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# **CHROME IAS ACADEMY**

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**ESSENTIAL FACTS –  
FEBRUARY 2019**

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**PRELIMINARY EXAMINATION - 2019**

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Essential Facts is the collection of most important news which is relevant for Civil Services Preliminary Examination. **Chrome IAS** firmly believes that this compilation will be helpful for the aspirants and will add on to their existing knowledge base.

Rig-Veda brilliantly sums up the essence of the process of preparation in a single quote, wherein it says, “**Let noble thoughts come to us from all directions**”. Chrome IAS is gradually trying to become a major stakeholder in the journey of becoming a civil servant.

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**AGRICULTURE**

**Rashtriya Kamdhenu Aayog**

- With a focus on developing and boosting rearing of indigenous cows, govt announced setting up of Rashtriya Kamdhenu Aayog.
- The move targets a sustainable genetic upgrade of cow resources to enhance production of indigenous breeds.
- With shrinking margins in animal husbandry following escalation in a variety of costs for rearing of milch animals, farmers preferred hybrid cattle, which are more productive.
- But research studies found that indigenous breeds can adjust to climate variations and have milk rich in fat and SNF content.
- Studies revealed that the productivity of indigenous breeds has lesser impact on climate change than exotic or hybrid animals.

**Fisheries**

- India is the world's second-largest fish producer.
- Constituting about 6.3 per cent of global fish production, the sector contributes 1.1 per cent of the GDP and 5.15 per cent of the agricultural GDP.
- It accounts for around 10 per cent of the total exports of the country and nearly 20 per cent of the agricultural exports.

**Categorisation of Farmers**


- Marginal : Below 1.00 hectare
- Small : 1.00-2.00 hectare
- Semi- Medium : 2.00-4.00 hectare
- Medium : 4.00-10.00 hectare
- Large : 10.00 hectare and above
- The operational holdings are also classified in three social groups, viz., Scheduled Castes, Scheduled Tribes and Others.

**PM-KISAN**

- PM-KISAN scheme, which will enable cash transfers to small and marginal farmers, will be headed by a chief executive officer (CEO) and the programme will run on a centralized software platform with real-time monitoring.

- an official familiar with the details of the initiative said on condition of anonymity.
- To implement the scheme, the government will rely on a ‘management information system platform’, a software that will connect states, banks and farmers
- The scheme will offer Rs 6,000 a year in three instalments to all farmers who own cultivable land parcels under two hectares.
- The CEO will be a civil servant.
- Cash will be transferred by the Centre to beneficiaries electronically through the “State Notional Account”, a mechanism similar to the one being used for paying beneficiaries of the Mahatma Gandhi National Rural Employment Guarantee Scheme (MGNREGS).
- Each inclusion of beneficiaries will need to be accompanied by a self-declaration that the prospective beneficiary doesn’t fall within the criteria of those excluded from the scheme, such as taxpayers and government employees.

## WHO'S IN, WHO'S OUT OF ASSURED INCOME SUPPORT

<p>Meant for <b>families of small and marginal farmers</b> having less than 5 acres of land </p> <p><b>Small &amp; marginal landholder farmer's family:</b> A family comprising husband, wife &amp; minor children who collectively own cultivable land less than 5 acres as per land records of the state/UT concerned</p> <p><b>Cut-off date</b> for determination of eligibility of beneficiaries: <b>Feb 1, 2019</b></p> <ul style="list-style-type: none"> <li>➤ No changes after cut-off date to be considered for eligibility for next 5 years</li> <li>➤ Benefit will be allowed to transferees only on succession due to death of original owners after cut-off date</li> </ul>	<p><b>EXCLUSIONS (NOT TO BE ELIGIBLE FOR BENEFIT UNDER THE SCHEME)</b></p> <p><b>A All institutional land holders</b></p> <ul style="list-style-type: none"> <li>➤ Former and present holders of constitutional posts</li> <li>➤ Former or present ministers, MPs, MLAs, mayors or chairpersons of district panchayats</li> <li>➤ All serving or retired employees of central/state govts, central or state PSEs and autonomous institutions under govt as well as regular employees of local bodies</li> </ul> <p><b>B Farmer families in which one or more of its members belong to following categories:</b></p> <p>(excluding class IV/group D employees)</p> <ul style="list-style-type: none"> <li>➤ All retired pensioners whose monthly pension is ₹10,000 or more (excluding class IV/group D employees)</li> <li>➤ All persons who paid income tax in the last assessment year</li> <li>➤ Professionals like doctors, engineers, lawyers, CAs &amp; architects registered with professional bodies</li> </ul>
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## Jute

- The government has increased the minimum support price (MSP) for raw jute by ₹250 per quintal, taking the price to ₹3,950 per quintal for the 2019-20 season.
- India is the world's largest producer of raw jute and West Bengal accounts for the majority of the country's production.

## Rainfed Farming

- Rainfed agriculture contributes to 60 per cent of the value of agriculture GDP of India.
- However, there is a clear-cut bias towards irrigated areas when it comes to public investment in agriculture in the country.
- This neglect, together with unsuitable programme design, has ensured that potential of rain-fed areas remains unrealised.
- While farmers in irrigated areas earn 60 per cent of their income from agriculture, their counterparts in rainfed areas earn only 20-30 per cent from farm-related activities.
- While the average yield in rainfed areas is about 1.1 tonnes per hectare, that in irrigated areas is about 2.8 tonnes per hectare.
- About 61 per cent of India's farmers rely on rainfed agriculture and 55 per cent of the gross cropped area is under rainfed farming.
- While the government spent ₹5,40,000 crore on procuring rice and wheat at MSP (Minimum Support Price) between 2003-04 and 2012-13, its expenditure on procurement of major rainfed crops such as coarse cereals, millets and pulses during the same period was merely ₹3,200 crore.

## Mariculture

- Plants use sunlight to produce energy for their metabolism and food production. This is referred to as photosynthesis .
- However, the efficiency of photosynthesis is rather low, just about 5% in most land crops. The most efficient land crop with 8% average is sugarcane, which is not all that edible, except for the sugar in it.
- One way to increase the efficiency of photosynthesis is to reduce what is called photorespiration in plants. Here the energy and oxygen produced in the 'light reaction' of photosynthesis is drained by the plant to make "wasteful" products in the 'dark reaction', and not just carbohydrates and other food material,

particularly when the plant's leaves close in order to reduce water loss by evaporation. If we can find ways to reduce this photorespiration, edible food yields can go up.

- The most efficient use of photosynthesis is actually not by land plants but by micro and macro algae, such as seaweeds. These are the champions, contributing to about 50% of all photosynthesis in the world.
- And many of them, notably those with dark green, red and brown colour, are edible. They are low-calorie and nutrient-dense food items and eaten by people in most parts of South East Asia – Philippines, Malaysia, Vietnam, Indonesia, China, Korea and Japan, and also in some in coastal Atlantic region.
- Peninsular India from Gujarat all way to Odisha and West Bengal has a coast line of 5,200 km, and Andaman and Nicobar together have a coast line of 2,500 km. Thus, while we have 63% of our land area for crop agriculture, we should not forget this vast coastal area, much of which breeds seaweeds.
- Thus India should embark on Mariculture as vigorously as Agriculture, given its 7,500 km-long coastal line.
- Further, it does not require pesticides, fertilizers and water for irrigation, which is an added advantage.
- Seaweeds are rich sources of vitamins A and C, and minerals such as Ca, Mg, Zn, Se and Fe. They also have a high level of vegetable proteins and omega 3 and 6 fatty acids. Best of all, they are vegetarian, indeed vegan, and do not have any fishy smell, thus good and acceptable.

### KUSUM

- The Cabinet Committee on Economic Affairs has approved launch of **Kisan Urja Suraksha evam Utthaan Mahabhiyan** with the objective of providing financial and water security to farmers.
- The proposed scheme consists of three components:
  - **Component-A:** 10,000 MW of Decentralized Ground Mounted Grid Connected Renewable Power Plants.
  - **Component-B:** Installation of 17.50 lakh standalone Solar Powered Agriculture Pumps.
  - **Component-C:** Solarisation of 10 Lakh Grid-connected Solar Powered Agriculture Pumps.
- All three components combined, the scheme aims to add a solar capacity of 25,750 MW by 2022.

**DEFENCE**

**Helina**

- India test-fired its helicopter-launched version of one of the most-advanced anti-tank weapons.
- Helina is the helicopter-launched version of the **Nag anti-tank** guided missile with a hit range of 7-8 km.

**SIG716**

- The Army signed a contract with U.S. for SIG716 assault rifles for front-line soldiers deployed in operational areas.
- The broad parameters for the weapon are an effective range of 500 m and weight of less than 3 kg.
- The new rifles will replace the Indian National Small Arms System (INSAS) rifles.
- This is the first project to be executed through the strategic partnership policy.
- Under this, the chosen Indian private company will team up with the Original Equipment Manufacturer to build the product in India.
- The EoI follows the Request for Information (RFI).

**NUH Project**

- Govt is to build 111 naval utility helicopters (NUH) in the country to replace the navy's outdated fleet of French-designed Chetak choppers.
- Defence minister-led Defence Acquisition Council (DAC) cleared the NUH project under the government's strategic partnership (SP) model that seeks to provide impetus to the Make in India programme.
- The SP model envisages local manufacturing of major defence platforms by an Indian strategic partner, which will collaborate with a foreign original equipment manufacturer (OEM) to set up production facilities in India.
- The helicopters are expected to have an indigenous content of 60%.
- As part of the NUH project, 16 choppers would be bought in a flyaway condition from the foreign OEM, and the remaining 95 will be built in the country.

- The SP policy stipulates that “a minimum number of platforms, not exceeding 10-15% of the units being procured, may be manufactured on the premises of the original equipment manufacturer”.
- The navy uses such choppers for search and rescue operations, medical evacuation, communication duties, anti-piracy and antiterrorism operations, humanitarian assistance and surveillance and targeting.

### **Defence Pacts**

- India concluded defence cooperation and security protection agreements with Germany and Sweden.
- The agreement will enable both the countries to share classified information with each other.

### **Assam Rifles**

- Assam Rifles, deployed along the Myanmar border, has been empowered by the Centre to arrest anyone and search a place without warrant in the border districts of Assam, Arunachal Pradesh, Manipur, Nagaland and Mizoram.
- Earlier, Assam Rifles was making arrests only in areas where the Armed Forces (Special Powers) Act was in effect

### **AK-103**

- India and Russia are close to concluding an Inter-Governmental Agreement (IGA) to locally bulk manufacture AK-103 assault rifles.
- The Army is looking to replace the indigenous INSAS (Indian National Small Arms System) rifles in use with a modern rifle.



**ECONOMY**

**PCA**

- The Reserve Bank of India (RBI) has decided to allow three public sector banks — Bank of India, Bank of Maharashtra and Oriental Bank of Commerce — to exit the PCA framework following capital infusion by the government and a decline in net non-performing asset ratio.
- The RBI conducted a review following a demand made by government to lift the restrictions in order to boost credit growth.
- The PCA framework is triggered when a bank breaches one of the three risk thresholds, and crossing 6% net NPAs is one of them.

**PM Kisan**

- Small and marginal farmers having less than 2 hectares of land will get an assured income support of ₹6,000 a year to help them avoid indebtedness.
- Farmers would be paid by the dole in three equal instalments of ₹2,000 each.
- In the current fiscal year, the government has allocated a sum of ₹20,000 crore for the PM Kisan scheme.
- Though it is modelled on the Raithu Bandhu launched by Telangana last year and Kalia scheme recently announced by Odisha, the scheme seemed to be smaller in scope.
- While Telangana's farmers are paid ₹5,000 per acre twice a year, the Odisha government has promised to pay a lumpsum of ₹10,000 (in two instalments for the kharif and rabi seasons).

**Core Sector**

- The eight core industries are coal, crude oil, natural gas, refinery products, fertilisers, steel and cement.
- Steel and cement continue to be the leading sectors with double-digit growth.

**Ombudsman**

- RBI has launched an ombudsman scheme to tackle frauds associated with digital transactions.

- The scheme, launched under Section 18 of the Payment and Settlement Systems Act, 2007, will provide a cost-free and expeditious complaint redressal mechanism related to deficiency in customer services in digital transactions conducted through non-banking entities regulated by the RBI.
- Complaints related to digital transactions, conducted through banks, will continue to be handled under the Banking Ombudsman Scheme.
- The scheme provides for an appellate mechanism, under which the complainant, or system participant, has the option to appeal against the decision of the ombudsman before the appellate authority.

### **Angel Tax**

- The 'angel tax', as it is commonly called, is a tax on the excess capital raised by an unlisted company through the issue of shares over and above the fair market value of those shares.
- This excess capital is treated as income and taxed accordingly.
- This tax most commonly affects start-ups and the angel investors who back them.

### **Fiscal Deficit**

- Fiscal deficit is the gap between income and expenditure of the government.
- Initially, the government pegged the deficit at 3.3 per cent of the GDP for the current fiscal.
- This has been revised to 3.4 per cent of GDP in the Interim Budget presented on February 1.

### **Unregulated Deposit Schemes**

- The Union Cabinet approved the official amendments to an Act that classifies any deposit scheme not registered with the government as an offence and bans it.
- The Cabinet has given its approval to move official amendments to the Banning of Unregulated Deposit Schemes Bill, 2018.
- The amendments will further strengthen the Bill in its objective to effectively tackle the menace of illicit deposit-taking activities, and prevent such schemes from duping poor and gullible people of their hard-earned savings.

