.
- After the Finance Bill is approved by the Rajya Sabha, the process of setting up of the Monetary Policy Committee (MPC) will be set in motion.

About the MPC:

Last year, the government and the Reserve Bank of India (RBI) had agreed to adopt a monetary policy framework, which will make taming inflation the primary priority of the central bank's policy decisions.

What it does?

The MPC will set interest rates to keep retail inflation within targets. Inflation targets will be set once every five years.

Composition:

The committee will have six members. Of the six members, the government will nominate three. The RBI Governor will chair the committee. The governor, however, will not enjoy a veto power to overrule the other panel members, but will have a casting vote in case of a tie. No government official will be nominated to the MPC.

- The other three members would be from the RBI with the governor being the ex-officio chairperson. Deputy governor of RBI in charge of the monetary policy will be a member, as also an executive director of the central bank. Decisions will be taken by majority vote with each member having a vote.
- The government nominees to the MPC will be selected by a Search-cum-Selection Committee under Cabinet Secretary with RBI Governor and Economic Affairs Secretary and three experts in the field of economics or banking or finance or monetary policy as its members.
- Members of the MPC will be appointed for a period of four years and shall not be eligible for reappointment

Present scenario:

At present, the RBI's Monetary Policy Department (MPD) assists the governor in formulating the monetary policy. Views of all key stakeholders in the economy, advice of the Technical Advisory Committee (TAC) contribute to the process for arriving at the key decision on policy repo rate — the rate at which the central bank lends to banks. The governor, however, has overriding powers to decide on interest rates.

RBI for easier bank permits

As part of its plan to put universal bank licences 'on tap', the Reserve Bank of India has unveiled draft guidelines that could encourage big non-banking financial players to throw their hats in the banking ring.

What is 'on tap mechanism'?

The central bank has been opening the bank licence window only periodically. Under the 'on tap' mechanism, however, an

application can be made at any time subject to certain conditions.

Who is eligible?

According to the draft RBI guidelines, non-banking finance companies and resident individuals or professionals with 10 years of experience in banking and finance will be eligible to apply.

- Also eligible are private sector entities and groups owned and controlled by residents, provided they have total assets worth at least 5,000 crore, with the non-financial group business not accounting for more than 40% of the total assets or the gross income.
- Individuals and companies directly or indirectly connected with large industrial houses may also take equity in a new private bank but only up to 10%. Such shareholders will not get any representation on the board.

Capital requirements:

- The initial minimum paid-up voting equity capital for a bank has been left unchanged at 500 crore. But the bank has to have a minimum net worth of Rs. 500 crore at all times.
- The promoters need to hold a minimum 40% of the paid-up voting equity capital, which will be locked-in for five years from the date of commencement of business. The RBI has allowed banks to get their shares listed within six years (three years earlier) of commencement of business.
- In the case of an NBFC applying for a licence, if the entity has diluted the promoter shareholding to below 40% but above 26%, the RBI may not insist on the promoters' minimum initial contribution. However, the lock-in period of five years will apply to the 26% promoter shareholding.

India eyes bad debt cleanup as wary state-run banks balk

India is considering setting up an independent panel to help state-owned banks negotiate settlements with big businesses on bad loans.

Background:

India's \$121 billion troubled debt pile, over \$100 billion of which is on the books of state-owned banks, has come under close scrutiny from prosecutors, media and politicians. Some have blamed banks for going too easy on corporate tycoons, and do not want taxpayers propping up the struggling banking sector.

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What has been proposed?

The decision-making will be much better under an independent panel. The proposal envisages setting up a panel comprising leading bankers and government and central bank officials, to review some larger outstanding loans and try to arrive at a settlement. There is also a suggestion to include judges in the panel. The proposal would give the panel power to define the “haircut” a bank should face on a loan gone sour.

Why create a panel for this?

Bad debt has hampered banks’ ability to lend, threatening to throttle a nascent economic recovery. RBI Governor Raghuram Rajan has also set a deadline of March 2017 for banks to clean up their books.

Commerce Ministry’s visa plan runs into MHA wall

The Union Commerce Ministry has proposed an ambitious scheme to waive the visa requirement for business visitors and tourists from 18 countries, which are considered critical to economic and trade strategy. The 18 countries belong to BRICS and the Asia Pacific group that is part of the proposed Regional Comprehensive Economic Partnership (RCEP).

- However, the Home Ministry has raised objections to this omnibus exemption. It has raised strong objections to granting such benefits to citizens of China and Pakistan due to security concerns.

Intention behind this proposal:

The visa procedure for foreign business visitors will contribute towards making India an attractive destination for investors from RCEP countries, keeping in mind the ‘Make in India’ policy. It will also boost India’s services trade and help earn foreign exchange. Visa waiver for business visitors and tourists is very important, given the stakeholders’ feedback regarding the time-consuming onerous visa application processes which deter business travellers and tourists.

Present regime:

Currently, India has a visa-free entry regime for Nepal, Bhutan and the Maldives. The e-Tourist Visa Scheme (for tourism, healthcare, business and family visits) is available to citizens of around 113 countries, including some 40 countries for whom India has already granted visa on arrival facility.

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.

Rs.100-cr. fine proposed for wrong India map

The government has proposed a law where wrong depiction of the map of India could land the violators in jail with a maximum term of seven years and fine up to Rs. 100 crore.

Details:

- The new draft bill, ‘**The Geospatial Information Regulation Bill, 2016**’, basically aims to regularize critical information on Maps services that affect “the security, sovereignty and integrity” of the country.
- According to the draft, it will be mandatory to take permission from a government authority before acquiring, disseminating, publishing or distributing any geospatial information of India.
- The draft Bill will ensure that online platforms like Google will have to apply for a licence to run Google Maps or Google Earth in India.
- Also, no person shall depict, disseminate, publish or distribute any wrong or false topographic information of India including international boundaries through internet platforms or online services or in any electronic or physical form.

Mogao caves reveal pivotal India-China Buddhist link

Various studies have revealed that Dunhuang in China was a major point of intersection along the ancient Silk Road. Studies show that Silk Road had played a foundational role in bringing about the Indian-China confluence of the past.

- From this oasis town, the Silk Road, which had started from the not-so-distant Xian, and after having passed through the Gansu corridor, stood at a prominent junction. Dunhuang houses the famous Mogao caves.

About Mogao caves:

These caves are a magnificent treasure trove of Buddhist art and are located in the desert. The early caves show greater Indian and Western influence, while during the Tang dynasty (618-906 C.E.) the influence of the Chinese painting styles of the imperial court is apparent.

- The art also reflects the changes in religious belief and ritual at the pilgrim site. In the early caves, jataka tales (previous lives of the Historical Buddha) were commonly depicted. During the Tang dynasty, Pure Land Buddhism became very popular.
- In terms of art, it was the Graeco-Buddhist Gandhara School, known for depicting Buddha in human form, that finally reached China, heavily influencing the emergence of what became known as Serendian art, embodying a powerful Chinese artistic tradition as well.
- The Mogao Caves are the best known of the Chinese Buddhist grottoes and, along with Longmen Grottoes and Yungang Grottoes, are one of the three famous ancient Buddhist sculptural sites of China. Mogao cave-temples of Dunhuang are a **World Heritage Site**.

Facts for Prelims:

- The government has approved proposal of **Infosys to set up an IT/ITeS special economic zone** in Bengaluru in an area spread over 4 hectares. The decision was taken by an inter-ministerial Board of Approval (BoA) recently.
- To make easier doing business in India, the government has announced **revocation** of the earlier requirement of **landing certificates to be submitted by exporters** under the Merchandise Export from India Scheme (MEIS). The government has also decided to extend the market coverage to all countries. Aimed to incentivise merchandise exports, MEIS was introduced in the Foreign Trade Policy (FTP) 2015-20, approved in April last year. The current trade policy has merged all the earlier export promotion projects under two plans – MEIS and the Served from India scheme (SFIS) – for services exporters. Landing certificate is the proof of landing of the consignment in the designated market.
- NASSCOM (National Association of Software and Services Companies) has inked a partnership agreement with social networking site Facebook to build a ‘**product design initiative**’ in the country. This nation-wide initiative by NASSCOM is aimed at offering focused programmes to build awareness around product design, training on design tools, design lab, awards, design sprints and mentorship. This will be a flagship programme of the NASSCOM Product Council. This will aim at supporting over 500

product start-ups on product design. It will also focus on training over 5,000 product designers in the next two years.

- **Gravitational wave scientists have won \$3m Special Breakthrough Prize in Fundamental Physics**. It will be shared among the founders of the Laser Interferometer Gravitational-Wave Observatory (**LIGO**) group, Kip Thorne, Rainer Weiss, and Ronald Drever, and scores of physicists and engineers on the team. The three founders will divide \$1m between them, with the remaining \$2m (£1.35m) shared equally among the 1,012 other researchers and engineers on the LIGO team.

Overseas investors continue to shun oil palm industry

A recently released report has indicated that the government’s decision to allow 100% foreign direct investment (FDI) in oil palm plantations in November last year has failed to draw even a single investor.

What else needs to be done to attract investors?

- Oil palm should be declared as a **plantation crop**. There should be **relaxation of land ceiling norms**. This paves the way for large scale plantation of oil palm. The current policies of the Centre do not allow companies to either acquire or lease land beyond a specific acreage as defined by land ceiling norms. Thus, there is no scope for the corporate sector for large scale plantation of oil palm.
- Oil palm developers say that the potential of this crop could be realised effectively if there is a **separate oil palm development board**, a **separate import policy** for palm oil and a **separate budget for oil palm industry development**.

What has the government done to encourage oil palm industry?

Oil palm is comparatively a new crop in India and is stated to be the **highest vegetable oil yielding crop**. In order to encourage its cultivation in the country as a part of its effort to reduce imports and ensure edible oil security, the government came out with a **National Mission on Oilseeds and Oil Palm (NMOOP)**.

About NMOOP:

NMOOP envisages bringing an additional 1.25 lakh hectares under oil palm cultivation through area expansion approach in the States including utilisation of wastelands.

Key facts:

- The States currently engaged in oil palm cultivation are Andhra Pradesh, Chhattisgarh, Goa, Gujarat, Maharashtra, Mizoram, Karnataka, Kerala, Odisha, Tamil Nadu, Arunachal Pradesh, Assam, Bihar, Manipur, Meghalaya, Nagaland, Sikkim, Tripura and West Bengal.

- India's edible oil imports are rising steeply. In the past 13 years, import of crude and refined oil was reported to have quadrupled and the import bill in this regard is expected to touch \$ 15 billion in 2016-17.

Steel firms may get NIIF funding support

The government is looking at creating a fund under India's first sovereign wealth fund, NIIF, which will address capital requirements of domestic steel companies. Steel sector is capital-starved sector in the country.

- The move is aimed at bringing down capital costs for the steel industry, which could see a staggering \$190 billion in investment if the country has to reach a 300-mtpa target by 2025-26.
- The government feels that though domestic demand has grown slower than anticipated in the last couple of years, in the medium term demand would pick up, making room for steel capacity expansion.
- India currently has around 110 mtpa steel capacity. The country aims to create an additional 190 mtpa capacity by 2025-26. Approximately \$1 billion investment is required to develop 1 mtpa steel capacity.

About National Investment and Infrastructure Fund (NIIF):

The NIIF is being operationalised with an initial corpus of Rs 40,000 crore. The government would hold up to 49% in the NIIF, which is expected to catalyse financing of infrastructure projects by leveraging the same multiple times. The remaining stake would be offered to domestic as well as foreign partners.

- It was created as an investment vehicle for funding commercially viable greenfield, brownfield and stalled projects.
- NIIF is set up as a Fund of Funds (Category II Alternate Investment Fund) with a proposed series of funds.
- The government will seek participation from strategic investors such as sovereign fund, quasi sovereign funds and multilateral or bilateral investors, which can help leverage this fund to many times. Cash-rich PSUs, pension funds, provident funds, National Small Saving Fund will be able to pick up stake in the fund.

Sagarmala project to be completed in 5 years

The government has decided to halve the previously estimated 10-year timeframe to complete the **Sagarmala port development project**.

- The project targets to provide one crore employment. Port-led development has potential for direct

employment generation for 40 lakh persons and for 60 lakh persons indirectly.

About Sagarmala:

The Sagarmala project seeks to develop a string of ports around India's coast. The objective of this initiative is to promote "Port-led development" along India's 7500 km long coastline.

- It aims to develop access to new development regions with intermodal solutions and promotion of the optimum modal split, enhanced connectivity with main economic centres and beyond through expansion of rail, inland water, coastal and road services.
- The **Union Ministry of Shipping has been appointed as the nodal ministry** for this initiative.

The Sagarmala initiative will address challenges by focusing on three pillars of development, namely:

- Supporting and enabling Port-led Development through appropriate policy and institutional interventions and providing for an institutional framework for ensuring inter-agency and ministries/departments/states' collaboration for integrated development.
- Port Infrastructure Enhancement, including modernization and setting up of new ports.
- Efficient Evacuation to and from hinterland.

Other objectives:

- In addition to strengthening port and evacuation infrastructure, it also aims at simplifying procedures used at ports for cargo movement and promotes usage of electronic channels for information exchange leading to quick, efficient, hassle-free and seamless cargo movement.
- It also strives to ensure sustainable development of the population living in the Coastal Economic Zone (CEZ). This would be done by synergising and coordinating with State Governments and line Ministries of Central Government through their existing schemes and programmes such as those related to community and rural development, tribal development and employment generation, fisheries, skill development, tourism promotion etc.

Income Tax Dept. can reveal taxpayers' details

According to an amendment in the Finance Bill, 2016, the taxman in the country can reveal information related to taxpayers disclosing previously concealed income under the Budget's **Income Declaration Scheme**, if it is deemed to be in public interest.

- The amendment is aimed to allay any misconceptions that the government would keep such taxpayers' details confidential under any circumstance.

Details:

The Income Declaration Scheme offers people with undisclosed income to declare it by paying a penal tax rate of 45% on such income. The Finance Bill has imported Section 138 of the Income Tax Act into the declaration scheme's ambit. Bringing in Section 138 to the Scheme brings in objectivity on confidentiality of income tax information and the limitations thereof.

- The aim behind bringing in this section is to dispel the perception that the details disclosed under the scheme are confidential under any circumstances — they can be disclosed if it is deemed to be in public interest.
- However, the discretion has been given to the Chief Commissioner who is a very senior authority and he has to see if it is in public interest to share the information.

Most death row convicts first-time offenders

According to the recently released "Death Penalty India Report", most death row inmates in India are poor, uneducated and first-time offenders.

What else the report says?

- A total of 241 out of the 385 death row inmates in India are first-time offenders.
- Around 60% of the prisoners did not complete secondary education and nearly 75% belonged to economically vulnerable sections.
- Three-fourth of the prisoners sentenced to death belong to backward classes and religious minorities.
- Overall, 'murder simpliciter' or accidental murder constitute most of the cases, followed by 'rape with murder'.
- Median duration of trials and High Court proceedings in cases involving sexual offences is the lowest as compared to other cases. State-wise analysis also shows that trials were fastest in cases of sexual offence.
- Most prisoners who shared information didn't have a lawyer during interrogation. Most of them claimed they had experienced custodial violence and were tortured in police custody.

Concerns:

- According to the report, education levels affect the extent to which the death row prisoners are able to understand details of the case filed against them; lack of which results in alienation from the system. Alienation experienced by prisoners through lack of awareness of proceedings increased as cases rise in the appellate system.
- Pendency of legal proceedings greater than five years is considered a grave violation of speedy justice by the Supreme Court. While the median duration of trial for the death row prisoners was around four years, trials went beyond five years for 127 prisoners. Though lengthy trials happen to be a concern in general, it has more significance in the case of death penalty.
- Also, the seriousness of charge often forces the families to hire a private lawyer than rely on poor quality of free legal aid provided by the government. The report finds that while the high fee of private lawyers – opted by more than 60% of the prisoners during trial and high court – deepens the economic vulnerability of the already poor families, it doesn't ensure access to competent legal representation. This makes it difficult for an accused to "navigate through the various stages of the legal process without sufficient socio-economic and political resources."

Facts for Prelims:

Australia has decided to provide a **three-year multiple-entry visitor visa for Indians** by July 2016 on a trial basis. This is aimed at boosting Australia's future **tourism** growth. This will allow entry into Australia multiple times on the same visa and each stay will be valid up to **three months**. Apart from India, this will be implemented in three countries — **Thailand, Vietnam and Chile**. The announcement of the trial was made as part of the Australian government's 2016-17 budget. It will be applicable to eligible applicants on tourist and business visitor visa streams.

Govt. starts UBIN drive for budding entrepreneurs

The Department of Industrial Policy & Promotion (DIPP) has begun an exercise for **issuance of Unique Business Identification Number (UBIN)** for budding entrepreneurs to start their new businesses without any delay.

- The move is aimed at doing away with the need for separate registration with authorities ranging from the registrar of companies to the direct and indirect tax wings, the labour department and for export and import.

Current practice:

Currently, entities first need to get a Company Identification Number (CIN) from registrar of companies, followed by PAN from the income tax department and labour identification number.

Nagaland police bags award for smart policing

The SMS-based Vehicle Monitoring System of Nagaland police has bagged the National Award for **Smart Policing instituted by Federation of Indian Chamber of Commerce and Industry (FICCI)**.

- The award is presented for the **Best Practice in the category of Road Safety and Traffic Management**.

Background:

The SMS-based Vehicle Monitoring System was launched in April last year and has resulted in substantial reduction in theft of four-wheelers across the state while more than 100 vehicles have been recovered so far using the application. It provides an easy platform for policemen and citizens to report vehicle theft and alert the various field formations of police across the state by sending a SMS.

Second Exomars in 2020

The European Space Agency has announced that the second Exomars mission will be launched in 2020. **Exomars is the mars mission launched jointly by Russia and Europe.**

- Like the first mission, the second Exomars mission will also be launched from Baikonur in Kazakhstan with the help of a Proton rocket. It involves a Russian-led surface platform and a European-led rover.

Background:

On March 14, the Roscosmos State Corporation and the European Space Agency had launched the Exomars 2016 mission which is due to reach Mars in October this year.

- The successful implementation of both missions will allow Europe and Russia to jointly explore and validate cutting-edge technology for Mars entry.
- It will also help in descent and landing, control of surface assets and to develop more systems that can be used in other missions to explore the solar system.

Bird flu: Alert sounded across Karnataka

An alert has been sounded across Karnataka, after the outbreak of bird flu in a privately-owned poultry farm in Bidar district of Karnataka.

- Poultry farm owners have been instructed to take precautionary measures to prevent infection of chicken with H5N1 virus.
- In the case of viral infection, scientists have advised farm owners not to sell or move any of the birds/eggs and material out of farm. They have been instructed to adopt adequate bio-security measures.
- Karnataka has around 7,000 poultry farms, which are both layers and broilers varieties. The farms have stock of more than five crore birds. The state's daily egg production is about 1.2 crore.

About Bird flu:

Avian influenza (AI), commonly called bird flu, is an **infectious viral disease** of birds often causing no apparent signs of illness.

Spread: AI viruses can sometimes spread to domestic poultry and cause large-scale outbreaks of serious disease. Some of these AI viruses have also been reported to cross the species barrier and cause disease or subclinical infections in humans and other mammals.

Effects on Humans:

- Most avian influenza viruses do not infect humans; however some, such as A(H5N1) and A(H7N9), have caused serious infections in people.

- The majority of human cases of A(H5N1) and A(H7N9) infection have been associated with direct or indirect contact with infected live or dead poultry. There is no evidence that the disease can be spread to people through properly cooked food.
- Initial symptoms include high fever, usually with a temperature higher than 38°C, and other influenza-like symptoms (cough or sore throat). Diarrhea, vomiting, abdominal pain, chest pain, and bleeding from the nose and gums have also been reported as early symptoms in some patients.

Controlling the disease in animals is the first step in decreasing risks to humans.

Treatment:

- Evidence suggests that some antiviral drugs, notably oseltamivir, can reduce the duration of viral replication and improve prospects of survival.
- In cases of severe infection with the A(H5N1) or A(H7N9) virus, clinicians may consider increasing the recommended daily dose or/and the duration of treatment.

Immediate measures taken by the Government to reduce the outbreak:

- The entire infected poultry population and its eggs, feed, litter and other infected material will be stamped out within a radius of one km.
- Restrictions on the movement of poultry will be imposed and the affected area will be cleaned up and disinfected.
- Regular surveillance will be maintained, especially in vulnerable areas bordering infected countries and in areas visited by migratory birds.

Digital DBT aids rural job schemes

Recently released data by the Union Finance Ministry shows that the government has electronically transferred more than Rs.61,000 crore in the last financial year through the Direct Benefit Transfer (DBT) scheme.

