

OFFICERS'

Pulse

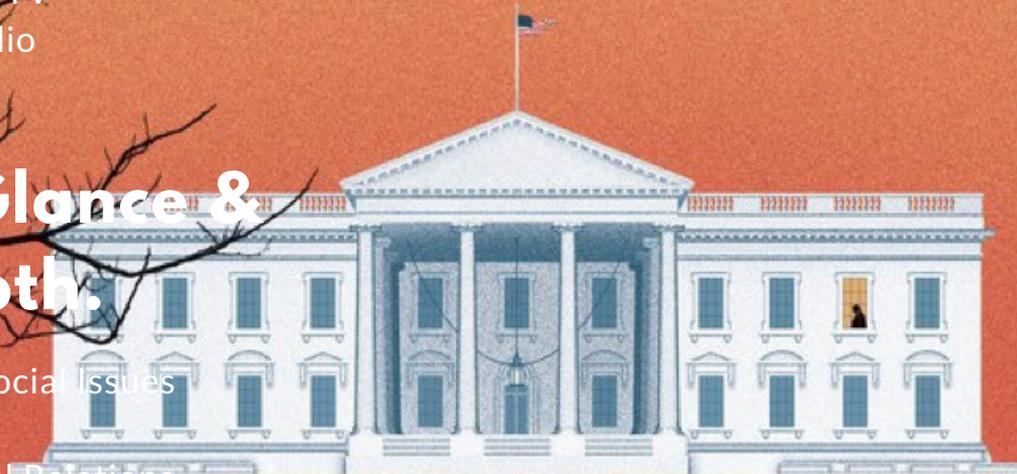
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At a Glance & In Depth.

Polity and Social Issues
Economy
International Relations
Environment
Science and Tech
Culture..



CURRENT AFFAIRS WEEKLY

THE **PULSE** OF UPSC AT
YOUR FINGER TIPS.



News @ a glance

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News @ a glance

Polity and social issues

Integrated Road Accident Database Project

Why in news?

- The Ministry of Road Transport & Highways is in the process of implementing 'Integrated Road Accident Database Project (IRAD)' which will be applicable across the country.

About the project:

- IT based system for capturing the spot accident data using mobile app and tablets configured for this purpose.
- This data can then be utilized for various purposes like finding the causes of the accidents and remedial measures to improve the road infrastructure, to record the accidents data for the use of police, health services and other concerned departments.

Consortium for Academic & Research Ethics

Why in news?

- To maintain the Credibility of Research Publications UGC has decided to establish a Consortium for Academic and Research Ethics (CARE).

About CARE:

- The good quality Research Journals in disciplines under Social Sciences, Humanities, Languages, Arts, Culture, Indian Knowledge Systems etc., will be maintained by CARE and referred to as 'CARE Reference List of Quality Journals'.
- This will be used for all academic purposes. The 'CARE Reference List of Quality Journals' will be regularly updated and published by the UGC and the Members of the Consortium at their respective websites.

National Policy on Domestic Workers

Salient features of the policy:

- Inclusion of Domestic Workers in the existing legislations
- Domestic workers will have the right to register as unorganized workers. Such registration will facilitate their access to rights & benefits.
- Right to form their own associations/unions
- Right to minimum wages, access to social security
- Right to enhance their skills
- Protection of Domestic Workers from abuse and exploitation
- Domestic Workers to have access to courts, tribunals for grievance redressal
- Establishment of a mechanism for regulation of private placement agencies.
- Establishment of a grievance redressal system for domestic workers

Why in news?

- According to National Sample Survey (NSSO Statistics-2011-2012, 68th round) it is estimated 39 lakh people are employed as domestic workers by private households, of which 26 lakhs are female domestic workers.
- The Ministry of Labour & Employment is considering formulating a National Policy on Domestic Workers which is in the draft stage.

Leprosy not a ground for divorce

Personal Laws (Amendment) Bill, 2018:

- Personal Laws (Amendment) Bill, 2018, seeks to end the discrimination against leprosy persons in various central laws: the Divorce Act, 1869; the Dissolution of Muslim Marriages Act, 1939; the Special Marriage Act, 1954 etc.
- The Bill eliminates leprosy as a ground for dissolution of marriage or divorce.
- The condition under Section 18 (2) (c) of the Hindu Adoptions and Maintenance Act, that a Hindu wife is entitled to live separately from her husband without

forfeiting her claim to maintenance if the latter is suffering from a virulent form of leprosy has been omitted.

- The amendments introduced in the Bill omit the provisions which stigmatise and discriminate against leprosy-affected persons.

Why in news?

- The Lok Sabha has passed the Personal Laws (Amendment Bill), 2018, which seeks to remove leprosy as a ground for divorce. Leprosy is being removed as a ground for divorce as it is now a curable disease as against the earlier notion of it being incurable.

Battling food scarcity

Survey report:

- Nearly one third [31%] of the surveyed households (of tribals in West Bengal), faced food scarcity in varying degrees in the past year.
- 48 out of 52 were premature deaths and only four were due to old age.
- The work participation rate [WPR] is higher among the Adivasis in Bengal forcing the children of school going age to discontinue their studies in order to fend for themselves and support the families.
- Both the children and elderly were also involved in earning, and that the rate of transition in education was low
- Degradation of forest and environmental degradation are cited as two more reasons for “reduced availability of natural nutrients” resulting in early deaths.



Why in news?

- Pratiichi Institute of Amartya Sen and Asiatic Society conducted a survey titled 'An Inquiry into the world of the Adivasis of West Bengal'.
- The survey was conducted in 1,000 tribal households to ascertain living conditions, health and education.

Driving licence + Aadhaar

Benefits of the move:

- **It will help in better identification of licence holders:** For instance A person guilty of committing an accident often flees the scene and get another duplicate licence. However, linking Aadhaar with driving licence will allow easy identification in such cases.
- **The move will help avoid duplication of driving licences:** One of the key reasons behind the government's intention to link driving licence with Aadhaar card is to crack down on illegal duplication of licences. At present, it is easy to get duplicate licences by approaching different Regional Transport Offices (RTO). This is a reason of concern for the government as many people misuse the document.
- **Payment of fines:** Having Aadhaar linked to driving licence will also ensure that people pay fines that have been issued. As of now, many people either void paying the penalties for long durations or just get a new licence made if the fine amount is too high. Linking of Aadhaar with driving licence will also help in solving such instances.

Why in news?

- The central government announced that linking of driving licence with Aadhaar card will soon be made mandatory.
- The proposal was announced after the Aadhaar amendment bill was passed in the Lok Sabha, which gave legal status to the voluntary seeding of Aadhar number to mobile and bank account valid.

Legal status for SSC?

About SSC:

- Staff Selection Commission (SSC) is an organization under Government of India to recruit staff for various posts in the various Ministries and Departments of the Government of India and in Subordinate Offices
- This commission is an attached office of the Department of Personnel and Training (DoPT).
- The Estimates committee in the Parliament recommended the setting up of a Service Selection Commission in its 47th report (1967-68) for conducting examinations to recruit lower categories of posts.
- The SSC was created to ease the burden of the UPSC by taking over the recruitment for posts below the Group 'A' level.

Why statutory status?

- While the workload and responsibilities of the SSC have increased exponentially over the years, it has remained an “attached body” under the Department of Personnel and Training (DoPT), and has to depend entirely on the government for all its needs, with no autonomy.
- According statutory status to the SSC would contribute to
 - Greater functional autonomy
 - Faster decision-making
 - Efficiency in the overall performance
 - Delivery of results by the SSC in the recruitment process.

Why in news?

- A Parliamentary Standing Committee (PSC) has recommended that the Centre accord statutory status to the Staff Selection Commission (SSC).

Global aviation summit

About Global Aviation Summit:

- The International Civil Aviation Organization has predicted a 100 percent increase in global air travel by the year 2030, creating a need for extensive efforts to bring the entire aviation ecosystem to pace.
- To ride this strong growth and pave the way forward for the sector, **the Ministry of Civil Aviation (MoCA), in collaboration with FICCI is organizing a Global Aviation Summit** with an overarching theme of “**Flying for all**” on 15-16 January 2019 in Mumbai, the financial capital of India.
- The Summit is supported by various organisations namely International Civil Aviation Organization (ICAO), Federal Aviation Administration of USA (FAA), International Air Transport Association (IATA), Civil Air Navigation Services Organisation (CANSO), Airports Council International (ACI) and Association of Asia Pacific Airlines (AAPA).

Focus area of the summit:

- The global aviation industry is in a high-growth trajectory, ushering an era of rapid expansion. Going forward, the biggest driver of demand will be the emerging economies, which will need to cater for air travel for the **nearly 6 billion people**.
- The Summit aims to focus on the celebration of ‘Flying for All’ and to provide

Officers IAS Academy, Chennai a platform to the aviation fraternity to **showcase the challenges of the sector** in the newly developing growth spots and understand how the technology-driven innovations will change the air travel in future.

- The Summit also aims to be **the most comprehensive platform for civil aviation**, witnessing a vivid representation from the global aviation ecosystem entailing global leaders from airlines, manufacturers, investors, vendors, cargo, space industry, banking institutions, skill development agencies and states & UTs of India.

International Civil Aviation Organization:

- The International Civil Aviation Organization (ICAO), is a **specialized agency of the United Nations**.
- It codifies the principles and techniques of international air navigation and fosters the planning and development of international air transport to ensure safe and orderly growth.
- Its headquarters is located in the Quartier International of Montreal, Quebec, Canada.



Site Potential Development Report

About Site Potential Development Report:

- The holistic development of identified Islands in the country has been taken up by NITI Aayog.
- The final Site Potential Development Report has been prepared for four islands in Andaman & Nicobar (A&N) (*namely Smith, Ross, Long and Aves Islands and five islands*) in Lakshadweep (*namely Minicoy, Bangaram, Thinnakara, Cheriyam and Suheli Islands*).
- Tourism based projects have been identified in Long, Aves, Smith and Neil Islands of A&N and Minicoy, Kadamat and Suheli Islands of Lakshadweep while according priority to air and sea connectivity and the construction of airport at Minicoy in Lakshadweep by the Indian Air Force.

- The Ministry of Tourism has also sanctioned a project for Rs. 42.19 Crore during 2016-17 for Development of Coastal Circuit (Long Island-Ross Smith Island-Neil Island- Havelock Island- Baratang Island-Port Blair) in Andaman & Nicobar under the Coastal thematic circuit of Swadesh Darshan Scheme for development of island tourism in the country.

About Island Development Agency (IDA):

- Islands Development Agency (IDA) has been constituted on 1st June, 2017 under the Chairmanship of the Home Minister, Government of India to oversee the comprehensive development of Islands.
- Its members include, cabinet secretary, home secretary, secretary (environment, forests and climate change), secretary (tourism) and secretary (tribal welfare).
- Further, a Committee has been constituted in NITI Aayog to recommend a road map for harnessing the development potential of Little Andaman and Great Nicobar Islands in Andaman & Nicobar Islands.

E-Prisons

About e-prisons:

- The Scope of this project is to computerize and integrate all the activities related to prison and prisoner management in the jail.
- This application suite will provide the vital information about the inmates, lodged in the prisons, in real time environment to the prison officials and other entities, involved in Criminal Justice System.
- It will also facilitate online visit request and grievance redressal. ePrisons application suite, developed by NIC, is cloud based product designed with easy to use GUI and embedded with a comprehensive security features.
- It can be easily adopted by any state prisons department with minimum customization efforts since all the possible customization features are parameterized and can be configured by the users.

About NIC (National Information Centre):

- The National Informatics Centre is the premier science and technology organisation of the Government of India in informatics services and information and communication technology (ICT) applications. It is part of the Indian Ministry of Electronics and Information

Officers IAS Academy, Chennai

Technology's Department of Electronics & Information Technology.

- The NIC was established in 1976.
- It plays a pivotal role in steering e-governance applications in the governmental departments at national, state and district levels, enabling the improvement in, and a wider transparency of, government services. Almost all Indian-government websites are developed and managed by NIC.

The DNA Technology (Use and Application) Regulation Bill, 2019

Key Features of the Bill:

- It allows law enforcement agencies to collect DNA samples, create "DNA profiles" and special databanks for forensic-criminal investigations.
- It states that all DNA data, including DNA samples, DNA profiles and records, will be only used for identification of the person and not for any other purpose.
- It creates **DNA Profiling Board (DPB)** that will be final authority that will authorise creation of State-level DNA databanks, approve the methods of collection and analysis of DNA-technologies.
- It makes accreditation and regulation mandatory for DNA laboratories.
- It allows government to set up DNA data banks across India to store profiles.
- These banks will maintain national database for identification of victims, accused, suspects, undertrials, missing persons and unidentified human remains.
- It also empowers government to impose jail term of up to 3 years and fine of up to Rs. 1 lakh on those who leak information stored in such facilities.
- It prescribes similar punishment for those who seek information on DNA profiles illegally.

Why in news?

- Lok Sabha passed the DNA Technology (Use and Application) Regulation Bill – 2019 on Jan 8,2019.

Jal Charcha

Purpose of Jal Charcha:

- It aims to engage with the people of India in informed decision-making at the central level.

- The magazine will be shared with people not just at the state level, but also at the grassroot level.
- The magazine is also an effort to bring best practices in water sector to the national stage and move ahead in the direction of creating water consciousness in the minds of the people of the country.
- Different themes on water conservation will be focussed on each magazine, so that different stakeholders can participate and give their views on water conservation.

Why in news?

- Union Minister for Water Resources, River Development and Ganga Rejuvenation Shri Nitin Gadkari released the inaugural issue of the monthly magazine Jal Charcha, on water conservation.