### **Contingency Fund**

- The Reserve Bank of India (RBI) is unlikely to give in to the government's demand of transferring funds that was set aside for contingency reserves in 2016-17 and 2017-18.
- There was no precedence of such a dividend being paid, that is, from funds that have already been set aside for contingencies.
- The government has been demanding more funds as dividend from the RBI which has become a bone of contention.
- A six-member committee headed by former RBI Governor Bimal Jalan has been formed to review the economic capital framework of the central bank.

### **Unified Regulator**

- The Cabinet has approved the setting up of a unified authority that would regulate all the financial services in International Financial Services Centres (IFSC), such as the Gujarat International Finance Tec-City (GIFT) in Gandhinagar.
- This is to be done through the International Financial Services Centres Authority Bill, 2019.
- An IFSC is aimed at encouraging Indian companies that are conducting business in foreign financial centres such as London and Singapore, to bring that business to India by providing them with a global-standard regulatory and business environment.
- It would provide Indian corporates easier access to global financial markets.
- IFSC would also complement and promote further development of financial markets in India.
- Currently, the banking, capital markets and insurance sectors in IFSCs are regulated by multiple regulators, i.e. RBI, SEBI and IRDAI.
- The unified agency will have a chairperson and one member each to be nominated by RBI, Sebi, IRDAI and PFRDA, apart from two members who nominated by the Centre and two whole-time or full-time or part-time members.
- So far, India has only one IFSC at GIFT City, Gandhinagar.

### **Bio-Fuel Exports**

- The government has allowed export of bio-fuels from Special Economic Zones (SEZs) and export-oriented units (EoUs) with certain conditions.

- In August 2018, the government imposed restrictions on export of bio-fuels for non-fuel purposes.
- After this restriction, exporters operating from SEZs and EoUs made representations to remove this prohibition stating they only use imported material for export of final product.

### **India Size Project**

- The Union Minister for Textiles launched the India Size project.
- A first-of-its-kind project in the history of India, India Size aims to arrive at a standard Indian Size for the ready-to-wear clothing industry, on the lines of the standardized sizes available in countries such as the USA and the UK.
- A size chart that is specific to Indian consumers' measurements will be developed.
- This will help Indian apparel manufacturers to tailor their cuts closer to the actual body measurements of consumers. This will benefit consumers, manufacturers and the industry as a whole.

### **Repo Rate**

- The Reserve Bank of India (RBI) cut the policy repo rate by 25 basis points to 6.25% in a bid to revive economic growth.
- The RBI also simultaneously changed the stance of the policy to 'neutral' from 'calibrated tightening,' which indicates that the central bank remains ready to move in either direction based on incoming data. The move will enable banks to lower their lending rates.

### **Angel Tax**

- The Department for Promotion of Industry and Internal Trade (DPIIT) and the Central Board of Direct Taxes (CBDT) agreed to compile a list of startups eligible for angel tax exemption.
- The government also decided to raise the maximum time limit below which a firm would be deemed eligible for angel tax exemption to 10 years from the earlier seven.
- Further, the paid-up share capital threshold below which startups would be eligible for an exemption has been set at ₹25 crore.

- In cases where the investment exceeds ₹25 crore, the firms would be eligible for exemption if the angel investors can prove a net worth of ₹2 crore or more in the previous financial year. For investments below ₹25 crore, no questions would be asked.
- Angel tax is imposed on the excess share capital raised by an unlisted firm, over and above the fair market value of its shares.

### PCA

- Reserve Bank of India (RBI) lifted restrictions under prompt corrective action (PCA) on three public sector banks last week.
- There are eight more public sector banks (PSBs) that are under the PCA framework after restrictions were lifted from Bank of India, Bank of Maharashtra and Oriental Bank of Commerce.
- The government had infused capital in banks that was used to increase provisions and lower the net NPA ratio enabling RBI to lift restrictions on the three banks.
- Breaching net NPA ratio of 6% is one of the conditions that trigger restrictions.

### Banking

- The RBI tweaked norms for risk-weights on bank loans to NBFCs in a bid to free up capital for lending.
- But many public sector banks (PSBs) may well choose to shore up their capital ratios rather than grow their loan books.
- In the past one-and-a-half years, PSBs have done just that — consolidate their loan books and reduce their exposure to risky assets.
- Despite the Centre's massive capital infusion of ₹88,000 crore into PSBs in FY18, these banks have since either shrunk their loan books or grown them only modestly.
- Importantly, they have reduced their risk-weighted assets (RWAs) by a faster pace (than decline in loans), implying they have been moving to safer and less risky loans assets.
- The central bank assigns different 'risk weights' to different types of loans based on the possible defaults for each category.
- Loans to the Central government have a 0 per cent risk weight while those to commercial real estate have a 100 per cent weight.

### Labour Bureau

- The Labour Bureau in India has been compiling and maintaining average daily wage rates in rural areas for select agricultural and non-agricultural occupations on the basis of data collected by the National Sample Survey Office (NSSO).
- Data based on a 2017 survey show that the average daily wage rates for general agricultural labourers were ₹264.05 for men and ₹205.32 for women. It means that women workers in the sector get 22.24 per cent less than men.
- To reduce the gender wage gap, the government has enacted Equal Remuneration Act, 1976, which provides for payment of equal remuneration to men and women workers for the same work or work of similar nature without any discrimination.
- To enforce the Act, Central and State governments conduct regular inspections. However, the rules and regulations do not seem to have bridged the gender gap.

### PCR (Provision Coverage Ratio)

- While public sector banks (PSBs) have substantially ramped up their loan-loss provisions and strengthened balance sheets in the first nine months of the current financial year, only 6 out of 21 PSBs, have crossed the 'desirable' level of 70 per cent provision coverage ratio (PCR) as of December-end 2018.
- PCR is the ratio of provisioning to gross non-performing assets, and indicates the extent of funds a bank has kept aside to cover loan losses.

### Finance Commission

- The 15th Finance Commission will not alter its approach on solely using the 2011 Census for population figures in its calculations for allocations to States.
- However, other measures would be included that would ensure that States that have performed well by controlling population growth would not be penalised.
- The Commission had not yet finalised whether it would be altering the previous Commission's recommendation that 42% of the Centre's tax revenue be shared with the States.

### RBI

- Reserve Bank of India decided to transfer an interim surplus (dividend) of ₹28,000 crore to the government.

- This is second consecutive year that the central bank has transferred interim surplus to the government.
- The Centre has earned a total of ₹68,000 crore as dividend from the RBI for the 2018-19 fiscal.
- The accounting year of the RBI runs from July to June.
- Last year, RBI had transferred ₹10,000 crore as interim surplus.
- The government had been putting pressure on the central bank to transfer more funds from the contingency reserves.
- A panel, headed by former RBI Governor Bimal Jalan, had been formed to review the economic capital framework of the bank.

### **Ship-Building**

- To incentivise ship-building activity in the country, the Ministry of Shipping has revised its guidelines for chartering of ships by providing Right of First Refusal (RoFR) to ships built in India.
- Henceforth, whenever a tendering process is undertaken to charter a vessel, a bidder offering a ship built in India will be given the first priority to match the L1 quote.
- It is expected that this priority given to ships built in India will raise the demand for such vessels, providing them with additional market access and business support.
- The existing licensing conditions have been reviewed in consonance with the Government of India's policy of promoting the 'Make In India' initiative.
- The RoFR would be exercised only in case the vessel being offered for charter by the lowest bidder (L1) has been built outside India.

### **National Electronics Policy**

- The Union Cabinet approved the National Electronics Policy 2019 aimed at achieving a turnover of \$400 billion (about ₹26 lakh crore) for the electronics system design and manufacturing sector by 2025, while generating employment opportunities for one crore people.
- The policy has introduced "easier to implement" incentive schemes, including an interest subvention scheme and credit default guarantee, to replace some of the existing ones under the National Electronics Policy 2012.

- It proposes to provide interest subsidy of 4% on loans up to ₹1,000 crore on plant and machinery. In case of larger loans, the subsidy would be limited to ₹1,000 crore.
- The government proposes to create a fund to provide default guarantee of up to 75% to banks for plant and machine loans of up to ₹100 crore.
- To help create an ecosystem, the policy has pitched for 2.0 version of the Electronics Manufacturing Cluster Scheme, under which infrastructure support will be provided for a group of industries that are part of the product supply chain rather than individual industries.
- It has also proposed a sovereign patent fund to acquire intellectual property for chips and chip components.

### Angel Tax

- The Centre notified new rules pertaining to angel tax which, will exempt registered start-ups of a specified size from the tax and any scrutiny to do with its applicability.
- Angel tax is applicable to unlisted companies that have raised capital through sale of shares at a value above their fair market value. This excess capital is treated as income and taxed accordingly.
- This tax predominantly affects start-ups and the angel investments they attract.
- Investments of up to ₹25 crore in an eligible company will be exempt from the angel tax.
- In addition, investments made by a listed company of a networth of at least ₹100 crore or a turnover of at least ₹250 crore would also be exempt.
- Investments made by non-residents will also be exempt
- An eligible start-up would be one that is registered with the government, has been incorporated for less than 10 years, and has a turnover that has not exceeded ₹100 crore over that period.

### SWAYATT

- SWAYATT is an initiative to promote Start-ups, Women and Youth Advantage Through e-Transactions on Government e Marketplace (GeM).
- This will bring together the key stakeholders within the Indian entrepreneurial ecosystem to Government e-Marketplace the national procurement portal.



- Government e Marketplace, an online market place for procurement of common use goods and services by government ministries, departments and CPSEs was setup in 2016.

### Interest Rates

- Banks are set to reduce interest rates, particularly on retail loans like home and automobiles.
- Commercial banks have been reluctant to lower interest rates even after the central bank had reduced the key policy rate or the repo rate by 25 bps to 6.25% earlier this month.
- While banks have been reluctant to reduce the lending rate after RBI rate cut, during the rate hike cycle of 2018 — when the RBI had hiked interest rates by 50 bps — banks responded by increasing their benchmark lending rate by at least 60 bps.
- At the same time, the banks have expressed concern on the liquidity deficit in the system and said the lack of liquidity is not allowing them to reduce deposit rates.
- Deposit rates are an important component of the cost of funds of banks to which the benchmark rate is linked.
- Higher cash holding Banks have also highlighted increase in cash holding with the public, due to the general elections, which is also causing liquidity shortfall.
- With the government announcing capital infusion of ₹48,200 crore in public sector banks, the move would also help the lenders to reduce interest rates.

### PSB Funding

- The government's decision to infuse ₹48,200 crore in public sector banks (PSBs) will improve the provision levels for non-performing assets and boost loan growth, but may not address the legacy loan problems.
- The capital infusions will help the PSBs meet regulatory capital requirements and improve provisioning coverage. However, many weaker banks will continue to find it difficult to generate sufficient capital internally to meet their capital needs.

### MUDRA

- The Labour Bureau has completed its survey on employment generated by the MUDRA loan scheme, giving the Centre a potential data tool to combat other reports showing a dismal scenario on jobs.

- The Pradhan Mantri Mudra Yojana was introduced in April 2015 as an effort to extend affordable credit to micro and small enterprises.
- Loans up to ₹10 lakh are extended to these non-corporate, non-farm enterprises by the Micro Units Development and Refinance Agency (MUDRA) through last-mile financial institutions.

## FDI

- The government is working on a blueprint to increase FDI inflows to \$100 billion.
- In 2017-18, FDI flows into India were estimated at over \$61 billion.

## Capital Requirement

**'CAPITAL REQUIREMENT OF PSBs TO SHRINK TO ABOUT ₹25K CR IN FY20'**

The government fund requirements of public sector banks will shrink substantially to about Rs 20,000-Rs 25,000 crore in year ending March 2020 on improving asset quality, according to Moody's Investors Service

**Centre recently** announced to pump in an additional Rs 48,239 crore in 12 public sector banks (PSBs) in this fiscal to help them maintain regulatory capital requirements and finance growth plans. In the current financial year, Rs 1,00,958 crore has been infused into these banks

**PSBs will** require a total of about Rs 20,000-25,000 crore in external capital in fiscal 2020 to maintain CET-1 (common equity Tier-1) ratios of about 8.5 per cent, Moody's estimated. This is a significant reduction from the Rs 1.96 lakh crore infused by the government in the past two years

**The latest** government

The infographic depicts a green bank building with three pillars. To the left, a vertical arrow points upwards, accompanied by a dashed box. To the right, three yellow coins with the Indian Rupee symbol (₹) are stacked. Above the building, there are several small icons: a diamond, a square, a circle, and a plus sign. A dotted line arches over the building, and another vertical arrow points upwards on the right side. At the bottom, there are three sets of three dots (\*\*\*).

sufficient capital to support credit growth, with some banks able to raise capital from the equity markets as their financial improve, which will reduce the need for future capital injections from the government

**Many weaker** banks, however, will continue to find it difficult to generate sufficient capital internally to meet their capital needs

**We believe** the government remains committed to resolving the PSBs' capital needs and will provide capital for them in fiscal 2020; although the government has not included any such plan in its annual budget for the year, the agency said

capital infusions will improve the solvency of the banks, and significantly boost their provisions for non-performing loans. However, large volumes of legacy problem loans have yet to be resolved, it said

**Capital infusions** will help the PSBs meet regulatory capital requirements and improve provisioning coverage, it said

**Also, capital** infusions will lead to stronger PSBs having

## Unregulated Deposit Schemes

- In a bid to clamp down on Ponzi and fake deposit schemes, the government has, through an ordinance, banned unregulated deposit schemes.