Highlights:

- 61,824.32 crore was transferred to 30.8 crore beneficiaries in 59 schemes. Out of this, Mahatma Gandhi National Rural Employment Guarantee Act (MGNREGA) payments made up Rs.25,800 crore, or 42% of total DBT schemes.
- This also means that 85% of the MGNREGA payments made in 2015-16 were done directly into the beneficiary's bank accounts.
- The second largest head under which DBT transfers were made was the PAHAL scheme for the electronic transfer of LPG subsidies. The government transferred Rs.21,400 crore under the PAHAL scheme in 2015-16, which is 35% of the total amount transferred through DBT.
- The data also show that 3.34 crore duplicate, fake, or inactive consumers were blocked under the PAHAL and related schemes as of April 1, 2015.
- The Department of Higher Education (Rs.1,975 crore), Ministry of Minority Affairs (Rs.1,134 crore) and the Ministry of Tribal Affairs (Rs.955 crore) were the other government agencies that made substantial payments using the DBT model.

'Cooling-off time' for Christian divorces may be cut

The Law Ministry is proposing to amend the **Divorce Act, 1869** to reduce by half — from two years to one — the waiting period for Christians who have already decided to divorce.

- The **present law mandates Christian couples to live separately for two years before they can apply for dissolution of marriage.**

- The Centre's move is triggered by the Supreme Court's comments that this condition, called judicial separation, "makes no sense" today.

Significance of this move:

This proposed amendment would end the disparity between the Christian divorce law and other personal laws, including the Hindu Marriage Act, the Parsi Marriage and Divorce Act and even the Special Marriage Act, all of which mandate only a year's judicial separation.

Background:

The apex court, in two separate orders on July 13 and October 12 last year, had urged the Centre to take a decision and amend the law. The court had asked the Ministry of Law and Justice not only to file its reply but also take a decision on whether or not Sub-Section (1) of Section 10A [the legal provision which mandates a two-year pause before filing for dissolution of marriage] of the Divorce Act, 1869 is to be amended.

The court's intervention again began in March 2015 when a petition contended that the two-year mandatory waiting period for Christians amounted to "hostile discrimination". The petition argued that this was plain "oppression to the members of the Christian community intending to seek divorce by mutual consent."

India may solve Venezuelan defaults

The Commerce Ministry has proposed a mechanism to address the issue of non-payment of dues by Venezuelan importers to Indian exporters. The ministry has written to the Venezuelan government to resolve the issue of payment defaults. However, Venezuela has not given its approval to the proposed payment mechanism. Talks on the issue will soon be held with the RBI.

What's proposed?

Under the proposed payment mechanism when Indian importers pay for oil and other imports from Venezuela, a certain portion of the payment will be held by an Indian public sector bank in Venezuela.

- Then through a vostro account that money will be kept in the Indian branch of that public sector bank and will later be converted to Indian rupees. ('Vostro' is an Italian term meaning 'yours', and vostro account refers to holding 'your' money or Venezuela's money in this case.)
- When India's exports to Venezuela, the Venezuelan buyer (importer) will certify that they have received the goods and instruct the concerned Venezuelan bank to release the payment to the concerned Indian exporters. This instruction will be passed on to the Indian public sector

bank in Venezuela and then to Indian branch. Finally, Indian branch will release the payment to Indian exporters by debiting from the vostro account.

Background:

Venezuela, an economy that relies on oil exports, has been severely hit by a drastic fall in oil prices. This has in turn resulted in the value of the Venezuelan currency plunging to record lows and a high demand for dollars. India's goods exports to Venezuela in 2014-15 were \$258 million. Owing to the crisis in Venezuela, India's exports in FY16 (April-February) have touched only \$125.5 million. The trade balance is still hugely in Venezuela's favour.

Army chief orders rightsizing study

In an attempt to make the world's third largest standing Army a leaner and meaner fighting force, the Chief of the Army Staff, General Dalbir Singh, has ordered a high-level study to determine and recommend measures to improve its **tooth-to-tail ratio**.

Details:

- The study will be undertaken by a committee headed by an Army Commander. The report is expected by August-end, after which recommendations will be considered for implementation.
- The study will comprehensively look at all arms and services, including logistics organisation and establishment to achieve right-sizing. Operational logistics will be reviewed, along with the philosophy and concepts to arrive at an optimal substance model both in peace and war.
- The other objective of the study is to achieve savings in manpower and cutting down on the burgeoning revenue expenditure to free up resources for military modernisation.
- The study will also look at the impact of equipment modernisation and automation levels improved communication and critical infrastructure development to review stock levels, inventory management models and logistics chain which add to the "tail".

What is tooth-to-tail ratio?

The tooth-to-tail ratio, referred to as T3R in the Army, is the ratio of fighting arms, which wage the actual battle such as infantry and armoured wings, to support services, such as logistics, signals and ordnance.

Facts for Prelims:

- Scientists have discovered a "bizarre" fossil of the animal. Its head was poorly preserved, but it seemed to have a flamingo-like beak. The fossil resembled a crocodile-sized 'hammerhead' creature, that lived 242 million years ago in what today is southern China. It is also thought to be the **earliest known example of a plant-eating marine reptile**. The reptile's name, **Atopodentatus unicus**, hints at its muddled past — it is Latin for "unique strangely toothed."
- Gujarat Government has issued a government resolution (GR) giving **minority status to the Jain community**. This move is aimed at benefitting the poor among the Jain community. Jain institutions will now get special status like the one given to Christian and Muslim institutions. Religious education on Jainism can now be taught in Jain institutes which will also be free from government interference. The move comes nearly two years after the then UPA government granted minority status to Jains in June 2014 at the national level.

Annual core sector growth at decade low

According to latest government statistics, India's annual core sector growth has slowed to a decade low of 2.7% in 2015-16, slower than the 4.5% pace in the previous financial year.

- The previous lowest growth rate registered by core sectors (under the present data series that uses 2004-05 as a base year) was in 2008-09 when output rose 2.8% amidst the global financial crisis.
- However, the eight core industries account for 38% of India's industrial output.

Main factors behind the slowdown:

- The growth was pulled down mainly by steel and crude oil, both of which saw output contracting by 1.4% and natural gas that dropped 4.2%.
- While oil and gas output has been shrinking for about four years now, it is the decline in steel output in the backdrop of plunging global prices that has hurt the most as it had been growing at an average of 7% in the past four years.

Way ahead:

Steel is a mother industry and could be in a comatose position despite import price and anti-dumping curbs to restrict the influx of cheaper Chinese steel. Several plants can go under sooner rather than later so they need a lifeline.

- Steel has been hit by the low global prices and competition from China. The steel industry employs six million people directly and generates associated employment for more than 2.5 million.
- This should serve as a wake-up call for the government to move away from incremental reforms to relieve the distress in the steel sector and push construction and real estate sectors.

The **eight core sector industries** are— coal, crude oil, natural gas, refinery products, fertilizer, steel, cement and electricity.

Baby born in U.K. through new DNA method

The UK's first baby resulting from an embryo that was screened using next-generation DNA sequencing has been born in Oxford. This method uses a revolutionary IVF technique.

Background:

The parents of the child were enrolled in an ongoing clinical study to evaluate next-generation sequencing as a tool to help specialists better select which embryos to transfer during IVF treatment. The technique was first used successfully in the USA in 2013.

Details:

- **Next-generation sequencing (NGS)** is widely expected to replace other techniques used in preimplantation genetic screening (PGS) of embryos, with the goal being to select more reliably which embryos are most likely to implant and produce healthy babies.
- To screen an embryo, doctors remove a few cells at the five-day-old stage. The cells are taken from the tissue around the embryo that will turn into the placenta that attaches it to the mother's womb. Unlike traditional screening methods, NGS can spot embryos that have more subtle DNA faults, and embryos that have only some cells with chromosomal defects.
- More than half of embryos created through IVF do not have the right number of chromosomes, and the faults underlie nearly three-quarters of miscarriages. The NGS procedure should reduce the chances of couples having faulty embryos transferred and give them more confidence in the health of embryos they have frozen after screening.
- Next-generation sequencing is touted as being more reliable and sensitive than current PGS techniques at detecting aneuploidy. It should also be able to help spot embryos that have other DNA faults and identify mosaic aneuploid embryos.

Sources: the hindu.

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

UN launches trust fund for C'bean Zika virus response

The United Nations has established a Zika Response Multi-Partner Trust Fund (MPTF) to finance critical unfunded priorities in the response to the outbreak of the mosquito borne virus in Latin America and the Caribbean.

Key facts:

- The Fund aims to provide a rapid, flexible and accountable platform to support a coordinated response from the UN system and partners.
- It will directly support the Zika Strategic Response Framework, developed by the World Health Organization (WHO) in consultation with UN agencies, partners and international epidemiological experts.
- Donors will contribute to a central point, and an Advisory Committee will direct funds to the highest-priority activities in the affected countries.

Background:

Since January 2015, 61 countries and territories in Latin America and the Caribbean have reported local transmission of Zika, which is caused by a virus transmitted primarily by Aedes mosquitoes. The recent rise in the spread of the virus in some countries has been accompanied by an unprecedented rise in the number of children being born with unusually small heads – identified as microcephaly.

Facts for Prelims:

- Scientists claim to have developed the world's **first holographic flexible smartphone** that lets users interact with 3D videos and images without any headgear or glasses. The device, dubbed HoloFlex, is capable of rendering 3D images with motion parallax and stereoscopy to multiple simultaneous users without head tracking or glasses. The device features a **Flexible Organic Light Emitting Diode (FOLED)** touchscreen display.
- The Controller General of Patents, Designs and Trademark has granted American pharmaceutical company Gilead Sciences the patent for the blockbuster

Hepatitis C drug Sofosbuvir (brand name Sovaldi) in India. An application for the same patent was first rejected in January 2015 as lacking inventiveness and novelty. The **Indian Patent Office is administered by the Office of the Controller General of Patents, Designs & Trade Marks (CGPDTM) and the CGPDTM reports to the Department of Industrial Policy and Promotion (DIPP) under the Ministry of Commerce and Industry.** It administers the Indian law of Patents, Designs and Trademarks.

- Scientists have unveiled the gene in carrots that gives rise to **carotenoids**, a critical source of **Vitamin A** and the pigment that turns some fruits and vegetables bright orange or red. The gene is named as **DCAR_032551**. With this, carrot now joins a select club of about a dozen veggies — including the potato, cucumber, tomato and pepper — whose complete genomes have been sequenced. Carrots are loaded with beta-carotene, a natural chemical that the body can transform into Vitamin A. The deeper the orange colour, the more beta-carotene. Vitamin A is essential for normal growth and development, the proper functioning of the immune system, and vision. Carotenoids are also antioxidants, which are thought to protect against heart disease and some forms of cancer by neutralising so-called “**free radicals**”, single oxygen atoms that can damage cells.
- India is ranked at **ninth position in crony-capitalism** with crony sector wealth accounting for 3.4% of the gross domestic product (GDP), according to a new study by The Economist. In 2014 ranking also, India stood at the ninth place. Germany is cleanest, where just a sliver of the country’s billionaires derives their wealth from crony sectors. The index ranked Russia as the worst crony-capitalist country, followed by Malaysia, Philippines, Singapore, Ukraine, Mexico, Indonesia and Turkey above India. Taiwan and China are ranked 10th and 11th after India.

Capital gains on FDI from Mauritius to be taxed

India and Mauritius have signed a landmark **protocol to amend the Double Taxation Avoidance Agreement (DTAA) treaty.**

Details:

The move is expected to prevent misuse of the three-decade-old pact from paying taxes, curb round tripping of funds, prevent double non-taxation, streamline investments and lift tax uncertainty.

- With this, India, for the first time will be allowed to **tax capital gains** (profit from the sale of property or an investment) arising out of Mauritius. The protocol can tax capital gains between April 1, 2017 and April 1, 2019

at 50% of domestic rates in India. However, investments made prior to April 1, 2017 will not be liable to capital gains tax. Further, all past share sale transactions from Mauritius would be safeguarded.

- Also, the benefit of 50% reduction in tax rate during the transition period from 2017 to 2019 shall be subject to Limitation of Benefits. This means a resident of Mauritius will have to pay the full rate if it fails the main purpose test and bonafide business test. A resident is deemed to be a shell or conduit company, if its total expenditure on operations in Mauritius is less than Rs 27 lakh in the immediately preceding 12 months.

Background:

India and Mauritius had signed a Double Taxation Avoidance Agreement in 1983. The pact allowed only Mauritius to tax capital gains. However, the island nation generally doesn’t impose a capital gains tax. This meant that companies gaining from investments made in Indian companies via Mauritius-based entities managed to avoid paying taxes in both countries.

The tax treaty made Mauritius the biggest source of foreign direct investment into India. According to data from the Department of Industrial Policy and Promotion, India received about \$93.6 billion of FDI from Mauritius between April 2000 and December 2015. This is 34% of the total FDI inflows into India. Many private equity and venture capital firms also invest in India through funds registered in Mauritius.

Implications:

While this is a historic feat for the government, which initiated the dialogue with the island nation in 2006, analysts say, the move could affect foreign investments. Currently, Mauritius and Singapore together contribute 50% of the total FDI inflows into India.

.India fails to get Mallya deported

Britain has told India that it cannot deport Vijay Mallya, who is facing money laundering charges in the country, but could consider an extradition request for him.

- Britain has clarified that deportation can’t be allowed if someone entered UK through valid passport and then its cancelled.

Background:

India made a request for the deportation of Mallya, whose Indian passport was revoked in a bid to secure his presence for investigations against him under the Prevention of Money Laundering Act 2002.

- The UK Government has informed that under the 1971 Immigration Act, the UK does not require an individual to hold a valid passport in order to remain in the UK if they have extant leave to remain as long as their passport was valid when leave to remain or enter the UK was conferred.

What can be done?

Considering the seriousness of allegations, the UK has asked the government to consider requesting mutual legal assistance or extradition.

Difference between deportation and extradition:

- As deportation is an executive action, it is considered to be a quicker process than extradition, in which investigating agencies have to establish prima facie culpability of the person. Besides, the accused has recourse to several defences under the extradition treaty.
- Also, the extradition of Mr. Mallya from the U.K. will be possible only when he is accused, or convicted, of an act recognised as criminal offence in both the countries. The extradition treaty empowers the U.K. authorities to make provisional arrests in urgent cases.

The 1992 MLAT has been signed for extending assistance in the investigation and prosecution of crime and the tracing, restraint and confiscation of proceeds and instruments of crime (including crimes involving currency transfers) and terrorists.

National Technology Day

National Technology is being celebrated on May 11 across India.

Key facts:

- National Technology Day is a very special day for Indian Technology since 1999. The event is marked with great pride as the country achieved a huge technological progression on this particular day.
- It was on this day that the first, indigenous aircraft “Hansa-3” was test flown at Bangalore.
- India also performed successful test firing of the Trishul missile on the same day, May 11 and executed three successful nuclear tests, carried out at Pokhran, in Rajasthan.
- The theme for this year’s Technology Day is ‘**Technology enablers of Startup India**’.
- On this day, the President of India gives National Technology Award to companies and also to individuals for their great contributions to science.

Underwater vigil system

The Indian Navy has launched the state-of-the-art **harbour defence systems**, viz., integrated underwater harbour defence and surveillance system and mine warfare data centre, which would enhance the Navy’s surveillance capability and response to security threats at the naval dockyard in Visakhapatnam.

- The IUHDSS is a multi-sensor system capable of detecting, identifying, tracking and generating warnings for all types of surface and underwater threats to Visakhapatnam harbour.
- The MWDC will collate, analyse and classify data collected by the Navy’s Mine Hunting Ships from various ports along the East coast. This state-of-the-art facility will be the nodal centre for maintaining an underwater database of harbours along the coast.

Facts for Prelims:

- Fearing Chinese support in the unrest at **Tawang**, the government has decided not to go ahead with the planned **hydroelectric** projects in the district without consulting the local people and the monks, who have been protesting against the dams. **Tawang is a town on India-China border in Arunachal Pradesh.** It is the **smallest of the 16 administrative districts of Arunachal Pradesh** in northeastern India and with a population of 49,977 it is the **eighth least populous district in the country.** The area is historically part of Tibet and is claimed by both the People’s Republic of China and the Republic of China (Taiwan). It is **inhabited by the Monpa people.** Visitors to Tawang district **require a special Inner Line Permit from the government.** The district has two main rivers, the **Tawang Chhu** and the **Naymjang Chhu**, that together have 10 main tributaries. These two rivers meet each other before exiting the district in a southwesterly direction. There are two major religious festivals of the Monpas viz “**LOSAR**” and “**TORGYA**”. Both festivals are celebrated once annually. The **LOSAR** is celebrated to the commencement of New year. Every third year of **Torgya**, the festival of **Dungyur** is celebrated.
- Barack Obama will shortly visit **Hiroshima**. With this, he will become the **first U.S. President to visit Hiroshima**, the first target of an atomic bomb **70** years ago.

SC quashes TRAI’s call drop rules

The Supreme Court has provided massive relief to the telecom service providers by quashing **Telecom Consumers Protection (Ninth Amendment) Regulations, 2015**, of the Telecom Regulatory Authority of India (TRAI) which made it mandatory for mobile network companies to compensate subscribers for call drops.

Background:

TRAI had made it mandatory for telcos to pay consumers Rs 1 per call drop, subject to a cap of Rs 3 a day. The regulation had come into force on January 1. This decision was challenged by telecoms, which lost their case in the Delhi High Court.

- Telecoms had argued that the order that penalized them was “populist” and unfair because connectivity is affected by factors beyond their control. They also argued that they’ve spent on installing two lakh telecom towers over the last 15 months.
- TRAI, on the other hand, had said that telecoms are earning huge amounts of revenue and can and should expand their investment in infrastructure.

What has the court said?

The court termed the TRAI notification as “flawed, unconstitutional, arbitrary and unreasonable”. The court was also of the view that a transparent procedure was not followed while evolving it.

- The court said the regulation which fastens strict liability on the telecom companies for no fault of theirs is arbitrary and violative of Article 14 of the Constitution.
- The court also observed that quality of Service Regulations allowed service providers a 2% allowance of call drops on the basis of averaging call drops per month and therefore, the companies cannot be penalised when they were complaint with this norm.
- Also, the court said, there is no legal basis or explanation in the 2015 Regulations as to why the compensation has been limited to only three call drops.

Way ahead:

The court has asked the Parliament to consider framing a law on the lines of an American law, US Administrative Procedure Act to ensure that all laws in form of executive policy and regulations are subject to a transparent process, which encourages due consultations with all stakeholders before the rule or regulation-making power is exercised. Not only would such legislation reduce arbitrariness in subordinate legislation-making, but it would also be conducive to openness in governance.

SC pulls up Centre, States for failing to tackle drought

The Supreme Court has pulled up states for their “ostrich-like attitude” on drought, saying they ignored information provided by central agencies and failed to take any preparatory steps to tackle a possible disaster.

Important observations made by the court:

States are not assessing the drought situation in time leading to serious consequences. The adverse or negative impact of a delayed declaration of drought affects the common person, particularly women and children, and postpones the assistance that is needed. It also puts an undue strain on the resources of the State Government and the Government of India.

- The Centre is also to be blamed for taking refuge in the concept of “federalism” to pass the buck to the States for declaring and managing drought and providing only financial aid.
- States such as Bihar, Gujarat and Haryana are not even willing to acknowledge, leave alone address a drought. Such an ostrich-like attitude is a pity and the sound of silence coming from these states is subjects the vulnerable to further distress. The failure to declare drought by these States has robbed the poor of their fundamental right to dignity of life.
- A drought definitely falls under the definition of ‘disaster’ under Section 2(d) of the Disaster Management Act of 2005. But, governments have not even tried to enforce the statute.

Background:

These observations were made by the court based on a PIL plea that alleged that parts of 12 States such as Uttar Pradesh, Karnataka, Madhya Pradesh, Andhra Pradesh, Telangana, Maharashtra, Gujarat, Odisha, Jharkhand, Bihar, Haryana and Chhattisgarh were hit by drought and the authorities were not providing adequate relief. The court found that the total population in the districts affected by drought is about 33 crore.

The court asked the government to:

1. Establish a National Disaster Response Force with specialist cadre in six months.
2. Set up a Disaster Mitigation Fund within three months.
3. Frame National Plan on risk assessment, risk management and crisis management in respect of a disaster.
4. Update 60-year-old Drought Management Manual keeping in mind “humanitarian factors” like migrations, suicides, extreme distress, the plight of women and children.

Domestic violence Act misused: Centre

The government recently told the Rajya Sabha that provisions of the Domestic Violence and Anti-Dowry Acts are being misused and several NGOs had also given reports supporting it.

Details:

Records show that only 13 persons were convicted out of the 639 charge sheeted in 2014 under the Protection of Women from Domestic Violence Act 2005. Many fake cases are being registered under the act and there the Act is also being misused.

Way ahead:

Even while admitting that misuse does happen, the government has made it clear that its focus is on women safety and any dilution to it could not be allowed.

- Legal experts say that there have to be checks and balances. Eradicating these acts is not the solution as there are still several genuine cases and such women need protection. There ought to be a better mechanism to deal with such cases. Instead of immediately arresting people upon a complaint, the police should first probe before taking action.