Gangajal Project

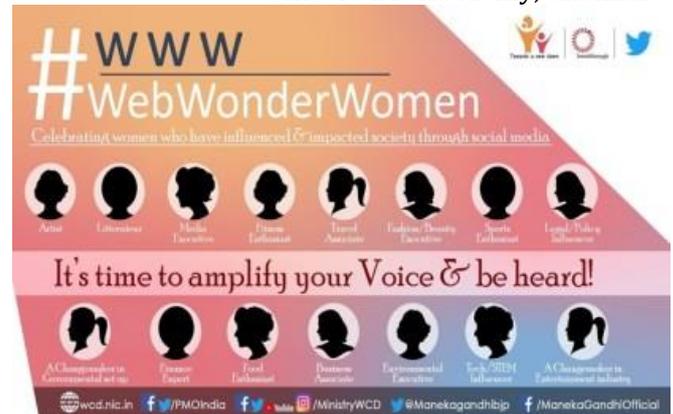
About the project:

- The Prime Minister dedicated to the nation, Gangajal project, which will provide Agra with better and more assured water supply, at an estimated cost of Rs.2880 crores.
- Gangajal project aims to bring 140 cusecs of Ganga water to Agra. This will help meet the drinking water demands in the city.

Web-Wonder-Women Campaign

About the campaign:

- Indian women have always been enterprising and have created a positive impact on society with their hard-work, experience and knowledge.
- #www: WebWonderWomen is a campaign to specially honour and encourage such voices that have in their own capacity driven a positive impact on social media platforms.
- The Campaign's Partners aim to recognize the fortitude of Indian women stalwarts from across the globe that has used the power of social media to run positive & niche campaigns to steer a change in society.



Rules for Nomination

- The Campaign invites Entries via Nominations from across the world, as per the laid out criteria.
- Indian-origin women, working or settled anywhere in the world, are eligible for nomination.
- The shortlisted entries will be open for public voting on Twitter and the finalists will be selected by a specialized panel of judges.
- Nominations have been invited in a large number of categories including Health, Media, Literature, Art, Sports, Environmental protection, fashion among others.

Why in news?

- The Union Ministry of Women and Child Development has launched an online campaign, '#www: Web-Wonder Women'.

Section 126 of RPA, 1951

Why in news?

- The Election Commission of India constituted a 14-member committee to suggest changes to Section 126 of the Representation of the People Act, 1951 (RP Act) in view of social media expansion. The Committee will be chaired by Senior Deputy Election Commissioner Umesh Sinha.
- It has also been tasked to examine the difficulties faced in regulating media platforms during the prohibitory 48 hours in a multi-phase election.
- The committee submitted its report on 10 Jan 2019, details of which is yet to be made public.

Sec 126 of RP Act, 1951:

- Section 126 of RP Act, 1951 prohibits displaying any election matter by means of television or similar apparatus, during the period of 48 hours before the hour fixed for

conclusion of poll in a constituency. It does not include social and new media under its ambit.

Pariksha Pe Charcha 2.0

Salient features of “Pariksha Pe Charcha 2.0”:

- It is a unique interaction where students, parents, teachers and Prime Minister, Shri Narendra Modi will come together to discuss issues relating to exam life and stress connected with that.
- An online competition has been organized from 7th January to 17th January, 2019, for students of classes 9 to 12, graduate and undergraduate college students, their parents and their teachers, in which they can participate through various themes.
- The themes for students include the exciting learning experience from class 9-12 and their goals for graduation and post graduation; teachers themes on thoughts and experiences in teaching and for parents its about what they learnt from their children in those years.

Why in news?

- Prime Minister Shri Narendra Modi will be interacting with a cross section of Students, Teachers and Parents for another exciting edition - Pariksha Pe Charcha 2.0 at Talkatora Stadium, New Delhi on 29th January'19.
- This event is a sequel of the last year Pariksha Pe Charcha event, when PM interacted with the students to drive away the exam fears of the students.

Renukaji Multipurpose Dam Project

Renukaji Multi Purpose Project:

- Beneficiaries: Uttar Pradesh, Haryana, Himachal Pradesh, Delhi, Rajasthan and Uttarakhand.
- Three storage projects are proposed to be constructed on the river Yamuna and two of its tributaries - Tons and Giri in the hilly regions of Uttarakhand and Himachal Pradesh of Upper Yamuna Basin.
- These include Lakhwar project on river Yamuna in Uttarakhand, Kishau on river Tons in Uttarakhand and Himachal Pradesh and Renukaji on river Giri in Himachal Pradesh.
- These three projects were identified as National Projects in 2008 under which 90% funding of the cost of irrigation &

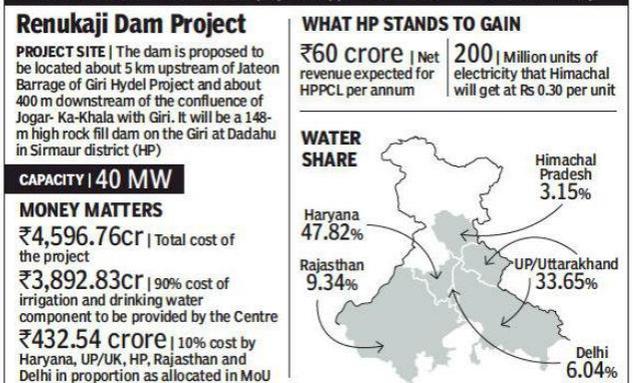
Officers IAS Academy, Chennai drinking water component will be provided by the Govt. of India as central assistance and the rest 10% cost of the irrigation and drinking water component will be borne by the beneficiary states.

Why in news?

- An agreement for Renukaji Dam Multipurpose Project was signed on Jan 11,2019 among six states in the presence of Union Minister for Water Resources.



WATER PACT: Union transport minister Nitin Gadkari at the signing of MoU with six chief ministers for the construction of dam project in upper Yamuna basin in New Delhi on Friday



6th ‘Women of India Organic Festival’

About the Festival:

The objectives of the Women of India Organic Festival are:

- To encourage Indian women entrepreneurs and farmers to connect with more buyers and thus, empower them through financial inclusion, while promoting organic culture in India.
- To educate people about its various initiatives and schemes relating to women and children.
- To provide a platform to showcase the varied products of women farmers and entrepreneurs.
- The festival would provide an opportunity to showcase over 1,000 varied organic products, including fabric, wellness, grains, seeds, jewellery, bakery items and a lot more.

- The Festival is being held annually since 2015 and for the first time, it is being held in Chandigarh.
- The festival is a 3-day event starting on 14 Jan 2019; Over 200 women are coming together at Leisure Valley, which will become the epicentre of an organic extravaganza.
- The Festival will showcase over 1,000 varied organic products, including fabric, wellness, grains, seeds, jewellery, bakery items and a lot more.

Why in news?

- The Women of India Organic Festival has been organised by the Ministry of Women and Child Development at Leisure Valley, Sector-10, Chandigarh, to celebrate and promote women farmers and entrepreneurs in the organic sector from the remotest parts of India.

Section 66A

About Section 66A of IT Act 2000:

- It gives power to government authorities to issue directions to block public access of any information through any computer resource.
- It also allows authorities to arrest a person for posting allegedly offensive content on websites and imprisonment for a term which may extend to three years and with fine.

SC verdict on sec 66 A:

- The Supreme Court (SC) on 24 March 2015 struck down the Section 66A of the Information and Technology Act 2000 calling it unconstitutional and untenable in the popular *Shreya Singal vs Union of India case*.
- SC in its ruling held that Section 66A interferes with freedom of speech and expression envisaged under Article 19 of Constitution of India and also hit the root of two cardinal pillars of democracy liberty and freedom of expression.

Why in news?

- Over three years after it struck down Section 66A of the Information Technology Act as unconstitutional, the Supreme Court said it was shocked to hear that authorities still continue to book people under this extinct and draconian provision and asked Centre to respond on the issue.

#MeToo - Filing complaints

What is #metoo movement?

- Tarana Burke, a social activist and community organizer, began using the phrase "Me Too" in 2006, on the Myspace social network as part of a campaign to promote "empowerment through empathy" among women of colour who have experienced sexual abuse, particularly within underprivileged communities.
- On October 15, 2017, actress Alyssa Milano encouraged spreading the hashtag #MeToo, to attempt to draw attention to sexual assault and harassment.
- While her first tweet was on Oct 15, 2017 noon and had been used more than 200,000 times by the end of the day.

Sexual Harassment of Women at Workplace (Prevention, Prohibition & Redressal) Act 2013

- This act evolved from the SC Vishakha judgement(1997) in which it mentioned that it is the duty of the employer or other responsible persons in work places or other institutions to prevent or deter the commission of acts of sexual harassment and to provide the procedure for the resolution, settlement or prosecution of acts of sexual harassment by taking all steps required.
- This Act aimed to provide every woman, irrespective of her age or employment status, a safe and secure working environment free from all forms of harassment.
- The act covers both organised and unorganised sector.
- The Act provided for the establishment of **Internal Complaints Committee (ICC)** at each and every office or branches of the organization employing 10 or more employees, in order to provide a forum for filing complaints to facilitate fast redressal of the grievances pertaining to sexual harassment.

Why in news?

- A government sub-committee formed in the aftermath of the #MeToo movement to recommend ways to prevent sexual harassment at workplace is likely to propose waiving the three-month time limit for victims to file complaints as laid down under the law.

Committee observation:

- The committee observed the need to amend the Prevention of Sexual Harassment at Workplace (PoSH) Act, 2013. Section 9 of the law which lays down that a complaint will have to be filed within three months of an incident taking place and in case of a series of incidents it will have to be filed within a period of three months since the last incident.
- The Committee is also likely to propose that members of ICCs be treated on par with “public servants” as defined under Section 21 of the Indian Penal Code so that they have immunity from prosecution. This would enable them to act without fear and favour.

ST status to 6 Assam communities

Why in news?

- The Union Cabinet has approved Scheduled Tribe (ST) status to six communities of Assam namely Tai Ahom, Koch Rajbongshi, Chutia, Tea Tribes, Moran and Matak.

Benefit of the move:

- Full safeguards will be provided to protect the interests, rights and privileges of existing Scheduled Tribes of Assam.
- A separate Bill will be brought to grant ST status to Bodo Kacharis in Hill districts of Assam and Karbis in the rest of Assam.
- Sixth Schedule of the Constitution is also proposed to be amended to strengthen the Autonomous District Councils.

- The Constitution of India makes special provisions for the administration of the tribal dominated areas in four states viz. Assam,

Meghalaya, Tripura and Mizoram. As per article 244 and 6th Schedule, these areas are called “Tribal Areas”, which are technically different from the Scheduled Areas under fifth schedule.

What does the constitution say?

- The Constitution only states that STs are specified by the President after consultation with the Governor.
- It does not define or specify a particular criterion.

BT cotton patent case

Why in news?

- Providing relief to agri-sector major Monsanto, the Supreme Court has set aside a Delhi High Court (DHC) order invalidating Monsanto Technology’s patents on BT cotton seeds.

About the issue:

- A division bench DHC had earlier ruled that Monsanto could not claim patents of GM (genetically modified) cotton seeds since items like seeds, plants and animals can’t be patented under Indian laws.
- Monsanto company sells GM cotton seeds in India through its joint venture with Maharashtra Hybrid Seeds Co — Mahyco Monsanto Biotech (India) Ltd (MMBL).
- The Patents Act, 1970 is the legislation that till date governs patents in India. It first came into force in 1972.
- However since the seeds were Genetically modified under the company’s technology, SC upheld the validity.

Economy

Open Acreage Licensing Programme

Introduction:

- Union Ministry of Petroleum and Natural Gas & Skill Development and Entrepreneurship has launched NIO and MRSC for Open Acreage Licensing Programme (OALP) Bid Round-II.
- In this bid round, 14 E&P blocks, with an area of approximately 30,000 sq. km., are being offered for bidding to the investor community under the investor friendly HELP regime.
- 10 blocks are based on Expressions of Interest submitted by the bidders, and 4 blocks have been carved out by the Government based on data received through the National Seismic Programme and the Resource Reassessment Study carried out by the Government.

What is Open Acreage Licensing?

- The government has replaced the New Exploration and Licensing Policy (NELP) with the Open Acreage Licensing Policy (OALP).
- **OALP gives an option to a company to select the exploration blocks on its own, without waiting for the formal bid round from the Government.**
- Under OALP, a bidder intending to explore hydrocarbons may apply to the Government seeking exploration of any new block which was not already covered by exploration.
- The Government will examine the interest and if it is suitable for award, then the government will call for competitive bids after obtaining necessary environmental and other clearances.
- **OALP was introduced as part of the new fiscal regime in exploration sector called Hydrocarbon Exploration and Licensing Policy (HELP).**
- So that, it will enable a faster survey and coverage of the available geographical area which has potential for oil and gas discovery.
- Successful implementation of OALP requires building of **National Data Repository** on geo-scientific data.

Key facts:

- The first bidding round under OALP (Bid Round I) was launched in January 2018

and closed in May 2018 and 55 blocks covering 59,282 sq. km. area were awarded in October 2018.

- The licensing programme under HELP which adopts the Revenue Sharing Model is a step towards improving the 'Ease of Doing Business' in the Indian Exploration and Production (E&P) sector.
- It comes with attractive fiscal terms like reduced royalty rates and no oil cess, marketing and pricing freedom, submission of Expression of Interests (EoIs) round the year, bid rounds commencing every six months and a single license to cover conventional and unconventional hydrocarbon resources.
- With the launch of Notice Inviting Offer (NIO), bidders can study the data available in National Data Repository (NDR) and select blocks for the bidding.