- The ordinance has also put in place a mechanism that will penalise the operation and advertisement of such unregulated schemes with jail time as well as monetary fines.
- The Banning of Unregulated Deposit Schemes Ordinance 2019 states that any deposit scheme not registered with the government would be treated as an unregulated deposit scheme and would, as such, be banned.
- This extends to the entire country except Jammu and Kashmir and is to come into force immediately.
- The ordinance has separate penalties for those who solicit deposits for an unregulated scheme, those who accept such deposits, and those who then fraudulently default on repaying the depositors.

### Repo Rate

- Most commercial banks in India are likely to select RBI's repo rate as the external benchmark to decide their lending rates, from April 1.
- The repo rate is the key policy rate of the Reserve Bank of India (RBI).
- The banking regulator had asked the banks to move to an external benchmark for loan pricing from April 1, a move expected to improve monetary transmission as lenders had, in the past, been found reluctant to reduce lending rate.
- At present, the repo rate is 6.25%.
- The marginal cost of fund based lending rate (MCLR) is currently the benchmark for all loan rates.
- Banks typically add a spread to the MCLR while pricing loans for homes and automobiles.
- For the new benchmark, the central bank has mandated that the spread over the benchmark rate — to be decided by banks at the inception of the loan — should remain unchanged through the life of the loan, unless the borrower's credit assessment undergoes a substantial change and as agreed upon in the loan contract.

### PPIs

- The Reserve Bank of India (RBI) has extended the deadline to complete know your customer process by the Prepaid Payment Instruments (PPIs) issuers by another six months.
- Earlier, PPI issuers were required to complete the KYC process by February 28, 2019.

### **PCA**

- Three more banks — Allahabad Bank and Corporation Bank, from the public sector, and Dhanlaxmi Bank from the private sector — are now out of the Reserve Bank of India's (RBI) prompt and corrective action (PCA) framework.
- Earlier, such restrictions were taken off Bank of India, Oriental Bank of Commerce and Bank of Maharashtra. Six more under PCA
- There are another six banks that are still under PCA framework.
- These two banks had received capital infusion from the government. This has shored up their capital funds and also increased their loan loss provision to ensure that the PCA parameters were complied with.
- PCA framework gets triggered when a bank breaches one of the three risk thresholds. Crossing 6% net NPA is one of them.

### **Fiscal Deficit**

- Fiscal deficit widened in January to ₹7.7 lakh crore, or 121.5% of the Budget Estimates for the full year.
- The fiscal deficit figure works out to 5.5% of GDP for the year.
- Finance Minister had in the Budget 2019-20 said that the fiscal deficit would come to 3.4% of GDP in 2018-19, marginally higher than the targeted 3.3%.

### **Credit Ratings**

- Rating agency Crisil has said that global and national AAA ratings cannot be compared as they are done on different scales and are relative to a country's rating.
- It said that credit ratings are relative assessments of credit risk and the relative benchmarking can be national, global or regional.

### **National Electronic Policy 2019**

- The last electronic policy was unveiled 2012.
- The new policy targets
  - \$400 billion turnover by 2025 from domestic manufacturing,
  - setting up cluster for the entire value chain and
  - Employing over one crore people directly or otherwise to achieve a growth rate of 32 per cent.

## ENERGY

### OALP

- India offered 23 oil and gas and CBM blocks for bidding in the third round of Open Acreage Licensing Policy (OLAP) to raise domestic output and cut imports.
- In OALP-III, 23 blocks in 12 sedimentary basins are being offered. Of these, five are coal-bed methane (CBM) blocks. Total area on offer is about 31,000 square kilometre.
- OALP-III will run concurrently with OALP-II, where 14 blocks, covering an area of close to 30,000 sq km, is on offer for bidding.
- In OALP-I, 55 blocks, covering an area of 60,000 sq km, were offered in January 2018.

### Ethanol

- A co-operative sugar mill in Kolhapur district of Maharashtra has taken the lead in producing fuel grade ethanol directly from sugarcane juice in the State.
- The Centre had, in July last year, allowed sugar mills to manufacture ethanol directly from sugarcane juice or intermediate product called B-molasses.
- The decision was taken to help mills divert cane juice for ethanol manufacturing during surplus years. Traditionally, in India ethanol is made from 'C-Heavy' molasses, but in July last year, the government gave permission to make ethanol from sugarcane juice and 'B-Heavy' molasses or B-grade molasses.
- The fuel grade ethanol that is produced directly from cane juice is fetching more money per litre. This is going to be beneficial for the sugar industry that is facing crisis of excess stock of sugar.
- The government allowed fuel grade ethanol production from sugarcane juice with an aim to increase the earnings of sugar mills and help them in making full and timely payments to farmers.
- Cane-based ethanol can be produced in three different ways directly from cane juice, from B-grade and C-grade molasses. Molasses is a viscous product obtained from raw sugar during the refining process.

### Hydrocarbon Exploration

- India's exploration business has gone through different regimes — blocks given on nomination basis to public sector explorers like ONGC and Oil India Ltd,

Production Sharing Contract under New Exploration Licensing Policy (NELP), to Hydrocarbon Exploration Licensing Policy (HELP).

- In NELP PSC model, the contractor first recovered the cost before sharing profits with the government — based on Investment Multiple and cost recovery /production linked payment. Blocks were won through auction rounds.
- HELP regime replaced it by the revenue sharing model, where the government is not concerned with cost incurred and will receive a share of the gross revenue from the sale of oil, gas etc.
- HELP also offered a uniform licence that enables the contractor to explore conventional as well as unconventional oil and gas resources under a single licence. Besides, it was done through Open Acreage Licensing Programme (OALP), where players carve out their areas.
- As if this was not enough, the government also decided to monetise the small and marginal fields given to ONGC and Oil India prior to the auction rounds. Many of these fields could not be monetised for years due to various reasons such as isolated locations, small size, prohibitive development costs, technological constraints, unfavourable fiscal regime, etc.
- The Discovered Small Field Policy was to help here. But, the results have been far from satisfactory till now, mounting pressure on the government as import dependence for crude oil and natural gas has been a big concern.

### **Solar Programme**

- The Cabinet Committee on Economic Affairs approved Phase-II of the Grid Connected Rooftop Solar Programme that aims to achieve a cumulative capacity of 40,000 MW from rooftop solar projects by 2022.
- The Phase II programme provides for central financial assistance (for residential rooftop solar installations) up to 40% for rooftop systems up to 3kW and 20% for those with a capacity of 3-10kW.
- The second phase will also focus on increasing the involvement of the distribution companies (DISCOM).
- In a separate decision, the Cabinet approved the launch of the Kisan Urja Suraksha evam Utthaan Mahabhiyan aimed at providing financial and water security to farmers.
- Through the scheme, farmers will be given financial assistance to set up solar panels in their unused or fallow land.

### **Bio-ATF**

- Dehradun-based Indian Institute of Petroleum has successfully finished a pilot test to convert used cooking oil into bio-aviation turbine fuel (Bio-ATF), which can be blended with conventional ATF and used as aircraft fuel.
- The test assumes importance as the Food Safety and Standards Authority of India (FSSAI) has launched the Repurpose Cooking Oil (RUCO) initiative to collect and convert used cooking oil into bio-fuel. As many as 64 companies across the country have been identified for the purpose by FSSAI.

### **Bio-gas**

- Bio-gas is produced naturally through a process of anaerobic decomposition from waste / bio-mass sources like agriculture residue, cattle dung, sugarcane press mud, municipal solid waste, sewage treatment plant waste, etc.
- After purification, it is compressed and called CBG, which has pure methane content of over 90%.
- Compressed Bio-Gas is exactly similar to the commercially available natural gas in its composition and energy potential. CBG can be used as an alternative, renewable automotive fuel.
- Given the abundance of biomass in the country, CBG has the potential to replace CNG in automotive, industrial and commercial uses in the coming years.



ENVIRONMENT & ECOLOGY


**Cow urine**

- Cow urine may also contribute to global warming.
- The urine from the ruminant is a source of nitrous oxide emissions (N<sub>2</sub>O), a gas that is 300 times more powerful than carbon dioxide.
- That cattle and livestock are a significant source of methane, a greenhouse gas, and therefore a contributor to global warming, is well-known. However, the role of cow urine is less understood.
- Degraded grasslands emitted more N<sub>2</sub>O than healthy pastures because the vegetation in the latter took up some of the reactive nitrogen compounds and only the leftovers were emitted.

**Bovine twist**

**Ammonia:** Cattle and buffaloes were the largest contributors for ammonia from manure, accounting for 56.1% and 23.6% of emissions respectively

**Nitrous oxide:** Cattle contributed the highest proportion (42.3%) of nitrous oxide emissions followed by buffalo (28.1%), goats (15.5%), sheep (9.5%) and other species (4.6%)



**Top ammonia-emitting States**

Uttar Pradesh (12.7%)

Madhya Pradesh (8.7%)

West Bengal (8.4%)

**Top nitrous oxide-emitting States**

Uttar Pradesh (13.1%)

Madhya Pradesh (8%)

Maharashtra (7.5%)

**Degradation threat**  
**30% of India's geographical area (or about 96.4 million hectares) is degraded, according to a 2012 satellite study by the Indian Space Research Organisation**

**Thwaites Glacier**

- NASA has discovered a gigantic cavity, almost 300 metres tall, growing at the bottom of the Thwaites Glacier in West Antarctica, indicating rapid decay of the ice sheet and acceleration in global sea levels due to climate change.
- The findings highlight the need for detailed observations of Antarctic glaciers' undersides in calculating how fast sea levels will rise in response to warming.
- The cavity was revealed by ice-penetrating radar in NASA's Operation IceBridge, an airborne campaign beginning in 2010 that studies connections between the polar regions and the global climate.



### Indus River Dolphin

- The Punjab government has declared Indus River Dolphin as the State aquatic animal.
- Indus River Dolphin is found only in the Beas.

### Emissions

- Urbanisation is accelerating greenhouse gas emissions from vehicles in India at a faster than in China.
- On an average, an Indian emitted about 20 kg per capita while commuting for work, with the highest (140 kg CO<sub>2</sub>) in Gurugram district (Haryana) and the lowest (1.8 kg CO<sub>2</sub>) in Shrawasti district (Uttar Pradesh).
- The experience in most developed countries was that urbanisation led to a reduction in emissions — more urbanisation meant shorter distances between the workplace and home and thereby, a preference for public transport. However this didn't effectively apply to developing countries.
- In China a 1% increase in urbanisation was linked with a 0.12% increase in CO<sub>2</sub> emissions whereas, in India, it translated into 0.24% increase in emissions.
- India's CO<sub>2</sub> emission grew by an estimated 4.6% in 2017 and its per-capita emission was about 1.8 tonnes.
- In spite of being the 4th largest emitter, India's per capita emissions are much lower than the world average of 4.2 tonnes.

### Ocean Colour

- More than 50% of the world's oceans will shift in colour due to climate change by the year 2100.
- Climate change is causing significant changes to phytoplankton in the world's oceans, and over the coming decades these changes will affect the ocean's colour, intensifying its blue regions and its green ones.
- The study suggests that blue regions, such as the subtropics, will become even more blue, reflecting even less phytoplankton — and life in general — in those waters, compared with today.
- Some regions that are greener today, such as near the poles, may turn even deeper green, as warmer temperatures brew up larger blooms of more diverse phytoplankton.

- The ocean's colour depends on how sunlight interacts with whatever is in the water.
- Water molecules alone absorb almost all sunlight except for the blue part of the spectrum, which is reflected back out.
- Relatively barren open-ocean regions appear as deep blue from space. If there are any organisms in the ocean, they can absorb and reflect different wavelengths of light, depending on their individual properties.
- Phytoplankton, for instance, contain chlorophyll, a pigment which absorbs mostly in the blue portions of sunlight to produce carbon for photosynthesis, and less in the green portions.
- As a result, more green light is reflected back out of the ocean, giving algae-rich regions a greenish hue, researchers said.

### **Asian Elephant Alliance**

- The Asian Elephant Alliance, an umbrella initiative by five NGOs, has come together to secure 96 out of the 101 existing corridors used by elephants across 12 States in India.
- NGOs Elephant Family, International Fund for Animal Welfare, IUCN Netherlands and World Land Trust have teamed up with Wildlife Trust of India's (WTI) in the alliance.

### **Third Pole**

- Two-thirds of Himalayan glaciers, the world's "Third Pole", could melt by 2100 if global emissions are not reduced.
- Even if the "most ambitious" Paris Agreement goal of limiting global warming to 1.5° C is achieved, one-third of the glaciers would go.

### **Infertility**

Rising temperatures could drive some species to become sterile, making them succumb to the effects of climate change.

### **Global Warming**

- Rising temperatures increase the concentration of aerosols in the atmosphere that cause air pollution.

- While climate change is warming the ocean, it is warming the land faster, which is bad news for air quality all over the world.
- The contrast in warming between the continents and sea, called the land-sea warming contrast, drives up the aerosol concentration in the atmosphere.
- Aerosols are tiny solid particles or liquid droplets suspended in the atmosphere. They can come from natural sources, like dust or wildfires, or humanmade sources such as vehicle and industrial emissions.
- Aerosols affect the climate system, including disturbances to the water cycle, as well as human health. They also cause smog and other kinds of air pollution that can lead to health problems.
- A robust response to an increase in greenhouse gases is that the land is going to warm faster than the ocean. This enhanced land warming is also associated with increased continental aridity.
- The increase in aridity leads to decreased low cloud cover and less rain, which is the main way that aerosols are removed from the atmosphere.

### Lion Conservation

- The Centre and the Gujarat government have announced a Asiatic Lion Conservation Project.
- The **Kuno-Palpur Wildlife Sanctuary** in Madhya Pradesh was identified to be the most suitable for reintroducing the species.