Background:

The Protection of Women from Domestic Violence Act 2005 was enacted to protect women from domestic violence.

- It is a civil law meant primarily for protection orders and not meant to penalize criminally.
- The Act provides for the first time in Indian law a definition of “domestic violence”, with this definition being broad and including not only physical violence, but also other forms of violence such as emotional/verbal, sexual, and economic abuse.
- The act does not extend to Jammu and Kashmir, which has its own laws, and which enacted in 2010 the Jammu and Kashmir Protection of Women from Domestic Violence Act, 2010.

Facts for Prelims:

- Australian scientists have unearthed a fragment of the **world’s oldest known ground edge axe**, created up to 49,000 years ago, around the time humans first arrived on the continent. This is the earliest evidence of hafted axes in the world. In Japan such axes appear about 35,000 years ago. But in most countries in the world they arrive with agriculture after 10,000 years ago.
- The Indian Navy has phased out its iconic Sea **Harrier maritime fighter planes**. The Sea Harriers, part of INAS 300 (Indian Naval Air Squadron 300, also called White Tigers), were inducted into the navy in 1983 and were deployed onboard INS Vikrant and INS Viraat. The retired planes, built by British Aerospace, will be dispatched as mementos to various naval aviation bases,

the naval academy and two of them may be preserved onboard Viraat. UK’s Royal Navy retired its Sea Harriers 10 years ago. The fighters served the British navy for 30 years. The Indian Navy’s Sea Harrier squadron was deployed during Operation Vijay in 1999 and embarked on the Viraat during Operation Parakram in 2001.

- In a bid to boost freight traffic volumes, the Indian Railways has abolished its **dual freight policy** for carrying iron ore, a long-pending demand from industry players. According to a 2008 policy, the tariff for transportation of iron ore to ports for the purpose of exports is three times the rate charged for transporting the same commodity for domestic use in steel and cement industries. This move is expected help both Railways and the iron ore sector.
- Reliance Jio has launched its digital wallet service **JioMoney** for common people. It will allow people to make cashless transactions at various outlets including both online shopping platforms and offline stores. Reliance has partnered with over 50000 merchants to enable transactions through JioMoney on their respective platforms. Customers can scan a bar code on sales counter with their phone in order to make payment through JioMoney. They can also receive cashbacks, deals and coupons directly from local merchants to their wallet. In addition to above, JioMoney also supports mobile recharges and pay bills of various operators including Airtel, Vodafone, Idea, BSNL, Reliance, MTNL, Aircel, Uninor, and Tata Docomo. People can also recharge DTH services, pay insurance premiums with the wallet. JioMoney wallet can also be used for transferring money to family, relatives or friends and JioMoney balance can be easily transferred into the customer’s bank account.

Nehru’s 5-year plans to make way for 15-year ‘vision’

The Centre has decided to discontinue five-year plans after the current one, which ends in March next year, and replace it with a longer vision of 15 years that will factor in social goals and sustainable development goals.

Details:

- Starting next financial year, the government intends to put in place a seven-year strategy as part of what will be called a **‘National Development Agenda’ (NDA)** to convert the long-term vision into a policy statement that can be implemented.
- Unlike the five-year plans, which largely focused on social and economic sectors, the **‘NDA’ will also extend to defence and internal security.**
- The **‘NDA’ will be reviewed every three years** with the first mid-term appraisal due in 2019-20, the year the next

Finance Commission award is implemented and a new Lok Sabha is elected.

China and Pakistan join hands to block India's entry into Nuclear Suppliers Group

It has been reported that China and Pakistan are closely coordinating moves to block India's entry into the Nuclear Suppliers Group (NSG).

How?

China is using Pakistan's non-starter position with the NSG to block India's application in the name of parity, stating that it would either support NSG entry for both India and Pakistan, or none of them.

Way ahead:

Pakistan is expected to write to all the NSG Participating Governments about its wish to join the group. This is being done in anticipation of an application by India for NSG membership at the forthcoming plenary session of the group in June. By taking the lead in rejecting the Pakistani application along with that of India, China would like to project its position as "neutral".

About NSG:

Nuclear Suppliers Group (NSG) is a multinational body concerned with reducing nuclear proliferation by controlling the export and re-transfer of materials that may be applicable to nuclear weapon development and by improving safeguards and protection on existing materials.

- Interestingly, the NSG was set up in 1974 as a reaction to India's nuclear tests to stop what it called the misuse of nuclear material meant for peaceful purposes.
- Currently, it has 48 members.

Once admitted, an NSG member state:

- Gets timely information on nuclear matters.
- Contributes by way of information.
- Has confirmed credentials.
- Can act as an instrument of harmonization and coordination.
- Is part of a very transparent process.

India, China sign global pact to help tax MNCs

In a move aimed at ensuring that multinational corporations don't get away without paying taxes anywhere, India and

China have joined a club of countries that agreed to **automatically share information**, laying bare the structure of operations of these companies.

Details:

- The agreement was signed as part of the global initiative called **Base Erosion and Profit Shifting** that is meant to ensure that MNCs do not get away without paying taxes.
- Apart from these two Asian countries, Canada, Iceland, Israel and New Zealand have also signed the Multilateral Competent Authority agreement for the automatic exchange of Country-by-Country reports, bringing the total number of signatories to 39 countries.

Benefits:

This agreement will help ensure that tax administrations obtain a complete understanding of how multinational enterprises structure their operations, while also ensuring that the confidentiality of such information is safeguarded.

Background:

Several international giants including Apple, Google and Starbucks are among companies that are seen to be indulging in aggressive tax planning to minimise their burden. Companies resort to multi-layering of their operations and use tax treaties in what government sees as denying them their share of revenue.

'Smart' paper responds to gestures

Scientists, including one of Indian-origin, have created 'smart' paper with sensing capabilities that can respond to gesture commands and connect to the digital world.

Details:

- The method relies on **small radio frequency (RFID) tags** that are stuck on, printed or drawn onto the paper to create interactive, lightweight interfaces that can do anything from controlling music using a paper baton, to live polling in a classroom.
- The technology — PaperID — leverages inexpensive, off-the-shelf RFID tags, which function without batteries but can be detected through a reader device placed in the same room as the tags. Each tag has a unique identification, so a reader's antenna can pick out an individual among many.
- When a person's hand waves, touches, swipes or covers a tag, the hand disturbs the signal path between an individual tag and its reader. Algorithms can recognize

the specific movements, then classify a signal interruption as a specific command. For example, swiping a hand over a tag placed on a pop-up book might cause the book to play a specific, programmed sound.

- Using the technology, connecting real-world items such as a paper airplane or a classroom survey form to an Internet of Things environment may be possible.
- They also can track the velocity of objects in movement, such as following the motion of a tagged paper conductor's wand and adjusting the pace of the music based on the tempo of the wand in mid-air.

What is RFID tagging?

RFID tagging is an ID system that uses small radio frequency identification devices for identification and tracking purposes. An RFID tagging system includes the tag itself, a read/write device, and a host system application for data collection, processing, and transmission. An RFID tag (sometimes called an RFID transponder) consists of a chip, some memory and an antenna.

RFID tags that contain their own power source are known as active tags. Those without a power source are known as passive tags. A passive tag is briefly activated by the radio frequency (RF) scan of the reader.

Facts for Prelims:

- **China has surpassed US as the biggest overseas investor.** Chinese companies inked the highest number of overseas deals so far this year. The number of deals, mostly purchase of foreign companies, since January amounted to \$110.8 billion.
- In a study, it has been revealed that the **Bene Israel community in the western part of India carries genetic proof of the Jewish roots.** The community too has identified itself as Jewish. Almost nothing is known about the Bene Israel community before the 18th century, when Cochin Jews and later Christian missionaries first came into contact with it. According to their oral history, the Bene Israel people descended from 14 Jewish survivors of a shipwreck on India's Konkan shore. The exact timing of this event and the origin and identity of the Jewish visitors are unknown. Some date the event to around 2,000 years ago. Others estimate that it took place in 175 BCE. But others still believe their Jewish ancestors arrived as early as the 8th century BCE.
- **'No More 50'** campaign has been launched Maharashtra in order to press for stronger animal rights law so that the culprits do not get away by merely paying Rs 50 for their unlawful action under the prevailing Act. The campaign

urges the Ministry of Environment to increase punishment for animal cruelty in the Prevention of Cruelty to Animals Act, 1960.

- The United States has unveiled the **first federal regulations on methane** — a powerful greenhouse gas that accelerates global warming — aimed at reducing emissions from new oil and gas operations. The Environmental Protection Agency rules are part of President Barack Obama's plan to fight climate change, curb pollution and protect public health. Methane is a key component of natural gas, and it is 25 times more powerful than carbon dioxide in terms of fueling global warming. It is the second most common greenhouse gas emitted in the United States as a result of human activities, with nearly one-third of its emissions coming from oil production and the production, transmission and distribution of natural gas. The new rules extend to methane from hydraulically fractured oil wells and equipment that was not regulated in 2012.
- Kerala has once again been named as the **best family destination** in the country at the Lonely Planet Magazine India (LPMI) Travel Awards 2016. The annual awards showcase the best travel experiences available to Indians and anoint the best service providers, the preferred places to stay and the destinations Indians most love to visit.
- Brazilian President Dilma Rouseff has been suspended to face impeachment. Only a simple majority of the 81-member Senate was required to suspend Ms. Rouseff for six months pending judgment on charges that she broke budget accounting laws. A trial could now take months, with a two-thirds majority vote eventually needed to force Ms. Rouseff from office.
- According to the **Global Urban Ambient Air Pollution Database** by WHO, Delhi is no longer the most polluted city in the world. From the No. 1 position in 2014, the national capital now ranks at No. 11 on the list. However, Delhi's annual mean of PM 2.5 stood at 122 micrograms per cubic meter ($\mu\text{g}/\text{m}^3$), while the WHO guideline value stands at $10 \mu\text{g}/\text{m}^3$. Zabol, an Iranian city, is now the most polluted city in the world, according to the data for PM 2.5 pollution. The top 10 list features four smaller Indian cities, with Gwalior taking the second-most polluted spot, followed by Allahabad in the third spot. Patna and Raipur are in the sixth and seventh spot. From six in the previous list, the number of Indian cities has now come down to four. Similarly, there are 10 in the top-20 list, down from 13.

SC upholds law on criminal defamation

Dismissing a batch of petitions, the Supreme Court has upheld the law on criminal defamation. The court has observed that the law is constitutionally valid and said the law has a “chilling effect” on free speech.

What else has the court said?

- It observed, “Sections 499 and 500 of the Indian Penal Code make defamation a criminal offence. A person’s right to freedom of speech has to be balanced with the other person’s right to reputation and therefore the two Sections are necessary.”
- It also rejected an argument that defamation could become a criminal offence only if it incited to make an offence. It said that defamation had its own independent identity, which has enabled the state to maintain a balance between fundamental rights.
- The court also pointed out the distinction between sections 499 and 500 on one hand and section 66A (prosecution for obscene social posts) of the Information Technology Act on the other, saying the latter was struck down by the apex court on the ground of vagueness and procedural unreasonableness.

Background:

The ruling was delivered on a petition filed first by Bharatiya Janata Party (BJP) politician Subramanian Swamy against provisions criminalizing defamation. Congress vice-president Rahul Gandhi and Delhi chief minister Arvind Kejriwal, among others, later became parties to the case. They now have to face criminal defamation proceedings initiated against them.

New IPR policy retains access to cheap drugs

The government has announced a new intellectual property policy, speeding up the online registration of patents and trademarks.

- The new policy seeks to encourage innovation and improve access to healthcare, food security and environmental protection.

Highlights of the policy:

- The Policy will allow compulsory licensing with restrictions in case of a public health emergency such as epidemics and it is compliant with the World Trade Organization’s guidelines.
- The policy seeks to put in place a legal framework that will encourage the IPR regime and reduce the time taken by

the government to approve a trademark to a month by 2017. Currently, the process takes more than a year.

- The policy makes the department of industrial policy and promotion (DIPP) the nodal agency for regulating IP rights in the country.
- The Policy states “India shall remain committed to the (World Trade Organisation’s) Doha Declaration on Trade Related IPR Agreement (TRIPS) and Public Health.”
- It also says “India will continue to utilise the legislative space and flexibilities available in international treaties and the TRIPS Agreement.” These flexibilities include the sovereign right of countries to use provisions such as Section 3(d) and CLs for ensuring the availability of essential and life-saving drugs at affordable prices.
- To ensure strong and effective IPR laws, the Policy states India will engage constructively in the negotiation of international treaties and agreements in consultation with stakeholders.

The Policy lays down the following seven objectives:

- IPR Awareness: Outreach and Promotion – To create public awareness about the economic, social and cultural benefits of IPRs among all sections of society.
- Generation of IPRs – To stimulate the generation of IPRs.
- Legal and Legislative Framework – To have strong and effective IPR laws, which balance the interests of rights owners with larger public interest.
- Administration and Management – To modernize and strengthen service-oriented IPR administration.
- Commercialization of IPRs – Get value for IPRs through commercialization.
- Enforcement and Adjudication – To strengthen the enforcement and adjudicatory mechanisms for combating IPR infringements.
- Human Capital Development – To strengthen and expand human resources, institutions and capacities for teaching, training, research and skill building in IPRs.

Background:

The IPR policy approved by the Cabinet on Thursday night, comes in the backdrop of the US Trade Representative (USTR), in its annual (2016 edition) Special 301 Report (on the global state of IPR protection and enforcement) retaining India on the ‘Priority Watch List’ for “lack of sufficient measurable improvements to its IPR framework.”

Protection to public servants upheld

Calling public servants a “different class”, the Supreme Court has upheld the validity of a provision in the Cr.PC allowing them to file a complaint in a sessions court through a public prosecutor for alleged defamatory comments on their official acts.

Details:

- With this, the court rejected demands to strike down Section 199(2) to (4) of the Cr.PC. The court rejected the argument that this section creates a separate class.
- It also dismissed the contention that the classification enumerated in this provision has no rationale and does not bear constitutional scrutiny.

Observations made by the court:

- This provision makes it clear that a public servant is entitled to file a complaint through the public prosecutor in respect of his conduct in discharge of public functions. Public functions stand on a different footing. The provision gives them protection for their official acts. There cannot be defamatory attacks on them because of discharge of their due functions. In that sense, they constitute a different class.
- Also, one is bound to tolerate criticism, dissent and discordance but not expected to tolerate defamatory attack. And hence this right of a public servant to file a defamation complaint is over and above his or her right under Section 199 (6) to personally file a complaint before a Magistrate.

Facts for Prelims:

- Indian vessel **MT Distya Ameya**, which was detained by the United Nations for carrying disputed Libyan oil, has been freed after the U.N. lifted its sanctions on the vessel. This follows the intervention of the Indian government and the Directorate-General (DG) of Shipping. The tanker was blacklisted by the U.N. on April 26 when it sailed from the **Al-Herega port in Libya** after picking up over 6.5 lakh barrels of oil for Malta. It was charged that the vessel violated the sanctions of the U.N. as the interim Government of Libya is not recognised by the global body. Following the instructions of the DG Shipping, the vessel sailed back to Libya and discharged its entire oil cargo.

Centre sets into motion second phase of Pradhan Mantri Ujjwala Yojana

The Centre has launched the second phase of Pradhan Mantri Ujjwala Yojana (PMUY) for three states — Gujarat, Madhya

Pradesh and Rajasthan. Earlier on May 1 the government had launched the scheme at Balia in Uttar Pradesh.

- The scheme is designed to provide 5 crore free LPG connections to Below Poverty Line (BPL) families in the next three financial years.

Aim of the scheme:

It aims at Providing Free LPG connections to Women from BPL Households.

Who is implementing it?

The scheme is being implemented by the **Ministry of Petroleum and Natural Gas**. This is the first time in the history of the country that the Ministry of Petroleum and Natural Gas would implement a welfare scheme benefitting crores of women belonging to the poorest households.

Details:

- Under the scheme, Rs 8000 crore has been earmarked for providing five crore LPG connections to BPL households. This Scheme would be implemented over three years, namely, the FY 2016-17, 2017-18 and 2018-19.
- The Scheme provides a financial support of Rs 1600 for each LPG connection to the BPL households.
- The identification of eligible BPL families will be made in consultation with the State Governments and the Union Territories.
- The scheme is being partly funded from the savings of the GiveItUp initiative.

India and WHO sign a landmark agreement for Global promotion of Traditional Systems of Medicine

Ministry of AYUSH, Government of India and the World Health Organization (WHO) have signed an historic Project Collaboration Agreement (PCA) for cooperation on promoting the quality, safety and effectiveness of service provision in traditional and complementary medicine.

Details:

- The PCA is titled as ‘Co-operation on promoting the quality, safety and effectiveness of service provision in traditional and complementary medicine between WHO and AYUSH, India, 2016-2020’.
- It aims to support WHO in the development and implementation of the ‘WHO Traditional and Complementary Medicine Strategy: 2014-2023’ and will contribute to the global promotion of traditional Indian Systems of Medicine.

- The PCA for the period 2016-2020 will deliver for the first time WHO benchmark document for training in Yoga, and WHO benchmarks for practice in Ayurveda, Unani and Panchakarma.

Benefits of the agreement:

- These will contribute significantly to the strengthening of national capacities in ensuring the quality, safety and effectiveness of traditional medicine.
- They will also help in establishing regulatory frameworks for traditional medicine products and practice and promote their integration in national healthcare systems.
- This PCA is a further recognition of India's rich experience in the development and governance of traditional medicine.
- It will also pave the way for India's long-term collaboration with the WHO in fostering the global promotion and integration of AYUSH systems of medicine including through the inclusion of Ayurveda and Unani in the International Classification of diseases and the International Classification of Health interventions.

Inter-Governmental Agreement between India and Mauritius on cooperation in cooperatives and related fields

The Union Cabinet has given its approval for signing of an Inter-Governmental Agreement between India and Mauritius on cooperation in cooperatives and related fields.

Details:

- The Agreement between the two countries will be for a duration of five years after which it will be automatically extended for another five years.
- The Agreement provides for promoting cooperation through short and medium term programmes within the framework of the joint activities mentioned in the Agreement.
- A work plan will be drawn up by mutual Agreement between the two parties to give effect to the objectives of this Agreement.

Government inks MoU with NDTV Ethnic Retail Ltd. to popularize India Handloom products

A Memorandum of Understanding (MoU) has been signed between The Development Commissioner (Handlooms), Ministry of Textiles, Government of India and NDTV Ethnic Retail Ltd. for popularizing India Handloom textiles as a fashionable product for youth. The MoU is valid for three years.

Details:

- The joint endeavour will endorse and launch a project, Indianroots Fashion Accelerator (IFA), a project by NDTV to support fresh talent and to support new and innovative ventures in fashion industry. Government will support the project with incubation and production support.
- India Handloom Brand will also provide an interface where fashion professionals will be able to access facilities such as Weavers Service Centres and handloom clusters. The initiative will connect fashion designers with Handloom sector in an organized manner.

About 'India Handloom' Brand:

The India Handloom Brand was launched in August, 2015, the first National Handloom Day, to endorse the quality of handloom products in terms of raw material, processing, embellishment, weaving, design and other parameters, besides social and environmental compliance.

- The main objective is to promote the production of quality products with new designs for winning the trust and confidence of customers by giving particular attention to defect free, hand woven, authentic niche products with zero defect and zero impact on environment.
- The registration under the brand is given after stringent testing of samples in Govt. of India laboratories.
- As on 1st April, 2016, 170 handloom producing agencies/enterprises have been given registration under the brand, in 41 product categories.
- Several e-commerce platforms and leading retail stores have been engaged for marketing of India Handloom branded products.

Wildlife Institute of India to relocate endangered 'dancing deer' of Manipur

The scientists of Wildlife Institute of India (WII) have been assigned the task to provide second home to 110 Sangai, brow-antlered and one of the **most endangered species under Centre's Endangered Species Recovery Project**.

Details:

The sangai is an endemic, rare and endangered subspecies of brow-antlered deer. It is also **state animal of Manipur**.

- The Sangai is now restricted to the Keibul Lamjao National Park (KLNP) in the Southeastern fringe of Loktak Lake in Manipur. Phumdis, floating vegetation occupy about two-third of the surface area of the lake. They feed, live and breed on this 9 km area of Phumdis.

- It is classified as “Endangered” by the IUCN.

Why it is called “dancing deer”?

While walking on the floating biomass, Sangai often balances itself which looks as if it is dancing on the green grassland and therefore popularly called as “dancing deer” of Manipur.

Asian waterbird census data causes mixed feelings

Evaluation of the bird data picked up from the Asian Water bird Census (AWC) held between 1987 and 2014 was recently carried out by the Kerala scientists.

- The annual census, coordinated by Wetlands International, also happens to be the first country-wide citizen science activity on natural history in India.
- Researchers focused their attention on the data generated from the four Ramsar sites of Kerala- Sasthamkotta Lake, Ashtamudi Lake, Vembanad Lake and Kole Wetlands – and also the other important wetland habitats to get a bird’s eye view of the population trends of wetland avian fauna.