Advantages OALP over NELP:

- By placing greater discretion in the hands of explorers and operators, the OALP attempts to address a major drawback in the NELP that forced energy explorers to bid for blocks chosen by the government.
- Companies can now apply for particular areas they think is attractive to invest in, because in the past, the blocks chosen by the government often had only a small fraction of hydrocarbon reserves.
- By offering companies the freedom to choose exactly the areas they want to explore, and their size, the government has a better chance to woo serious energy investors.
- The government also introduced **National Data Repository (NDR)**.
- **It is envisaged as a centralized database of geological and hydrocarbon information that will be available to all.**
- It will allow potential investors to make informed decisions and will open up a new sector in India.
- There are a number of companies that simply explore hydrocarbon basins and sell the information they gather. Thus, via NDR, the government seeks to incentivize such prospectors.
- Companies may also submit applications through the year and not just at designated

linking customer's bank account with IHMCL FASTags.

and often infrequent points, as was the case earlier.

- Also, from now on, the auctions will be held twice a year. This will lend more flexibility to the industry.

Concerns with OALP:

- The policy awards an extra five points to bidders for an acreage if they have already invested in the exploration and development of that area.
- But it is highly doubtful if this is an acceptable incentive, since the investment needed to simply explore is significant.
- Also, **no such preference is given to mineral explorers** while auctioning mining rights.
- Instead, a revenue-share from mining operations is their recompense for exploration efforts.
- Another concern is whether India can attract enough investment to meet the government's objective of reducing oil imports by 10% by 2022, since there are already proven reserves in other parts of the world.

FASTag

Why in news?

- A memorandum of understanding (MoU) has been signed between Indian Highways Management Company Limited (IHMCCL) and leading Oil Marketing Companies (OMCs) like BPCL, HPCL and IOCL for sale of FASTags through their petrol pumps.

About FASTag:

- FASTag is an electronic toll collection system operated by the National Highway Authority of India (NHAI).
- FASTag enables automatic deduction of toll charges and lets you pass through the toll plaza without stopping for the cash transaction.
- FASTags are linked to a prepaid account from which the applicable toll amount is deducted automatically.
- FASTag employs **Radio-frequency Identification (RFID)** technology.
- FASTag is **bank neutral** and can be linked to customers' choice of bank accounts.
- Together with providing flexibility and convenience to the users, FASTag is also user-friendly as there will be no requirement of fulfilling KYC obligations.
- FASTag apps provide provides real-time recharge of any FASTag through UPI by

Smart Meter Project

Why in news?

- Shri RK Singh, Union Minister of State (IC) for Power and New & Renewable Energy announced the completion of the project to replace 50,000 conventional electricity meters with smart meters in the New Delhi Municipal Council (NDMC) area.

About the project:

- Energy Efficiency Services Limited (EESL), a Super Energy Service Company (ESCO) under Ministry of Power has implemented this project.
- With this, NDMC has become the first distribution company (DISCOM) in India to implement 100 per cent smart metering solution.
- The adoption of Smart Meters will lead to total **annual savings of Rs. 12.47 crores** to **NDMC** which include revenue due to improvement in billing efficiency.
- Smart meters are part of the overall **Advanced Metering Infrastructure solution (AMI)** that **measures and records consumers' electricity usage at different times** of the day and sends this information to the energy supplier through over-the-air communication technology.
- This gives consumers better access to information and enables them to make more informed decisions on the use of electricity in their homes, leading to reduced power wastage, and providing long-term carbon and financial savings.
- NDMC's large-scale adoption of smart meters is a significant measure towards future-ready technologies. Smart meters pave the way for the smart grid as they enable two-way real-time communication between DISCOMs and consumers through GPRS technology.
- Implementing smart meters is one of the operational performance parameters under the Government of India's Ujwal DISCOM Assurance Yojana (UDAY).

Workshop on Agri Export Policy

Agriculture Export Policy 2018

- In order to provide an impetus to agricultural exports, the Union Cabinet

approved the **Agriculture Export Policy 2018** in December 2018.

Key objectives

- To **double agricultural exports** from present US\$ 30 Billion to US\$ 60 Billion by 2022 and reach US\$ 100 Billion in the next few years thereafter, with a stable trade policy regime.
- To **diversify** exports by products and destination with focus on high value-added farm produce and perishables. At present, rice, wheat and marine products account for about 52% of the total farm exports.
- To promote novel, indigenous, organic, ethnic, traditional and non-traditional Agri products exports.
- To provide an **institutional mechanism** for pursuing market access, tackling barriers and deal with sanitary and phytosanitary issues.
- To strive to **double India's share** in world agri exports by integrating with global value chain at the earliest.
- To set up **specialised clusters** in different states for different produce to push exports.
- The policy also envisages removing all restrictions on export of organic and processed foods, paving way for the growth of the sector. For other agriculture products, govt will remove the restrictions depending on the situation.

Why in News?

- The first national workshop on the agri export policy was held in New Delhi on 8 January 2019. The workshop was inaugurated by the Union Minister of Commerce & Industry and Civil Aviation, Suresh Prabhu.

E-Mobility Programme

Energy Efficiency Services Limited (EESL)

- EESL was set up under Union Ministry of Power to facilitate implementation of energy efficiency projects.
- It is a joint venture of four national Public-Sector Undertakings – NTPC Limited, Power Finance Corporation Limited, Rural Electrification Corporation Limited and POWERGRID Corporation of India Limited.
- It also leads market-related actions of the National Mission for Enhanced Energy Efficiency (NMEEE).
- It also acts as the resource centre for capacity building of State DISCOMs.

Why in News?

- Marking the adoption of e-mobility, the Department of Economic Affairs has signed an agreement with EESL for deployment of 15 Electric Vehicles for their offices
- With the induction of these 15 vehicles being provided on lease basis for a period of 5 years, DEA is expected to save over 36,000 Litres of fuel every year besides leading to reduction of over 440 tonnes of CO2 annually.
- Towards enabling the Indian Government's e-mobility vision, EESL first plans to replace the Government's 5,00,000 conventional Internal Combustion Engine (ICE) cars with electric variants. EESL has also established charging infrastructure across all the States where EVs are being deployed.

Know India Programme

Know India Programme (KIP)

- It is an initiative of the Ministry of External Affairs with an aim to engage the students and young professionals of Indian diaspora in the age group of 18 to 30 to connect with their motherland.
- The main objective is to motivate and inspire young minds and to give them an exposure to various aspects of India's art, heritage and culture and to promote awareness about different facets of life in the country and the progress made by India in various fields.

Why in News?

- Union Minister of Textiles, Smriti Zubin Irani has met the participants of 51st edition of KIP in New Delhi.
- Interacting with the participants of the KIP, the Textiles Minister said that the textiles sector is the second largest employer in the country after agriculture and the 70% of total workforce are women.
- This edition of KIP has been scheduled from January 5th to 29th January, 2019 in partnership with Gujarat. There are forty participants from 8 countries of Fiji, Guyana, Mauritius, Myanmar, South Africa, Sri Lanka, Suriname, and Trinidad & Tobago and USA.

Indus Food 2019

What's in the news?

- Following the success of the first edition of INDUS FOOD in 2018, INDUS FOOD-II with the theme of 'World Food Supermarket' will be held on 14th and 15th January, 2019, at India Expo Mart, Greater Noida.

About INDUS FOOD

- The event is exclusively devoted to enhancing Indian exports in Food and Beverage sector.
- It is a global platform where top exporters from F&B Industry of India will be participating and buyers from across the world have been invited.
- With more than 700 buyers from 70 countries visiting INDUS FOOD-II and more than 500 food suppliers, the event will lead to greater interaction of Indian exporters with global customers leading to enhanced product development and better price realization in international markets.

Aadhaar saved Rs 90,000 cr.

What's in the news?

- Finance Minister Arun Jaitley said that the implementation of Aadhaar has helped saved Rs 90,000 crore in the last few years till March 2018 by eliminating several duplicate, non-existent and fake beneficiaries.
- The Digital Dividend Report prepared by the World Bank estimates that India can save Rs 77,000 crore every year by the use of Aadhaar.
- Mr. Jaitley said that in the past 28 months, more than 122 crore Aadhaar numbers had been issued, covering 99% of India's population above the age of 18.
- The Minister noted that with Aadhaar the government was able to eliminate middlemen and the benefits of various welfare schemes were directed to the bank accounts of the beneficiaries.
- Under the schemes like PAHAL and Ujjwala, beneficiaries are given cooking gas subsidies through direct benefit transfer (DBT) in their Aadhaar-linked bank accounts.

Defence manufacturing in India

Defence Procurement Procedure 2016

- The Defence Procurement Procedure (DPP-2016) was brought which replaced the DPP-2013.

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- DPP, 2016 focuses to boost the Make-in-India initiative by promoting indigenous design, development, and manufacturing of defense equipment, platforms, and systems.
- The government has introduced a newly incorporated procurement class called "Buy Indian (IDDM)", where IDDM stands for Indigenous Designed Developed and Manufactured. This would have the first preference in all acquisitions once the DPP comes into effect.
- Besides this, preference has been accorded to 'Buy (Indian)' and 'Buy and Make (Indian)' categories of capital acquisition over 'Buy (Global)' & 'Buy & Make (Global)' categories.

Special Partnership Model

- Ministry of Defence formulated the Strategic Partnership (SP) model under the Defence Procurement Procedure (DPP), covering four specific areas to promote the role of the private sector in defense manufacturing.
- The policy is intended to institutionalise a transparent, objective and functional mechanism to encourage broader participation of the private sector in the manufacture of defence platforms and equipments.
- The following four segments have been identified for acquisition under SP route:
 - Fighter Aircraft
 - Helicopters
 - Submarines
 - Armoured Fighting Vehicles (AFVs) / Main Battle Tanks (MBTs).

Why in News?

- The government has issued a notification simplifying the process for approval of manufacturing of a range of defence and aerospace equipment and components by private industry, by bringing them under the licensing authority of the Department of Industrial Policy and Promotion (DIPP), Ministry of Commerce and Industry.
- Items are listed in three categories — defence aircraft, warships of all kinds, and allied items of defence equipment.
- The move will provide a boost to the small and medium enterprises.
- This move is also expected to help foreign Original Equipment Manufacturers (OEM) looking for partnerships with the private sector.

Accelerated Irrigation Benefits Programme

Accelerated Irrigation Benefit Programme

- The AIBP was initiated in 1996 as a Central scheme to speed up the implementation of large irrigation projects, including dams and canals, especially those which were beyond the resource capability of the States.
- Currently, this scheme has been subsumed as a component of Pradhan Mantri Krishi Sinchayee Yojana.

Why in News?

- According to a report by the Comptroller and Auditor General (CAG) tardy implementation of projects under the AIBP between 2008-2017 led to an almost threefold jump in the cost of these projects to Rs 1.20 lakh crore.
- Of the 118 major projects surveyed by the CAG, 105 suffered from a “time overrun” with some projects being delayed by more than 18 years. The audit of the AIBP revealed lacunae in the planning, implementation and monitoring of the programme.
- The CAG also pointed out “financial irregularities” such as diversion of funds and “fictitious and fraudulent expenditure”.
- The Union Ministry of Water Resources is responsible for framing policy guidelines for implementation while State Governments are associated with planning and implementing irrigation projects and schemes.

Indians' Swiss bank deposits

What's in the news?

- Minister of State for Finance Shiv Pratap Shukla informed in Parliament that loans and deposits of nonbank Indians in Swiss banks decreased by 80.2% between 2013 and 2017.
- The data collected by Swiss National Bank in collaboration with Bank for International Settlements (BIS) shows that the loans and deposits of Indians, other than banks, in the Swiss banks decreased by 34.5% in the year 2017 as compared to 2016.
- The Minister added that necessary legal arrangements have been put in place and from September 2019 onwards, India will receive annually, information of financial

Officers IAS Academy, Chennai accounts held by Indian residents in Switzerland. This will be useful in tracing unaccounted income and assets of Indian residents in Switzerland and bringing the same to tax.

- The use and disclosure of the information received is governed by the confidentiality provisions of the India-Switzerland tax treaty.

RBI panel on digital payments

What's in the news?

- The RBI has appointed a five-member panel headed by Nandan Nilekani, former Chairman of Unique Identification Authority of India, to suggest ways to improve digital payments. The committee will submit its report in 90 days from its first meeting.
- The panel would assess the current levels of digital payments in financial inclusion, suggest measures to strengthen the safety and security of digital payments, provide a road map for increasing customer confidence to use digital transactions, and suggest a medium-term strategy for deepening of digital payments.

Significance of digital payments in India

- In 2017-18, card payments in India rose 43 percent from the previous year to 10.61 trillion rupees (\$151.21 billion), while payments through state-backed unified payments interface rose 16 times year-on-year to 1.01 trillion rupees.
- According to Credit Suisse, India's digital payments are expected to grow five-fold to \$1 trillion by 2023.

Defence India Startup Challenge

Defence Innovation Organisation

- Defence Innovation Organisation (under the aegis of the Ministry of Defence) is a ‘not for profit’ company under section 8 of the Companies Act.
- It is funded by two Defence Public Sector Undertakings namely Hindustan Aeronautics Limited (HAL) and Bharat Electronics Limited (BEL).

Atal Innovation Mission (AIM)

- It is the Government of India's flagship initiative to promote a culture of innovation and entrepreneurship in the country.

- AIM aims to create an umbrella structure to oversee innovation ecosystem of the country and revolutionize the innovation eco-system by touching upon the entire innovation life cycle through various programs.