### NE Glaciers

- More than a third of the glaciers in the **Hindu Kush Himalayan** (HKH) mountain range, the “**water tower**” of Asia, will vanish by the end of this century even if global warming is contained at 1.50 Celsius in the best case scenario.
- The eastern Himalayas could face a near-total loss of glaciers, around 95%, if global warming goes unchecked.
- The glaciers in the HKH region, spanning eight countries from Afghanistan to Myanmar, have the biggest store of ice outside the poles.
- The region, sometimes referred to as the “third pole”, supplies water to nearly 2 billion people.
- For India, one of the most alarming finding is on the glaciers in east Himalayas that feed northeast India.

- Eastern Himalaya glaciers have tended to shrink faster than glaciers in central or western Himalaya.
- On the other hand, the western Himalayas — including J&K, Himachal Pradesh and Uttarakhand — may see an increase in glacier mass because the region, along with the Karakoram, has a higher probability of snowfall.

### **Tiger**

- The Gujarat forest department confirmed the presence of a tiger in the state, almost 25 years after the feline was last spotted in the forests of Dangs in the southern part of the state.
- The Gir National Park and Sanctuary, home to Asiatic lions, is located around 500 kms from Lunawad-Santrampur forest where tiger was spotted.
- The 1992 tiger census had reported the extinction of the animal from the state.
- The National Tiger Conservation Authority (NTCA), a statutory body under the ministry of environment and forests, included Gujarat in its tiger census in 2018 — the first time since 1992.
- The Gujarat government is likely to start tiger safaris soon with a tag line, “One state in India to have both tigers and lions”.

### **NBWL (National Board for Wildlife)**

- India’s apex National Board for Wildlife (NBWL) — charged with allowing forest land in Protected Areas to be diverted for industry — cleared 682 of the 687 projects (99.82%) that came up for scrutiny.
- The NBWL is formally headed by the Prime Minister.
- It adjudicates on industrial projects, road diversions or the like that could encroach into Protected Areas or eco-sensitive zones of forests.
- A smaller Standing Committee of the NBWL is charged with deliberating on the merits of projects that come to it for scrutiny; the committee comprises scientists and government officials and is chaired by Union Environment Minister.

### **TTZ**

- The Supreme Court had said the protection of the Taj Mahal should not be restricted to the world heritage monument alone but everything around it.

- The court had said that the Taj Mahal was only the “centre-piece”. The forest cover, the river Yamuna and the grounds of the Taj Mahal should also be saved from pollution. This is known as Taj Trapezium Zone (TTZ).

### **Waste-to-Energy Plants**

- Nearly half of India’s waste-to-energy (WTE) plants, meant to convert non-biodegradable waste, are defunct.
- Further, the country’s inability to segregate waste has resulted in even the existing plants working below capacity.
- Since 1987, 15 WTE plants have been set up across the country. However, seven of these plants have shut down.
- The key reasons for closure are the plants’ inability to handle mixed solid waste and the high cost of electricity generated by them that renders it unattractive to power companies.
- The fundamental reason for the inefficiency of these plants is the quality and composition of waste.
- MSW (municipal solid waste) in India has low calorific value and high moisture content.
- As most wastes sent to the WTE plants are unsegregated, they also have high inert content.
- These wastes are just not suitable for burning in these plants. To burn them, additional fuel is required which makes these plants expensive to run.
- The NITI Aayog, as part of the Swachh Bharat Mission, envisages 800 megawatt from WTE plants by 2018-19, which is 10 times the capacity of all the existing WTE plants put together.

### **Pangolins**

- Obsession for its supposedly medicinal scales in China is believed to have made the ant-eating Chinese Pangolin, one of two species found in South Asia, extinct in India.
- The pangolin is the most trafficked mammal in the world.
- Though hunted for its meat across the northeastern States and in central India, the demand for its scales in China has made it the most critically endangered animal in less than a decade.

- The Chinese Pangolin was officially categorised as critically endangered in 2014.
- The Indian Pangolin, marked endangered that year, is now critically endangered.

### **DRIP (Dam Rehabilitation and Improvement Programme)**

- The World Bank has accepted a proposal to provide Rs 11,000 crore to India to improve safety and operational performance of its 733 large dams across 18 states over the next 10 years.
- The money will be utilised under the ongoing Dam Rehabilitation and Improvement Programme (DRIP) for its subsequent phases beginning 2020.
- Besides operation, maintenance and emergency action plans, the programme will also focus on revenue generation at dams through tourism, fisheries, water recreations and solar and hydro power.
- India has currently 5,264 operational large dams, but 80% of them are over 25 years old and in need of maintenance and safety upgradation. As many as 213 large dams in India are over 100 years old.
- Keeping past dam disasters in mind, the government had in 2012 launched DRIP aimed at improving safety and operational standards of 198 large dams in seven states —Uttarakhand, Jharkhand, Karnataka, Kerala, Madhya Pradesh, Odisha and Tamil Nadu — by June next year.
- The major dams which are to be covered under Phase-II & III of the DRIP include Bhakra dam (Himachal Pradesh), Srisaillam (Telangana), Koyna and Jayakwadi (Maharashtra), Matatila, Ramganga and Raj Ghat (UP), Pong dam (HP), Ukai (Gujarat), Rana Pratap Sagar and Mahi (Rajasthan), Hirakud and Rengali (Odisha) and Umiam (Meghalaya).
- The government had initially proposed Rs 7,000 crore for the subsequent phases of the DRIP. But, later it revised it to nearly Rs 11,000 crore.

### **Sea Squirt**

- A rubbery sea creature with an irritating habit of clinging to ships and invading beaches could help measure plastic pollution as it can filter tiny particles from the ocean and store them in its soft tissue.
- Israeli researchers have found that ascidians — round, palm-sized animals also known as sea squirts — can thrive in dirty industrial areas and pristine waters alike, allowing them to detect and analyse waste and its impact in various regions.

- The long-term impact of the waste, particularly tiny pieces called microplastic, is still not fully understood.
- Sea squirts just sit in one place all their life and filter the water, like a pump.
- Sea squirts are related in evolutionary terms to human beings. So studying them and the plastic inside them could be more insightful than looking at creatures like fish.

### **Metal-contamination**

- More than four crore people in rural India drink water contaminated by heavy metals, fluoride, arsenic, and nitrate.
- West Bengal is the worst-affected with 39 per cent of India's affected population living in that State.
- About 1.57 crore rural residents of Bengal drink metal-contaminated water. Rajasthan has 65 lakh rural people putting their health at risk while Bihar has 43 lakh people ingesting contaminated water.
- Rajasthan tops the list of States in fluoride and salinity contamination. The State also tops in nitrate contamination.
- West Bengal leads in arsenic and iron contamination.
- Punjab is the worst affected when it comes to heavy metal contamination.
- Punjab has all types of metallic water contamination while West Bengal has not reported any nitrate contamination.

### **Marine Clouds**

- Marine clouds that protect us from hothouse Earth conditions by reflecting sunlight back into space could break up and vanish if CO<sub>2</sub> in the atmosphere triples.
- So-called stratocumulus clouds cover about 20% of subtropical oceans, mostly near western seaboard such as the coasts of California, Mexico and Peru.
- When they disappear, Earth warms dramatically, by about eight degrees Celsius — in addition to the global warming that comes from enhanced greenhouse concentrations alone.
- A temperature increase of that magnitude would melt polar ice and lift sea levels tens of metres.

### Warming Waters

- Warming waters heat up fishing costs along Malabar Coast . Often, fishermen along South-western coast find nothing.
- Climate change is making an already difficult search for fish harder.
- Fish populations are always shifting, sometimes drastically, and overfishing has emptied waters once teeming with life.
- But as climate change has warmed coastal waters by more than half a degree Celsius over the past three or four decades, fish populations have sought cooler waters — often away from where fishermen are used to finding them.
- Oil sardines used to swim in India almost exclusively around the Malabar Coast — but climate change has pushed them east and north-east, into waters around Mumbai and Kolkata.
- Fish all over are migrating toward the globe’s poles, often seeking the cooler water they are used to as the ocean warms, the scientists say.
- Fishermen are also struggling to catch mackerel, another long-time staple. More mackerel are now found at depths where the water is cooler.

### Gold Standard

- Evidence for man-made global warming has reached a “gold standard” level of certainty, adding pressure for cuts in greenhouse gases to limit rising temperatures.
- Confidence that human activities were raising the heat at the Earth’s surface had reached a “five-sigma” level, a statistical gauge meaning there is only a one-in-a-million chance that the signal would appear if there was no warming.
- Such a “gold standard” was applied in 2012, for instance, to confirm the discovery of the Higgs boson subatomic particle, a basic building block of the universe.
- Separately in 2013, the U.N.’s Intergovernmental Panel on Climate Change (IPCC) concluded that it is “extremely likely”, or at least 95 percent probable, that human activities have been the main cause of climate change since the 1950s.

### Energy Efficiency Ratings

- Residential buildings can now save up 40 per cent of their energy consumption and be rated for the same by the Bureau of Energy Efficiency.
- Till now, the rating was only for commercial establishments.



### **SATAT**

- The Centre is in talks with the United Nation Environment Fund for availing soft loans to fund compressed biogas projects in India. It is also looking to Japan for support to the investment needs of the gas-based economy in India.
- The govt issued Letter of Intent (LOI) for setting up compressed biogas (CBG) projects.
- The LOIs were issued to entrepreneurs under the Sustainable Alternative Towards Affordable Transportation (SATAT) scheme.
- The SATAT scheme was launched with the agenda of utilising more than 62 million tonnes of waste generated every year in India.
- Cutting down import dependence, supplementing job creation in the country and reducing vehicular emissions and pollution from burning of agricultural/organic waste were the main objectives of the scheme.

**GEOGRAPHY**

**Iron**

- India accounts for nearly 40 per cent of China’s import of ore pellets.
- Iron ore is a raw material for steel, and pellets are a refined product with high iron ore content.

**Polar Vortex**

- A record-breaking cold wave has swept through the US Midwest, with 22 states hitting sub-zero temperatures.
- The extreme cold has been caused by a blast of Arctic air, which in turn is a result of what is known as a “polar vortex” event.
- Polar vortex is essentially a low-pressure area, it is a wide expanse of swirling cold air surrounding both polar regions.
- The counter-clockwise flow of air helps keep the colder air near the poles.
- In winter, the polar vortex sometimes becomes less stable and expands sending cold air southward with the jet stream. This is called a polar vortex event.
- Normally, when the vortex is strong and healthy, it helps keep a current of air known as the jet stream traveling around the globe in a pretty circular path. This current keeps the cold air up north and the warm air down south.
- But without that strong low-pressure system, the jet stream doesn’t have much to keep it in line. It becomes wavy and rambling. Due a couple of areas of high-pressure systems in its way, and all of a sudden we have a river of cold air being pushed down south along with the rest of the polar vortex system.
- Polar vortex is not confined to the US. Portions of Europe and Asia also experience cold surges connected to the polar vortex.
- By itself, the only danger to humans is the magnitude of how cold temperatures will get when the polar vortex expands, sending Arctic air southward into areas that are not typically that cold.

**Magnetic North Pole**

- Earth’s north magnetic pole has been drifting so fast that scientists that past estimates are no longer accurate enough for precise navigation.
- The magnetic north pole is wandering about 55km a year.

- It crossed the international date line in 2017, and is leaving the Canadian Arctic on its way to Siberia.
- The constant shift is a problem for compasses in smartphones and some consumer electronics.
- The US and UK tend to update the location of the magnetic north pole every five years in December, but this update came early because of the pole's faster movement.
- The movement of the magnetic north pole is pretty fast. Since 1831, it has moved about 2300km toward Siberia. Its speed jumped from about 15kph to 55kph since 2000.
- The reason is turbulence in Earth's liquid outer core. There is a hot liquid ocean of iron and nickel in the planet's core where the motion generates an electric field.
- The magnetic south pole is moving far slower than the north.
- Earth's magnetic field is getting weaker, leading scientists to say that it will eventually flip, where north and south pole changes polarity. It has happened numerous times in Earth's past, but not in the last 780,000 years.

### GI Tag

- The right to enforce a geographical indication (GI) tag has had a new twist.
- The Calcutta high court has ruled that Darjeeling Tea as a GI — owned by the government-run Tea Board — for tea originating from the region cannot be claimed for unrelated goods or services.
- The order came on a case filed by the Tea Board against hotels-to-tobacco conglomerate ITC in 2010 for operating a premier lounge — 'Darjeeling Lounge' — at its ITC Sonar Hotel in Kolkata.
- The plea was dismissed as the court ruled that the GI held by Tea Board is restricted to only goods (tea), and not to services such as lounges.
- Simply put, GI are names, geographical or figurative representation conveying or suggesting the 'geographical' origin of the products.
- The HC order is one of the first interpreting rights available to a GI holder, which legal experts say will help in defining the ambit of protection provided by GI law in India.
- GIs registered in India include Darjeeling Tea, Mysore Sandal Soap, Alphonso mango and Surat Zari Craft.

Magnetic Pole

# A POLE DANCE TO SHAKE UP THE COMPASS

For a spot central to navigation on Earth, the magnetic North Pole is remarkably tough to pinpoint. Its location is updated every 5 years so that navigation systems — from those used by militaries to smartphones — function reliably. However, since the magnetic North Pole has moved faster than expected, scientists have been forced to go for an update one year ahead of schedule. But where is the magnetic north pole headed, and why does it move in the first place?