Highlights:

- The brightly coloured purple swamphen is one species that have thrived amidst widespread destruction of its habitats. Its population trend analysis demonstrated that the species has increased in Kerala during the last decade.
- The painted stork, earlier evaluated as a vagrant visitor to wetlands of Malabar and south Kerala has spread beyond the region they are generally found.
- The population of Asian Openbill, extremely rare during the 1970s, has remarkably increased since 2001, with at least four census reporting the presence of more than 3,000 birds. So is the case of Eurasian spoonbill as there have been several reports of sighting of large flocks from Kole Wetlands, Vembanad Lake and Kuttanad Wetlands. Same is the case with blackheaded Ibis.
- Indian spotbilled duck, glossy ibis, oriental darter, Asian woollyneck and spotbilled pelican recorded increased presence whereas the population of the river terns and cormorants remained stable.
- But the bird group of terns underwent a steady decline over the years. From the nearly 30,000-strong population in 1993-94, it had plummeted to just near 10,000 in the last decade. The loss of estuarine habitat like Purathur in Malappuram district and disturbances in other estuaries might have contributed to this decline. The decline was evident in the relatively stable sites such as Kole Wetlands, rued the ornithologists.

- The population of whiskered tern, which form the major chunk of the population of the terns in the State, too has fallen significantly. Gulls too painted a gloomy picture as they were sighted in lesser number during the past few censuses.

- The **BirdLife International** has recorded that **11 water bird species of Kerala come under the IUCN Red list threatened categories** with the black bellied tern being one of the ‘Endangered’ waterbird species in Kerala. The only report of black bellied tern during AWC was from the Kole Wetlands.

- Great knot, a ‘vulnerable,’ trans-continental migrant, has been reported from four sites whereas the Asian woolly neck stork (another vulnerable species), has been reported from 44 wetlands across the State.

- An influx of Eurasian coot, which was an added to the list of Kerala birds during the late 1980s, has been reported in the State during winter season.

The report has identified the following threats:

- Demographic pressure, industrial development, pollution, urbanisation, agriculture and aquaculture and water transport have been adding pressure on the wetlands of the State.
- Reclamation of wetlands and the aquatic ecosystems, which are often considered as wastelands, is spelling trouble to several taxa. The stake nets used for fishing removes a wide array of non-target organisms, which are functionally important to the aquatic environment. Destructive fishing practise are also taking a toll on the bird population, it was reported.
- Unregulated fishing, reclamation of wetlands, dumping of solid waste and domestic sewage too posed threats to the wetlands of Kerala, according to ornithologists.

About AWC:

Asian Waterbird Census is an annual event in which thousands of volunteers across Asia and Australasia count waterbirds in the wetlands of their country. This event happens every January. This event is coordinated by wetlands International and forms part of global waterbird monitoring programme called the **International Waterbird Census (IWC)**.

- Asian Waterbird Census (AWC) was started in the year 1987. Its main focus is to monitor the status of waterbirds and the wetlands. AWC also aims to create public awareness on various issues concerning wetlands and waterbird conservation. Each year the census is carried out as a voluntary activity.

- 2016 marks the 50th global International Waterbird Census (IWC). With this, it has become the world's longest running biodiversity monitoring programme. 2016 also marks the 30th year of AWC.
- In India, the AWC is annually coordinated by the Bombay Natural history Society (BNHS) and Wetlands International.
- An Indian Air Force (IAF) team has successfully concluded 'Red Flag Alaska 16-1', an advanced aerial combat training exercise at Eielson Air Force Base in Alaska, United States of America.
- China has successfully launched a remote sensing satellite to carry out land surveys and disaster relief. The satellite named **Yaogan-30** was launched from Jiuquan Satellite Launch Centre in northwestern China's Gobi Desert. The satellite will be used for experiments, land surveys, crop yield estimates and disaster relief. Yaogan-30 was carried by a Long March-2D rocket, the 227th mission for the Long March rocket family. China launched the first "Yaogan" series satellite, Yaogan-1, in 2006.

What are waterbirds?

According to Wetlands International (WI), waterbirds are defined as species of birds that are ecologically dependent on wetlands. These birds are considered to be an important health indicator of wetlands of a region.

Foreign firms can now fund parties

The government has admitted that the amended Foreign Contribution Regulation Act (FCRA), 2010, which they brought in through the Finance Bill route, will not only help foreign-origin companies to fund NGOs here but has also cleared the way for them to give "donations to political parties."

Details:

- The amendment, which was cleared by the Lok Sabha in the recently concluded Budget session, will ensure that "donations made by such [foreign shareholding] companies to entities including political parties will not attract provisions of the FCRA, 2010."
- A US congressional panel has issued a report warning of the dangers of the China's "Guam killer" missile. The missile is capable of hitting targets 3,400 miles away. It has raised new fears of a growing Chinese threat to major U.S. military installations and stability in the Pacific Rim.
- Scientists at the University of Sheffield have identified a protein, involved in the development of the human placenta. The study shows that a protein called **Syncytin-1**, which was the result of a viral infection of our primate ancestors 25 million years ago, is first secreted on the surface of a developing embryo even before it implants in the womb. This means the protein is likely to play a major role in helping embryos stick to the womb as well as the formation of the placenta. This fundamental understanding of the earliest stages of human embryo development is crucial for improving current treatments for a variety of stressful complications during pregnancy such as recurrent miscarriages, fetal growth restriction syndrome and pre-eclampsia — a life-threatening condition of elevated maternal blood pressure during pregnancy.

Background:

The statement assumes significance as such funding from foreign donors will bypass government scrutiny. **The Representation of the People Act bars political parties from receiving foreign funds.**

Facts for Prelims:

- The Union Cabinet has given its approval for signing of a **Memorandum of Understanding (MoU) between Securities and Exchange Board of India (SEBI) and Financial Services Regulatory Authority (FSRA), Abu Dhabi for mutual co-operation and technical assistance between the two regulators.** The MoU will promote further development of economic links and cooperation between the two signatories and will help create conditions for development of securities markets in the two countries. It would also contribute towards strengthening the information sharing framework between the two regulators.
- The India Meteorological Department (IMD) has said that the arrival of the southwest monsoon in Kerala will be delayed by at least a week beyond the normal of June 1. Though this could lead to reduced rainfall in June, it would not affect the overall quantum of rains across the country. The IMD's model has an inbuilt error of four days which means the monsoon rains could set in as early as the June 3 or as late as June 11. According to IMD, **the delay in**

onset over Kerala is because of the El Nino, which, though waning, is still strong, and the waters of the Indian Ocean being warmer than usual for this time of the year.

- India has successfully test-fired **Advanced Air Defence (AAD) supersonic interceptor missile** from the integrated test range (ITR) of Abdul Kalam Island, formerly known as Wheeler Island, in Balasore. It was engaged against the naval version of Prithvi missile launched from a ship anchored inside Bay of Bengal. The indigenously developed interceptor missile is capable of destroying any incoming hostile ballistic missile. The AAD interceptor is a 7.5 metre single-stage solid fuel rocket equipped with a navigation system, a hi-tech computer and an electro-mechanical activator.

INFRACON, ePACE and up-Scaled INAM PRO launched

The government has launched ePACE, INFRACON and an updated version of INAMPRO, three innovative IT initiatives of the Ministry of Road Transport & Highways, developed in house by NHIDCL (National Highways and Infrastructure Development Corporation Ltd.)

Details:

ePACE (Projects Appraisal & Continuing Enhancements) is an online integrated Management Information System that brings projects from all wings of the Ministry under a common platform, ensuring their effective and real time tracking. More than 2000 projects being executed by multiple agencies are currently listed on the portal and it is possible to get any information about their real time status, fund utilization etc. The portal also allows for validation checks to prevent wrongful entries, making it difficult to fudge figures. It has also been provided with GIS interface to enable easy geo-tracking of the projects. ePACE as a platform is amenable to be used for monitoring projects pertaining to any ministry in the country and can improve governance of such projects.

INFRACON is the National Portal for Infrastructure Consultancy Firms and Key Personnel. This portal acts as a kind of bridge between consultancy firms working in the road engineering and construction sector and domain experts and key personnel who are deployed both for project preparation and supervision. The portal hosts the credentials of consultancy firms and key personnel and has linkages to Aadhar and Digi-locker for data validation and purity.

INAM PRO has been developed as a web-based application for Infrastructure and Material Providers. It is a kind of a web based market place that brings together the material providers and the prospective buyers on a common platform. The platform was launched in March 2015 to facilitate contractors and cement buyers engaged in executing central/state funded roads and highways and bridge construction projects to place

cement orders online with the registered cement companies offering cement at competitive rates in the vicinity of project execution locations. Using INAM Pro, companies can track orders, add more products, add cement offerings, view listed buyers, and submit their complaints or suggestions to Ministry. With the help of INAM Pro, the Ministry of Road Transport and Highways will be able to track and monitor the activities of buyers and suppliers, and remove impediments of both the parties.

Ken-Betwa project: Panel warns of dangers to ecology and animal life

A team of wildlife experts have submitted a crucial report on Ken-Betwa River linking project. The report warns of the dangers to the ecology and animal life due to the proposed Ken-Betwa project.

Details:

- The report neither endorses nor disapproves of the Ken-Betwa project but notes that if the government were to go ahead it ought to ensure that the proposed canal does not hinder tiger movement and that there should be enough habitable forest land developed to compensate for the loss of tiger reserve land.
- The main feature of the project is a 230-km long canal connecting the Ken and Betwa rivers which will irrigate 3.5 lakh hectares of drought-prone Bundelkhand. However, it will also inundate about 400 of the 4300-hectare **Panna Tiger reserve in Madhya Pradesh**.
- The report also notes that the project will impact a large variety of threatened fauna like the grey-headed fish eagles and muggers.

Background:

The Ken-Betwa river interlinking project is being vigorously promoted by the incumbent NDA government as the first in a series of projects to transfer surplus water from certain rivers into deficient ones and improve irrigation as well as hydropower availability.

Given the threat to the tiger reserve, the Environment Ministry, whose clearance is mandatory for the project, had tasked the National Board for Wildlife (NBWL) with an expert analysis on the environmental impact.

About the project:

The Ken and Betwa rivers in the states of Uttar Pradesh (UP) and Madhya Pradesh (MP) are to be linked under an historic agreement that marks the first such project in India's ambitious and controversial national river-linking project.

- The project envisages construction of a dam across river Ken in Chhatarpur district in Madhya Pradesh to irrigate 6.35 lakh hectare area of land, drinking water purposes and generation of 78 MW hydropower.
- The project comprises two powerhouse of 2×30 MW and 3×6 MW each, two tunnels of 1.9 km long upper level, 1.1 km long tunnel lower level and a 221 km long Ken-Betwa link canal, proposed on the left bank of the river.
- The project will provide irrigation facilities for 6,35,661 hectares of land in Panna, Chhatarpur, Tikamgarh districts in Madhya Pradesh, and Banda, Mahoba and Jhansi districts in Uttar Pradesh.
- The project was first mooted in the early 1980s but was actively taken up by the NDA government under Prime Minister Atal Bihari Vajpayee. It was then challenged in the Supreme Court, which finally gave the nod in 2013.
- The technology may help find ways of removing carbon monoxide from exhaust gases.
- It could help with the clean-up of toxic or even radioactive spills, without harming the surrounding flora or fauna.
- Defence experts will also be interested because it could lead to the development of stealth technology and new explosives.

Facts for Prelims:

- Indian Prime Minister Narendra Modi and Sri Lankan President Maithripala Sirisena recently released ‘**Simhastha Declaration**’ at Ninora village in Ujjain. 51 sacred points have been included in this declaration for betterment of mankind and these points are expected to start new discourse for India and the world. The declaration is a guideline on how “a duty-centred system, which had been the origin of Indian philosophy of life, has become the most relevant today”. The declaration will be the essence of a year-long exercise of seminars and conferences on religion, spirituality and its relationship with science, climate change and deep ecology.
- ICICI Bank, India’s largest private sector bank, has announced the launch of **contactless business credit card in association with Jet Airways for small and mid-sized enterprises (SMEs) and their employees**. Christened Jet Airways ICICI Bank Business Advantage Card, this co-branded credit card helps customers to save on their business expenses. It also provides customers opportunities to earn JPMiles on both spends as well as repayments on a list of business expense categories including travel, dining, office stationary, online advertising and vendor payments among others. The card is powered by the ‘**VISA payWave**’ **contactless technology** that enables the cardholder to make payments by simply tapping the card at contactless-enabled terminals in more than 48 countries including India.

The reason why the Ken-Betwa link was the first to get off the ground is that it is the shortest. The Ken is the last tributary of the Yamuna before it joins the Ganga — 87% of it lies in Madhya Pradesh and 12% in Uttar Pradesh. The Betwa is an interstate river that rises in Raisen district of Madhya Pradesh — 68% of it lies in that state before it flows towards Jhansi district in Uttar Pradesh. This too is a tributary of the Yamuna.

Helium microscope helps to study samples without damaging them

The World-first **scanning helium microscope** has been built by Australian researchers who feel it could “open doors” for many new discoveries by allowing scientists to scrutinise materials without disturbing them. Traditional microscopes use light to penetrate samples and this can damage them.

Details:

- The scanning helium microscope means the samples will be analysed in their true state.
- This will enable scientists to study human, animal and plant samples, as well as computer chips and pharmaceutical drugs, without damaging or changing them.
- The microscope could be useful in major industries such as solar energy, defence, explosives and information technology.
- The new device is expected to pave the way for many new discoveries, because it gives new insight on structures at a microscopic level.

Ancient Buddhist site found in Amaravati

Archaeologists have found an ancient Buddhist site at Amaravati, Andhra Pradesh.

What has been found?

- Three mounds studded with brickbats and pottery in red colour. The mounds were formed on huge boulders on which a brick-built stupa was raised.
- Huge fragments of terracotta and brick tiles used to cover chaityas and viharas.
- Few years ago, a relic casket with a gold leaf was also found at the same site.

Other details:

- The bricks, used in the construction of stupas and viharas measuring 60x30x8 cm and 58x28x7 cm, invariably belonged to the Satavahana era (1st Century B.C.).
- Excavations also revealed that the **Buddhist monks relied for drinking water mainly on two tanks spread in an extent of half-an-acre and two rock-cut cisterns.**
- The Buddhist remains like stupas, chaityas and viharas show that **Buddhism existed from 1st Century B.C. to the 5th Century AD**, but later the region came under the **influence of Saivism in the Vishnukundin era, and under Vaishnavites between the 13th and 17th centuries AD.**

SBI begins merger with associate banks

The State Bank of India (SBI), the country's largest lender, has kick-started the process of merging its five associate banks with itself at one go. The merger is expected to be completed by the end of the current financial year.

- The merger move comes after the government announced a road map for bank consolidation during the budget.
- The five associate banks are State Bank of Bikaner & Jaipur, State Bank of Hyderabad, State Bank of Mysore, State Bank of Patiala and State Bank of Travancore.

Key facts:

- The merged entity will have one-fourth of the deposit and loan market, as the SBI's market share will increase from 17% to 22.5-23%.
- The total business of the merged entity will be over Rs. 35 lakh crore.
- Also, SBI's staff strength will increase by 35-49% while branch network will increase by 6,000. At present, the SBI alone has more than 15,000 branches in the country.

Benefits of merging:

- The merger will make it a bigger bank and will bring in a lot of efficiencies.
- Now there are a lot of overlaps among associates. Merging is expected to end these overlaps.
- This might also be helpful in funding the huge infrastructure financing needs of the country.
- If the merger goes through, the combined entity will be ranked as the 45th largest bank globally in terms of assets, up 7 ranks from its current 52nd position.

- Post the merger, the cost-to-income ratio will come down by 100 basis points a year. The cost-to-income ratio is nothing but the company's costs in relation to its income. To get the ratio, operating cost of a company has to be divided by its operating income.

Way ahead:

- The SBI will have to create and expand its present structure to ensure smooth operations of the merged entity.
- The SBI has to create a post-merger structure. Controlling the branches will be crucial.

Previous mergers:

SBI first merged associate State Bank of Saurashtra with itself in 2008. Two years later in 2010, State Bank of Indore was merged.

N.K. Singh to head panel to review FRBM Act

The government has announced the constitution of a panel under Former Revenue Secretary and Rajya Sabha MP N.K. Singh to review the Fiscal Responsibility and Budget Management (FRBM) Act of 2003.

Details:

- The committee will review the working of the Act in the context of the uncertainty and volatility of global economy and suggest changes that are in tune with the broad objective of fiscal consolidation.
- The committee will examine whether a broad fiscal deficit range should be adopted in place of specific target. It will also examine the need and feasibility of aligning the fiscal expansion or contraction with credit contraction or expansion, respectively in the economy.
- The committee will also provide an assessment of the impact of its recommendations on the government deficit and FRBM parameters.

Background:

The decision to form the committee was announced by Finance Minister Arun Jaitley during the presentation of Union Budget 2016-17.

India suffers from huge gender pay gap, says report

According to the recently released **Monster Salary Index**, there exists a gender pay gap of 27% in India, where men earned a median gross hourly salary of Rs 288.68, whereas women earned only a median gross salary of Rs 207.85 per hour.

- Monster Salary Index is aimed at empowering jobseekers by establishing a benchmark to compare their salaries with other anonymous profiles across a broad spectrum of industry domains, experience, functional groups both in India and other global markets.

Highlights of the report:

- According to the report, the highest gender pay gap was recorded in the manufacturing sector at 34.9%. The lowest gender pay gap was recorded in the BFSI and transport, logistics, communication, equally standing at 17.7%.
- According to the report, some of the reasons behind gender pay gap could be the preference for male employees over female employees, preference for promotion of male employees to supervisory positions and career breaks of women due to parenthood duties and other socio-cultural factors.

'No profiteering at the cost of farmer'

The Supreme Court has declared land a “scarce natural resource” and forbidden the government from using its powers of compulsory land acquisition to strip poor farmers of their livelihood only to transfer such land to private builders to feed their business interests.

What has the court said?

- Land, acquired in the name of residential or commercial projects, should revert to its rightful owner — the farmer — in case the project does not take off. No third party has any rights on the land.
- There is no objection to acquisition of land for a compelling public purpose or regulated development of colonies, but release of land to a builder who comes into the picture after acquisition notification tantamounts to acquisition for a private purpose.
- It amounts to transfer of resources of the poor for the benefit of the rich. It amounts to permitting profiteering at the cost of livelihood and existence of a farmer.
- If the law allows the State to take land for housing needs, the State itself has to keep the title or dispose of land consistent with Article 14 after completion of acquisition. If after initiation of acquisition, process is not to be completed, land must revert to the owner and not to anyone else directly or indirectly.

Background:

These observations were made by the court during a landmark ruling which quashed the transfer of 280 acres of land acquired

by Haryana government from farmers in Rohtak to a private builder in 2006 for developing a residential colony.

- In 2002, the Haryana Urban Development Authority (HUDA) proposed to acquire around 850 acres of land in Rohtak. However, in April 2003, only 441 acres were acquired. The state later released about 280 acres of the acquired land to Uddar Gagan Properties Limited in June 2006.

Facts for Prelims:

- The J&K Wildlife Department has recorded its first ever sighting of a group of eight **Himalayan brown bears** in Kargil's Drass Sector. This is a rare record. In the recent past, no such sighting has ever been reported from J&K, Himachal Pradesh and Uttarakhand, where these animals are distributed. The sighting of such relatively large numbers of Himalayan brown bears in just one wildlife zone out of four major areas of Suru, Zaskar, Drass and Kargil in the Ladakh region is a positive indication. Brown bear is on the International Union for Conservation of Nature and Natural Resources' list of **vulnerable animals**.

- May 16, 2016 marks the **100 years since the signing of the Sykes-Picot Agreement**, the secret Anglo-French pact reached during the First World War that proposed splitting the Middle East up into zones of foreign control. Also known as the Asia Minor agreement, Sykes-Picot defined the borders of the modern states of Syria and Iraq, handing the former over to the French and the latter over to the UK. The impact of the agreement is still being felt today. Most recently, the Islamic State militant group has made the elimination of the borders defined by Sykes-Picot a crucial part of its propaganda. The agreement was concluded in secret partly because it represented a betrayal of promises the British government had already made to Hussein bin Ali, the sharif of Mecca. The Arab leadership, under the command of Sharif Hussein, was promised complete independence following the war, in exchange for supporting the allies against the Ottomans.

- The government has amended rules and introduced several measures including a system similar to 'tatkal', to expedite examination of patent applications by start-ups as well as entities choosing India for the first filing of patent. This comes in the backdrop of 2.37 lakh patent applications pending in the country. Under the 'tatkal'-like system applicants can opt for the 'expedited examination'-route on the grounds that they have chosen India as the competent International Searching Authority or International Preliminary Examining Authority in the corresponding international application, and file their applications first in India. The 'expedited examination'-route is also available to all entities that qualify as a start-up as per the definition for start-up provided in the Patent

Rules. The applications for this route have to be filed only electronically. The move is to popularise India as a patent filing hub so that more companies file applications in India.