About Defence India Startup Challenge

- The Defence India Startup Challenge is an initiative by Defence Innovation Organization, in partnership with Atal Innovation Mission.
- It is aimed at supporting innovators to create prototypes and/or commercialize products/solutions based on advanced technologies in area of national security through an equity linked grant-based mechanism.

Why in News?

- The Defence Innovation Organization has received applications from over 500 competitors and the evaluation of the applications is in process.

Vijay Mallya declared Fugitive economic offender

Fugitive Economic Offenders Act

- The act allows for a person to be declared as a fugitive economic offender (FEO) if: (i) an arrest warrant has been issued against him for any specified offences where the value involved is over Rs 100 crore, and (ii) he has left the country and refuses to return to face prosecution.
- As per the law, a special court can order the confiscation of a FEO's properties, including those which are benami, and the proceeds of crime in and outside India. Once properties are confiscated, the Union government has the right over them, and it can dispose them after 90 days.
- Further, the FEO or any company associated with him may be barred from filing or defending civil claims.

Why in News?

- Absconding liquor baron Vijay Mallya became the first person to be declared a FEO by the special court hearing cases under the Fugitive Economic Offenders Act.

Tokenisation

What's in the news?

- The RBI has allowed tokenization of debit, credit and prepaid card transactions to

Officers IAS Academy, Chennai enhance the safety of the digital payments ecosystem in the country.

What is Tokenization?

- Tokenization will replace sensitive card details like card and CVV number with a code, called a "token," which will be specifically for the card, the token requestor and the device being used to pay.
- Instead of the card's details, the token will act as the card at point of sale (POS) terminals and quick response (QR) code payment systems.
- The goal of the process is to improve the safety and security of payments.

How it works?

- The debit or credit card holder will create a code for a particular amount, say ₹500, through an app in the form of a number. That number will have the amount that can be spent, the merchant type where it can be spent as well as time within which the transaction needs to be completed. Then the number can be shared with the merchant who will enter it in the mobile, to get the payment for the items sold.
- Since there is no need to enter user's card number, CVV, expiry date etc, there is no risk involved in the digital payment.

A \$6 trillion opportunity

What's in the news?

- According to a latest study by the World Economic Forum (WEF), Domestic private consumption, that accounts for a major portion of India's GDP, is expected to develop into a \$6 trillion growth opportunity that would make India the world's third-largest economy by 2030. Currently it is at \$1.5 trillion.
- With an annual GDP growth rate of 7.5%, India is currently the world's sixth-largest economy.

Key challenges

- The report titled Future of Consumption in Fast-Growth Consumer Market – India by the WEF, however, identified three critical societal challenges that need to be addressed.
 - With nearly 10-12 million working-age people expected to emerge in India over the next decade, the country faces a huge challenge in providing the workforce with the right skills. More than one-half of Indian workers will require reskilling

by 2022 to meet the talent demands of the future.

- India will have to manage socio-economic inclusion of rural India as, by 2030, 40% of Indians will be urban residents. Physical connectivity, digital connectivity and financial inclusion income is constraining the spending and well-being of rural dwellers, and these 'access-barriers' need to be addressed to ensure social and economic inclusion in India over the next decade.
- Business and policy-makers will have to take the initiative on improving health and liveability for India's citizens by providing them with access to affordable healthcare, promoting sustainable development, and seeking solutions to urban congestion.

GST eased for small businesses

What's in the news?

- The GST Council in its 32nd meeting took a slew of decisions aimed at reducing the tax and compliance burden on small and medium enterprises.

Key decisions

- The Council raised the annual turnover limit under which companies would be exempt from GST to Rs. 20 lakhs for the North Eastern and hill states and Rs. 40 lakhs for other States, from the earlier limit of Rs. 10 lakh and Rs. 20 lakhs, respectively.
- The council announced that the limit for eligibility for the Composition Scheme would be raised to an annual turnover of Rs. 1.5 crore from April 1, 2019. The Council also provided relaxation to composition scheme registrants to pay taxes quarterly and file a single annual return.
- The Composition Scheme currently allows companies with an annual turnover of up to Rs. 1 crore to opt for it, and file returns on a quarterly basis at a nominal rate of 1%. So far, only manufacturers and traders were eligible for this scheme.
- The Council had decided to extend the Composition Scheme to small service providers with an annual turnover of up to Rs. 50 lakh, at a tax rate of 6%.

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- The Council has allowed Kerala to levy a cess of up to 1% for up to two years on intra-State supplies to help finance the disaster relief efforts following the recent floods in the state.

Significance

- The Confederation of All India Traders said that increasing the GST threshold limit would allow about 10 lakh traders to be exempt from the compliance burden of GST, and increasing the Composition Scheme limit would benefit about 20 lakh small businesses that fall between the annual turnover brackets of Rs. 1 crore and Rs. 1.5 crore.

RBI dividend issue

What's in the news?

- RBI Governor Shaktikanta Das said that the RBI has not yet taken a decision regarding the quantum of the interim dividend it will transfer to the government.
- The issue of transferring dividends to the Centre has been the source of considerable tension between the central bank and the government, with the RBI recently setting up a committee under the chairmanship of former RBI Governor Bimal Jalan to examine how much the RBI needs to maintain its reserves, and how much can be transferred to the government.
- On farm loans waivers, the RBI Governor said that such loans are based on States' fiscal capacities, but added that generalised farm loan waivers did have an impact on the credit culture.

Jalan panel holds first meeting

- A high-level panel led by former RBI Governor Bimal Jalan held its first meeting to decide on an appropriate size of reserves that the central bank should maintain and the dividend it should give to the government.
- The six-member committee is likely to submit its report in April.
- The panel has been entrusted with the task of reviewing the best practices followed by central banks worldwide in making assessments and provisions for risks to which a central bank's balance sheet is subject to.

Capital conservation buffer

What's in the news?

- The RBI has decided to defer the implementation of the last tranche of Capital Conservation Buffer (CCB) by a year, a move that would leave about an estimated ₹37,000 crore capital in the hands of banks.
- This would help banks increase lending by over Rs. 3.5 lakh crore by leveraging ten times the capital (known as multiplier effect)
- The decision to defer the CCB was taken during a crucial meeting of the central bank's board of directors in November 2018.

What is Capital Conservation Buffer?

- The CCB is the capital buffer that banks have to accumulate in normal times to be used for offsetting losses during periods of stress.
- It was introduced after the 2008 global financial crisis to improve the ability of banks to withstand adverse economic conditions.

RBI norms

- Under the earlier RBI directive on Basel-III norms, CCB was to be implemented in a phased manner over four years starting fiscal 2016 with an addition of 0.63% every year up to March 2019. As on September 30 2018, banks had to maintain Tier-I capital adequacy ratio (CAR) including CCB of 8.8% (7% Tier-I CAR + 1.8% CCB).
- The CCB portion was to have been further increased by 0.63% of risk weighted assets (RWA) by March 2019 which will now be deferred by a year.

Impact of GST on tax collection

Introduction

- The fact that the government is increasingly dependent on tax revenue, especially indirect taxes, to meet its fiscal requirements is not a cause for worry, according to tax analysts, who say that the real benefits of the GST have not yet taken effect. Once they do, government revenue from both direct and indirect taxes will grow significantly.

Increasing reliance on tax revenue

- An analysis of the budget documents of the last five years has shown that the government's dependence on tax revenue has steadily increased, with tax revenue making up a little more than 70% of its total receipts in 2018-19, up from 65% in 2014-

15. Correspondingly, the share of revenue from non-tax sources (such as dividends from PSUs and the RBI) and capital receipts (such as disinvestment proceeds) has been declining.

- Within tax revenue, the share of indirect tax has been growing over the years, increasing to nearly 50% in 2018-19 from a little less than 45% in 2014-15.

Government's measures

- This increased dependence on tax revenue to meet its fiscal needs has meant that the government has had to push quite hard to increase its tax base at both the direct and indirect tax levels.
- The government cannot take the risk of increasing tax rates, whether direct or indirect, for fear of a backlash from the public. So, the only option it has to boost tax revenues is to increase the tax base and stop evasion, both of which the government has been trying to do.
- The other trend the government would be banking on is that increased economic activity and a higher GDP growth rate will boost consumption and hence, indirect tax collections.

Efficiency gains

- Tax analysts said that the efficiency gains of GST haven't yet kicked in and once they do, this will give revenue buoyancy in the next 3-5 years.
- However, the worry for the government should be the fact that an increasing proportion of its indirect tax collections are coming from a single source — oil.

Non-tax revenue

- Despite this optimistic outlook of future growth in tax revenue, the government has also been trying to improve its collections from other sources such as dividends from public sector companies and the RBI, and also through disinvestments.
- However, these are untenable source of revenue for the government because they are based on finite resources.

GST returns non-filers grow faster than tax base

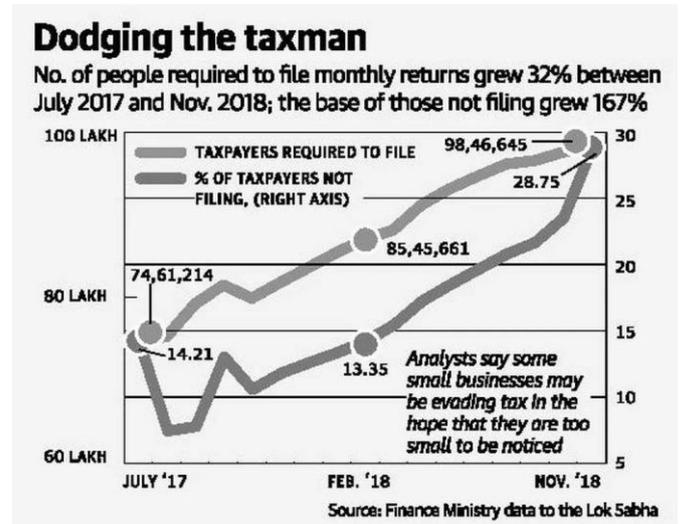
- The number of tax filers failing to file their returns has been increasing in the 17 months of GST implementation until November 2018. While the number of people required to file monthly returns has grown 32% from July 2017 to about 98.5 lakh in November 2018, the number of

people not filing these returns has grown 167% during that time.

- In other words, the number of people failing to file returns has grown faster than the tax base itself.
- Tax analysts say the reasons are varied, including some taxpayers having too low a turnover, and others getting registered onto GST only due to the insistence of their large clients (because the client can avail of input tax credits only if their supplies are from a GST-registered vendor), and yet others simply daunted by the filing process. Some of the initial challenges faced by smaller business on the GST portal may also have deterred some of them from attempting to file online returns.
- However, some experts point towards a more serious situation where small businesses are systematically and fraudulently evading tax in the hope that they are too small for the taxman to notice.

Conclusion

- It is high time the government iron out issues in the GST structure to reap its complete potential.



International Relations

India-Japan Swap Arrangement

What's in the news?

- The Union Cabinet has authorized the RBI to sign the Bilateral Swap Arrangement (BSA) between the RBI and the Bank of Japan for a maximum amount of USD 75 billion.
- The agreement was concluded in October 2018 during summit level meeting at Yamanashi, Japan between Prime Minister Narendra Modi and Japan's Prime Minister Shinzo Abe.

Bilateral Swap Arrangement

- It is an agreement between India and Japan to essentially exchange and re-exchange a maximum amount of USD 75 Billion for domestic currency, for the purpose of maintaining an appropriate level of balance of payments for meeting short-term deficiency in foreign exchange.

Significance of BSA

- The arrangement is another milestone in mutual economic cooperation and special strategic and global partnership between India and Japan.
- Also, with this arrangement in place, prospects of Indian companies would improve in tapping foreign capital as there would be greater confidence in stability of country's exchange rate.
- Availability of such swap line to tide over difficulties arising out of Balance of Payment (BOP) would deter speculative attacks on the domestic currency and greatly enhance the RBI's ability to manage exchange rate volatility.

India in Myanmar

Kaladan Multi-Modal Transit Transport Project

- This project aims to connect seaport of Kolkata (India) with Sittwe seaport in Myanmar by sea.
- It will then link Sittwe seaport to Lashio in Myanmar through Kaladan river boat route and then from Lashio to Mizoram in India by road transport.
- The link between landlocked north eastern states and Myanmar will lead to enhanced trade and commerce across the border
- It will also help the to maintain cultural and social integration at the regional level

- This project will reduce distance from Kolkata to Mizoram by approximately 1000 km and cut travelling time to 3-4 days for transport of goods.



Sittwe Port

- Sittwe port in Myanmar will connect India's landlocked north-east region to Bay of Bengal through Mizoram.
- The infrastructure at Sittwe Port in Myanmar is constructed with India's assistance.
- It is also significant step in implementation of India's Act East Policy as it will boost connectivity, contributing to job creation and development in whole region.
- The construction of sittwe port is completed and ready for operation.

Why in news?

- The above information was given by Minister of State for Shipping, Road Transport and Chemical & Fertilizer Shri Mansukh L Mandaviya in a written reply to a question in Rajya Sabha.

Rohingyas in India

Who are Rohingyas?

- Rohingyas are indigenous to Rakhine state (also known as Arakan) in Myanmar settled since the 15th century.
- However, according to Myanmar government, they are illegal immigrants migrated to Rakhine following Burmese independence and Bangladesh liberation war.
- Until recently, they have been able to register as temporary residents with identification cards known as white cards which began issuing in the 1990s.
- These cards gave some basic rights to Rohingyas such as the right to vote. But they were never recognized as a proof of citizenship.

- These cards get cancelled in 2015 which effectively put an end to their right to vote.
- They are victims of an organized genocide and are one of the world's most persecuted minorities.
- The crisis received international attention followed to Rakhine state riot in 2012, Rohingya crisis in 2015 and 2016-17 military crackdown.