## Which North Pole are we talking about?

If you must know, there are four North Poles. But it's two really, that are more well-known in the ordinary sort of way — the geographic North Pole and the **North Magnetic Pole**. There's also an instantaneous North Pole and a North geomagnetic pole, but to discuss those would be to veer far away from home

### What's the Magnetic North Pole?

The magnetic North Pole is the point on the surface of Northern Hemisphere where Earth's magnetic field points vertically downwards. If you're standing over the north magnetic pole with a compass, the needle would dip and point straight down, which is why it's also called **magnetic dip pole**. Over the south magnetic pole, your compass needle would point straight upward



## The geographic north pole doesn't move

It's the spot in Arctic Ocean where man-made lines of longitude converge on a map. It is fixed. Related to geographic north pole is the less well-known instantaneous north pole, where Earth's rotational axis meets its surface and the celestial north pole. The instantaneous north pole is not fixed

## North Magnetic Pole's sliding faster than ever

The north magnetic pole has in recent years been galloping off, with its movement rate having gone from **10 to 50 kilometres per year**. It's located, at the moment, four degrees south of the geographic North Pole, which lies in the Arctic Ocean at 90 degrees north

### It keeps moving always

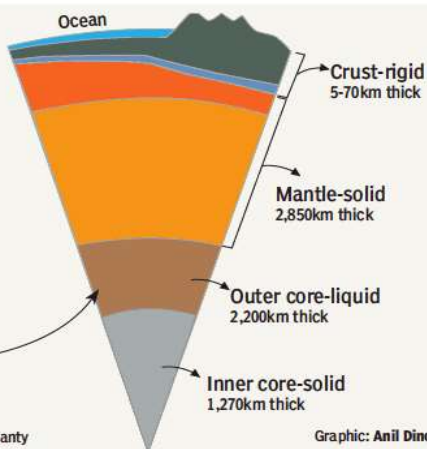
➤ In the mid-19th century, the north magnetic pole was located further south, around Canada. During the past 150 years, it has been sprinting away from Canada and towards Siberia

➤ The north magnetic pole's flummoxing mobility was first discovered nearly 400 years ago by English mathematician Henry Gellibrand. **The map above shows how it is deemed to have moved over the centuries**

## BUT WHY DOES IT MOVE?

➤ It is the Earth's physical structure that is behind the shifting of the magnetic field. You see, the planet's **inner core is made of solid iron**. Surrounding the inner core is a molten outer core. The next layer, the mantle, is solid but malleable, like plastic. Finally, comes the layer that makes the surface, called the crust

➤ As the Earth spins on its axis, the inner core spins as well, creating convections and currents within the core. Scientists think that shifts in the core's rate of spin and the **currents within the molten material** impact the location of the magnetic pole



Source: NYT, Scientific American, Media reports; Text: Kenneth Mohanty

Graphic: Anil Dinod

## By the way, the poles are known to flip too

➤ During the course of Earth's history, it has so happened that the north magnetic pole has slipped towards the bottom of the planet, and the south magnetic moved towards the top

➤ This flip seems to happen every **200,000 to 300,000 years** and the exact causes behind this are not certain

## **Tropical Centipedes**

- Continental drift (the moving apart of continents) almost 100 million years ago created many species of Ethmostigmus centipedes in the world's tropics.
- In the Indian peninsula, these centipedes first originated in the southern and central Western Ghats, and then spread across the ranges here.
- India is home to six, fairly large Ethmostigmus centipedes: four dwell in the Western Ghats, one in the Eastern Ghats and one in north-east India.
- Africa, south-east Asia and Australia are also home to other species of Ethmostigmus centipedes.
- A single ancestor gave rise to all Ethmostigmus centipedes in the ancient supercontinent of Gondwana (continents including Australia, Africa and peninsular India comprised this single landmass then).
- The subsequent breakup of Gondwana and the drifting away of different landmasses shaped the early evolutionary history of Ethmostigmus.

## **Sela Pass**

- The Sela Pass is a high-altitude mountain pass located on the border between the Tawang and West Kameng Districts of Arunachal Pradesh.
- It has an elevation of 4170 m (13,700 ft).
- It connects the Tibetan Buddhist town of Tawang to Dirang and Guwahati.
- The pass carries the main road connecting Tawang with the rest of India.
- From a strategic point-of-view, the Sela Pass is touted to cut short the distance to China border through Tawang by 10 kilometres.

## **Langpih**

- Langpih is a disputed place on the Assam-Meghalaya border, about 40 km west of Guwahati.
- While Assam says the village is in the State's Kamrup district, Meghalaya claims it falls in its West Khasi Hills district.

## **660-km boundary**

- Scientists have discovered massive mountains in the Earth's mantle, an advance that may change our understanding of how the planet was formed.



- Most school children learn that the Earth has three layers: a crust, mantle and core, which is subdivided into an inner and outer core. While that is not wrong, it does leave out several other layers that scientists have identified within the Earth.
- Scientists used data from an enormous earthquake in Bolivia to find mountains and other topography on a layer located 660 km straight down, which separates the upper and lower mantle. Lacking a formal name for this layer, the researchers simply call it “the 660-km boundary.”

## INFRASTRUCTURE

### Islands

- Four islands in the Andamans and three in Lakshadweep have been identified for seaplane operations.
- Island Development Agency is chaired by Home Minister.
- Swaraj Dweep, Shaheed Dweep, Hutbay and Long Island in Andaman and Nicobar Islands and Kavaratti, Agatti and Minicoy in Lakshadweep have been identified for seaplane operations.
- Key infrastructure projects such as operationalization of the Diglipur airport for civilian aircraft and the construction of a new airport on Minicoy Island have been accorded high priority by the government
- Coastal Regulation Zone clearance (CRZ) has been accorded for 'Middle Strait Bridge' on Andaman Trunk Road.

### Linked PNRs

- Just like airlines, railways will now issue linked PNRs for connecting journeys allowing passengers to cancel their onward journey without any cancellation fee.
- The facility, which will begin from April 1, will be beneficial for those passengers who are booked on continuous trains for their onward journeys and get delayed due to fog, protests or any other reason during their trip.

### IIFCL

- India Infrastructure Finance Company Limited (IIFCL), which was set up in 2006 to primarily bridge funding deficit for infrastructure sector, is now being geared to support social sector infra projects, especially in the health and education sector.
- To enable this, the interim Budget 2019-20 raised the capital support for IIFCL to Rs 500 crore for the next financial year as compared to Rs 100 crore in 2018-19.
- The government's idea is to deploy IIFCL to fund socially desirable projects, which may not be viable commercially. It could be on the lines of National Highways Authority of India funding unviable road projects.
- Since it was set up in 2006 to promote long term funding infra sectors, IIFCL has been investing mainly in sectors such as transport, energy, water & sanitation and communication.

INTERNATIONAL

World Gold Council

- The World Gold Council is the market development organisation for the gold industry.
- It works across all parts of the industry, from gold mining to investment, and their aim is to stimulate and sustain demand for gold.
- It is headquartered in London.

INF Treaty





### IP Index

- India has jumped eight places to 36th position on the International Intellectual Property (IP) Index.
- IP index analyses the IP climate in 50 global economies.
- India's eight-point jump in 2019 from 44th position in 2018 is the highest increase among 50 nations mapped by the index.

### Green Cards

- Two identical legislation backed by top companies from Silicon Valley, like Google, have been introduced in the U.S. House of Representatives and Senate to end the per-country limit on green cards.
- They could benefit thousands of Indian professionals waiting to gain permanent legal residency.
- The U.S. currently offers 1,40,000 green cards every year to employment-based immigrants.
- The existing law, however, provides that not more than 7% of these green cards can go to nationals of any one country — even though some countries are more populous than others.
- Because of this limit, a Chinese or an Indian postgraduate may have to wait half a decade or more for a Green Card, much longer than a student from a less-populated country.

### GSP

- India could lose a vital U.S. trade concession, under which it enjoys zero tariffs on \$5.6 billion of exports to the United States, amid a widening dispute over its trade and investment policies.
- A move to withdraw the Generalised System of Preferences (GSP) from India, the world's largest beneficiary of a scheme that has been in force since the 1970s, would be the strongest punitive action against India since President Donald Trump took office in 2017, vowing to reduce the U.S. deficit with large economies.

### **Cutlass Express**

- INS Trikand participated in a multinational training exercise 'CUTLASS EXPRESS - 19' held from 27 Jan to 06 Feb 19.
- During the exercise, Naval, Coast Guard and Marine Police personnel from a number of East African countries were jointly trained by mentors from USA, India, and Netherlands, with support of international organisations like the International Maritime Organisation (IMO).

### **India Wage Report**

- This report has been released by the International Labour Organisation(ILO).
- Real average daily wages for skilled agricultural workers increased just by 48 per cent from 1993-94 to 2011-12 while for legislators, senior officials and managers, it increased by 98 per cent over this nearly two-decade-long period, according to this report.

### **India- Maldives**

- India and Maldives exchanged an agreement to facilitate visas for travel between the two countries.
- Under the agreement, the government will free up the visa regime for Maldives citizens who travel to India for medical reasons and for education in particular.
- The government has also agreed to grant visas for parents and other dependants to live in India while their children attend school here.
- The agreement will ease visas on arrival for Indian businessmen, and bring cheer to Indians applying for work in the Maldives.
- Indians are the second largest expatriate community in the Maldives, numbering about 22,000.
- If a child from Maldives is being educated in India, his/ her entire family will get dependent visas.
- For Indian professionals applying for employment visa in the island country, the employers will pay the fees and will get the paperwork done within 15 days.

### WTO

- Canada and the US have accused India at the World Trade Organization (WTO) of “dramatic under-reporting” of market price support for pulses — chickpeas, pigeon peas, black matpe, mung beans, and lentils.
- India’s minimum support price (MSP, also referred to as market price support) for the five pulses is about 26 times higher at ₹69,923 crore instead of the notified ₹2,667 crore, as per a joint submission made by the countries to the WTO.
- It is important for India to defend its own calculation of MSP as it is classified as a ‘trade distorting support’ at the WTO which is capped at 10 per cent of production value.
- In case India’s ‘trade distorting support’ exceeds the cap, it will either be forced to discontinue the support programmes, failing which it may have to pay penalties.
- The main reason behind the stark difference in the MSP figures for pulses notified by India and those calculated by Canada and the US is the fact that the latter have based their calculation on all eligible production, as opposed to just that portion of production actually procured by government entities in India.
- India, however, has consistently maintained at the WTO that “eligible production” for MSP must be that part of the total production of a crop that is actually procured by the agencies and nothing more as the support to farmers is only restricted to that amount.
- Another essential difference in the calculation methodology is that while India has made its MSP calculations in US dollar, Canada and the US have calculated it in Indian rupees.
- India had earlier argued that the AoA gives members the freedom to use the US dollar (which insulates the figures against rupee depreciation) and it has been consistently reporting its calculations in the American currency.

### Houthi Rebels

- The Houthi insurgency in Yemen also known as the Houthi rebellion, was a military rebellion pitting Zaidi Shia Houthis (though the movement also includes Sunnis) against the Yemeni military that began in Northern Yemen and has since escalated into a full-scale civil war.
- The U.S., while not directly involved in combat in Yemen, has, since 2015, provided the Saudi-led coalition with support and intelligence for its war against Houthi rebels, who have some backing from Iran.

**MFN (Most Favoured Nation)**

- India revoked the Most Favoured Nation (MFN) status of Pakistan.
- Though the term MFN suggests special preference for the country given MFN status, it actually means it would be treated equally as all others.
- According to the World Trade Organisation rules, countries cannot normally discriminate between their trading partners.
- If one country is granted a trade concession such as, for example, lower import duties, then all WTO members must be extended the same concessions. This principle is known as the Most Favoured Nation treatment.
- Pakistan has never granted MFN status to India. What does revoking.
- Revoking MFN status means India can levy whatever import tariffs it wants. India can now make it very expensive for Pakistan to export its goods or services to India.
- So far, India has only revoked the MFN status. It has not altered the import duties on Pakistan. However, if it does hike them, then this will likely have an impact on that country.
- Revoking Pakistan's MFN status seems to be more of a symbolic move.

**e-Tourist Visa**

- The e-Tourist Visa which was introduced in September 2014 with 46 countries has now been made applicable for 166 countries.
- Recently, government has made series of amendments in e-visa regime, liberalizing it further and making it more tourist friendly.
- Duration of stay in India of e-Tourist and e-Business Visas is maximum upto 1 Year with multiple entry subject to the stay stipulations.
- Also, the existing restriction of allowing foreigner for a maximum of three times has also been removed.

**Chabahar**

- With U.S. sanctions threatening Iran's main port of Bandar Abbas, the Iranian government is planning to promote the Chabahar port being developed by India highlighting the potential of the Indian Ocean port beyond India-Afghan trade alone.

- The potential for inland trade goes well beyond the present plan of trade from India-Afghanistan via Chabahar, as Iran plans to connect 'via Turkmenistan to Central Asia, via Turkey to Europe, and via Iraq to Syria and the Mediterranean' countries.

### **BSF**

- In a unique move, 24 schoolchildren of the Border Security Force families would be visiting Bangladesh.
- These are children of the BSF officers and troopers posted in the three North-east frontiers — Assam-Meghalaya, Cachar-Mizoram and Tripura.
- This is the first time schoolchildren are going to Bangladesh from the NE region of India.