New Draft National Policy for Women Promises

After a gap of 15 years, the Centre has come up with a draft **national policy for women**. The new draft policy is aimed at “re-scripting” women’s empowerment by following a “socially inclusive rights-based approach.”

- The policy is roughly based on the **Pam Rajput Committee report** set up by the MWCD in 2012 which submitted its recommendations last year, including a suggested national policy for women and an action plan to end violence against women.

Significance of this policy:

Since 2001, when the last National Policy for Empowerment of Women was formulated, the concept of women empowerment has seen changes, from being recipients of welfare benefits to the need to engage them in the development process, welfare with a heavy dose of rights. This draft policy has tried to address this shift. It will define the government’s action on women in the next 15-20 years.

Highlights:

- The policy aims to create sustainable socio-economic, political empowerment of women to claim their rights and entitlements, control over resources and formulation of strategic choices in realisation of the principles of gender equality and justice.
- The policy envisions a society in which, women attain their full potential and are able to participate as equal partners in all spheres of life. It also emphasises the role of an effective framework to enable the process of developing policies, programmes and practices which will ensure equal rights and opportunities for women.
- The broad objective of the policy is to create a conducive socio-cultural, economic and political environment to enable women enjoy de jure and de facto fundamental rights and realize their full potential.
- The policy also describes emerging issues such as making cyber spaces safe place for women, redistribution of gender roles, for reducing unpaid care work, review of personal and customary laws in accordance with the Constitutional provisions, Review of criminalization of marital rape within the framework women’s human rights etc. relevant in the developmental paradigms.
- Operational strategies laid down in the policy provide a framework for implementation of legislations and

strengthening of existing institutional mechanisms through action plan, effective gender institutional architecture. Advocacy and Stakeholder Partnerships, Inter-Sectoral Convergence, Gender Budgeting and generation of gender disaggregated data have also been given due focus.

- The new policy has suggested dependent care and child care leave not for just working women, but working men too.

The policy defines following as the priority areas:

1. Health including food security and nutrition.
2. Education
3. Economy
4. Governance and Decision Making.
5. Violence Against Women.
6. Enabling Environment.
7. Environment and Climate Change.

States asked to convert 3,784 urban areas into statutory Urban Local Bodies

Ministry of Urban Development has asked 28 States to take immediate and necessary action to convert 3,784 Census Towns into statutory Urban Local Bodies to promote planned urban development.

Why this is necessary?

This is necessary for planned and coordinated infrastructure development, enhancement of revenues and efficient delivery of services to citizens leading to overall growth of economic activities.

What is a census town?

A Census Town is an area with urban characteristics like a minimum population of 5,000, at least 75% of the male main working force engaged in non-agricultural activities and population density of at least 400 persons per sq.km. As per 2011 Census, there are 3,784 Census Towns as against 1,362 in 2001.

What is a statutory town?

A Statutory Town is one with a municipality, corporation, cantonment board or notified town area committee. As per 2011 Census, there are 4,041 such towns as against 3,799 in 2001.

Benefits for states:

Conversion of Census towns into statutory ULBs entitle states to Central assistance as per the guidelines of 14th Finance Commission. Under Atal Mission for Rejuvenation and Urban Transformation (AMRUT), 50% weightage is given to the number of statutory towns in any State/UT in allocation of funds among States/UTs.

Key facts:

- State with highest number of census towns is West Bengal with 780 towns.
- Mizoram has no census towns.
- Arunachal Pradesh has one census town.

Bonded labour rehab to be made Central sector scheme

The Centre is revising the rehabilitation of **bonded labour scheme**, bringing it into the Central sector, and plans to raise financial assistance from 20,000 to 1 lakh.

Key facts:

- The scheme proposes to increase the Budget provision from 5 crore to about 47 crore per annum.
- Government has proposed a 15-fold increase in the rehabilitation cost of bonded labourers to up to Rs 3,00,000. At present, the government provides Rs 20,000 as financial assistance for rehabilitating a bonded labourer. There are about 1 million bonded labourers in the country, most of whom are dalit farmers.
- The scheme now will be a central sector scheme and the rehabilitation cost per labour under the scheme will be equally borne between the Centre and state. It was last revised in 1999.
- Under the revised scheme, male bonded labourer would get a financial assistance Rs 1 lakh, while a child or woman would get Rs 2 lakh. This would go up to Rs 3 lakh in case of a differently-abled or physically challenged bonded labourer.

Background:

The government had launched a centrally-sponsored scheme for rehabilitation of bonded labourers in 1978. Under the scheme, an assistance of up to Rs 4,000 per bonded labour was provided initially. This was raised to Rs 6,250 in 1986 and to Rs 10,000 in 1995, before fixing it at Rs 20,000 in 1999.

- The Bonded Labour System (Abolition) Act also provided the constitution of a vigilance committee at district and sub-divisional level in each state and Union Territory for

identification, release and rehabilitation of bonded labour in the country.

Who is a bonded labour?

Bonded labour, sometimes also referred as debt bondage or debt slavery, is a person's pledge of their labour or services as security for the repayment a debt or other obligation. The services required for repaying the debt are generally undefined and so is the duration of work, which leads to huge exploitation of these labourers at the hands of their employers.

Sources: pib.

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

Oil-for-drugs deal likely with crisis-hit Venezuela

India has proposed an **oil-for-drugs barter plan** with cash-strapped Venezuela to recoup millions of dollars in payments owed to some of India's largest pharmaceutical companies.

- This payment mechanism would allow Venezuela to repay some of the amount owed with oil.
- The proposal would use the State Bank of India to mediate the transfer. The plan is now awaiting approval from the Finance Ministry and the Reserve Bank of India, which regulates such payments.

Background:

Several Indian generics producers rely on Venezuela as they sought emerging market alternatives to slower-growing economies such as the United States. But the unravelling of Venezuela's socialist economy amid a fall in oil prices has triggered triple-digit inflation and a full-blown political and financial crisis. Unable to pay its bills, the country is facing severe shortages of even basic supplies such as food, water and medicines.

India, one of the world's biggest oil importers along with the United States and China, had similarly elaborate barter deals with Iran, swapping rice and wheat for oil.

Prithvi-II test-fired successfully

Indigenously developed nuclear capable Prithvi-II missile was recently test fired. The missile was tested from test range at Chandipur in Odisha.

Key facts:

- Prithvi-II is a short-range surface-to-surface missile.
- Inducted into India's armed forces in 2003, Prithvi II is the first missile to be developed by DRDO under India's prestigious IGMDP (Integrated Guided Missile Development Program).
- The twin-engine Prithvi-II is 8.56 metre in length, 1.1 metre in width and weighs 4,600 kg. It has the ability to dodge enemy missiles.
- It has a strike range of 350 km.
- The battlefield missile has a flight duration of 483 seconds and a peak altitude of 43.5km. Also, Prithvi is India's first indigenously-built ballistic missile.
- Prithvi-II has been designed to operate with both liquid and solid fuels and is capable of carrying both conventional and nuclear payloads.

Hypersonic test flight promises to shrink world

Hypersonic technology was recently successfully tested in the Australian desert by a joint U.S.-Australian military research team. The research team sent a **scramjet** attached to a rocket booster to an altitude of 172 miles (278km) at Mach 7.5 – or seven times the speed of sound. The team is running a series of 10 trials at the world's largest land testing range, Woomera, in South Australia, and at Norway's Andoya Rocket Range.

Details:

- Mach 7.5 classes it as 'hypersonic travel', which is defined as travel at more than five times the speed of sound.
- Scientists involved in the programme — called Hypersonic International Flight Research Experimentation (HIFiRE) — are developing an engine that can fly at Mach 7. HiFiRE is made up of a scramjet engine attached to a rocket booster.

What is a scramjet?

Scramjet is a supersonic combustion engine that uses oxygen from the atmosphere for fuel, making it lighter and faster than fuel-carrying rockets. This is helpful for flying at hypersonic speed – Mach 5 and above.

- 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.

Benefits of Hypersonic technology:

- Hypersonic technology could revolutionise global air travel, providing cost-effective access to space. For instance, it could cut travelling time from Sydney to London to as little as two hours for the 17,000-km flight.
- This will also be helpful as an alternative to a rocket for putting satellites into space.

Facts for Prelims:

In a boost to India's defence exports in a region of strategic importance, Kolkata-based public sector yard Garden Reach Ship Builders (GRSE) has emerged as the lowest bidder to supply two warships to the Philippines Navy. However, details in this regard are yet to be made public. India exported its first warship to Mauritius in December 2014, an offshore patrol vessel, CGS Barracuda, built by GRSE at a cost of Rs.350 crore. Since then GRSE has been aggressively scouting for opportunities in the neighbourhood. It is also set to supply four patrol vessels to Vietnam under the \$100 million line of credit extended by India in 2014.

Sebi tightens norms to curb black money inflow

Tightening the rules governing issuance of participatory notes (P-Notes) by foreign portfolio investors (FPIs), markets regulator Sebi has introduced Know Your Client (KYC) compliance for holders of these instruments to bring them on a par with domestic investors. Sebi has also sought information on the ultimate beneficiaries of these products. These moves seek to restrict entry of black money into the Indian market.

What are P-notes?

P-Notes are derivative products issued by FPIs in foreign markets which give their holders the right to have a share of the profit and loss from underlying Indian stocks but at the same time help maintain anonymity about the actual owners of those notes.

Background:

For long, the government, regulator and investigative agencies had suspected entry of suspect funds into the Indian market through the P-Note route. This has led Sebi to tighten the rules governing P-Notes, including disclosures about ownership and adherence of anti-money laundering rules.

Himachal Pradesh propagating mahseer fish for conservation

Himachal Pradesh government has started an artificial propagation programme for rehabilitation and conservation of **golden mahseer**. The population of the golden mahseer, hunted for sport and food, is declining in rivers of Himachal Pradesh.

- The population of the golden mahseer is declining in the state due to various reasons, including construction of dams, barrages, pollution, indiscriminate fishing of brood and juvenile fish, introduction of exotic species and habitat deterioration.
- A hatchery with an outlay of Rs 6 crore has been set up in the state to rear mahseer, to breed the fish and release its fingerlings into the wild.

Key facts:

- Golden mahseer is known as the **tiger of Indian rivers**.
- It has been declared **endangered** by the Washington-based International Union of Conservation of Natural Resources.
- The mahseer, the **longest-living freshwater fish**, is native to mountain and sub-mountain regions. It belongs to the genus *Tor*.
- The **Pong Dam reservoir**, around 250km from state capital Shimla and 190km from Chandigarh, supports an ample population of the golden mahseer.
- It migrates upstream for spawning during the southwest floods. After spawning, it returns to the original feeding grounds. It is available at altitudes of up to 2,000 metres above sea level and is purely carnivorous.

Hybrid annuity model for highways draws bidders

According to a report by rating agency ICAR, the **hybrid annuity model** for awarding highway contracts introduced by the government last year, has begun to find some traction after an initial lukewarm response from infrastructure players.

Background:

The Cabinet Committee on Economic Affairs had given its approval for the Hybrid Annuity Model as one of the modes of delivery for implementing the Highway Projects in January this year. This had paved the way for construction of 28 projects worth Rs. 36,000 crore this fiscal year.

All about the Hybrid Annuity Model:

Who will invest?

Under this model, the government will invest 40% of the construction cost for building highways and the balance will come from the private developer. The government will invest money in five equal installments based on the targeted completion of the road project.

Recovery:

The private developer will recover his investment from the government by receiving annuity payments over a period of 15 years.

Toll collection:

Under this model, the highway toll tax will be collected by the government unlike the build, operate and transfer (BOT) toll model where the private sector collects it. So, there is no revenue or traffic risk on the part of the developer.

Significance:

- This will speed up the construction of roads in the country by renewing interest of private developers in highway projects as the risk will be distributed between the government and the private players.
- It is a fairly sensible risk-sharing model because it requires the private sector to focus on areas which bring in efficiency mainly in capital cost, project completion time and quality.
- This model will also bring in long-term infrastructure funds like pension funds into the sector.
- This model is also expected to double the speed of highway construction in the country as the government will no longer will be dependent on its limited financial resources and the expertise of private sector will be utilised to operate and maintain the roads.

India lauded for Red Line Campaign on antibiotics

The global Review on Antimicrobial Resistance — commissioned by U.K. Prime Minister David Cameron in 2014 and chaired by economist Jim O'Neill- has, in its final report, cited India's idea of putting a red line on antibiotic packages to curb their over-the-counter sale as a model that can be used globally to counter the rising threat of superbugs.

Highlights of the report:

- The report notes that India's 'Red Line Campaign' for antibiotics packaging should be considered as a starting point and recommends that the labelling and symbols used can be improved if needed and then expanded globally.
- The report says laws prevent sale of antibiotics and other antimicrobials over-the-counter, but these may be weakly enforced in some countries and non-existent in many.
- It says 20-30% of antibiotics are consumed without prescription in south and east Europe, and up to 100% in parts of Africa.

- The report also predicts by 2050, unless action is taken, deaths due to antimicrobial resistance could balloon to 10 million each year and cost the global economy \$100 trillion.

Background:

India's Red Line campaign, launched in February this year, began marking prescription-only antibiotics with a red line to curb their irrational use and create awareness on the dangers of taking antibiotics without being prescribed. The campaign was launched by the Ministry of Health and Family Welfare.

- The campaign is aimed at discouraging unnecessary prescription and over-the-counter sale of antibiotics causing drug resistance for several critical diseases including TB, malaria, urinary tract infection and even HIV.

What is a superbug?

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

Facts for Prelims:

- The **first tropical cyclone, Roanu, of the season** in the Bay of Bengal has caused devastation for thousands in Sri Lanka. Cyclone Roanu wreaked havoc across Sri Lanka, producing deadly flooding and mudslides. Meanwhile, authorities in Andhra Pradesh and Odisha are put on high alert.
- The government is planning to introduce a **new category of visa to promote yoga**, to help make India the world destination for yoga enthusiasts. Currently, there are 18 types of visas which include diplomatic, mountaineering, employment, tourist, medical, student, research and conference, among others. The government is planning a 'yoga' visa ahead of the 2nd International Day of Yoga on June 21. On India's request, the United Nations has designated June 21 as the International Day of Yoga in 2014. Last year, the government accorded special status to yoga by categorising its promotion as a charitable activity, giving its promoters tax exemption benefits.

Centre sets up panel to relook defence spend

The government has appointed a committee of experts to recommend measures to enhance the combat capabilities of the over 13-lakh strong armed forces and "re-balance" the overall defence expenditure in view of the escalating salary and pension bills.

Details:

- The 11-member committee is led by Lt Gen D B Shekatkar (ret'd). It includes several other top military officers as well as civilian experts.
- It has been given three months to chalk out an action plan.
- The overall aim of the committee is to ensure India's combat capabilities and potential are enhanced, with a better teeth-to-tail combat ratio, within budgetary constraints.
- This move is aimed at ensuring leaner, meaner and cost-effective fighting forces.

Why this is necessary?

At present, the revenue component (day-to-day costs/salaries) in the defence budget by far outstrips the capital outlay every year, leaving very little for new modernisation projects for the armed forces.

Way ahead:

The Army has followed a policy of 'save and raise' since the 1999 Kargil conflict to improve combat capabilities without manpower increases. With modernisation and induction of cutting-edge technologies, some more scope for manpower optimisation can be created.

What is tooth-to-tail ratio?

The tooth-to-tail ratio, referred to as T3R in the Army, is the ratio of fighting arms, which wage the actual battle such as infantry and armoured wings, to support services, such as logistics, signals and ordnance.

Signing NPT not needed for Nuclear Suppliers Group membership: India

India has rejected China's contention that it must sign the NPT to get membership of the Nuclear Suppliers Group, saying France was included in the elite group without signing the Non-Proliferation Treaty.

India's arguments:

The NSG is an ad hoc export control regime and France, which was not an NPT member for some time, was a member of the NSG since it respected NSG's objectives.

Background:

China has opposed India's bid to get NSG membership on the ground that it was yet to sign the NPT. It had said all the multilateral non-proliferation export control regime including

the NSG have regarded NPT as an important standard for the expansion of the NSG. And hence, members of the Nuclear Suppliers Group should be party to NPT.

About NSG:

Nuclear Suppliers Group (NSG) is a multinational body concerned with reducing nuclear proliferation by controlling the export and re-transfer of materials that may be applicable to nuclear weapon development and by improving safeguards and protection on existing materials.

- Interestingly, the NSG was set up in 1974 as a reaction to India's nuclear tests to stop what it called the misuse of nuclear material meant for peaceful purposes.
- Currently, it has 48 members.

Once admitted, an NSG member state:

- Gets timely information on nuclear matters.
- Contributes by way of information.
- Has confirmed credentials.
- Can act as an instrument of harmonization and coordination.
- Is part of a very transparent process.

WCD Ministry and Bill & Melinda Gates Foundation sign MoC

The Ministry of Women and Child Development and the Bill & Melinda Gates Foundation have signed a Memorandum of Cooperation (MoC) to provide technical support at the National and State level for strengthening the delivery of nutrition goals, especially during pre-conception, pregnancy and first two years of life.

Details:

- As per the MoC, the Gates' Foundation will support an enhanced framework of collaboration in Information and Communication Technology enabled Real Time Monitoring (ICT-RTM) of Integrated Child Development Services (ICDS) and technical support on nutrition.
- This collaboration will strengthen the government's restructured ICDS Systems Strengthening and Nutrition Improvement Project (ISSNIP) and National Nutrition Mission, with a focus on technological innovation, sharing best practices and use of data and evidence to enhance performance at the national and state level.

The four priority areas of work as part of this MoC would include:

1. Development and deployment of ICT solutions for improving and strengthening ICDS Service Delivery System.
2. Support Ministry of Women & Child Development in developing a shared national communications campaign for maternal and child nutrition among target populations.
3. Provision of technical support for the National Nutrition Mission, Restructured ICDS Systems Strengthening and Nutrition Improvement Project (ISSNIP) and Restructured ICDS through a Technical Support Unit at the national and state level for strengthening their capacities to deliver nutrition especially during pre-conception, pregnancy and first two years of life.
4. Technical support and Knowledge management support to strengthen human resource capabilities at various levels in order to deliver effective nutrition interventions.

Indigenously developed fecal incontinence management system 'Qora' launched

The government has launched an indigenously developed "affordable" faecal incontinence management system 'Qora'. This system was developed by M/s. Consure Medical.

What is Fecal incontinence?

Fecal incontinence (FI) is a medical condition marked by inability to control one's bowel movements, causing stool (feces) to leak unexpectedly from the rectum. It affects nearly 100 million bed ridden patients worldwide.

- Furthermore, about 50% of the psychiatric ward patients have FI due to long-term neurological diseases.
- At present, absorbent pads and fecal drainage catheters are the only available solutions for this condition.

Significance of this system:

The technology 'Fecal Incontinence Management System-Qora' has been developed to address the clinical and economical implications of fecal incontinence by expanding indications for use, reducing skill level required to use a device, and introducing a new level of care for patients outside the ICU.

It should also be noted here that the Qora™ Stool Management Kit is the world's first FDA 510(k) approved indwelling fecal drainage device for the management of fecal incontinence that can be used across a continuum of care facilities from ICUs to nursing homes.

Gadkari moots financing arm for road, shipping sectors

Union Minister for Roads, Transport & Shipping Nitin Gadkari has proposed to set up a financing corporation for the road and shipping sectors, and push the bureaucracy to take quick decisions on the funding of these projects.

- A proposal for setting up the financing corporation for the two sectors will shortly be placed before the Union Cabinet for its approval.

Details:

- The proposed financing corporation will be in addition to the role of the National Highways Authority of India (NHAI), which too raises finance for the road sector projects.
- The proposed financing company would be able to tap into both domestic as well as foreign funds for the funding of the projects.

Benefits:

- It will give a sense of security to banks to deal with projects from these sectors.
- It will also revive investments in the infrastructure sector, which has decelerated badly in the past few years.
- Also, the country needs a financing company, as the funding for road projects have dried up, especially from the banking sector.

Facts for Prelims:

- Facing pressure from the State governments, the Union Cabinet has cleared an ordinance bypassing the Supreme Court's decision on the National Eligibility-cum-Entrance Test (NEET), a common test for admission to medical and dental courses. The ordinance, once it comes into effect, will override the apex court's May 9 order and allow the State boards to hold their own entrance tests this year. **Article 123** bestows a power on President to promulgate ordinances during parliamentary recess.
- According to the **UN Environment report- Global Environmental Outlook (GEO-6)**: Regional Assessments-nearly 40 million Indians will be at risk from rising sea levels by 2050, with people in Mumbai and Kolkata having the maximum exposure to coastal flooding in future due to rapid urbanisation and economic growth. According to the report, the worst impacts of climate change are projected to occur in the Pacific and South and Southeast Asia. India tops the chart with nearly 40 million people in the country projected to be at risk from rising sea levels,

followed by more than 25 million in Bangladesh, over 20 million in China and nearly 15 million in the Philippines.