Indian Crisis

- India has been receiving Rohingya refugees and allowing them to settle in the different parts of the country over the years, especially after the communal violence in the state of Rakhine in 2012.
- The border in West Bengal is said to be the most porous stretch and used for illegal crossings.
- Since India is not a signatory to the United Nations Convention on Refugees, refugee status granted by the United Nations High Commissioner for Refugees (UNHCR) to the Rohingya was irrelevant to their deportation.
- India considers the issue as an internal affair of Myanmar.

Why in news?

- The Border Security Force (BSF) arrested around 478 Rohingya along the India-Bangladesh borders with 230 held in 2018 alone.

Post-Brexit immigration

About

- It is the abbreviation of "British Exit" from the European Union (EU).
- In the referendum conducted in 2016, the United Kingdom voted 51.9% for exit of Britain from EU.

New policy

- British government has released the draft of post-Brexit immigration policy, which could be implemented in a phased manner from 2021.
- Under the new proposals, an annual cap of 20,700 on the number of skilled work visas issued will be removed.
- In the new system, the skill of the worker will be considered rather than the country from which he is migrated.
- It could end the free movement of the citizens of EU nations into Britain under the Schengen agreement.

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- Employers would require a sponsor licence to employ both EU and non-EU nationals on sponsored skilled work and the Government will consult with businesses about reducing the current minimum salary threshold of 30,000 for sponsored skilled work visas.
- There will be no dedicated route for unskilled labour but for a transitional period after Brexit There will a be a new 12-month visa route for workers at any skill level of low risk countries.
- During this time period, the workers have no right to settle in UK, cannot access in public funds, could not bring their family members.
- The proposal also allows graduates a time period of six months to find job in UK, after they finish their studies.
- Indians may benefit from the proposed rules, which will focus on highly skilled migrants such as doctors, engineers etc.
- These changes could make Britain a place of best skilled migrants in the world.

Why in news?

- British home officials will discuss about the "Immigration White Paper" along with Indian officials.

Chhaupadi Death

About

- Chhaupadi is a tradition associated with menstruation in the western part of Nepal which prohibits Hindu women and girls from participating in normal activities while menstruating, as they are considered "impure".
- The women are banned from the house and are required to live in a cattle shed or a menstruation hut, , for the duration of their period.
- This practice is banned in 2005 and new law of three-month jail term and a 3,000-rupee fine for anyone caught imposing chhaupadi was introduced.

Why in news?

- A Nepali mother and her two children have died of smoke inhalation, while they were staying in a menstruation hut, since the mother was in her periods.

Science & Technology

Recombinant ELISA kits

Glanders

- Glanders is a fatal infectious and notifiable disease of equines including horses, donkeys and mules.
- The disease is caused by a bacterium known as *Burkholderia mallei* and has zoonotic potential.

Equine infectious anaemia

- Equine infectious anaemia (EIA) is a chronic, debilitating and persistent infectious disease of equines caused by a retrovirus.

Why in News?

- Union Minister of Agriculture & Farmers Welfare Radha Mohan Singh has released recombinant Enzyme-linked immunosorbent assay (ELISA) kits: one for Glanders and other for Equine Infectious Anaemia.
- The ELISA has been duly validated in India and the OIE Reference Laboratory, Germany and showed excellent sensitivity (97.2%) and specificity (99.6%).
- This technology will prove to be a milestone in the control and eradication of glanders from India.

AI detects cancer

What's in news?

- A study has shown that computer algorithms can detect pre-cancerous lesions far better than trained experts or conventional screening tests.

About the study

- The study which began in 1990s has involved 9400 women who were followed upto 18 years.
- The algorithm was developed using 60000 cervical images collected from Costa Rica. Simple images were used and no advanced imaging was used.
- Automated visual evaluation which is an artificial intelligence technique was used to detect precancerous cells with 91% accuracy compared to an accuracy of 69% for human experts and 71% for lab tests.
- The algorithm had a better accuracy of 97.7% among women aged 25-49 who face the highest risk of cervical cancer.

Cervical cancer

- Cervical cancer is cancer that starts in the cervix, the narrow opening into the uterus from the vagina
- Symptoms include bleeding in between periods and after sexual intercourse.
- Foul smelling white discharge and low back pain or lower abdominal pain may also occur. In some cases, there may be no symptoms.
- Treatments include surgery, radiation and chemotherapy.
- Human papillomavirus (HPV) is found in about 99% of cervical cancers.
- HPV is a common virus that is passed from one person to another during sex.
- At least half of sexually active people will have HPV at some point in their lives, but few women will get cervical cancer.
- The majority of HPV infections do not cause symptoms or disease and resolve spontaneously.
- Persistent infection with specific types of HPV may lead to precancerous lesions

WHO data

- According to the World Health Organization, cervical cancer is the fourth most frequent cancer in women with an estimated 570,000 new cases globally in 2018.
- In 2012, 266,000 women died of cervical cancer globally of which 90% of them belong to low-and middle-income nations.

Satellite images to assess poverty

What's in news?

- According to a study, High-resolution satellite data can be used to precisely assess the status of poverty at household level in rural areas of developing countries.
- It will be otherwise difficult to make a global assessment of poverty and poor economic conditions.
- The researchers show that a thorough analysis of satellite images can explain 62 per cent of the variation in the economic conditions of the individual households.

Significance

- The use of satellite data makes it possible to analyse the economic development at much greater geographical scale and with a high temporal frequency.

- Satellite images are relatively cheap and increasingly freely available.
- The study demonstrates that space-based monitoring is a cost-effective method to track socio-economic development as a supplement to expensive household surveys with interviews.
- Countries' progress towards UN's goal for sustainable development can be tracked.

PSLV-DL

What's in news?

- The upcoming PSLV-C44 mission will use a new variant, PSLV-DL which comes with two strap-on boosters for providing additional thrust.

About PSLV-DL

- The fourth and final stage will make use of lithium ion batteries and will not have solar panels. Solar panels will be added in subsequent missions.
- The lithium ion batteries are required to keep the fourth stage in space which the ISRO plans to use as a test bed
- ISRO had announced plans to make use of the fourth stage as a satellite to reduce space debris. The spent stage can be recycled and used as a platform for space-based experiments.
- In PSLV-C44 mission, there will be a demonstration of keeping the fourth stage live using lithium ion batteries.

NASA's TESS

What's in news?

- The Transiting Exoplanet Survey Satellite (TESS) has discovered a new planet HD 21749b.

About HD 21749b

- The planet orbits a bright dwarf star about 53 light years away in the Reticulum constellation.
- It takes 36 days to complete one orbit around its star.
- The planet is about three times the size of the earth
- The surface of the new planet is likely around 300 degrees Fahrenheit

Transiting Exoplanet Survey Satellite (TESS)

- NASA's Transiting Exoplanet Survey Satellite is an all-sky survey mission that will discover thousands of exoplanets around nearby bright stars

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- Two other discovered planets are – Pi Mensaeb, a “super-Earth” with a 6.3-day orbit, and LHS 3844b, a rocky world that speeds around its star in just 11 hours.
- It was launched in April 2018 and has since discovered 3 planets including the latest one HD 21749b
- Two other discovered planets are – Pi Mensaeb, a “super-Earth” with a 6.3-day orbit, and LHS 3844b, a rocky world that speeds around its star in just 11 hours.

Detecting mercury in water

What's in news?

- Researchers from Jawaharlal Nehru Centre for Advanced Scientific Research (JNCASR), Bengaluru have found an innovative way to develop a sensor for detecting mercury in water

Method

- A small molecule — histidine conjugated perylene diimide (HPH) shows green fluorescence under laser light when dissolved in water.
- When water contaminated with mercury is added to the above solution, the molecules form a hydrogel and fluorescence is absent.
- This method can detect only up to 5 nanomolar (0.1 parts per billion) of mercury in water
- The research team has improved the sensitivity of this method by a novel technique

About the research

- The small HPH molecules were organised on gold thin films coated on polystyrene beads
- The molecule has both hydrophobic and hydrophilic ends. The molecule has two arm like projections, one binds to the gold and other is free.
- The mercury ions in contaminated water bind to the free ends.
- This method can be used to detect mercury at any concentrations above attomolar (concentration of 10-18 moles per litre) with greater accuracy.
- This technique can be used for any other sample, including biofluids or tissue extracts

Mercury

- Mercury is a heavy metal that is predominant in the environment
- Mercury is a chemical element with symbol Hg and atomic number 80

- It is commonly known as quicksilver and was formerly called hydrargyrum
- Natural sources of mercury are volcanoes, forest fires, cinnabar (ore) and fossil fuels such as coal and petroleum.
- Anthropogenic sources include discharge from hydroelectric, mining, pulp, and paper industries, medical waste, emissions from coal-based plants etc.
- Mercury is used in thermometers, barometers, manometers, sphygmomanometers, float valves, mercury switches, mercury relays, fluorescent lamps and other devices,
- Once deposited, certain microorganisms can change it into methylmercury, a highly toxic form that builds up in fish, shellfish and animals that eat fish. Most human exposure to mercury is from eating fish and shellfish contaminated with methylmercury
- The allowed levels of mercury in drinking water and effluents is in the range of 1–10 microgram per litre
- Mercury exposure at high levels can harm the brain, heart, kidneys, lungs, and immune system of people of all ages.

Carbon microneedles

What's in news?

- Researchers from Indian Institute of Technology (IIT) Kharagpur have developed tiny needles less than 1mm in size.

About the research

- In 2018, the team developed microneedles from photosensitive polymer (SU-8) which were found to be not hard enough and biocompatible.
- It was modified by heating to extreme temperature which removes the nitrogen and oxygen in the polymer leaving only the carbon.
- These glassy carbon needles were 300 times stronger than the original ones.
- The team is now working on developing a drug reservoir and micro pump which can be attached to the patch for controlled drug delivery.
- Dia-aid can be used by diabetic patients for painless insulin administration.
- The needles are only 400 micrometer long and will be completely painless.
- Microneedles are designed to infuse medications transdermally (through the

Officers IAS Academy, Chennai skin) and relatively painlessly during clinical applications.

- A good needle should be able to overcome the forces to penetrate the skin.

Human Space Flight centre

Background

- The Prime Minister had announced in August 2018 that India's first Indian human mission will be launched by Indian Space Research Organisation (ISRO) by 2022.
- ISRO has developed some critical technologies like re-entry mission capability, crew escape system, crew module configuration, thermal protection system, deceleration and floatation system, sub-systems of life support system etc. required for this programme
- Some of these technologies have been demonstrated successfully through the Space Capsule Recovery Experiment (SRE-2007), Crew module Atmospheric Reentry Experiment (CARE-2014) and Pad Abort Test (2018).

About the mission

- Two unmanned Gaganyaan missions will be undertaken prior to sending humans which will happen in December 2020 and July 2021.
- The actual human space flight is targeted to happen in December 2021, ahead of
- The mission will aim to send a three-member crew to space for a period of five to seven days
- The spacecraft will be placed in a low earth orbit of 300-400km.
- GSLV Mk-III launch vehicle, which has the necessary payload capability for this mission, will be used to launch Gaganyaan. It needs to be suitably certified or human-rated.
- The programme will make India the fourth nation in the world to launch a Human Spaceflight Mission after USA, Russia and China.

Why in news?

- The Indian Space Research Organization (ISRO) has set up a Human Space Flight Center.
- The centre, a new management structure within the organisation, will be in charge of all human-related programmes at the ISRO.

Salmonella in raw vegetable

What's in news?

- Researchers from Indian Institute of Science (IISc) Bengaluru, have found that infection is a pre-harvest phenomenon.
- The bacteria get killed on cooking however infection is caused when raw vegetable is used in salads.

About the research

- Bacteria do not have the necessary enzymes to degrade plant cellulose and pectin and therefore cannot degrade cell wall.
- During the formation of lateral root, a small opening forms and pathogens make use of these openings in the primary root to enter.
- As the salinity increases, the number of lateral roots formed increases.
- As the number of lateral roots increase, the percentage of tomato fruits infected also increased.
- This was the first time that salinity induced lateral root proliferation and transmission to edible parts of the plants has been studied.

Salmonella

- Salmonella infection (salmonellosis) is a common bacterial disease that affects the intestinal tract.
- Salmonella bacteria typically live in animal and human intestines and are shed through feces.
- Humans become infected most frequently through contaminated water or food.
- Symptoms include diarrhoea, fever, chills and abdominal pain.
- Most people only need fluids to recover in less than a week

Production of indigenous breeds

Embryo Transfer Technology

- Embryo transfer is a bio-technique where embryos are collected from the donor females and transferred in to uterus of recipients which serves as a foster mother for its development throughout the remainder period of pregnancy.
- The main objective of ET is to capitalise on attaining the maximum number of embryos from a genetically superior animal in the shortest time possible.

Advantages

- Farmer can get a 5-6 fold increase in number of offsprings

- Calves so born will be of high genetic merit
- Offsprings born will be free from diseases

In Vitro Fertilization (IVF)

- IVF is an assisted reproductive technology where fertilisation of an egg and sperm occurs outside the body.
- Mature eggs are collected (retrieved) from the ovaries and fertilized by sperm in a lab.
- Then the fertilized egg (embryo) or eggs are implanted into the uterus.
- IVF is used to treat fertility or genetic problems
- IVF can be time-consuming, expensive and invasive. It can sometimes result in multiple pregnancies.