### **GSP**

- The Generalized System of Preferences (GSP) is a U.S. trade program designed to promote economic growth in the developing world by providing preferential duty-free entry for up to 4,800 products from 129 designated beneficiary countries and territories. GSP was instituted on January 1, 1976, by the Trade Act of 1974.
- The GSP program requires periodical reauthorization in order to remain in effect.
- GSP expired on July 31, 2013, and was most recently reauthorized on June 29, 2015.
- Often GSP authority lapses before it is renewed, in which case duties on imports that are normally covered are held in escrow pending renewal.

### **RCEP**

- Regional Comprehensive Economic Partnership (RCEP) pact is being negotiated between 16 countries.
- RCEP, being negotiated between India, China, the 10-member ASEAN, Japan, South Korea, Australia and New Zealand, can potentially result in the largest free trade bloc in the world covering about 3.5 billion people and 30 per cent of the world's Gross Domestic Product.
- Apart from goods, the areas being negotiated include services, investments, intellectual property and government procurement.

### Indus Water

- The Indus system comprises the rivers Indus, Jhelum, Chenab, Ravi, Beas and Sutlej.
- The basin is mainly shared between India and Pakistan with a small share for China and Afghanistan.
- Under the Indus Water Treaty signed by India and Pakistan in 1960, the waters of three rivers — Ravi, Sutlej and Beas (eastern rivers) were allocated to India for exclusive use.
- Among India's various schemes is the Shahpurkandi project that will help in utilising the water from the Thein dam to irrigate 37,000 hectares of land in Jammu and Kashmir and Punjab, and generate 206 MW of power.
- Another facility is the Ujh multipurpose project that will create a storage of about 781 million cubic metre of water on river Ujh, a tributary of Ravi.

### Seoul Peace Prize

- Prime Minister Narendra Modi was given the Peace Prize for 2018 for his contribution to international cooperation and fostering global economic growth.
- The Seoul Peace Prize was established in 1990 as a biennial recognition with monetary award to commemorate the success of the 24th Summer Olympic Games held in Seoul, Korea.
- The Seoul Peace Prize was established to reflect the wishes of the Korean people and to crystallize their desire for peace in Korean peninsula and in the rest of the world.

### Bangladesh

- Bangladesh plans to open a Deputy High Commission in as it seeks to strengthen ties with the southern parts of India.
- This will be Bangladesh's sixth diplomatic office in India.
- Besides the High Commission in Delhi, Bangladesh has Deputy High Commissions in Kolkata and Mumbai and Representative Offices in Guwahati and Agartala.

### OIC

- Organisation of Islamic Cooperation (OIC) invited External Affairs Minister Sushma Swaraj to address the body's foreign ministers meet.

- India has never been invited to the OIC before.
- The invitation that came from UAE marks a major turnaround between India and the group of Islamic countries, that have often clashed over Kashmir.
- The OIC has a specially designated “Kashmir contact group” that coordinates positions at the United Nations, often led by Pakistan, to protest alleged human rights violations in Jammu and Kashmir and invoke UN resolutions.
- OIC had denied India a seat when the grouping started.
- While it was Bangladesh that floated the idea of India becoming an observer at the OIC in 2018, the UAE invite offers India an opportunity to address the forum.
- While observer status still looks distant, Swaraj’s presence at the OIC plenary is not likely to change the organisation’s stand on Jammu and Kashmir, where they have always supported Pakistan. But India’s presence is a big sign that the OIC may be open to looking at India and — perhaps Kashmir — differently.

### 1267 Committee

With the UN Security Council and the Paris-based Financial Action Task Force both issuing strong press statements on the Pulwama attack, India has begun negotiations on a new proposal to place JeM chief Masood Azhar on the ban list operated by the UNSC’s 1267 committee.

### Chagos islands

- Britain has an obligation to end its administration of the Chagos archipelago and complete the process of decolonisation of Mauritius, the International Court of Justice (ICJ) has said.
- Chagos islands are home to the U.S. military base of Diego Garcia, under lease from the United Kingdom since the 1960s.
- Under an agreement struck in 1965, in return for compensation to Mauritius and fishing rights, Britain has maintained control of the islands.

### WTO

- The US decision to block selection of judges at the World Trade Organization’s Appellate Body has impacted India’s attempt to get a ruling on its case challenging a verdict against safeguard duties imposed by the country on imports of iron and steel.



- The US blocked the appointment of appeals judges at the WTO last year which has now resulted in shrinking of the number of judges from seven to just three.
- US has said that it will allow judges to be appointed only after reforms are brought about in the WTO decision-making process.
- India's case which has got stuck at the WTO is related to imposition of provisional safeguard duty — a levy that a member can apply over and above the existing import tariffs to protect domestic industry against import surges — of 20 per cent on import of certain categories of steel.

**POLITY**

**Ladakh**

- Jammu and Kashmir Governor granted Ladakh a divisional status, thus creating three administrative units of Jammu, Kashmir and Ladakh in the State.
- Earlier, Ladakh was a part of the Kashmir division.
- The move leaves the Kashmir valley geographically the smallest division at 15,948 sq. km, Jammu division at 26,293 sq. km and Ladakh, the biggest division, at 86,909 sq. km.
- Ladakh will now get its own Divisional Commissioner and Inspector General of Police.
- During the winter months, the entire Ladakh region remains cut-off from the rest of the country for almost six months. The remoteness and inaccessibility of the area makes it eligible for establishing a separate division.
- Ladakh's Kargil and Leh districts already have separate hill development councils for local administrative powers.

**1950 (voter helpline number)**

- The Election Commission has launched a Voter Verification and Information Programme (VVIP) for citizens to cross-check their names, new registrations, changes in the voter details and corrections in the voter identity cards for the coming Lok Sabha election.
- The voter helpline number is 1950.

**Citizenship Bill**

- The Citizenship (Amendment) Bill, 2019, that had set off a series of violent protests across the northeastern States, lapsed as the government failed to push it through Rajya Sabha.
- Along with the Citizenship Bill, the triple talaq Bill that criminalises instant divorce in a Muslim marriage has also lapsed.
- There have been widespread protests against the Citizenship Bill that proposed to grant citizenship to six religious minorities — Hindus, Jains, Sikhs, Parsis, Christians and Buddhists — from Pakistan, Afghanistan and Bangladesh, who came to India before December 31, 2014.

- The Bill was seen as violating the terms of the 1985 Assam Accord that had set March 24, 1971 as the cut-off for granting citizenship.

### Article 35 A

- Normal life was paralysed in the Kashmir Valley due to a shutdown called by separatists in anticipation of the petitions challenging Article 35A coming up before the Supreme Court for hearing.
- The Article 35A, which was incorporated in the Constitution by a 1954 Presidential order, accords special rights and privileges to the citizens of Jammu and Kashmir and bars people from outside from acquiring any immovable property in the State.

### AADHAR

- The Union Cabinet recently approved amendments to the Aadhaar Act, including a provision that gives a child, on attaining maturity (18 years), the power to withdraw his or her Aadhaar details.
- This entails that the Unique Authority of India remove all the details, including biometrics of such persons.
- The proposal to allow those turning 18 to withdraw from Aadhaar will not benefit those who want to file income tax returns as it is now mandatory to provide Aadhaar details while filing taxes.

### National Security Act

- NSA empowers the Centre or a State government to detain a person to prevent him from acting in any manner prejudicial to national security.
- The government can also detain a person to prevent him from disrupting public order or for maintenance of supplies and services essential to the community.
- The maximum period for which one may be detained is 12 months. But the term can be extended if the government finds fresh evidence.
- In the normal course, if a person is arrested, he or she is guaranteed certain basic rights. These include the right to be informed of the reason for the arrest. But none of these rights are available to a person detained under the NSA.
- A person could be kept in the dark about the reasons for his arrest for up to five days, and in exceptional circumstances not later than 10 days.

- Even when providing the grounds for arrest, the government can withhold information which it considers to be against public interest to disclose.
- The arrested person is also not entitled to the aid of any legal practitioner in any matter connected with the proceedings before an advisory board, which is constituted by the government for dealing with NSA cases.
- The National Crime Records Bureau (NCRB), which collects and analyses crime data in the country, does not include cases under the NSA in its data as no FIRs are registered. Hence, no figures are available for the exact number of detentions under the NSA.
- In January, the government in Uttar Pradesh arrested three persons under the NSA in connection with an alleged cow-slaughter incident in Bulandshahr.
- In December last year, a Manipur journalist, who had posted an alleged offensive Facebook post on the Chief Minister, was detained for 12 months under the NSA.

### Article 35 A

- Govt may review its stand on Article 35A TIMES NEWS NETWORK New Delhi: The Supreme Court is expected to take up next week the challenge to Article 35A of the Constitution.
- Article 35 A gives the Jammu & Kashmir government the rights to confer special privileges to those whom it defines as “permanent residents” of the state.
- Article 35A prevents outsiders from acquiring any immovable property and denies property rights to women married to people from outside the state.

### Odisha

- UN Women has complimented the government of Odisha for proposing 33% reservation for women in Parliament and the State Assemblies.
- While the country awaits the passage of the Constitution (108th Amendment) Bill before Parliament; it is believed that such a commitment from the States is likely to renew dialogue on the issue at the national level.

### EVM

- An Electronic Voting Machine (EVM) is “information” under the Right to Information Act, the Central Information Commission has ruled.

- CIC noted that the definition of information under Section 2(f) of the RTI Act includes “any material in any form, including records, documents, memos, e-mails, opinions, advices, press releases, circulars, orders, logbooks, contracts, reports, papers, samples, models, data material held in any electronic form...”

### Forest Dwellers

The Centre filed an application urging the Supreme Court to modify its order directing the eviction of thousands of Scheduled Tribes (STs) and other traditional forest dwellers whose claims for forest land rights have been rejected under the Forest Rights Act of 2006.

**Global outlook**  
According to the Centre's application before the Supreme Court, the scheme of the Forest Rights Act, 2006, is in tune with several international covenants

- 1 UN Universal Declaration on Human Rights**  
Recognises the equal rights of the human family. **India is a signatory**
- 2 UN Convention Concerning Indigenous and Tribal Populations**  
Seeks to protect ownership rights of populations over lands they traditionally occupy. **Ratified by India**
- 3 UN Declaration on Rights of Indigenous People**  
Mandates to protect the rights of indigenous people to lands, territories and resources which they traditionally own, occupy and use. **India is a signatory**
- 4 UN Convention on Biological Diversity**  
Advocates preservation of indigenous knowledge and practices. **India is a party**
- 5 Rio Declaration on Environment and Development**  
Proclaims indigenous people have a vital role in environmental management



### Twitter

- As the country gets ready for the general elections and as the misuse of social media to influence the voting pattern weighs heavy, the government is leaving no stone unturned to ensure fair elections.
- The possibility of Twitter being directed to follow the Election Commission of India (ECI) guidelines for 48 hours — the so-called ‘silent period’ — in areas where polls are to be conducted was raised .
- Under Section 126(1) of the Representation of the People Act, 1951, no person shall propagate any election matter to the public by holding, or by arranging the holding of, any musical concert or any theatrical performance or any other entertainment or amusement with a view to attracting the members of the public thereto, in any polling area during the period of 48 hours ending with the hour fixed for the conclusion of the poll for any election in that polling area.

SCIENCE & TECH

**Gaganyaan**

- In 1984, India sent its first cosmonaut Rakesh Sharma to space in a Soviet spacecraft.
- After 38 years, in 2022, the Indian Space Research Organisation (ISRO) will send the first astronaut in a mission called Gaganyaan.
- The Union Cabinet in December 2018 had approved ₹10,000 crore for the Gaganyaan Project.
- Under the project a three-member crew will be sent to space for at least seven days.

**Obesity**

- The risk of developing obesity-related cancer is increasing in successive generations.
- For six of the 12 obesity-related cancers (multiple myeloma, colorectal, uterine, gallbladder, kidney and pancreatic) the risk for disease increased in adults in the 25- 49 age bracket, with the magnitude of the increases steeper with younger age.

**HPV vaccination**

The vaccine prevents cervical cancer, which kills over 3 lakh women every year.

**Perovskites**

Inkjet processing method for perovskites — a new generation of cheaper solar cells — makes it possible to produce solar panels under lower temperatures, thus sharply reducing costs.

**New Scientific Standard of Kg**

- The previous definition of kilogram was based on the mass of the international prototype 'kilogram' which is an artefact, however, the new definition is based on physical constants of nature.
- The change is in the definition of kilogram and will not have any practical implications.



**GSAT-31**

**Network booster**  
 India's latest communication satellite GSAT-31 was successfully put into orbit in the early hours of Wednesday by a European rocket from French Guiana, in a mission that is expected to enhance connectivity for ATMs and ensure uninterrupted DTH services

SALIENT FEATURES			
Lift-off mass: <b>2,535</b> kg	Spacecraft power: <b>4.7</b> kW	Mission life: <b>15</b> years	<b>Payload:</b> Ku-band transponders <b>Coverage area:</b> Indian mainland and islands

GSAT-31 is India's 40th communication satellite. It is configured on ISRO's enhanced I-2K bus and will augment the Ku-band transponder capacity in the geostationary orbit

**GSAT-31 WILL SUPPORT**

- VSAT networks
- Television uplinks
- DTH-television services
- Cellular connectivity
- ATMs

GSAT-31 has a unique configuration of providing flexible frequency segments and coverage  
 DR. K. SIVAN, ISRO Chairman

2 Ku-band beacon downlink signals are transmitted by the satellite for ground tracking purpose

GSAT-31 being loaded into the thermovac chamber.

GSAT-31 being launched by Ariane 5 from French Guiana. • ISRO, ARIANESPACE Source: ISRO, PTI

**Orion Source I**

- Astronomers have detected chemical fingerprints of common salt (sodium chloride) in an unusual place - around a star.
- Orion Source I is a young star behind the Orion Nebula.
- The salt may be formed from colliding dust grains in the surrounding disk.