Water staircases in seas

Scientists have proposed a possible mechanism by which the upper layers of the Arctic Ocean warm up, causing the ice to melt.

What's it?

According to a research, internal waves, which move vertically through the ocean, sometimes pass through water staircases, which are steplike variations of density of water, in such a manner as to churn up the underlying warm, salty water, thereby increasing the temperature of the top, cooler layers.

What are water staircases?

Water staircases are steplike variations of density of water due to steplike changes in temperature and salinity.

Where do internal waves exist?

Internal waves exist where the density gradually increases with depth. They cannot propagate where the density is uniform.

How Arctic Ocean is being affected by this mechanism?

The Arctic Ocean has inflows coming from the Pacific Ocean and Atlantic Ocean. In this, the top layers consist of cooler and less saline water and below that is a layer of water coming from the Atlantic Ocean which is more saline and warmer, too. The effect of salinity wins over that of temperature and so, though the water below is warmer, it is heavier than the cooler, less saline layer on top.

- Warm, but salty water — ultimately originating from the Atlantic Ocean resides near the bottom of the Arctic Ocean. If turbulence could somehow mix this water with that above, then, eventually, the surface could warm more rapidly, and this would increase the rate of sea-ice melt.

Gaya-model lantern in Colombo

A Vesak lantern kept near **Gangaramaya** temple in Colombo this year has attracted many tourists. The lantern is an additional attraction this year as it has been modelled on the "stupa" at the **Mahabodhi temple in Gaya, Bihar**.

Gangaramaya Temple

Key facts:

- Lanterns are an integral part of the **Vesak Poya festival** (Full Moon in May), which is celebrated to mark

three important events in the life of Buddha — birth, enlightenment and death.

- The Mahabodhi temple, one of the oldest brick structures in eastern India, was declared a **World Heritage Site by the UNESCO in June 2002**.
- Located about 115 km south of Patna, the temple is regarded as **one of the four holy sites related to the life of Buddha**.
- According to the UNESCO, this was the **first temple built by Emperor Asoka** in the 3rd century BC. However, the present temple is of the 5th-6th century CE, belonging to the late Gupta period.
- Another special feature is that the temple is believed to have had a significant influence on the development of brick architecture over the centuries.

Why sea ice cover around Antarctica is rising

A new NASA-led study has found why the sea ice cover surrounding Antarctica has been increasing slightly, in sharp contrast to the drastic loss of sea ice occurring in the Arctic Ocean. According to the study, the geology of Antarctica and the Southern Ocean is responsible for this rise.

Details:

- According to the study, two persistent geological factors — the **topography of Antarctica** and the **depth of the ocean** surrounding it — are influencing winds and ocean currents, respectively, to drive the formation and evolution of Antarctica's sea ice cover and help sustain it.
- The study notes that as sea ice forms and builds up early in the sea ice growth season, it gets pushed offshore and northward by winds, forming a protective shield of older, thicker ice that circulates around the continent.
- The persistent winds, which flow down slope off the continent and are shaped by Antarctica's topography, pile ice up against the massive ice shield, enhancing its thickness.
- This band of ice, which varies in width from roughly 100 to 1,000 km, encapsulates and protects younger, thinner ice in the ice pack behind it from being reduced by winds and waves.
- As the sea ice cover expands and ice drifts away from the continent, areas of open water form behind it on the sea surface, creating "ice factories" conducive to rapid sea ice growth.

India successfully launches reusable launch vehicle RLV-TD

India has successfully launched the first technology demonstrator of indigenously made **Reusable Launch Vehicle (RLV)**, capable of launching satellites into orbit around earth and then re-enter the atmosphere. The experiment is also known as hypersonic flight experiment.

- Being dubbed a complete 'Made-in-India' effort, the Reusable Launch-Vehicle – Technology Demonstrator (RLV-TD) is the first time that ISRO launches an indigenous space craft with delta wings.
- The test launch is considered a significant step in India's space endeavour. It's especially important because in 2011, the U.S.'s Nasa abandoned its reusable space shuttle project.

Key facts:

- The 6.5 meter long Re-usable Launch Vehicle – Technology Demonstrator (RLV-TD) weighs about 1.7 tons.
- Built over five years by a team of 600 scientists, the project cost around Rs 95 crore.
- The project is also being called a **hyper-sonic experiment (HEX)** as it will also test the ability of the vehicle to withstand re-entry at speeds higher than that of sound.
- This was the first time that ISRO flew a winged body and brought it back to land on a make-shift runway.
- Dubbed as India's own space shuttle, RLVs are being seen as the unanimous solution towards achieving low cost, reliable and on-demand space access.

Facts for Prelims:

- According to a Crisil report, **remittances from the Gulf nations to India have declined for the first time in six years** due to sliding oil prices. Remittances have fallen by 2.2% in 2015-16. This fall has also resulted in a contraction of oil imports. It should be noted here that more than half of India's remittance income comes from the GCC (Gulf Cooperation Council). Also, India's dependence on remittances and the resultant vulnerability is much lower than some of its Asian peers who receive similar proportions of remittances from GCC countries. Remittances make up 3.7% of India's GDP, compared with 28% cent in Nepal, 9.7% in Sri Lanka, and 6.5% in Pakistan.
- Kiran Bedi has been appointed as the **Lieutenant Governor of Puducherry**. She replaces Lieutenant-General (retd) AK Singh – who as the Lieutenant Governor of Andaman and Nicobar, was given additional charge of Puducherry

in 2014. She has been appointed by the President of India under Article 239 of the Constitution.

- Country's oldest leopard Devi recently celebrated her 25th birthday at Raipur's Nandanvan Zoo. Devi is country's oldest surviving leopard presently. Prior to Raipur, the oldest leopard was at Lucknow Zoological Garden, which survived for 23 years. **Nandanvan zoo is located in Chattisgarh.**

'Adopting BS-VI norms will make diesel vehicles costlier'

According to a statement issued by ICRA Ratings, "Indian government's decision to leapfrog the Bharat Stage (BS)-V Emission Standards and implement the BS-VI norms by April 2020, four years ahead of the earlier schedule, will make diesel vehicles costlier by Rs.70,000 to Rs.1,50,000."

- The diesel segment is likely to witness a sizeable price increase due to introduction of additional components. However, the cost of petrol passenger vehicles may increase by 20,000-30,000 per vehicle.
- Also, as diesel vehicles would require significant technology changes, the cost differential between petrol and diesel passenger vehicles would expand further.

Background:

In a bid to curb vehicular pollution, the government, in January 2016 decided to implement stricter emission norms of Bharat Stage (BS) VI from April 1, 2020 by skipping BS-V altogether.

- At present, BS-IV auto fuels are being supplied in whole of northern India covering J&K, Punjab, Haryana, Himachal Pradesh, Uttarakhand, Delhi, parts of Rajasthan and western UP. The rest of the country has BS-III grade fuel.

What are BS norms?

Bharat Stage emission standards, introduced in 2000, are emission standards that have been set up by the Central government to regulate the output of air pollutants from internal combustion engine equipment, including motor vehicles.

- The different norms are brought into force in accordance with the timeline and standards set up by the Central Pollution Control Board which comes under the Ministry of Environment and Forests and Climate Change.
- The Bharat Stage norms are based on European regulations. In 13 major cities, Bharat Stage IV emission standards were put in place in April 2010. BS-IV norms were supposed to come into effect nationwide from April 2017.

States told to withdraw tobacco packs without 85 p.c. pictorial warning

The Centre has set May 31 deadline for the States and Union Territories to withdraw from the market tobacco products whose 85% packaging space is not covered with pictorial warning. It has also requested the Chief Secretaries of all States and Union Territories to take steps for strict enforcement of the new rules on pictorial warnings.

Background:

The Pictorial Warning Rules under Cigarettes and Other Tobacco Products (Prohibition of Advertisement and Regulation of Trade and Commerce, Production, Supply and Distribution) Act (COTPA) 2003 had come into force from April 1, 2016. It prescribed larger pictorial warnings, covering 85% of the size of the packets of tobacco products, including cigarettes and beedis.

The Supreme Court too, in May 2016, had directed all tobacco companies to implement the rule mandating 85% pictorial warnings on packets of tobacco products.

GM seeds key to food security

Environment Minister Prakash Javadekar has said the use of genetically modified (GM) technology for seeds is important for improving agricultural productivity and food security.

- He said 18 field trials, testing various kinds of GM seeds, were under way but the government would take a considered view on releasing genetically modified mustard.

Background:

GM mustard, likely to be the first food-related transgenic crop and developed as part of a research collaboration involving scientists at Delhi University, sits at an inflexion point with critics alleging that such technologies are unfit for human consumption and proponents arguing that such technology is critical for India's future.

The Environment Ministry had also constituted a Genetic Engineering Appraisal Committee comprising biotechnologists, ecologists and sociologists to take a call on GM mustard.

What is a GM crop?

A GM or transgenic crop is a plant that has a novel combination of genetic material obtained through the use of modern biotechnology.

- For example, a GM crop can contain a gene(s) that has been artificially inserted instead of the plant acquiring it through pollination.
- The resulting plant is said to be “genetically modified” although in reality all crops have been “genetically modified” from their original wild state by domestication, selection, and controlled breeding over long periods of time.

Potential benefits of GM plants:

- Higher crop yields.
- Reduced farm costs.
- Increased farm profit.
- Improvement in health and the environment.

Potential risks:

- The danger of unintentionally introducing allergens and other anti-nutrition factors in foods.
- The likelihood of transgenes escaping from cultivated crops into wild relatives.
- The potential for pests to evolve resistance to the toxins produced by GM crops.
- The risk of these toxins affecting nontarget organisms.

Diesel Cars Older Than 10 Years Can't Run In Kerala, Rules Green Tribunal

The National Green Tribunal's (NGT) bench in Kerala's Kochi district has ordered all diesel vehicles older than 10 years in six major cities of the state to be taken off the roads in the next 30 days. Six cities are- Thiruvananthapuram, Kollam, Kochi, Thrissur, Kozhikode and Kannur.

- Also, no new permits for vehicles with more than 2000 cc engine capacity except public transport will be given and violators will be fined Rs. 5000.

Implications of this order:

Estimates suggest that the NGT's order could well paralyse the existing transport system but some say it is a step necessary to check increasing pollution levels. 40,000 heavy motor vehicles and 98000 light motor vehicles – the second category mostly owned by the common man – are likely to be affected by the new order.

National Green Tribunal (NGT)

The National Green Tribunal has been established under the National Green Tribunal Act 2010 for effective and expeditious disposal of cases relating to environmental protection and conservation of forests and other natural resources including enforcement of any legal right relating to environment and giving relief and compensation for damages to persons and property and for matters connected therewith or incidental thereto.

- It is a specialized body equipped with the necessary expertise to handle environmental disputes involving multi-disciplinary issues. The Tribunal shall not be bound by the procedure laid down under the Code of Civil Procedure, 1908, but shall be guided by principles of natural justice.
- The Tribunal's dedicated jurisdiction in environmental matters shall provide speedy environmental justice and help reduce the burden of litigation in the higher courts.
 - The Tribunal is mandated to make and endeavour for disposal of applications or appeals finally within 6 months of filing of the same.

Members:

- The sanctioned strength of the tribunal is currently 10 expert members and 10 judicial members although the act allows for up to 20 of each.
- The Chairman of the tribunal who is the administrative head of the tribunal also serves as a judicial member.
- Every bench of the tribunal must consist of at least one expert member and one judicial member. The Chairman of the tribunal is required to be a serving or retired Chief Justice of a High Court or a judge of the Supreme Court of India.
- Members are chosen by a selection committee (headed by a sitting judge of the Supreme Court of India) that reviews their applications and conducts interviews.
- The Judicial members are chosen from applicants who are serving or retired judges of High Courts. Expert members are chosen from applicants who are either serving or retired bureaucrats not below the rank of an Additional Secretary to the Government of India (not below the rank of Principal Secretary if serving under a state government) with a minimum administrative experience of five years in dealing with environmental matters. Or, the expert members must have a doctorate in a related field.

Other notable facts:

- The Tribunal has Original Jurisdiction on matters of “substantial question relating to environment” (i.e. a community at large is affected, damage to public health at broader level) & “damage to environment due to specific activity” (such as pollution). However there is no specific method is defined in Law for determining “substantial” damage to environment, property or public health.
- The powers of tribunal related to an award are equivalent to Civil court and tribunal may transmit any order/award to civil court have local jurisdiction.
- Also Tribunal is competent to hear cases for several acts such as Forest (Conservation) Act, Biological Diversity Act, Environment (Protection) Act, Water & Air (Prevention & control of Pollution) Acts etc. and also have appellate jurisdiction related to above acts after establishment of Tribunal within a period of 30 days of award or order received by aggrieved party.
- The NGT Act says that decision taken by majority of members shall be binding and every order of Tribunal shall be final. Any person aggrieved by an award, decision, or order of the Tribunal may appeal to the Supreme Court within 90 days of commencement of award but Supreme Court can entertain appeal even after 90 days if appellant satisfied SC by giving sufficient reasons.

Facts for Prelims:

- U.S. President Barack Obama has **lifted a decades-old arms export embargo on Vietnam** during his first visit to the communist country. The removal of the ban on lethal weapons is part of deeper defense cooperation between the two countries. Arms sales ban was a product of the Cold War.
- Kashmiri writers and poets are up in the arms. They say a proposal of Ministry of Human Resource Development (MHRD) to introduce **Devnagri** as alternate script for Kashmiri language is dangerous and will divide the society. **Presently Kashmiri is written in Nastaliq or Perso-Arabic script** and has been approved by state legislative assembly six decades ago.
- The Navy has commissioned **INS Tarmugli**, the highly manoeuvrable fast attack craft, at the Eastern Naval Command (ENC). It will be deployed for coastal patrol and surveillance operations along the eastern coast. INS Tarmugli is the first Follow-on Water Jet Fast Attack Craft (WJFAC), built by Garden Reach Shipbuilders and Engineers Ltd (GRSE). The ship is an improved version of WJFAC, earlier constructed by GRSE. Named after an island in the Andaman group, the 320-tonne ship,

measuring 48 metres can achieve speeds in excess of 30 knots.

India signs \$100 mn loan agreement with World Bank

Indian government has signed a \$ 100 million loan agreement with multilateral lending agency World Bank for **Karnataka Urban Water Supply Modernisation Project**.

Details:

- The project aims to provide access to a continuous piped water supply in various cities in Karnataka and strengthen the service delivery arrangements at the city level.
- Karnataka Urban Infrastructure Development & Finance Corporation (KUIDFC) is the implementing agency for the project.
- The project will have four broad components – capital investment programme, institution building, technical assistance for sector development and project management.
- It will be implemented over a period of six years.

Tribunal pulls up SEBI for lack of uniformity in penalising players

A recent order by the Securities Appellate Tribunal (SAT) has brought to the fore the issue of lack of uniformity in actions taken by the Securities and Exchange Board of India (SEBI) in similar offences by different market participants.

Background:

The order came based on an appeal filed by Almondz Global Securities Ltd. The company had alleged that SEBI has imposed stricter penalties while similar offences by other entities saw a much lenient penal action by SEBI officials. SAT has quashed the remaining punishment against the merchant banker after highlighting this fact.

About SAT:

Securities Appellate Tribunal is a statutory body established under the provisions of Section 15K of the Securities and Exchange Board of India Act, 1992 to hear and dispose of appeals against orders passed by the Securities and Exchange Board of India or by an adjudicating officer under the Act and to exercise jurisdiction, powers and authority conferred on the Tribunal by or under this Act or any other law for the time being in force. It covers the whole of India.

Indian Ocean Rim nations to boost cooperation on SEZs

India and several other nations bordering the Indian Ocean have decided to evolve a regional mechanism for cooperation on Special Economic Zones (SEZ) – or duty-free enclaves with tax holidays — to boost exports.

- This was decided at the recently held first-of-its-kind meeting between SEZ authorities from Indian Ocean Rim (IOR) nations at Chabahar, Iran. Notably, Chabahar houses a Free Trade Zone (FTZ) – a synonym for SEZs.
- The meeting comes at a time of global economic and trade slowdown and attempts are being made by countries to boost growth through trade.

About IORA:

The **Indian Ocean Rim Association (IORA)**, formerly known as the Indian Ocean Rim Initiative and Indian Ocean Rim Association for Regional Cooperation (IOR-ARC), is an international organisation consisting of coastal states bordering the Indian Ocean.

- The IORA is a regional forum, tripartite in nature, bringing together representatives of Government, Business and Academia, for promoting co-operation and closer interaction among them.
- It is based on the principles of Open Regionalism for strengthening Economic Cooperation particularly on Trade Facilitation and Investment, Promotion as well as Social Development of the region.
- The Coordinating Secretariat of IORA is located at Ebene, Mauritius.
- The organisation was first established as Indian Ocean Rim Initiative in Mauritius on March 1995 and formally launched in 1997 by the conclusion of a multilateral treaty known as the Charter of the Indian Ocean Rim Association for Regional Co-operation.
- The Association comprises 20 member states and 7 dialogue partners, the Indian Ocean Tourism Organisation and the Indian Ocean Research Group has observer status.

Objectives of IORA:

- To promote sustainable growth and balanced development of the region and member states.
- To focus on those areas of economic cooperation which provide maximum opportunities for development, shared interest and mutual benefits.

- To promote liberalisation, remove impediments and lower barriers towards a freer and enhanced flow of goods, services, investment, and technology within the Indian Ocean rim.

ISRO to test rocket that takes its fuel from air

Indian Space Research Organisation (ISRO) is planning to test an **air-breathing propulsion system**, which aims to capitalise on the oxygen in the atmosphere instead of liquefied oxygen while in flight.

Details:

Generally, vehicles used to launch satellites into space use combustion of propellants with oxidiser and fuel. However, the new Air breathing propulsion system aims to use oxygen present in the atmosphere up to 50 km from the earth's surface to burn the fuel stored in the rocket.

Benefits:

- This system would help in reducing the lift-off mass of the vehicle since liquefied oxygen need not be carried on board the vehicle.
- This would also help increasing the efficiency of the rocket and also make it cost-effective.
- It would also complement ISRO's aim to develop a reusable launch vehicle, which would have longer flight duration.

Potassium bromate in same cancer class as coffee

According to a report by the Centre for Science and Environment, 84% of 34 bread types sold in India contain potassium bromate, a carcinogen. Potassium bromate is the chemical additive widely prevalent in bread and refined flour.

- Following this, food regulator FSSAI said it has decided to remove potassium bromate from the list of permitted additives.

Background:

A 1982 study in Japan stated that potassium bromate causes cancer. Following this, many countries including Japan, UK, China and Australian banned this compound.

What is Potassium Bromate and how it works?

It is added to wheat flour to strengthen the dough and to allow it to rise higher. It bleaches the dough and increases its elasticity by making tiny bubbles that help the bread rise.

- However, the real problem arises when bromate flour isn't baked for long enough or at a high enough temperature, or if too much potassium bromate is added in the first place.

Health impacts:

- The chemical is said to cause renal tubular tumours (adenomas and carcinomas) thyroid follicular tumours peritoneal mesotheliomas in laboratory animals.
- Also, long-term carcinogenicity studies and in vivo and in vitro mutagenicity studies showed that potassium bromate was a “genotoxic carcinogen” or a chemical agent that damaged genetic information, causing mutations.

Lucknow, Warangal among 13 smart cities announced by govt.

The Union government has announced the names of 13 more cities that will be developed under the Centre’s “Smart City Mission.”

- These cities were chosen from the 23 that failed to get representation in the first round of a competition held in January, and participated in the “fast-track competition.”
- Lucknow tops the list, followed by Warangal in Telangana and Dharamshala in Himachal Pradesh.
- With this, the investment proposed by 33 cities under the smart city plans is now Rs. 80,789 crore.

Smart cities mission:

The Smart Cities mission was launched in June 2015 with the government releasing the guidelines and mission statement for the 100 Smart Cities project. It will provide central funding of Rs 50,802 crore to the selected cities for improving their infrastructure and service delivery through application of better technology and e-governance.

- States and Urban local Bodies (ULBs) will play a key supportive role in the development of Smart Cities. Smart leadership and vision at this level and ability to act decisively will be important factors determining the success of the Mission.

Funding:

According to mission guidelines, the total State and Central financial assistance for each smart city would be Rs. 1,000 crore. The central government will grant every winning city a sum of Rs. 500 crore as overall cache of start-up funds and the State governments will provide an additional Rs. 500 crore.

SPV:

- The Central government has created an outside agency named Special Purpose Vehicle (SPV), which will be headed by a CEO, and will be given powers to “execute” the proposed developments and projects.

- The professionally managed SPV will be empowered to execute the smart city projects in a timely and cost-effective manner while ensuring that the quality of the outcomes is benchmarked against global standards.

What are smart cities?

A ‘smart city’ is an urban region that is highly advanced in terms of overall infrastructure, sustainable real estate, communications and market viability. It is a city where information technology is the principal infrastructure and the basis for providing essential services to residents. There are many technological platforms involved, including but not limited to automated sensor networks and data centres.