Sex sorted semen scheme

- The sex of a calf is determined by the sperm which holds X and Y chromosome.
- The semen is passed through a flow cytometer (sorting machine) to separate the sperms based on sex.
- It is then artificially inseminated to the cow. The accuracy of getting a female by this method is as high as 90-95%
- The scheme aims to restrict the number of male animals and increase the number of female animals so that milk production is increased and the high-yielding milch animals are conserved
- It can also reduce the number of stray bulls.

Why in news?

- The Union Minister of Agriculture held a meeting with the delegation from Brazil to promote technical cooperation for the rapid growth of the production and productivity of indigenous breeds.
- The help of Brazil will be sought in Embryo transfer technology (ETT), promotion of In Vitro Fertilization (IVF), sex-sorted semen production

Indian Science Congress (ISC)

Why in news?

- **106th 'Indian Science Congress (ISC)' session is being held at Jalandhar, Punjab.**
- **Theme: Future India: Science and Technology.**

About ISC:

- Indian Science Congress is organized by the *Indian Science Congress Association every year in the first week of January.*
- The Indian Science Congress Association was started in the year 1914 in Kolkata and

has a membership of more than 30,000 scientists.

- It owes its origin to the foresight and initiative of two British chemists, namely, Professor J. L. Simonsen and Professor P. S. MacMahon. It occurred to them that scientific research in India might be stimulated if an annual meeting of research workers somewhat on the lines of the British Association for the Advancement of Science could be arranged.

Objectives:

- To advance and promote the cause of science in India.

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- To hold an annual congress at a suitable place in India.
- To publish such proceedings, journals, transactions and other publications as may be considered desirable.
- To secure and manage funds and endowments for the promotion of Science including the rights of disposing of or selling all or any portion of the properties of the Association.
- To do and perform any or all other acts, matters and things as are conducive to, or incidental to, or necessary for, the above objects.

Environment

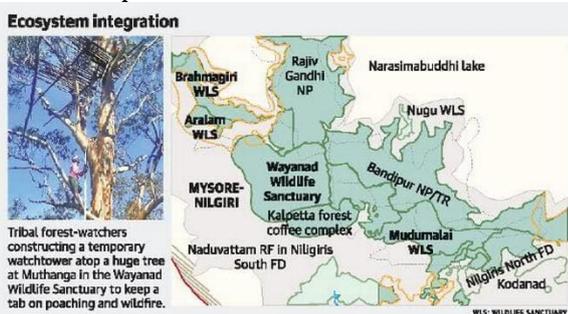
Wayanad Sanctuary

Why in news?

- With the rise in mercury in the Nilgiri Biosphere, the seasonal migration of wild animals from wildlife sanctuaries in Karnataka and Tamil Nadu to the Wayanad Wildlife Sanctuary (WWS) has begun.
- Mammals such as elephants and gaurs migrate to the sanctuary from the adjacent Bandipur and Nagarhole national parks in Karnataka and the Mudumalai national park in Tamil Nadu in search of food and water.

Important Facts:

- The annual migration begins from the end of February and it continues till the advent of monsoon in search of fodder and water.
- Animals also migrate to wildlife sanctuary from Muthumalai Tiger Reserve in Tamil Nadu and Bandipur Tiger Reserve in Karnataka in search of food.
- A drastic decline in the sholas and grasslands is one of the reasons for the recent water scarcity in the Nilgiri Biosphere Reserve.



About Nilgiri:

- The Nilgiri Biosphere Reserve was the **first biosphere reserve in India** established in the year 1986.
- It is located in the Western Ghats and includes 2 of the 10 biogeographical provinces of India.
- The Nilgiri Biosphere Reserve falls under the biogeographic region of the **Malabar rain forest**.
- The sholas of the Nilgiri Biosphere Reserve are a treasure house of rare plant species.
- The Nilgiri tahr, Nilgiri langur, slender loris, blackbuck, tiger, gaur, Indian elephant and marten are some of the animals found here.
- The Muthumalai Wildlife Sanctuary, Wayanad Wildlife Sanctuary Bandipur**

National Park, Nagarhole National Park, Mukurthi National Park and Silent Valley are the protected areas present within this reserve.

- Many of the major tributaries of the river Cauvery like the Bhavani, Moyar, Kabini and other rivers like Chaliyar, Punampuzha, etc., have their source and catchment areas within the reserve boundary.
- The sholas and grasslands play a very important role in retaining water and supplying it to these streams.
- Tribal groups** like the Todas, Kotas, Irullas, Kurumbas, Paniyas, Adiyans, Edanadan Chettis, Cholanaickens, Allar, Malayan, etc., are native to the reserve.

About Wayanad sanctuary:

- Wayanad Wildlife Sanctuary is an integral **part of the Nilgiri Biosphere**.
- The Wayanad Wildlife Sanctuary is a second largest wildlife park in Kerala and declared a Project Elephant, Elephant Reserves.
- It is situated between the Mysore and a small town Sultan Bathery in Wayanad district of **Kerala**.
- The sanctuary is contiguous to the protected area network of Nagarhole and Bandipur of Karnataka on the Northeast and Muthumalai of Tamil Nadu on the Southeast.

Washington Convention

Why in news?

- India has proposed to remove **rosewood (*Dalbergia sissoo*)** from **Appendix II of Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES)**, a multilateral treaty to protect endangered plants and animals.
- The species is currently part of Appendix II of CITES** that has species not necessarily threatened with extinction, but in which trade must be controlled to avoid utilization incompatible with their survival. But, India doesn't want that for rosewood.

Why such a move?

- The species grows at a very fast rate and has the capacity to become naturalized**

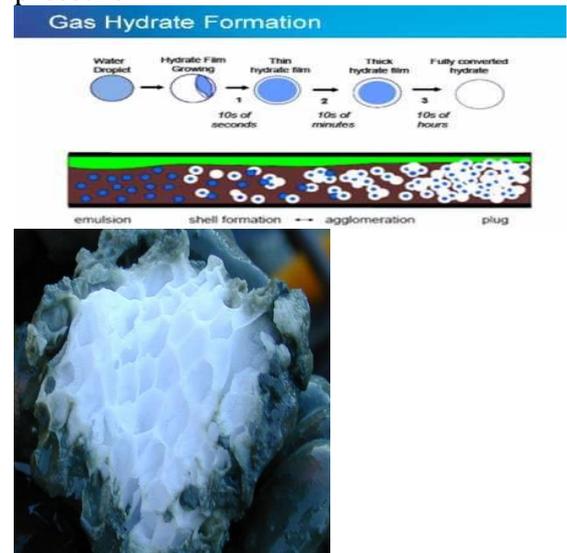
IIT Madras team produces gas hydrates under 'space' condition

Why in news?

- Researchers at IITM have experimentally shown that methane and carbon dioxide can exist as gas hydrates at temperatures and pressures seen in the interstellar atmosphere.
- In terrestrial conditions, gas hydrates are formed naturally under the sea bed and glaciers under high pressure, low temperature conditions.

What are Gas Hydrates?

- The term "gas hydrates" refers to **crystalline compounds that are composed of water and any of the following light molecules: methane, ethane, propane, iso-butane, normal butane, nitrogen, carbon dioxide, and hydrogen sulfide etc.**
- Hydrate formation usually occurs when water molecule exists in the vicinity of these molecules at temperatures above or below the ice point and relatively high pressure



- The water molecules enclose these host molecules and form cage-like structures which are stable at these conditions.
- Hydrates are usually stable at moderate temperatures and pressures when compared to the conditions required for LNG and CNG.
- **Natural gas hydrate** is widely distributed in **oceans and Polar Regions**, and its gas resources are 10 times more than global conventional gas reserves and twice the total carbon content in all the coal, petroleum, and natural gas in the world.

outside its native range, even it is invasive in some parts of the world.

- The regulation of trade in the species is not necessary **to avoid it becoming eligible for inclusion in Appendix I** in the near future and the harvest of specimens from the wild is not reducing the wild population to a level at which its survival might be threatened by continued harvesting or other influences.

CITES

- CITES (the Convention on International Trade in Endangered Species of Wild Fauna and Flora) is also known as the Washington Convention)
- It is a multilateral treaty drafted as a result of a resolution adopted in 1963 at a meeting of members of the International Union for Conservation of Nature (IUCN).
- CITES entered into force in 1975.
- Its aim is to ensure that international trade in specimens of wild animals and plants does not threaten the survival of the species in the wild, and it accords varying degrees of protection to more than 35,000 species of animals and plants.
- Although CITES is legally binding on the Parties – in other words they have to implement the Convention – it does not take the place of national laws.
- Rather it provides a framework to be respected by each Party, which has to adopt its own domestic legislation to ensure that CITES is implemented at the national level.
- Parties to the convention= 181.
- Similar treaty: Monitoring the Illegal Killing of Elephants – MIKE.

Classifications:

- *Appendix I:* It lists species that are in danger of extinction. It prohibits commercial trade of these plants and animals except in extraordinary situations for scientific or educational reasons.
- *Appendix II species:* They are those that are not threatened with extinction but that might suffer a serious decline in number if trade is not restricted. Their trade is regulated by permit.
- *Appendix III species:* They are protected in at least one country that is a CITES member states and that has petitioned others for help in controlling international trade in that species.

Carbon sequestration:

- It is a process involved in **carbon capture and the long term storage of atmospheric carbon dioxide** and other forms of carbon to mitigate or defer global warming.

Applications:

- Methane hydrate is a potential source of natural gas.**
- CO₂ storage in hydrates within the seafloor or in old petroleum wells offer a stable and long term means for carbon capture.
- In particular, under appropriate conditions (typically <10°C and with hydrostatic heads >400 m) CO₂ hydrate becomes stable, and this could help immobilize CO₂.
- CO₂ hydrate is thermodynamically more stable than methane hydrate. So if methane hydrate has remained stable for millions of years under the sea bed, it would be possible to sequester gaseous CO₂ as solid hydrate under the sea bed.

National Bamboo Mission (NBM)

Why in news?

- The restructured **National Bamboo Mission (NBM)** was approved in April, 2018 for implementation till the end of 14th Finance Commission i.e. 2019-2020.

Aim:

- It aims to **inter-alia supplement farm income of farmers with focus on the development of complete value chain of bamboo sector** linking growers with industry.
- The scheme is being implemented in non-forest Government land, farmers field in States where it has social, commercial and economical advantage, including the bamboo rich States of North Eastern region and Madhya Pradesh, Maharashtra, Chhattisgarh, Odisha, Karnataka, Uttarakhand, Bihar, Jharkhand, Andhra Pradesh, Telangana, Gujarat, Tamil Nadu and Kerala.
- Till now 88 Bamboo Treatment Units, 464 Product Development/Processing Units, 135 Infrastructure Projects for Promotion and Development of Bamboo Markets, and an area of 15740 ha for plantation has been approved.
- Financial Assistance to North Eastern States is provided in the **ratio of 90:10 between Central & State**

- A number of consultations have been held with State Governments and Industry to invigorate the bamboo sector in the region.

About the NBM:

- The Mission envisages promoting holistic growth of bamboo sector by adopting area-based, regionally differentiated strategy and to increase the area under bamboo cultivation and marketing.
- Bamboo is '**Green Gold**'.
- The National Bamboo Mission is a wholly-**centrally sponsored scheme**.
- The NBM will be a **sub-scheme of National Mission on Sustainable Agriculture (NMSA)** under the umbrella scheme Krishonnati Yojana.

Key Outputs:

- Coverage of 1,05,000 ha area under bamboo in two years by ensuring adequate stocks of selected genetically superior quality planting material.
- Promotion and diversification of bamboo products through establishment of micro, small, medium & large processing units and development of value chain in bamboo.
- Setting up and strengthening of bamboo mandi/bazaars/rural haats, including promoting online trade.
- Enhanced cooperation within the country related to research, technology, product development, machinery, trade information and knowledge sharing platform particularly for NE States to give a boost to the low key bamboo based industry in the country.

Iguanas in Galápagos Island

Why in news?

- A group of more than 1,400 **iguanas** have been reintroduced to an island in the **Galápagos archipelago** nearly two centuries after they disappeared from there.
- This initiative is a part of an ecological restoration program.

About iguanas:



- Land iguana is an herbivore that helps ecosystems by dispersing seeds and

maintaining open spaces devoid of vegetation.

- The last recorded sighting of iguanas in Santiago Island had been made by British naturalist Charles Darwin in 1835.
- IUCN status: **Vulnerable**.

Galápagos Islands:



- The Galápagos Islands, part of the Republic of Ecuador, are an archipelago of volcanic islands distributed on either side of the equator in the Pacific Ocean.
- The Galapagos archipelago contains unique wildlife and vegetation and is a UNESCO World Heritage site and one of the most fragile ecosystems in the world.

Snake venom

Why in news?

- Scientists have uncovered why the venom of some snakes makes them so much deadlier than others.
- The study tackled this puzzle by comparing records of venom potency and quantity for over 100 venomous snake species, ranging from rattlesnakes, cobras and the tree dwelling boom slangs of Africa to sea snakes and burrowing asps.

Evolutionary standpoint:

- The Scientist found strong evidence that venoms have evolved to be more potent against animals that are closely related to the species that the snake commonly ate.
- These results make sense from an evolutionary viewpoint as we expect that

Officers IAS Academy, Chennai evolution will have shaped venoms to be more efficient at killing the prey.

- The research showed that the amount of venom a snake has depends on both its size and the environment it lives in.

Dosage-dependent:

- The big terrestrial species have the most venom, while smaller tree-dwelling or aquatic species had the least.

What is the Concern?

- Snakebites are a major health concern worldwide, with 2.7 million cases each year.
- Understanding how venom evolves may help us better identify the risks to humans from different snake groups, and also potentially from other venomous animals such as spiders, scorpions, centipedes, and jellyfish.
- **Venom:** A poisonous substance secreted by animals such as snakes, spiders, and scorpions and typically injected into prey or aggressors by biting or stinging.