**Hydrothermarchaeota**

- Hydrothermarchaeota, or microbes living in extreme environments may hold clues to the evolution of early life.
- These microbes use carbon monoxide and sulfate as sources of energy - chemosynthesis.

## Sepsis

- Sepsis occurs when bacterial infections spiral out of control and cause an inflammatory cascade to propagate through the body.
- The resulting inflammation then damages blood vessels and deprives organs of oxygen and nutrients, leading to organ failure and death.

## Bedin 1

- It is a modestly sized, elongated galaxy that measures only around 3,000 light-years at its greatest extent — a fraction of the size of the Milky Way.
- Not only is it tiny but it is also incredibly faint.
- These properties have led astronomers to classify it as a ‘dwarf spheroidal galaxy’.
- Dwarf spheroidal galaxies are defined by their small size, low-luminosity, lack of dust and old stellar populations.
- Bedin 1 was discovered by the Hubble Space Telescope.

## Hotels-50K

- Scientists are hoping artificial intelligence can help identify and rescue child victims of sex trafficking via an app and more than a million crowdsourced pictures of hotel rooms.
- Researchers launched an app in 2016 to collect photographs of 50,000 hotels around the world that could be matched up with online advertisements placed by traffickers, who often use selfies taken by their victims in hotel rooms.
- Hotels-50K can be used to identify where trafficking victims are being held — and ultimately to rescue them.

## Leprosy

- Parliament passed a bill removing leprosy as a ground for divorce under five personal laws including the Hindu Marriage Act.
- Leprosy is a chronic, progressive bacterial infection caused by the bacterium *Mycobacterium leprae*.
- It primarily affects the nerves of the extremities, the skin, the lining of the nose, and the upper respiratory tract.

- Leprosy is also known as Hansen's disease.

### PCSK9

- PCSK9 is a gene which particularly protects African-Americans against heart disease.
- The PCSK9 discoveries led to the development of PCSK9 inhibitors, said to be the most effective drugs to lower cholesterol — or low density lipoprotein (LDL) — since statins.
- While the PCSK9 may be critical for a category of heart disease patients, drugs were of limited utility if people had indulged in a lifetime of fatty food.

### Gaganyaan

- Gaganyaan was announced on August 15, 2018 as a marquee mission for the 75th year of Independence.
- It is slated to take place at a 'near-Earth' distance of 400 km.
- Before that, two unmanned trial flights with human-friendly capsules are to be flown in 2020, carrying a few micro-gravity experiments.
- The astronauts will be mainly trained at the IAF's Institute of Aerospace Medicine in Bengaluru.

### NDM-1

- The recent detection of the antibiotic resistant (AR) gene NDM-1, first isolated in India, in the Arctic region is a further indication of the globalisation of antimicrobial resistance.
- In essence, AR is a natural phenomenon. Most antibiotics are produced by soil microorganisms and over time they have evolved to become resistant to the compounds which they excrete to survive.
- NDM-1 was first reported in 2007 in a patient admitted to a hospital in New Delhi, but was reported to be present in Germany, the same year.
- The first finding of NDM-1 in the environment, rather than a clinic setting, was in surface waters of Delhi, in 2010. So finding NDM-1 in the High Arctic three years after the first report of its presence in the environment was very intriguing. The results show how far reaching and fast resistance can move around the globe.

- NDM-1 gene is present in highest concentrations near fresh water sources where wildlife tend to congregate.
- Mobile genetic elements (MGEs) is a mechanism by which bacteria 'trade' AR, to mirror NDM-1.
- MGEs are noteworthy here because they are often associated with 'acquired' resistance and are found at higher levels in human, or animal waste-impacted environments.
- The findings point towards the involvement of migratory birds, who could carry the resistance in the gut and transfer it to the Arctic soil through faecal matter.
- However, it is also possible that it may have migrated with humans and spread via local wildlife, or it may be a combination of factors.

### LADIS

- Moving a step ahead towards ensuring optimum use of National Waterways, the Inland Waterways Authority of India (IWAI) launched a new portal LADIS – Least Available Depth Information System here today.
- LADIS will ensure that real-time data on least available depths is disseminated for ship/barge and cargo owners so that they can undertake transportation on NWs in a more planned way.
- An assured depth of waterway is required for seamless movement of vessels. If real time information is made available regarding LADs in stretches of various NWs, it will help transporters by guiding them on the suitability of time of movement.
- IWAI has designed LADIS to facilitate the day to day operations of inland vessels plying on National Waterways and to avoid any hindrance in service and operation.
- It will enhance credibility and efficiency of information sharing to achieve seamless operations on National Waterways, besides pre-empting problems that may occur during movement of vessels.

### Multispectral Imaging

- Thousands of manuscripts scattered across India could face destruction.
- To preserve them, a highly advanced multispectral imaging technology, currently being used for rare texts in the Ashta Mutts of Udupi has been procured.

- Multispectral imaging can capture texts in manuscripts that are affected by pests, fungus, over-written, scribbled, blackened or scraped and cannot be seen with bare eyes.
- It uses infra-red and ultraviolet rays to retrieve texts.

## Leptospirosis

- Leptospirosis is caused by bacteria.
- Leptospirosis is one of the emerging zoonotic diseases and causes almost 60,000 deaths every year as there is currently no preventive vaccine for humans.

## Stem Cells

- Japanese researchers will carry out an unprecedented trial using human-induced pluripotent stem cells (iPS) to treat spinal cord injuries.
- The trial has the potential to develop into any cell in the body to treat patients with serious spinal cord injuries.
- Researchers will transplant two million iPS cells into the spines of the patients, who will be monitored for a year.
- There are more than 1,00,000 patients in Japan who are paralysed due to spinal cord injuries but there is no effective treatment.
- Earlier, researchers had transplanted iPS cells into the brain of a patient in a bid to cure Parkinson's disease.
- Parkinson's disease is a chronic, degenerative neurological disorder that affects the body's motor system, often causing shaking and other difficulties in movement.
- iPS cells are created by stimulating mature, already specialised, cells back into a juvenile state — basically cloning without the need for an embryo.

## Beresheet

- Israel will launch the first private spacecraft to land on the moon this week.
- The spacecraft is dubbed Beresheet, or Genesis.

## Killer T cells

- Scientists said they had discovered immune cells that can fight all known flu viruses.
- It could lead to a universal, one-shot vaccine against the killer disease.
- “killer T cells” — found in over half the world’s population — had shown to be effective in fighting all common flu varieties.

## LOFAR

- The known Universe just got a lot bigger. A new map of the night sky published charts hundreds of thousands of previously unknown galaxies discovered using a telescope that can detect light sources optical instruments cannot see.
- The team behind the space survey said their discovery literally shed new light on some of the Universe’s deepest secrets, including the physics of black holes and how clusters of galaxies evolve.
- The map was created by the LOFAR observations.
- Radio astronomy helps detect radiation produced when massive celestial objects interact. Ancient radiation.
- The team used the Low Frequency Array (LOFAR) telescope in the Netherlands to pick up traces — or “jets” — of ancient radiation produced when galaxies merge. These jets, previously undetected, can extend over millions of light years.
- With radio observations we can detect radiation from the tenuous medium that exists between galaxies.

## Hippocamp

- Hippocamp is a moon of Neptune.
- Neptune’s tiny, mysterious moon may be a ‘chipped-off piece’ from a larger moon as a result of collision with a comet that took place billions of years ago.
- NASA’s Hubble Space Telescope had discovered Hippocamp in 2013

## DNS

- The government will soon roll out a public Domain Name Server, or DNS, for India aimed at providing a faster and more secure browsing experience for Internet users in the country, while ensuring that citizens’ data is stored locally.

- A DNS is a like a directory for the Internet.
- It helps to convert domain names that are easy for people to remember into IP addresses, which are used by computers/machines to communicate.
- If the DNS is either slow or fails to work, users will not be able to locate web addresses.
- The main aim of bringing our own public DNS is to ensure availability, particularly for smaller Interest Service Providers (ISPs) who don't have credible DNS. Bigger ones usually have their own DNS.
- If you use any public DNS, they access and use all your data.
- It is not that users will compulsorily need to shift to India public DNS. A user is free to choose any DNS.

### Hepatitis

- Patients infected with hepatitis B and C virus, will soon be able to avail free treatment.
- Viral hepatitis is a global public health problem that kills nearly 2.72 lakh people annually.
- It is an inflammatory condition of the liver caused by five known hepatitis viruses — A, B,C,D and E. Of these, B and C are known to cause 96% mortality.
- While hepatitis B requires life-long treatment which costs around ₹2,500 per month, hepatitis C requires a 84-day long course costing nearly ₹40,000.
- Amitabh Bachhan launched the action plan to tackle hepatitis B.

### Forest Fire

- One of the methods to contain forest fires is counter fire, a technique in which wild fire is doused by deliberately setting fire in the opposite direction of the raging flames.
- The inward movement of the counter fire consumes all vegetation and leaves a bare strip of land with no fuel to burn and the wild fire gets extinguished naturally.

### Hyper Spectral Imagery

- The Indian Air Force (IAF) has commissioned the development of an aerial surveillance system for monitoring suspicious movements under dense foliage cover along the international border and some parts within the country.



- This hyper spectral imagery programme, a first for the country, seeks to locate and identify suspicious movements and is expected to be operational in the next two years.
- What the programme would mean is that the data gathered from aerial sources would be processed within minutes, and researchers would be able to tell security forces on the ground of “unwanted” human presence in the area, their numbers and locations, among other inputs.
- This is a unique patent application, which will help identify the presence of a human below trees, dense foliage, shrubs or inside a structure, whether it is day or night. It can detect human presence from air even if there a cloud cover, dense fog or snow cover.
- Data/images will be captured through optical and infra red sensors — to be most likely mounted on an unmanned aerial vehicle — and processed through deep learning algorithms.

### Cell-Based Meat

- By 2020, cell-based meat may finally make its way to an Indian laboratory — and ultimately to Indian dining tables as well.
- The Maharashtra government and the Institute of Chemical Technology (ICT) signed an agreement with the U.S.-based non-profit Good Food Institute (GFI) this week to set up a Centre for Excellence in Cellular Agriculture.
- The first government-funded research on this kind of lab-grown meat began in the Netherlands in 2005, and culminated in August 2013, when the first cell-cultured hamburger was cooked and tasted live on air in London.
- The meat is slaughter-free and aims to bypass the problems of modern factory-farming and the objections of cruelty to animals. There is no scope for infections from salmonella and e coli, or meat injected with multiple doses of antibiotics.

### MU69

- NASA’s New Horizons spacecraft has beamed back the sharpest images of Ultima Thule — the most distant object ever explored by mankind.
- Just before its closest approach on January 1, the spacecraft pointed the cameras to snap the sharpest possible pictures of the Kuiper Belt object officially named 2014 MU69.

### GRACE

- In 14 years (2001-02 to 2014-15), net irrigation in India increased just 20 per cent, with an alarming trend of massive groundwater extraction.

- While 41 per cent of the net irrigated area in India got water from tube wells in 2001-02, tubewell irrigation increased to 46 per cent in 2014-15.
- The withdrawal rate expressed as a percentage of the net ground water available per year exceeds 100 per cent in some states.
- The work based on data from NASA's Gravity Recovery and Climate Experiment (GRACE) satellites, reveals significant rates of non-renewable depletion of groundwater levels over large areas.
- Water tables are falling in most parts of India with fluoride, arsenic, mercury, even uranium found in groundwater.

### **Nipah**

- Japanese scientists are to speed up work on a vaccine against a brain-damaging disease caused by the Nipah virus.
- Nipah virus was first identified in 1999 during an outbreak of illness affecting pig farmers and others in close contact with pigs in Malaysia and Singapore.
- Nipah is transmitted to humans via direct contact with infected bats, infected pigs or other infected people.

### **Gynandromorph**

- Gynandromorph is a butterfly with a colour and pattern that are distinctly male on one wing and female on the other.
- Scientists say these instances of split-sex animals and insects could offer clues to why some human diseases strike one sex more than the other.
- Mammals have X and Y chromosomes, birds and insects have Z and W, and some reptiles can change their sex depending on temperature, or a combination of temperature and sex chromosomes.
- How gynandromorphs are born at all still remains a mystery. For birds, the most likely explanation is that a female makes an unusual double-nucleus egg cell, one with a Z chromosome and one with a W chromosome, and each is fertilized by a Z sperm, making some cells ZZ and others ZW in the same individual. The same process is very unlikely to happen in mammals.

### **Mrinal**

- Mrinal is Indian space programme's first composite solid propellant for launch vehicles.
- It was developed 50 years back.

**SOCIAL SECTOR**

**Pradhan Mantri Shram-Yogi Maandhan**

- The Centre has allocated ₹500 crore for a new pension scheme for workers in the unorganised sector, even while reducing its allocation for an existing pension scheme by ₹775 crore.
- The new scheme, to be called the Pradhan Mantri Shram-Yogi Maandhan, will benefit unorganised sector workers who have a monthly income up to ₹15,000.
- It will provide them a monthly pension of ₹3,000 from the age of 60.
- Workers will contribute an amount ranging from ₹55 to ₹100 each month, depending on their age, at the time of joining the scheme, while the government will deposit a matching contribution.

**PMEGP**

- The maximum cost of the project under PMEGP scheme is Rs.25.00 lakhs for manufacturing sector units and Rs.10.00 lakhs for units under service sector.
- Under the scheme, women entrepreneurs are covered under Special Category and are entitled to 25% and 35% subsidies for the project set up in urban and rural areas respectively.
- PMEGP is implemented through Khadi and Village Industries Commission (KVIC).