The core infrastructure in a smart city would include:

- Adequate water supply.
- Assured electricity supply.
- Sanitation, including solid waste management.
- Efficient urban mobility and public transport.
- Affordable housing, especially for the poor.
- Robust IT connectivity and digitalization.
- Good governance, especially e-Governance and citizen participation.
- Sustainable environment.
- Safety and security of citizens, particularly women, children and the elderly.
- Health and education.

Facts for Prelims:

- Andhra Pradesh is all set to become the **state with highest solar capacity** in the country. A total capacity of 4,000 MW, the highest in the country, with Rs.225.5 crore has already been sanctioned. A total of 33 solar parks have been commissioned across the country under the Centre’s scheme for the development of solar parks and ultra mega solar power projects. Under this scheme, it is proposed to set up at least 25 solar parks and ultra mega solar power projects targeting over 20,000 MW of solar power installed capacity within a span of five years starting from 2014-15.
- Odisha governor has promulgated an **ordinance for the mandatory use of Odia in all official communication**. It empowers the state government to formulate laws to implement Odisha Official Language Act, 1954. Article 345 of the Indian Constitution deals with the official

language of a state. It empowers state legislature to adopt 'any one or more of the languages in use in the State or Hindi as the language or languages to be used for all or any of the official purposes' of the concerned State.

SC erred in disaster relief order?

In a bid to protect lives of citizens reeling under severe drought in several states, the Supreme Court recently directed the centre to set up a National Disaster Mitigation Fund (NDMF) under a non-operational statutory provision.

What's the issue now?

According to some experts, the court has committed a mistake by asking the centre to do so. For, **Section 47** of the Disaster Management Act, which provides for setting up of NDMF for projects exclusively for the purpose of mitigation- measures aimed at reducing the risk of disaster, **has not yet been notified**.

As a result of this mistake, the SC ended up directing the Centre to implement a provision of law which for all practical purposes is non-existent.

DM Act:

The Disaster Management Act, 2005 came into force in India in January 2006. The Act **extends to the whole of India**. The Act provides for "the effective management of disasters and for matters connected therewith or incidental thereto."

- The Act calls for the establishment of **National Disaster Management Authority (NDMA)**, with the **Prime Minister of India as chairperson**.
- The Act enjoins the **Central Government to Constitute a National Executive Committee(NEC) to assist the National Authority**.
- **All State Governments are mandated to establish a State Disaster Management Authority (SDMA)**.

Government approves MoU between ISRO and the UAE Space Agency

The government has given its nod for signing an MoU between **ISRO and the UAE Space Agency (UAESA)**, a move that will lead to setting up a Joint Working Group between the two agencies and will help in cooperation in the exploration of outer space for peaceful purposes.

Details:

- This MoU will help in cooperation in the exploration of outer space for peaceful purposes, especially in the field to study Mars.

- The MoU would result in setting up a Joint Working Group with members from Indian Space Research Organisation (ISRO) and UAESA, which will further chalk out a plan of action including the time-frame and the means of implementing it.

UAE Mars mission:

The Emirates Mars Mission orbiter is set to arrive at Mars in 2021 to coincide with the 50th anniversary of the founding of the UAE. The rocket is expected to blast off from the Earth during a brief "launch window" in July 2020 and is set to arrive at Mars in 2021. The move is remarkable as the **UAE will be the only Gulf nation** to have embarked on such ambitious project.

National Capital Goods policy gets nod

The Union cabinet has approved the National Capital Goods policy, which is likely to create 30 million jobs and raise production to Rs 7.5 lakh crore from the current Rs 2.3 lakh crore.

Details:

- The policy envisages increasing exports to 40% of production from the current 27%. It will increase the share of domestic production in India's demand from 60% to 80%, making India a net exporter of capital goods.
- It also aims to facilitate improvement in technology depth across sub-sectors, increase skill availability, ensure mandatory standards and promote growth and capacity building of MSMEs.
- The policy will help in realising the vision of 'Building India as the World class hub for Capital Goods'.
- The objectives of the policy will be met by the Department of Heavy Industry in a time bound manner through obtaining approval for schemes as per the roadmap of policy interventions.
- Some of the key issues addressed include availability of finance, raw material, innovation and technology, productivity, quality and environment-friendly manufacturing practices, promoting exports and creating domestic demand.

Background:

The idea of a National Capital Goods Policy was first presented by the department of heavy industry to the PM in the 'Make in India' workshop held in December, 2014.

PM's interaction through PRAGATI

The Prime Minister, Shri Narendra Modi, recently chaired his 12th interaction through PRAGATI – the ICT-based, multi-modal platform for Pro-Active Governance and Timely Implementation.

- The Prime Minister reviewed the progress towards handling and resolution of grievances related to disbursement of scholarships/fellowships to students. He sought to know the reasons for the delay, and enquired about the progress of Aadhaar-linkage to disbursement of benefits to students.
- The Prime Minister also reviewed the progress of vital infrastructure projects in the road, railway, steel and power sectors, spread over several states including Tripura, Mizoram, Uttar Pradesh, Karnataka, Odisha, Telangana, Chhattisgarh and Maharashtra.

PRAGATI:

PRAGATI is a unique integrating and interactive platform. The platform is aimed at addressing common man's grievances, and simultaneously monitoring and reviewing important programmes and projects of the Government of India as well as projects flagged by State Governments.

Unique features:

- The PRAGATI platform uniquely bundles **three latest technologies: Digital data management, video-conferencing and geo-spatial technology.**
- It also offers a unique combination in the direction of **cooperative federalism** since it brings on **one stage the Secretaries of Government of India and the Chief Secretaries of the States.**
- With this, the Prime Minister is able to discuss the issues with the concerned Central and State officials with full information and latest visuals of the ground level situation. It is also an innovative project in e-governance and good governance.
- It is a **three-tier system** (PMO, Union Government Secretaries, and Chief Secretaries of the States).
- Issues to be flagged before the PM are picked up from the available database regarding Public Grievances, on-going Programmes and pending Projects.
- The system will ride on, strengthen and re-engineer the data bases of the CPGRAMS for grievances, Project Monitoring Group (PMG) and the Ministry of Statistics and Programme Implementation. PRAGATI provides an interface and platform for all these three aspects.

- It will also take into consideration various correspondences to PM's office by the common people or from high dignitaries of States and/or developers of public projects.
- It is also a robust system for bringing e-transparency and e-accountability with real-time presence and exchange among the key stakeholders.
- The system has been designed in-house by the PMO team with the help of National Informatics Center (NIC).

Amendments to ST order

The Union Cabinet chaired by the Prime Minister Shri Narendra Modi has given its approval for introduction of two Bills in the Parliament for certain amendments in the Constitution (Scheduled Tribes) Order, 1950 so as to modify the list of Scheduled Tribes in respect of five States, namely, Assam, Chhattisgarh, Jharkhand, Tamil Nadu, Tripura and identification of new communities in the Union Territory of Puducherry.

Background:

The Constitution of India provides certain privileges/concessions to the members of Scheduled Tribes which are notified under the provisions of **Article 342 of the Constitution of India.** First list of Scheduled Tribes in relation to a State or Union Territory is to be issued by a notified Order of the President after having consultation with the State Government concerned. Any subsequent inclusion in or exclusion from the list of Scheduled Tribes can be effected through an Act of Parliament as envisaged under clause (2) of Article 342.

Rs.5,534 cr investment in basic urban infra under Atal Mission approved in 6 States for 2016-17

The Centre has approved an investment of over Rs 5,530 crore for providing basic infrastructure in over 110 cities across six states under AMRUT scheme for the current fiscal.

- The central assistance to these states – Madhya Pradesh, Gujarat, Rajasthan, Odisha, Jharkhand and Meghalaya – will be to the tune of Rs 2,453 crore.
- The funds will be used for providing household water taps, improving water supply, sewerage networks/sewage management, storm water drains, urban transport and provision of open and green spaces in these cities.

About AMRUT:

- AMRUT is the new avatar of the Jawaharlal Nehru National Urban Renewal Mission (JNNURM).
- AMRUT adopts a project approach to ensure basic infrastructure services relating to water supply, sewerage,

storm-water drains, transportation and development of green spaces and parks with special provision for meeting the needs of children.

- Under this mission, 10% of the budget allocation will be given to states and union territories as incentive based on the achievement of reforms during the previous year.
- AMRUT will be implemented in 500 locations with a population of one lakh and above. It would cover some cities situated on stems of main rivers, a few state capitals and important cities located in hilly areas, islands and tourist areas.
- Under this mission, states get the flexibility of designing schemes based on the needs of identified cities and in their execution and monitoring.
- States will only submit state annual action Plans to the centre for broad concurrence based on which funds will be released. But, in a significant departure from JNNURM, the central government will not appraise individual projects.
- Central assistance will be to the extent of 50% of project cost for cities and towns with a population of up to 10 lakhs and one-third of the project cost for those with a population of above 10 lakhs.
- Under the mission, states will transfer funds to urban local bodies within 7 days of transfer by central government and no diversion of funds to be made failing which penal interest would be charged besides taking other adverse action by the centre.

Centre prepares to dilute wetland protection rules

The Union environment ministry has proposed to overhaul the regulations which identify and protect wetlands under the Environment Protection Act (EPA).

The Environment Ministry has made the following proposals:

- The time-bound process set under the regulations of 2010 should be done away with, along with the existing central authority, leaving it almost entirely in the hands of state governments.
- A state-level authority should be constituted to identify the wetlands. It will be headed by the chief minister and includes the chief secretary and other state officials, with four experts on board, who can also be from the government. The recommendations of this CM-headed authority are to be then sent to the state government for approval or rejection. The Centre will only be informed of the decision by the state. Only the 26 Ramsar wetland sites will get automatic protection.

- Wetlands would be put to 'wise use for maintaining ecological character, achieved through implementation of eco-system approaches, within the context of sustainable development'. These terms have not been strictly defined in law and are only conceptually explained in the regulations.

- Do away with the elaborate list of activities that are prohibited or restricted. But, prohibit reclamation of wetlands, conversion to non-wetlands, diversion or impediment of inflows and outflows from the wetland and 'any activity having or likely to have adverse impact on ecological character of the wetland'. However, the rules then give the Centre powers to allow these activities as well. The need for the environmental impact assessment before permitting such activities is also to be done away with.

- Also, appeals against the decisions of the central wetlands authority with the NGT are not allowed. But, aggrieved entities can file cases against violations of these rules.

Background:

The 2010 regulations created a central authority of government officers and experts to oversee the protection of wetlands. It gave a fixed time for states to identify and demarcate wetlands and the Centre again a fixed time period to notify and protect these, as is now done for environmental and forest clearances.

- The process of identifying and demarcating the wetlands included recommendations and advice of scientific experts at state levels. Some wetlands falling in high altitudes and ecologically sensitive areas, beside the 26 Ramsar Convention sites, were to be automatically given protection.

- The 2010 regulations prohibited seven types of activities in wetlands, such as reclamation and setting up of new or expansion of existing industries. It required prior state government permission be sought for an array of other activities impacting wetlands. And, that the permission be given following an environmental impact assessment as required under the EPA.

- Also, the central government held the power of permitting any activity on the recommendation of the central wetlands authority, which had four independent experts on board.

- The earlier regulations allowed appeals against the decisions of the central wetlands authority with the NGT.

Three new defence ministry committees search for radical reform

Defence Minister Manohar Parrikar has convened a set of independent committees to recommend reforms in the defence sector.

- The committees include one charged with reshaping the basic patterns of defence spending; another with galvanising defence procurement by restructuring the ministry's acquisitions agency; and five sub-committees that evaluate how to bring in the private sector.

Details:

- The first committee will recommend measures to "rebalance" defence allocations between revenue and capital expenditure. With just 25 per cent of the defence budget available for equipment modernization after 75 per cent goes on running expenses, especially on a bloated manpower bill, the committee will look at how to cut down manpower without reducing the military's combat capability.
- A second committee has been constituted to study "the setting up of a Defence Procurement Organisation in the Government of India." The committee is required to suggest the functional mandate of the proposed procurement body, its organisation and staffing, and to suggest how autonomously it could function.
- A third group of sub-committees has been constituted to salvage the "strategic partners" (SPs) model for private sector participation in "Make in India", which the Dhirendra Singh committee had recommended last year and which was further given shape by the VK Aatre Task Force early this year.

Why Jan-Dhan Yojana is gaining currency in Uttar Pradesh & West Bengal

According to a study, Jan-Dhan Yojana has more takers in Uttar Pradesh and West Bengal than any other state. Data show that the two states account for more than one-fourth of deposits accrued so far.

- As of May 18, Jan-Dhan Yojana had garnered deposits of around Rs 37,775 crore. Of this, the share of Uttar Pradesh was Rs 5,916 crore, while West Bengal's was Rs 4,932 crore. Thus, the two states accounted for nearly 29% of deposits amassed so far.
- Also, Uttar Pradesh and West Bengal account for 24% of total accounts opened under the scheme. So far, about 219 million accounts have been opened under Jan-Dhan Yojana, of which around 57 million are zero-balance accounts.

Why so?

According to the study, one of the reasons for higher deposit mobilisation in Uttar Pradesh and West Bengal is the lack of formal banking facilities, particularly in rural areas in the two states.

- Also, in West Bengal, after the collapse of the unregulated financial sector due to the Saradha scam, there has been an increase in deposit collection from rural areas. Notably, in West Bengal, of the total of about 19 million accounts under Jan-Dhan Yojana, nearly 13 million are rural accounts. In Uttar Pradesh, of the nearly 33 million accounts, close to 20 million are rural accounts.

About Jan-Dhan Yojana:

Jan-Dhan Yojana, launched in 2014, envisages universal access to banking facilities with at least one basic banking account for every household, financial literacy, access to credit, insurance and pension facility. In addition, the beneficiaries get RuPay debit card, with inbuilt accident insurance cover of Rs 1 lakh.

The plan also envisages channelling all government benefits from Centre, state and local body to the beneficiary accounts and pushing the Direct Benefit Transfer (DBT) scheme of the Union government.

Bankruptcy Code of limited use for current asset woes: Moody's

Pointing to the limited legal infrastructure at hand, rating agency Moody's has said banks in India may get limited help from the new Bankruptcy Code to solve current asset quality woes. It said the bankruptcy law was credit positive for Indian banks, but challenges remained.

- According to Moody's, banks in India would still have limited avenues available to dispose of distressed assets. The lenders would, in general, remain reluctant to make appropriate haircuts to reflect their current weak operating conditions.

Details:

- Moody's noted, "India's new Bankruptcy Code would significantly boost the bargaining power of creditors against large debtors for the resolution of distressed assets. However, the current weak legal framework for asset resolution remains a key structural credit weakness for Indian banks."
- Moody's has pointed out significant infrastructure constraints to be overcome before the framework could become fully operational. Legal resources and information utilities have to be built to support the new restructuring procedure.
- Another constraint that had to be dealt with was the time required for various stakeholders to accumulate the requisite legal experience and precedents for the new system to be fully up and running.

Background:

The Parliament, in May 2016, passed the Insolvency and Bankruptcy Code Bill, 2016. The code seeks to ensure time-bound settlement of insolvency, faster turnaround of businesses and create a unified data base of serial defaulters.

- The Code will consolidate and amend existing laws related to insolvency resolution and reorganization of corporate persons, partnership firms and individuals in a time bound manner.
- It provides for setting up Insolvency and Bankruptcy Board of India (IBBI) to regulate professionals, agencies and information utilities (IUs) engaged in resolution of insolvencies of companies.
- It also provides for establishment of National Companies Law Tribunal (NCLT) and Debt Recovery Tribunals (DRT) as nodal adjudicating authorities for resolution of insolvency, liquidation and bankruptcy.
- The code seeks to give a push to the ease of doing business in the country.

Facts for Prelims:

- The Indian Coast Guard ship 'Arush', the seventeenth in the series of twenty Fast Patrol Vessels (FPVs) was recently commissioned at Kochi. It is designed and built by M/s Cochin Shipyard Limited.
- According to the International Renewable Energy Agency's (Irena) Annual Review 2016, **India ranks fifth in the world in renewable energy (RE) job creation**, with 416,000 employed in the sector during 2015. In the world, 8.1 million persons are employed in the clean energy space. China tops the list with 3.5 million, followed by Brazil with 918,000.
- RBI has directed all banks and white-label ATM operators to have **chip-and-pin based card infrastructure**. Earlier, the regulator has directed banks to issue only chip-and-pin based cards and migrate old cardholders to these new cards. RBI said though the cards comply with the new norms, ATMs continue to process card transactions based on data from the magnetic stripe, the old system. As a result, cards being used in ATMs are more prone to skimming frauds.

North Eastern Council likely to be upgraded as resource centre

Prime Minister Narendra Modi, during the recently held the North Eastern Council Plenary meeting, hinted at the possibility of upgrading the North Eastern Council (NEC) as a state-of-the-art resource centre capable of meeting the

aspirations of the people. The meeting was attended by Governors and Chief Ministers of all North Eastern states.

- At the meeting, the PM also said that his government intends to connect all north-eastern States by rail and upgrade road, telecom and power networks.
- He also dedicated to the nation the **Doppler Weather Radar at Cherrapunji**.

About the North Eastern Council:

The North Eastern Council is the nodal agency for the economic and social development of the North Eastern Region which consists of the eight States of Arunachal Pradesh, Assam, Manipur, Meghalaya, Mizoram, Nagaland, Sikkim and Tripura. The chief ministers and governors represent them.

- The **headquarters of the council is situated in Shillong**, and it **functions under Ministry of Development of North Eastern Region**.
- The North Eastern Council was **constituted in 1971 by an Act of Parliament**.
- The Council is an **advisory body** and may discuss any matter in which the north-eastern states have a common interest and advise the Central Government as to the action to be taken on any such matter.
- The funding of council mainly lies with the central government with small portions contributed by the state governments as well.
- The NEC act has been amended in 2002 to add Sikkim and restructure it as the regional planning body for the North Eastern Region.

Launching Aditya-L1 satellite for solar study underway- ISRO chairman

ISRO chairman Kiran Kumar recently revealed that the scientific mission of launching Aditya-L1 satellite for solar studies is underway. Aditya-L1 is slated for lift-off in 2018-2019.

About the mission:

- It is India's **first solar mission**. It will study the sun's outer most layers, the corona and the chromospheres and collect data about coronal mass ejection, which will also yield information for space weather prediction.
- The project costs approximately Rs 400 crores and is a joint venture between ISRO and physicists from Indian Institute of Astrophysics, Bengaluru; Inter University Centre for Astronomy and Astrophysics, Pune; Tata

Institute of Fundamental Research, Mumbai, and other institutes.

- The data from Aditya mission will be immensely helpful in discriminating between different models for the origin of solar storms and also for constraining how the storms evolve and what path they take through the interplanetary space from the Sun to the Earth.
- In order to get the best science from the sun, continuous viewing of the sun is preferred without any occultation/ eclipses and hence, Aditya- L1 satellite will be placed in the **halo orbit** around the **Lagrangian point 1 (L1)** of the sun-earth system.

What are Lagrangian points and halo orbit?

Lagrangian points are the locations in space where the combined gravitational pull of two large masses roughly balance each other. Any small mass placed at that location will remain at constant distances relative to the large masses. There are five such points in Sun-Earth system and they are denoted as L1, L2, L3, L4 and L5. A halo orbit is a periodic three-dimensional orbit near the L1, L2 or L3.

Panel submits report on new education policy

A committee headed by the former Cabinet secretary **T.S.R. Subramanian** for the evolution of the soon-to-be-announced national education policy has submitted its report to the Human Resource Development Ministry.

- The Committee has examined a large body of outcome documents, recommendations and suggestions received and also had several meetings with various stakeholders and undertook field visits to educational institutions.

Background:

The HRD Ministry had undertaken a consultation process for framing a New Education Policy (NEP) and this process included online, grassroots and national level thematic deliberations on 33 themes.

Facts for Prelims:

- Ministry of Power and the United States Agency for International Development (USAID) have launched **India's first integrated web portal** (www.nzeb.in) designed to promote and mainstream **Net Zero Energy Buildings (NZEB)** in India. A first of its kind, the portal provides complete information about Net Zero Energy Buildings – those that generate as much energy as they use – as well as how to achieve near-zero energy status through the use of efficient lighting and equipment, integration of renewable energy technologies, and best practice design strategies. In addition, the portal hosts

the NZEB Alliance, an industry-wide body setup to drive the Indian markets toward highly energy-efficient buildings.

- **Lakshadweep** has become the **first Union Territory (UT) to sign “24×7 Power for All” document**. The document chalks out a plan to increase solar capacity of the region from **2.15 MW to 8.45 MW**. At present, 10 inhabited islands of Lakshadweep are being fed by diesel mostly. The plan also envisions reduction of AT & C losses from current level of **21% to 6.7% till 2019** by increasing the collection efficiency up to 99 %. The ‘Power for All’ programme aims to provide each household access to electricity, 24×7 Power supply by 2019. As on date, 22 States have already signed the ‘24×7 Power For All’ Documents.