Green Technology in PMGSY

Why in news?

- In order to **encourage locally available materials and use of green technologies for construction of road** under Pradhan Mantri Gram Sadak Yojana (PMGSY) guidelines were issued by the **Ministry of Rural Development**.
- The State Governments are required to propose minimum 15% of total length of annual proposals under new technologies like Cement stabilization, Lime stabilization, Cold mix, Waste plastics, Cell filled concrete, Paneled cement concrete pavement, Fly ash etc.

What is green technology?

- The technology whose use is intended to mitigate or reverse the effects of human activity on the environment.

Current Scenario:

- Andhra Pradesh Government had submitted proposal for converting 37 roads of 163.49 KM sanctioned under Road Connectivity Project for Left Wing Extremism Affected Areas with conventional method of construction to New Technology.
- There is no other proposal of the State on New Technology pending with the Government at present.

- The Ministry has so far sanctioned 35,922 KM length of roads using New Technologies and 22,983.96 KM have been completed.
- Ministry of Rural Development specifications have also been **relaxed** in respect of **grading of materials for Granular Sub Base layer** in order to encourage the usage of locally available/naturally occurring material/marginal materials.

About PMGSY:

- Ministry of Rural Development.
- Launched in **2000** and It is a **Centrally Sponsored Scheme**.
- The primary objective of PMGSY is to **provide connectivity by way of all-weather roads**. The program also has an Up-gradation component with a target to upgrade existing rural roads in order to ensure full farm to market connectivity.
- With a view to bringing transparency and responsiveness in governance, plug leakages and to quickly address the citizen grievances; PMGSY has been encouraging use of information technology, mobile technology and space technology.
- The Rural Roads is one of the six components of Bharat Nirman.
- World Bank has supported PMGSY since its inception.
- For this scheme, 75 paise per litre has been earmarked out of **cess levied on high speed diesel**.
- It considers **habitation as unit** for providing connectivity and not a revenue village.
- A mobile application "**Meri Sadak**" was launched to enable citizens to register complaints regarding the quality and pace of construction of PMGSY roads.

Eco Niwas Samhita 2018

Why in news?

- The Bureau of Energy Efficiency (BEE) and the Central Public Works Department (CPWD) signed a memorandum of understanding (MoU) to kick starting cooperation in building energy efficiency.
- According to the MoU, BEE and CPWD will cooperate on promoting designs and construction of Energy Conservation Building Code (ECBC) compliant new buildings, star rating of CPWD managed buildings across the country with no registration or renewal fee, awareness on

Officers IAS Academy, Chennai energy efficiency in building sector and support for capacity building of CPWD officials in ECBC.

About Eco Niwas Samhita:

- **ECO Niwas Samhita 2018** an Energy Conservation Building Code for residential buildings, to push for energy efficiency in residential sector was launched on the occasion of National Energy Conservation Day December 14, 2018.
- It aims to promote design and construction of homes including apartments and townships to give benefits of energy efficiency to the occupants.
- **Ministry of Power** launched the ECO Niwas Samhita 2018.

Role of BEE	Role of CPWD
<ul style="list-style-type: none"> ▪ Processing of application for star rating of buildings. ▪ Preliminary scrutiny of application. ▪ Data verification of CPWD maintained buildings. ▪ Installation of smart meters. ▪ Award of certificate & label. ▪ Support for Energy Efficiency in Buildings. ▪ Support for construction of ECBC complaint buildings. ▪ Efficient coordination with CPWD. ▪ Capacity building of CPWD officials. 	<ul style="list-style-type: none"> ▪ Completely filled application for star rating. ▪ Support and facilitation to data verification and monitoring. ▪ Construction of ECBC Complaint buildings. ▪ Support for Energy Efficiency in Buildings. ▪ Efficient coordination with BEE.

Star Rating for Commercial Buildings:

- It is based on the actual performance of a building in terms of its specific energy usage in kwh/sqm/year.
- It rates office buildings on a 1-5 Star scale, with 5 star labelled buildings being the most efficient.
- It is on a voluntary basis and label provided under it is applicable for a period of 5 years from the date of issue.

- It provides public recognition to energy efficient buildings, and creates a “demand side” pull.
- Various categories of buildings like Day Use Office Buildings, BPOs, Shopping Malls and Hospitals in the five climatic zones have been identified under the scheme.

About Bureau of Energy Efficiency (BEE):

- Bureau of Energy Efficiency (BEE) is a **statutory body**, set up by the Government of India on 1st March 2002 **under the provision of the Energy Conservation Act, 2001.**
- The mission is to **assist in developing policies and strategies with a thrust on self-regulation and market principles** with the primary objective of reducing energy intensity of the Indian economy within the overall framework of the Energy Conservation Act, 2001.
- This will be achieved with active participation of all stakeholders, resulting into accelerated and sustained adoption of energy efficiency in all sectors.

About Central Public Works Department (CPWD):

- CPWD came into existence in July, **1854 when Lord Dalhousie established a central agency for execution of public works** and set up Ajmer Provincial Division.
- It is headed by DG who is also the **Principal Technical Advisor** to the Government of India.
- It has PAN India presence and has ability to undertake construction of complex projects.
- It has been involved construction of stadiums and other infrastructure requirements for Asian Games 1982 and Commonwealth Games 2010.
- CPWD is now engaged in construction of Afghan Parliament Building (beyond national boundaries).

Climate change

Why in news?

- The world’s oceans are heating up at an accelerating pace as global warming threatens a diverse range of marine life and a major food supply for the planet, researchers said.

About the study:

- The findings in the U.S. journal Science, led by the Chinese Academy of Sciences,

Officers IAS Academy, Chennai debunk previous reports that suggested a so-called pause in global warming in recent years.

- The latest technology shows no such hiatus (a pause or break in continuity in a sequence or activity) ever existed, raising new concerns about the pace of climate change and its effect on the planet’s main buffer — the oceans.
- **Ocean heating** is a very important indicator of climate change, and we have robust evidence that it is warming more rapidly than we thought, said co-author Zeke Hausfather, from the University of California, Berkeley.
- About 93% of excess heat trapped around the Earth by greenhouse gases that come from the burning of fossil fuels accumulates in the world’s oceans.
- The latest report relied on four studies, published between 2014 and 2017, that gave more precise estimates of past trends in ocean heat, allowing scientists to update past research and hone predictions for the future.
- A key factor in the more accurate numbers is an ocean monitoring fleet called Argo, which includes nearly 4,000 floating robots that “drift throughout the world’s oceans to measure its temperature, pH, salinity and other bits of information,” said the report.

Cycling helps user, economy

Why in news?

- Cycling for short distance trips can yield an annual benefit of ₹8 trillion to the economy, and cycling regularly for an average distance of 3.5 km for just 120 days can help avoid 4,756 premature deaths, says an analysis by The Energy Resources Institute (Teri).

About the study:

- Even though cycle sales have risen only 1% in a decade as opposed to a 9% rise in cars and two-wheelers - cyclists in cities constitute nearly 40% of those who travel more than 21 km for work.
- That’s around the same as those who commute a similar distance by car, says findings from the 2011 Census, which were used in the study to analyse cycling trends in India.
- “A significant number of people may be compelled to bicycle to work because they can’t afford alternatives,” said Megha

Kumar, one of the researchers involved in the study.

- More than half of India uses “non-motorised” forms of transport, such as walking and cycling, to travel to work, followed by two-wheelers (18%) and buses (16%), the report notes.
- Substituting just half the short distance work trips, which are typically undertaken by two-wheelers and cars, with cycles, could result in massive savings — about ₹27 billion from fuel expenditure and 0.35 Million Tonnes of Oil Equivalent (MTOE) in terms of energy, the researchers calculated.
- The report, which was funded by the All India Cycle Manufacturers Association, said the government should reduce Goods and Services Tax (GST) on cycles that cost less than ₹5,000; promote manufacturing of bicycles, and “discourage” personal motorised vehicles through congestion charges, increased cost of parking, and a “pollution tax.”

The Energy Resource Institute:

- TERI is a **non-profit** research institution that **conducts research work in the fields of energy, environment and sustainable development**.
- Established in **1974** as Tata Energy Research Institute and was renamed The Energy and Resources Institute in 2003.
- It aims to focus on formulating local and national level strategies for shaping global solutions to critical issues.
- It conducts research work in the fields of energy, environment and sustainable development.
- Its key focus lies in promoting clean energy, water management, pollution management, sustainable agriculture and climate resilience.

Plastic in wild elephant dung

Why in news?

- A group of wildlife experts in West Bengal spend too much time looking closely at elephant dung that have stumbled upon an alarming discovery: **elephants of north Bengal have been consuming plastic and loads of it.**

Findings:

- Until recently, the 168-km rail line between Alipurduar and the New Jalpaiguri railway station, where over 60 elephants were mowed down by trains between 2004 and

2015, was known for being a huge threat to elephants.

- While studying the **Rethi-Moraghat elephant corridor** in the region, experts from the **Wildlife Trust of India (WTI)** and the north Bengal-based Society for Protecting Ophiofauna and Animal Rights (SPOAR) discovered another threat: plastic.
- Experts were following elephant dung over an eight sq km area to understand the movement of elephants.
- What caught their eye was the presence of plastic in dung piles. Elephants eat garbage and that is how plastics enter their system.
- Wildlife enthusiasts and conservationists have pointed out that a number of rivers in north Bengal are filled up with plastic, and in the winter months, as these rivers turn dry, heaps of plastic remain on the river bed.
- In mid-2018, a scientist from Kolkata was alarmed to see plastics in the Torsa river in the Buxa Tiger Reserve.
- The **Buxa Tiger Reserve** sustains a large elephant population and the Torsa, which flows from Bhutan to India, is the main water source in the reserve.

What is elephant corridor?

- Elephant corridor is a **thin strip of land** that allows elephants to move freely from one habitat patch to another.
- 88 elephant corridors have been identified by the wildlife trust of India under **National elephant Corridor project.**

Wild life Trust of India:

- The **Wildlife Trust of India (WTI)** is an Indian nature conservation organization to conserve wildlife and its habitat and to work for the welfare of individual wild animals.
- WTI has been credited for achieving conservation milestones such as Recovering population of **critically endangered species**, Translocation of Species, Reducing Human-Animal Conflict, Rescue and Rehabilitation of Animals including Elephants, Tigers, Leopards, One-horned Rhino and Bears.
- Formed in November **1998** in response to the rapidly deteriorating condition of wildlife in India.
- WTI is a **registered charity** in India (under Section 12A of the **Income Tax Act, 1961**).

Culture

Development of Particularly Vulnerable Tribes Groups

About the scheme

- This scheme is being implemented by the Ministry of Tribal Affairs since 2008.
- Activities supported under the scheme include housing, land distribution, land development, agricultural development, cattle development, construction of link roads, installation of non-conventional sources of energy, social security, etc
- The scheme covers 75 identified Particularly Vulnerable Tribal Groups in 18 States and UT of Andaman & Nicobar Islands.
- The scheme is flexible as it enables the States to focus on areas that they consider are relevant to PVTGs and their socio-cultural environment
- The Scheme is funded entirely by the Central government

Criteria followed for determination of PVTGs

- A pre-agriculture level of technology
- A stagnant or declining population
- Extremely low literacy and
- A subsistence level of economy

Why in news?

- The Minister of State for Tribal Affairs replied to a question in Lok Sabha regarding Particularly Vulnerable Tribes Groups

National Culture Fund (NCF)

About the fund

- The National Culture Fund (NCF) was created as a Trust in November 1996 under the Ministry of Culture
- It aims at inviting the participation of the Corporate Sector, Non-Government agencies, State Governments, Private/Public Sector and individuals in the task of promoting, protecting and preserving India's cultural heritage both tangible and intangible.
- It will enable institutions and individuals to support arts and culture directly as partners with its government.

Objectives

- To administer and apply the Fund for conservation, maintenance, promotion,

protection, preservation and up gradation of monuments protected

- Training and development of a cadre of specialists and cultural administrators
- Innovations and experiments in arts
- Documentation of cultural expressions and forms that have lost their relevance in contemporary scenario and are either fading out or facing extinction

Why in news?

- The Minister of State (independent charge) for Culture replied to a question in Rajya Sabha.

Aadi Mahotsav

What's in news?

- National Tribal festival is being organized annually by the Ministry of Tribal Affairs (MoTA) since 2015
- It is being organised to celebrate, cherish and promote the spirit of tribal craft, culture, cuisine and commerce.
- Since 2017-18, the ministry introduced a new concept of organising National Tribal Festival titled "Aadi Mahotsav" in collaboration with Tribal Cooperative Marketing Development Federation of India (TRIFED)
- The Mahotsav will comprise of display and sale of items of tribal art and craft, tribal medicine & healers, tribal cuisine and display of tribal folk performance, in which tribal artisans, chefs, folk dancers/musicians from 23 States of the country
- In 2018, the 4th edition was held in New Delhi with the theme - "A Celebration of the Spirit of Tribal Culture, Craft, Cuisine and Commerce".

Tribal Cooperative Marketing Development Federation of India (TRIFED)

- The Tribal Cooperative Marketing Development Federation of India (TRIFED) came into existence in 1987.
- It is a national-level apex organization functioning under the administrative control of Ministry of Tribal Affairs.
- It aims at promoting economic development of tribal communities of country through marketing development and sustained upgradation of their skills and products.