**LPG Schemes**

- The government has two major schemes in the LPG sector.
- PAHAL scheme, the first, involves direct cash transfers to LPG consumers for 12 numbers of 14.2 kg cylinders per year.
- The second scheme, the Ujjwala Yojana, seeks to give free LPG connections to poor households.

**Nikshay Poshan Yojana**

- Nikshay Poshan Yojana for TB patients has been launched by the Department of Health and Family Welfare, Government of India, for distribution of incentives for nutritional support to TB patients.

- Benefits under this scheme will be delivered through Direct Benefit Transfer to the bank account of the beneficiary.
- It is with this objective that the scheme to provide nutritional support to every TB patient at the rate of Rs 500 per month for the duration of their treatment has been initiated from April 1, 2018.

### **PMAY-U**

- Four years after the government launched the Pradhan Mantri Awas Yojana-Urban (PMAY-U), just 20 per cent houses have been completed under the scheme against the sanctioned number of houses.
- In line with the government's vision of "Housing for All" by 2022, the Ministry of Housing and Urban Affairs is implementing PMAY-U since June 2015 for providing assistance to States/Union Territories (UTs) in addressing the housing requirement of the people belonging to the Economically Weaker Sections (EWS), Lower Income Group (LIG) and Middle Income Group (MIG) categories in urban areas.
- The government aims to build 1 crore houses under the scheme.
- Based on their demand for housing under the PMAY -U, the States/UTs formulate project proposals and they are approved by the concerned State Level Sanctioning and Monitoring Committee (SLSMC) which is chaired by the Chief Secretary of the concerned State.
- After approval from the concerned SLSMC, the States/UTs submit the proposals to the Ministry for approval of Central assistance by the Central Sanctioning and Monitoring Committee.

### **Child Poverty**

- India is second only to sub-saharan Africa in how many poor children live in the country.
- India consists of 30.3 per cent of extremely poor children living across the world.
- In 2017, India expanded the nationwide extension of conditional cash transfer programme for pregnant and lactating women as a part of Maternity Benefit Programme (a cash transfer of ₹6,000 paid in 3 installments — at the early registration of pregnancy, at the time of institutional delivery and three months after delivery if the child is registered)
- However, it later limited the maternity benefit to one child only (instead of two, as was previously announced in January 2017).

- Bihar rolls out Mukhyamantri Kanya Utthan Yojana, which transfers close to \$800 (over ₹57,000) to a girl starting from birth going upto primary, secondary and then college graduation level, and maximum of two girls can benefit from the family for the scheme.

### **Atal Bhujal Yojana**

- The World Bank has approved Atal Bhujal Yojana (ABHY), a Rs.6000 Crore scheme, for sustainable management of ground water with community participation.
- The funding pattern is 50:50 between Government of India and World Bank.
- The identified over-exploited (OE) and water stressed areas for the implementation of the scheme fall in the States of Gujarat, Haryana, Karnataka, Madhya Pradesh, Maharashtra, Rajasthan and Uttar Pradesh.
- ABHY envisages active participation of the communities in various activities such as formation of 'Water User Associations', monitoring and disseminating ground water data, water budgeting, etc.

### **Leprosy**

- The rise in the number of recorded leprosy cases reported a decade and a half after India was declared leprosy-free in 2005, has turned the spotlight on the hotspots for the disease.
- The World Health Organisation (WHO) has set the goal of zero children with leprosy and deformities by 2020, and less than one patient per million for other newly diagnosed patients.
- Today, though, Bihar, Chhattisgarh, Odisha, Jharkhand, Uttar Pradesh, West Bengal and Maharashtra remain the 'hotspots' from which maximum prevalence was detected last year.
- High population density, poor sanitation and inadequate access to nutrition are among the reasons for the number remaining high.

### **Saubhagya**

- Just about 28,500 or 0.1% of households in a clutch of five districts across the country remain unelectrified amid expectation that full electrification will be completed by the month-end, bringing to conclusion an ambitious project to take electricity to all villages.

- Electrification of all households under PM Saubhagya scheme is a flagship programme of the Modi government, which had advanced the deadline to December
- The scheme funds the cost of last-mile connectivity to willing households to help achieve the goal of lighting every household by 31 December 2018.
- A village is declared to be electrified if 10% of the households are given electricity along with public places such as schools, panchayat office, health centres, dispensaries and community centres.

### **PMSYM (Pradhan Mantri Shram Yogi Maandhan)**

- The proposed pension scheme for the unorganised sector workers — Pradhan Mantri Shram Yogi Maandhan (PMSYM) — with the government as a co-contributor, has put a big question mark on the continuity and growth of the existing flagship pension scheme, Atal Pension Yojana (APY), which is also targeted at the same segment of the population.
- It has also raised questions about duplication of the government's pension initiatives.
- The new scheme, promising Rs 3,000 per month pension, will benefit around 42 crore workers in the sector.
- In APY, previously known as Swavalamban Yojana and announced in the 2015 Budget, the full contribution is by the subscriber.
- The new pension scheme has the government as a 50 per cent co-contributor which is not there in the APY.

### **Skill Loan Scheme**

- Government of India has launched "Skill Loan Scheme" with a view to support youth by providing a loan facility to individuals who intend to take up skill development courses as per the Skill Loan eligibility criteria.
- Skill Loan Scheme is applicable to all the member banks of Indian Bank Association (IBA) and any other bank and financial institution including Micro Finance Institution regulated by Reserve Bank of India (RBI).
- Bank of India being the lead bank of Ministry of Skill Development & Entrepreneurship has been the first bank to notify and implement such a Skill Loan Scheme.
- The Loans are available in the range of Rs.5,000/- to Rs.1,50,000/-.

**PMEGP (Prime Minister's Employment Generation Programme)**

- MSME Ministry is implementing the Prime Minister's Employment Generation Programme (PMEGP).
- PMEGP is a major credit-linked subsidy scheme since 2008-09, to set up micro enterprises and to generate employment in rural and urban areas of the country.
- The maximum cost of the project under PMEGP scheme is Rs.25.00 lakhs for manufacturing sector units and Rs.10.00 lakhs for units under service sector.
- Under the scheme, women entrepreneurs are covered under Special Category and are entitled to 25% and 35% subsidies for the project set up in urban and rural areas respectively.
- About 30% projects have been setup by women out of total projects set up under PMEGP.

**Swachh Shakti**

- Swachh Shakti-2019 is a national event which aims to bring in to focus the leadership role played by rural women in Swachh Bharat Mission.
- Women Sarpanches and Panches from all over the country will be attending the event.
- Govt launched the Swachh Shakti program first in 2017 at Gandhinagar, Gujarat.
- The second Swachh Shakti event, Swachh Shakti-2018 was held at Lucknow in Uttar Pradesh.
- Now the third edition is being inaugurated from Kurukshetra.
- Swachh Shakti is an example of how at the grass root level, rural women champions are acting as a change agent to mobilize the community and lead from the front women taking initiatives for a Swachh Bharat.
- The movement is a part of ongoing activities under the aegis of the Swachh Bharat Mission, launched on October 2nd, 2014, at achieving a Clean and Open Defecation Free (ODF) India by 2nd October, 2019.

**Lighthouse Projects**

- The Ministry of Housing & Urban Affairs has instituted a challenge for States/ UTs to select six sites across the country for constructing the Lighthouse projects under GHTC-India.



- The winning six States/ UTs that score the highest marks across the prescribed criteria will be awarded lighthouse projects.
- The States/ UTs will receive Central Assistance to construct these projects.

### **Vande Bharat Express**

- The 'Make in India' effort of Indian Railways has culminated into India's first Semi High Speed Train, "Vande Bharat Express".
- It will run on New Delhi-Kanpur-Allahabad-Varanasi route.
- Vande Bharat Express can run up to a maximum speed of 160 kmph and has travel classes like Shatabdi Train but with better facilities. It aims to provide a totally new travel experience to passengers.
- Adding up the green footprints, the train has regenerative braking system in the Vande Bharat Express coaches which can save up to 30% of electrical energy.
- In keeping with the vision of "Make in India", the major systems of the train have been designed and built in India.

### **PM-SYM (Pradhan Mantri Shram Yogi Maan-dhan)**

- Pradhan Mantri Shram Yogi Maan-dhan (PM-SYM) will be rolled out by the Ministry of Labour and Employment tomorrow.
- As many as 42 crore workers are estimated to be engaged in the unorganized sector of the country.
- The unorganised workers mostly engaged as home based workers, street vendors, mid-day meal workers, head loaders, brick kiln workers, cobblers, rag pickers, domestic workers, washer men, rickshaw pullers, landless labourers, own account workers, agricultural workers, construction workers, beedi workers, handloom workers, leather workers, audio-visual workers and similar other occupations whose monthly income is Rs 15,000/ per month or less and belong to the entry age group of 18-40 years are eligible for the scheme.
- They should not be covered under New Pension Scheme (NPS), Employees' State Insurance Corporation (ESIC) scheme or Employees' Provident Fund Organisation (EPFO).
- Further, he/she should not be an income tax payer.
- Each subscriber under the PM-SYM, shall receive minimum assured pension of Rs 3000/- per month after attaining the age of 60 years.

## Minimum Wages

- An expert panel has recommended that a need-based national minimum wage for workers across the country be set at ₹375 per day, or ₹9,750 per month.
- The Committee has also recommended different national minimum wages for different geographical regions of the country to suit the local realities and as per socio-economic and labour market contexts.
- These regional wage recommendations range from ₹342 per day in some States including Bihar, Uttar Pradesh and West Bengal to ₹447/day for States such as Delhi, Goa, Haryana, Himachal Pradesh and Punjab.
- While the Minimum Wages Act was enacted in 1948, it stipulates different wages according to occupation and State; there is no national minimum wage.
- In 2016, govt hiked minimum wages for unskilled non-agricultural workers by 42% to ₹350 per day.

## Helpline - 112

- The government launched the panic button feature on mobile phones for safety of women and other emergency services across 16 States and Mumbai.
- In order to access an emergency service, such as police, medical and other services, a user can dial 112 from any phone.
- A smartphone user can also press the power button thrice in quick succession and a user of a basic or feature phone can long press 5 or 9 on the key pad.
- One can also download the 112 mobile application.
- Once a user presses the panic button, five calls will be made to emergency number 112 as well as call log details and the geo location of the victim will be sent by SMSes and emails to police officials at the State, district and local level.
- The panic button facility, also known as the Emergency Response Support System, is being supported under the Nirbhaya Fund set up for safety of women.

## Forest Dwellers

- A recent Supreme Court order may lead to the eviction of lakhs of persons belonging to the Scheduled Tribes (STs) and Other Traditional Forest Dwellers (OTFDs) categories across 21 States — their claim as forest dwellers have been rejected under the Forest Rights Act of 2006.

- Section 6 of the Scheduled Tribes and Other Traditional Forest Dwellers (Recognition of Forest Rights) Act of 2006 shows a multi-layered and hierarchical procedure for recognition or rejection of forest-dweller claims starting at the gram sabha level with multiple appellate committees at the State level.

### **MARS**

Pension Fund Regulatory and Development Authority (PFRDA) is working on a minimum assured return scheme (MARS) for subscribers of the National Pension System (NPS).

### **Drug Price Control**

- The government brought 42 non-scheduled anti-cancer drugs under price control, capping trade margin at 30%, which would reduce their retail prices by up to 85%.
- The National Pharmaceutical Pricing Authority (NPPA) has invoked extraordinary powers in public interest, under Para 19 of the Drugs (Prices Control) Order, 2013 to bring 42 non-scheduled anti-cancer drugs under price control through trade margin rationalisation.
- Currently, 57 anti-cancer drugs are under price control as scheduled formulations.
- Now, 42 non-scheduled anti-cancer medicines have been selected for price regulation by restricting trade margin on the selling price (MRP) up to 30%, the notification said.
- NPPA currently fixes prices of drugs placed in the National List of Essential Medicines (NLEM) under Schedule-I of the DPCO.
- So far, around 1,000 drugs have been brought under price control under the initiative.
- Non-scheduled drugs are allowed an increase of up to 10% in prices every year, which is monitored by the NPPA.

### **Yuva Sahakar**

National Cooperative Development Corporation (NCDC)'s new scheme 'Yuva Sahakar' was launched in November 2018 for giving wings to young entrepreneurs in cooperatives.

### SHREYAS

- The Minister for Human Resources Development launched the Scheme for Higher Education Youth in Apprenticeship and Skills (SHREYAS) for providing industry apprenticeship opportunities to the general graduates exiting in April 2019 through the National Apprenticeship Promotional Scheme (NAPS).
- The program aims to enhance the employability of Indian youth by providing 'on the job work exposure' and earning of stipend.

### Atal Innovation Mission (AIM)

- NITI Aayog's Atal Innovation Mission (AIM) and Adobe signed an agreement to collectively drive the charter of developing creative skills and spreading digital literacy across all Atal Tinkering Labs in India.
- Adobe shall be adopting 100 schools under Atal Tinkering Labs (ATL) initiative.
- AIM is the Government of India's flagship initiative to promote a culture of innovation and entrepreneurship in the country.
- As a part of AIM, ATLs are being established in more than 5,000 schools in India where students of class 6th to class 12th acquire problem solving and innovation skills.
- The Atal Tinkering Lab is based on the philosophy to identify and nurture innovation in young students across the country.
- The Atal Innovation Mission proactively seeks to promote scientific temper and the spirit of entrepreneurship in a New India of tomorrow.