- Shrinking grasslands have become a cause of concern for the 344-sq km **Nameri Tiger Reserve (NTR)** in Sonitpur district in Assam. The latest assessment report on NTR's predator and prey status has revealed that it has lost nearly 50% of its grasslands between 1973 and 2011. The assessment, carried out between 2012 and 2014, said NTR has around five to eight tigers, with a big cat density of 1.3 to 1.5 tigers per 100 sq km. The tiger reserve is **bound by the Jia-Bhoreli river on its west and the Bor-Dikorai river on its east**. The **Naduar and Balipara reserved forests in Sonitpur, which forms NTR's buffer zone**, have also borne the brunt of encroachment over the years, leading to a further decline of grasslands. Located on the northern part of Sonitpur, **NTR adjoins Arunachal Pradesh's Pakke Tiger Reserve**. Despite its small size, it is known for its rich flora and fauna.

- Gurgaon is all set to have a **reserved forest zone for black bucks**. An area of 140 hectares has been allotted by the forest department that will be the reserved forest zone for the **endangered species**. The area has been sanctioned in **Sarbasirpur**. NCR already has a Sultanpur national park and bird sanctuary which is providing a habitat for migratory birds. The reserve area will be developed over a period for four years and will provide a natural habitat for the black bucks. The animal prefers grassy plains and hot and humid environment.

- Foreign Direct Investment (FDI) inflows into **India increased by 29% to a record \$40 billion** during in the financial year ended March. If re-invested earnings, other capital and equity capital of unincorporated bodies are taken into account along with \$40 billion worth equity inflows, the **total FDI flows in FY'16 is the highest-ever at \$55.4 billion**. Of the FDI inflows (equity) in FY'16, **services sector (including financial, banking, insurance, non-financial / business, outsourcing, R&D, courier, technology testing and analysis) attracted maximum investments** of \$6.88 billion followed by

computer hardware and software (\$5.90 billion), trading business (\$3.84 billion) and automobile industry (\$2.52 billion). **Maximum inflows (equity) were from Singapore** (\$13.69 billion), followed by Mauritius (\$8.35 billion), the US (\$4.19 billion), the Netherlands (\$2.64 billion) and Japan (\$2.61 billion). The previous highest FDI inflow was in FY12 when the country received \$46.55 billion, which was a 34 per cent increase over \$34.8 billion it got in FY11.

India to 'export' #TwitterSeva

Micro-blogging platform Twitter is now considering the roll-out of the **Twitter Seva service** in other countries such as the U.K. and the UAE. This follows the success of the service, developed for the India market to help delivery of e-governance services.

About Twitter Seva service:

- Twitter Seva helps process a large volume of tweets and assigns them to the relevant authority for real time resolution.
- It is currently being used by Ministry of Commerce, Ministry of External Affairs and Ministry of Railways, besides the Bengaluru Police.
- Twitter India is also exploring the roll-out of the product with more ministries and state governments.
- Twitter Seva is an India-only product right now. The product had been designed and developed in the country, and the processes that Twitter had built into it are 'absolutely' India exclusive.
- Through the service, the Railway Ministry processes about 5,500 tweets per day, responding to any citizen query related to catering, cleanliness, or even urgent medical support on board a train.
- Similarly, Ministry of External Affairs processes over 6,000 tweets in a month, while the number is over 40,000 per month for Commerce Ministry and over 3,000 in a month for Bengaluru Police.

European Space Agency discovers chemical building blocks for signs of life

Scientists have discovered ingredients regarded as crucial to the origins of life in a comet the European Space Agency (ESA) has been probing for two years.

- Scientists have discovered these key organic compounds in **Comet 67P/Churyumov-Gerasimenko** (also known as **Rosetta's comet**), bolstering the notion these celestial

objects delivered such chemical building blocks for life long ago to Earth and throughout the solar system.

- With this, scientists now say possible impact of small bodies on a forming Earth drastically increased the concentration of life-related chemicals by impact on a closed water body.

Details:

- The ESA's Rosetta spacecraft made several detections of the amino acid glycine, used by living organisms to make proteins, in the cloud of gas and dust surrounding the comet.
- Glycine was previously discovered in 2006 in samples taken from comet Wild-2 during a flyby, but "possible terrestrial contamination" made analysis tough. Glycine is commonly found in proteins and phosphorus is a key ingredient of DNA.
- Scientists have also found other organic compounds, including hydrogen sulfide and hydrogen cyanide on the comet.
- Rosetta's findings are important because of the unchanging nature of celestial bodies such as comets. In contrast, Earth has gone through some dramatic changes since its formation billions of years ago.

Rosetta:

Rosetta was launched on 2 March 2004 on an Ariane 5 rocket and reached the comet on 6 August 2014, becoming the first spacecraft to orbit a comet. Rosetta took off from Earth 10 years ago carrying Philae and traveled 6.4 billion miles before arriving at the comet.

Bring brand ambassadors under Consumer Protection Act, says CAIT

Traders body Confederation of All India Traders (CAIT) has said that **brand ambassadors should be brought under the ambit of Consumer Protection Act** as consumers are often "guided" through such endorsement, irrespective of quality of product.

- CAIT has also threatened to move court if the government did not take necessary action. The body has also demanded that specific guidelines be formulated, fixing the liability of brand ambassadors.

Why this is necessary?

According to CAIT, prominent personalities of different fields are engaged by big companies to endorse their products to grab more share in the market for their products irrespective of the quality of the product and those personalities in lust of

earning huge money never care for the quality. Also, such endorsements influence customer's choice to great extent.

Background:

Recently, in its report on the Consumer Protection Bill 2015, a parliamentary panel had also suggested legal teeth to make celebrities accountable for misleading advertisements. The panel had suggested legal teeth to the Advertising Standards Council of India (ASCI) to curb misleading ads, besides proposing severe penalties, jail and cancellation of licence of those involved in food adulteration.

What the law says?

- There is no specific word in the Food Safety and Standards Act (FSSA) about the extent, or lack, of liability or duty of care of the brand ambassador, who signs on to promote the brand as its 'face' and takes on the role of a marketing representative. Sections 24 and 53 of the 2006 Act deal specifically with advertisements.
- Section 24 (1) says in general terms that "no advertisement shall be made of any food which is misleading or deceiving or contravenes the provisions of this Act, the rules and regulations made thereunder." Here, it does not explain whether the term "made" is only confined to commissioning the advertisement or its actual making. In the latter case, a brand ambassador does play a part.
- Subsection (2) of the same section says "no person shall engage himself in any unfair trade practice for the purpose of promoting the sale..." This clause does not specify who the "person" mentioned in it is, thus, making the ambit of the provision pliable.

Digital vans all set to take e-governance to rural areas

The government is all set to roll out a new campaign under which 66 digital vans, equipped with Internet and audio-visual facilities, will go to 657 districts by March 2017 to increase awareness about various e-governance services in rural and semi-urban areas.

- The aim of this campaign is to reach out to more than 10 lakh citizens and register over 1.5 lakh rural citizens for MyGov, digital locker, Aadhaar and other digital services.

Details:

- The campaign will run from May 30, 2016 to March 31, 2017. The vans will use the Internet and audio visual facilities to interact with and educate the people in rural areas, especially the youth, about the various Digital India initiatives. These vans would cover more than 13 lakh km in 13,200 man days.

- State governments, along with the Department of Posts, Department of Telecommunications (BSNL) and CSC-SPV, will play an active role in the execution of this campaign.
- A district level committee, headed by the District Collector, will foresee its ground level execution to ensure that the maximum benefit is generated out of this campaign.
- During phase 1 of the campaign till July 2016, some 16 vans will cover 34 districts in nine States — Haryana, Rajasthan, Punjab, Gujarat, Maharashtra, Chhattisgarh, Karnataka, Kerala and Andhra Pradesh.
- Rural citizens will be informed about the services offered at Common Service Centers (CSC), national scholarship portal, e-hospital, digital lockers and Aadhaar in 14 languages — Hindi, English, Gujarati, Punjabi, Tamil, Telugu, Kannada, Oriya, Bengali, Assamese, Manipuri, Urdu, Marathi and Malayalam.

Get ready for plain packaging of tobacco products

Following Australia's example, for this year's World No Tobacco Day on May 31 the World Health Organisation has called on countries to "get ready for plain packaging of tobacco products".

- The WHO's call for action comes at a time when the tide is firmly turning against the tobacco companies.

What is Plain packaging?

Plain packaging refers to "measures to restrict or prohibit the use of logos, colours, brand images or promotional information on packaging other than brand names and product names displayed in a standard colour and font style (plain packaging)".

Background:

- Against all odds, **Australia was the first country to successfully introduce plain packaging** in 2012 and has since seen a decline in smoking.
- Between December 2012 and September 2015, plain packaging together with enlarged graphic warnings and 25% tax increase since 2010 reduced average smoking prevalence among Australians aged 14 years and over by 0.55 percentage points. This reduction is would result in at least 118,000 fewer smokers.
- France, Ireland, and the U.K. have also passed legislation that makes plain packaging mandatory from May 20 this year. All cigarette packets manufactured in these countries will have to be plain, standardised in the same

drab green colour with the product name on the pack in a standard font.

- Also, experimental studies, surveys and focus group studies have also found that plain packaging achieves its objectives — deter young people from taking up smoking in the first place than making smokers to quit.

Facts for Prelims:

- Prime Minister Narendra Modi during his recent visit to Meghalaya tried his hand in beating **Khasi traditional drum** ‘Ka Bom.’
- German Chancellor Angela Merkel and French President Francois Hollande recently marked the 100-year anniversary of the **Battle of Verdun**. The Verdun battle was one of the longest in World War I, lasting more than 300 days from February to December 1916, and its commemoration has come to signify the reconciliation between Germany and France after decades of hostility and distrust following two world wars.
- The trial of **Spanish train Talgo**, the lighter and faster vehicle whose speed goes up to 115 km per hour, was recently conducted between Bareilly and Moradabad in Uttar Pradesh, as part of the Railways’ strategy to increase the speed of trains. These trains are also energy efficient. The Talgo train coaches are lightweight and designed in a way that it can run on curves without decelerating the speed.

With 4 new vaccines, govt to revamp immunisation drive

The health ministry is planning to revamp its flagship immunisation programme ‘**Mission Indradhanush**’ to include four new vaccines.

- The mission, currently providing coverage against seven life-threatening diseases, will soon also include vaccines for rotavirus, measles rubella, inactivated polio vaccine bivalent and Japanese Encephalitis for adults.

Mission Indradhanush:

Mission Indradhanush was launched by the Health & Family Welfare Ministry. The Mission was launched on **Good Governance Day** to mark the birth anniversary of **Bharat Ratna Madan Mohan Malaviya** and birthday of **Bharat Ratna Atal Bihari Vajpayee**.

Aim:

The Mission Indradhanush, depicting seven colours of the rainbow, aims to cover all those children by 2020 who are either unvaccinated, or are partially vaccinated against seven

vaccine preventable diseases which include diphtheria, whooping cough, tetanus, polio, tuberculosis, measles and hepatitis B.

Details:

- The Mission is being implemented in 201 high focus districts in the country in the first phase which have nearly 50% of all unvaccinated or partially vaccinated children (Of the 201 districts, 82 districts are in just four states of UP, Bihar, Madhya Pradesh and Rajasthan and nearly 25% of the unvaccinated or partially vaccinated children of India are in these 82 districts of 4 states).
- These districts will be targeted by intensive efforts to improve the routine immunization coverage.
- The campaign is part of the **Universal Immunisation Programme** by 2020 and is being implemented under the National Health Mission across the country.
 - Between 2009-2013 immunization coverage has increased from 61% to 65%, indicating only 1% increase in coverage every year. To accelerate the process of immunization by covering 5% and more children every year, the Mission Mode has been adopted to achieve target of full coverage by 2020.
 - The focused and systematic immunization drive will be through a “catch-up” campaign mode where the aim is to cover all the children who have been left out or missed out for immunization.
- The learnings from the successful implementation of the polio programme will be applied in planning and implementation of the mission.
- The Ministry will be technically supported by WHO, UNICEF, Rotary International and other donor partners. Mass media, interpersonal communication, and sturdy mechanisms of monitoring and evaluating the scheme are crucial components of Mission Indradhanush.

Background:

The World Health Organization (WHO) pegs India’s vaccine coverage at less than 80%. The government is targeting to immunise 90% of infants by 2020 under its ambitious nationwide immunisation drive.

Google tax kicks in tomorrow

The finance ministry has notified that the **equalisation levy** (popularly known as Google tax) introduced in this budget, will come into force from June 1.

- As of now, it will apply to payments for online advertisements made by Indian business entities to non-residents (such as Google, Yahoo, Twitter, Facebook) where the aggregate payment in a financial year to a non-resident exceeds Rs 1 lakh. Only B2B transactions attract this levy.

Key facts:

- From June 1, an equalisation levy of 6% will have to be deducted by a business entity in India which makes payments exceeding Rs 1 lakh in the aggregate in a financial year to a non-resident service provider for specified services.
- For now, specified services cover online advertisements, provision for digital advertising space or any other facility or service for the purpose of online advertisements.
- If the non-resident service provider has a permanent establishment (place of business in India) and the bill is raised by such Indian entity, then the equalisation levy will not have to be deducted by the Indian payer.

Implications:

- This levy has come in for criticism from some quarters, as the foreign entity, will not get a foreign tax credit for such deduction in its home country. Also, as tax is already deducted at source on the payments made to the foreign entity, imposition of an equalisation levy, it is viewed amounts to double taxation.
- The equalisation levy, is expected to impact the bottom lines of companies such Google, Yahoo, Facebook, Twitter and others, unless they deal with Indian business entities via their subsidiaries in India.

Background:

A panel set up by the finance ministry to look into taxation of e-commerce transactions had, in addition to online ads, recommended a wide range of services for imposition of equalisation levy, ranging from online content; designing, creating, hosting or maintenance of a website; use or download of online music, movies, games, books et all, online search, online maps or global positioning systems (GPS) applications.

China launches three satellites

China has successfully launched a new civilian high-resolution mapping satellite along with two other foreign satellites.

Key facts:

- The mapping satellites- **Ziyuan III 02**- took off on the back of a Long March 4B rocket from the **Taiyuan** Satellite

Launch Centre in northern Shanxi Province. It was the 228th flight mission by a Long March carrier rocket.

- Also on board the rocket were two NewSat satellites developed by **URUGUS S A**, the Uruguayan subsidiary of Argentine company Satellogic.
- The Ziyuan III 02 satellite will be used for land resource surveys, natural disaster prevention, agricultural development, water resource management and urban planning, among others applications.
- It is the second satellite in the remote-sensing mapping system that the country plans to build by 2030.
- It will join its predecessor Ziyuan III 01, launched in January 2012 to form a network and capture high-definition 3-D images and multispectral data.

Hacking scare leads to norms for smartphones

Amid attempts of hacking and data theft by Pakistan and China, the government has come up with a smartphone policy for officials dealing with sensitive information.

Details:

- To begin with, the government has put curbs on officials connecting their phones to office computers.
- They will not be allowed to even to charge the phone battery. Also, every such device will have to be approved by seniors.
- The rules would apply to armed forces, intelligence officials and personnel of the Central Armed Police Forces (CAPF).

Background:

It was recently come to notice that Pakistan Intelligence Agencies were spying on Indian Security Forces by sending malwares in mobile apps such as Top Gun (Game App), mpjunkie (music App), vdjunkie (video app), talking frog (entertainment App).

Water sensing from the skies in pipeline

The CSIR-National Geophysical Research Institute (NGRI) is working on a plan to map India's groundwater reserves by a **helicopter-based electromagnetic survey**.

About the technique:

The **heliborne transient electromagnetic technique**, as it is called, involves sending electromagnetic pulses to the ground — in timed bursts — and analysing the unique pattern that

these waves make as they bounce off the freshwater or saline water reserves.

It would allow mapping potential water reserves nationwide and cost Rs.12,000 crore over 10 years. This approach would be less cumbersome than the manual methods now being used to map the groundwater.

Background:

According to the estimates from India's groundwater authority, groundwater irrigation has been expanding at a very rapid pace since 1970s and now accounts for over 60% of the total area irrigated. About 85% of the rural drinking water supply is also met from groundwater sources. The most significant change in the groundwater scenario is that the share of bore-well irrigation went up from one per cent during 1960-61 to 60% during 2006-07, according to 2008 statistics. The estimated number of wells and bore-wells is around 27 million, with bore-wells accounting for more than 50%.

Scientists devise a new method to deal with jet lag

Scientists from Nagoya University's Institute of Transformative Bio-Molecules (ITbM) in Japan have synthesized molecules that can shorten the circadian period. These new molecules can modify the sleep and wake cycle, paving the way for improved treatments for jet lag and sleep disorders.

What is jet lag?

Jet lag, also called desynchronosis and flight fatigue, is a temporary disorder that causes fatigue, insomnia, and other symptoms as a result of air travel across time zones. It is considered a circadian rhythm sleep disorder, which is a disruption of the internal body clock.

The negative impacts of jet lag and shift work could be significantly reduced if it were possible to reset our 24-hour natural circadian or sleep and wake cycle.

What is sleep cycle and how it operates?

Most living organisms, including humans, have a biological clock that resets every 24 hours, regulating functions such as sleep and wake cycles and metabolism. When this cycle is disrupted, like in jet lag, sleep disorders occur.

Long-term sleep loss may affect the cardiovascular, endocrine, immune and nervous systems with severe consequences including hypertension, obesity and mental health disorders, among others.

Human biological clock:

Our biological clock is basically run by four "master regulator" proteins that work in tandem. CLOCK and BMAL1, when combined, promote the production of the proteins PER and CRY. These proteins, in turn, block CLOCK and BMAL1, thus, closing the cycle.

This cycle of activation, production and stop or block goes around once a day and is also influenced by a compound called FBXL3, which flags CRY for degradation by cellular enzymes.

Role of newly discovered molecules:

A molecule discovered in 2012, called **KL001**, lengthens the circadian cycle by competing with **FBLX3** for the same spot on the CRY protein, preventing its degradation. By analyzing its structure, researchers prepared compounds that were similar to KL001, thus synthesizing the first circadian shortening molecules that target the CRY protein. New molecules act directly on CRY.

Facts for Prelims:

- According to a report, in the last 17 months alone, 2,234 persons across India have been infected with **human immunodeficiency virus (HIV) while getting blood transfusions**. The maximum number of such cases — 361 — was reported from **Uttar Pradesh due to unsafe blood transfusion practices in hospitals**. Gujarat with 292 cases, Maharashtra with 276 and Delhi with 264 cases are the other leading States where patients have been transfused unsafe blood. The data was revealed by National AIDS Control Organization (NACO) in response to a Right to Information query. In India, **NACO has been primarily responsible for ensuring provision of safe blood**. According to law, it is mandatory to screen donors/donated blood for transmissible infections of HIV, HBV and hepatitis C, malaria and syphilis. According to NACO's 2015 annual report, the total number of people living with HIV/AIDS (PLHIVs) in India was estimated at around 20.9 lakh in 2011. Nearly 86 per cent of these patients are in the 15-49 age-group. Children less than 15 years of age accounted for 7 per cent or 1.45 lakh of all infections in 2011 while 39 per cent (8.16 lakh) were among women.
- Music maestro A R Rahman has been announced as the recipient of **Grand Fukuoka Prize 2016** for his outstanding contribution to Asian culture through his music. He has been chosen for the honour alongside Philippines' historian Ameth R Ocampo (Academic Prize) and Yasmeen Lari from Pakistan (Arts and Culture Prize) by the secretariat of Fukuoka prize committee. The annual award was established by Fukuoka City, Japan, in 1990 with an aim to honour the outstanding work of individuals, groups and

organisations working to preserve and promote the unique and diverse culture of Asia.

- **India climbs to 41st slot on competitiveness ranking:** India has moved up three spots from last year to 41 on the IMD World Competitiveness Scoreboard, 2016. The country's ranking had fallen to 44 in 2015, from 35 in 2012. Hong Kong replaced the US as the world's most competitive economy. Switzerland, Singapore, Sweden, Denmark, Ireland, the Netherlands, Norway and Canada have got slots in the top 10. India's improvement is in sharp contrast to the sagging fortunes of other Asian countries.
- **A Memorandum of Understanding (MoU) was recently signed between Ministry of Railways and PEC University of Technology for setting up of 'Kalpana Chawla Chair' on Geospatial Technology for Indian Railways at PEC University of Technology, Chandigarh.** In order to promote research in Geo-spatial Technology, the Chair was announced in Budget speech of Hon'ble MR for the current financial year. Indian Railways would provide a corpus of Rs 10 Crore to PEC University of Technology, Chandigarh towards setting up and to meet the running expenses of this chair. The objective of this chair is to encourage research activities in Geo-spatial Technology and to strengthen Indian Railways especially Railway projects where use of remote sensing data , global positioning system (GPS) and Geographical information System (GIS) is predominant. This will immensely help Indian Railways to develop in house solutions to the problems which are often outsourced to western countries.