Sanskriti Kumbh

About Sanskriti Kumbh

- Sanskriti Kumbh is a 29 days cultural extravaganza which celebrates the conglomeration of Spiritual Consciousness and Cultural Heritage of India.
- It is being organised by the Ministry of Culture in order to showcase the rich cultural heritage of India - performing arts, handicrafts, cuisines, exhibitions etc in one place.

Kumbh Mela

- Kumbh Mela is one of the oldest and largest congregations in the world.
- Kumbh Mela is attended by millions of people irrespective of all caste, creed, sex and region
- In 2017, it was added to the UNESCO list of Intangible Cultural heritage for humanity
- This time Kumbh is being organized in the city of Prayagraj
- It is a Hindu festival which is observed during the Purnima (full moon) of month of Paush (December 22- January 20) after every 12 years on the banks of a holy river to take dip and perform various rituals.
- It is held every four years by rotation at:
 - Haridwar (banks of Ganga)
 - Allahabad (Confluence of Ganga, Yamuna and Saraswati)
 - Nashik (banks of Godavari)
 - Ujjain (banks of Shipra)

Why in news?

- Sanskriti Kumbh was inaugurated by the Governor of Uttar Pradesh in Kumbh Mela area, Prayagraj, Uttar Pradesh.

Guru Gobind Singh

About Guru Gobind Singh

- Guru Gobind Singh was the tenth and last Sikh Guru who became the leader of the Sikhs at the age of 9 after Guru Tegh Bahadur was beheaded.
- He was a spiritual master, warrior, poet and philosopher.
- In 1699, he established the Sikh warrior community called Khalsa
- Guru Gobind Singh started the tradition of the Five K's for the Khalsa. The Five K's are kesh (uncut hair), kanga (wooden comb), kara (iron or steel bracelet), kirpan (dagger) and kacchera (short breeches)
- His literary contributions include the Jaap Sahib, Benti Chaupai, Amrit Savaiye, etc.

- Chandi di Var was his famous composition is Punjabi.
- In 1708, he declared that Guru Granth Sahib will be the holy scripture of Sikhism and will be the permanent Guru of Sikhs.

Why in news?

- The Prime Minister of India will release a commemorative coin to mark the 350th birth anniversary of Guru Gobind Singh

Makar Sankranti

About Makar Sankranti

- Makar Sankranti marks the first day when the sun enters Capricorn and weather begins to change and marks the end of the month with winter solstice.
- People take a dip bath in sacred rivers, offer pray to the Sun God
- It is celebrated on the 14th of January every year and marks the beginning of a new harvest season
- It is known by different names in different states like
 - Magh Bihu in Assam
 - Pongal in Tamilnadu
 - Lohri in Punjab
 - Uttarayan in Gujarat
 - Sukarat in Central India
 - Pedda Pandaga in Andhra Pradesh, Telangana and Karnataka
 - Poush Parbon in West Bengal

National Youth Day

What's in news?

- National Youth Day is celebrated on January 12 since 1984 to commemorate the birth anniversary of Swami Vivekananda.

Swami Vivekananda

- Swami Vivekananda was born in 1863 and died in 1902 at the age of 39.
- He was a renowned philosopher, poet, writer, social reformer and orator.
- He was influenced by Ramakrishna Paramahansa who became his Guru.
- He introduced the Indian philosophies of Vedanta and Yoga to the West.
- Vivekananda shot to fame with his speech at the Parliament of the World's Religions in Chicago in 1893 in which he began his address with "Sisters and brothers of America".
- His interpretation of Vedanta is called neo-Vedanta.

- He worked towards a better understanding of Hinduism and also towards nationalism.
- According to him, the best form of worship was the service of the people.
- Vivekananda founded the Ramakrishna Math and the Ramakrishna Mission

Prasad scheme

About the scheme

- Pilgrimage Rejuvenation and Spiritual Augmentation Drive was launched in 2014-15.
- The Ministry of Tourism provides Central Financial Assistance (CFA) to State Governments/Union Territory Administrations, for various tourism projects
- The focus is on development and beautification of the identified pilgrimage destinations

Objectives

- Harness pilgrimage tourism for its direct and multiplier effect upon employment generation and economic development.
- Enhance tourist attractiveness in sustainable manner by developing world class infrastructure in the religious destinations.
- It also seeks to promote local art, culture, handicraft, cuisine, etc.

Why in news?

- Under the PRASHAD scheme, the Ministry of Tourism has sanctioned the project 'Development of Govardhan' in District Mathura in Uttar Pradesh and

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'Development of Pilgrimage Amenities at Somnath – phase 2'

Swadesh Darshan

About the scheme

- Swadesh Darshan scheme is one of the flagship schemes of Ministry of Tourism launched in 2014-15.
- The objective of the scheme is to develop thematic circuits in the country in a planned and prioritized manner
- Under the scheme, 15 thematic circuits have been identified such as Buddhist, coastal, desert, eco, heritage, Himalayan, Krishna, Northeast, Ramayana, rural, spiritual, sufi, tirthankar, tribal and wildlife.

Why in news?

- The Ministry of Tourism has sanctioned the development of Gorakhnath Temple (Gorakhpur), Devipattan Temple (Balrampur) and Vatvashni Temple (Domariyagunj) under Spiritual circuit.
- The first Swadesh Dharshan project was inaugurated in Meghalaya under "Development of North East Circuit: Umiam (Lake View) - U Lum Sohpetbneng-Mawdiangdiang - Orchid Lake Resort".
- The other projects in Meghalaya include 'Development of West Khasi Hills (Nongkhlaw- Krem Tiro - Khudoi & Kohmang Falls – Khri River-Mawthadraishan, Shillong), Jaintia Hills (Krang Suri Falls- Shyrmang- looksi), Garo Hills (Nokrek Reserve, Katta Beel, Siju Caves)'

Miscellaneous

First India-flagged cruise from April

Why in news?

- Aimed at **contributing to India's cruise tourism**, Zen Cruises, a company promoted by **Essel Group** has announced plans to start cruise services on India's coastline starting April 17.

About the Cruise:

- **Karnika**, the first ship under the Jalesh brand, with a capacity to take 1,900-2,000 people on board, will sail from Mumbai to Goa, to begin with.
- **Jalesh Cruises** – meaning 'Lord of Water' is designed to offer a rich experience of Indian culture, hospitality and food to domestic and international travelers," the company said.
- Mumbai Port is converting into a water transport and sea tourism hub. With Zen Cruises making Mumbai its home port, it will contribute a lot to our overall plans.

Indus Food 2019

Why in news?

- INDUS FOOD-II will be held on 14th and 15th January, 2019, at India Expo Mart, Greater **Noida**
- **Theme: 'World Food Supermarket'**.

About INDUS FOOD:

- INDUS FOOD is a platform of its kind exclusively devoted to enhancing Indian exports in F&B sector.
- The event is aimed at promoting India as a strong and reliable exporter of food and beverage products to the world.
- It enables B2B engagements of buyers and suppliers, after careful business matchmaking, which takes care of precise business requirements of each participant, and enables him to pick and choose whom to meet.

News in-depth

General Studies-1

10% reservation for economically weak among upper caste

Introduction:

- The Parliament has passed the **Constitution (One Hundred and Twenty-Fourth Amendment) Bill**, extending 10% quota to “the economically weaker sections in the general category who are not covered by any of the existing schemes of reservation”.
- The bill is designed to amend the Constitution to extend 10% reservation in direct recruitment in government jobs and for admission in higher educational institutions to “economically weaker” sections among all castes and communities, Christians and Muslims included, who are not eligible under the existing quotas.

Definition of the Economically Weaker Section (EWS) according to the bill:

- For the purposes of this article 15 and article 16, “economically weaker sections” shall be such as may be notified by the State from time to time on the basis of family income and other indicators of economic disadvantage.’

Amendments made in the Constitution:

Amendment to Article 15 (Reservation in Educational Institutions)

- Art 15 has been amended and 15(6) has been added to enable 10% reservation for EWS in educational institutes excluding the minority educational institutes.

Amendment to Article 16 (Reservation in Jobs)

- Art 16 has been amended to enable 10% reservation for EWS in

Supreme Court in Indira Sawhney case:

- The proposed law would face roadblocks if challenged in the Supreme Court.
- A nine-judge Constitution Bench of the Supreme Court in the **Indira Sawhney case of 1992** specifically answered the question “whether backward classes can be

identified only and exclusively with reference to the economic criterion.”

- The constitution bench had categorically ruled that **a backward class cannot be determined only and exclusively with reference to economic criterion**. The bench had held that economic criterion may be a consideration or basis along with, and in addition to, social backwardness, but it can never be the sole criterion.
- The bench in its judgement declared **50% quota as the rule unless extraordinary situations “inherent in the great diversity of this country and the people” happen**. Even then, the court stated that extreme caution is to be exercised and a special case should be made out.

Positive aspects of the amendment:

- The bill is seen as a positive step towards equal access to public jobs and educational institutes for the EWS general category candidates. The reservation of EWS of general category will be given without tampering the existing quotas for SC, ST and OBCs people.
- The 50% cap on reservations imposed by the Supreme Court was only for caste-based reservations, and the Economically Weaker Section (EWS) reservation won't be impacted by it.
- The Ram Singh & ORS. Vs Union of India case where the Court had struck down Jat reservation, Justice Gogoi had made observations regarding reservations for economically backward, “ Though caste may be prominent and distinguishing factor for determination of backwardness but it is high time that other criteria like economic backwardness may be used to determine the backwardness”.

Challenges associated with the bill:

- The bill passage is considered to be fast as no proper discussion or reference to Parliamentary Standing Committee was made.

- The number 10% reservation for the EWS does not seem to have any proper backing up of data like any survey report or commission report.
- The bill itself is based on the false notion, reservation is one of the tools against social oppression and injustice against certain classes. Otherwise known as affirmative action, reservation helps in uplifting backward classes.
- To enable upliftment of EWS of general category scholarships, loans can be improved.

Will Supreme Court consider the 124th Constitutional Amendment Bill as valid?

- Except in a few states like Tamil Nadu, the cap of reservation is 50%. This limit is set by the Supreme Court to avoid the vote-bank politics of providing quotas thus compromising the merit. Tamil Nadu has a law which provides for 69% reservations, which has been inserted into the ninth schedule of Constitution to immunize it from judicial review.
- A nine-judge bench decision of the SC in the Indira Sawhney case(1992) had capped the upper limit of reservation at 50%. The Indira Sawhney case had further held that social backwardness cannot be determined only with reference to an economic criterion.
- So the limits imposed by the nine-judge bench in 1992 would be the major litmus test for this bill. If the same standards are upheld by the Supreme Court, the 124th Constitutional Amendment Bill will be declared null and void.
- The Gujarat Government had already brought an ordinance to provide 10% quota for EWS in the forward castes. However, in August 2016, the Gujarat High Court had quashed this ordinance. The appeal against that judgment is pending in the Supreme Court.

Conclusion:

- There is no doubt that unequals should not be treated equally. However, is the current system of unequal treatment perfect? Is it creating more injustice? Is it the only way out in a welfare-nation? It's time to introspect.
- Reservation based entirely on economic criteria is not an all-in-one solution, though family income can be one of the parameters. Also, its time to fix a time

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period for the reservation system – rather than extending it to eternity.

- While we await the SC reaction for the current bill, the verdict is likely to become yet another milestone in the history of reservation and social justice.

No freedom without equality at Sabarimala

Introduction:

- When two women entered Sabarimala purification rights were performed that reminded us of the purification of the Chavdar Tank at Mahad in 1927, following B.R. Ambedkar's satyagraha for 'Untouchables' to drink water there.

Remembering the Mahad:

- Brahmins from the area poured 108 earthen vessels of panchagavya, five organic substances associated with the holy cow, including its milk, urine and dung, into the tank to undo the supposedly "polluting" effects of close to 10,000 Mahars drinking the water.
- The symbolism of mass drinking of the water, with Ambedkar himself taking the first sip, was akin to an act of civil disobedience.
- Both were carefully planned, peaceful and disciplined protests, and yet were violently disrupted.
- Mobs, rioters and police colluded to attack and disperse the Mahar satyagrahis; the local British administration ended up siding with the Hindu hardliners under the guise of not wanting to hurt the religious sentiments of this socially dominant and politically powerful group.

Different Discriminations:

- Though the story of Mahad is different from Sabarimala, both has the common ground of discrimination against certain group.
- Both comes under the common value of justice. Ambedkar envisioned such a justified society that he gave a constitution that promoted those values.
- He gave an egalitarian Constitution, strong judiciary and he waned these institutions to back him up during his own shattering struggle against caste, but he ensured that Untouchability was outlawed, and that equal citizenship and fundamental rights regardless of gender or community were

enshrined in the charter document of the Indian Republic.

Conclusion:

- Though its true that fellow Indian citizens have deep rooted religious past it is also important to remember that we are the children of Gandhi and Ambedkar's vision.
- We owe it to ourselves as democratic Indians to throw open the doors of the Ayyappa Temple to all those who wish to enter and worship there.

Why Adam Smith favoured Public education

Introduction:

- The authority of Adam Smith is frequently invoked by supporters of the free market, who argue for extending the market forces to all conceivable goods and services and eliminating any kind of government intervention in markets.
- However, Smith's The Theory of Moral Sentiments and An Inquiry into the Nature and Causes of the Wealth of Nations make it clear that he was not a laissez faire or free market capitalism apologist.

Favouring liberal capitalism:

- Smith favoured liberal capitalism over the extant socio-economic arrangement (elements of feudalism and mercantilism).
- While feudalism was characterised by the rule of the nobility/landowners, mercantilism was characterised by state monopoly over trade.
- The East India Company was an example of the latter. It is in this historical context that Smith called for the state to withdraw its monopolistic interventions in both external and internal commerce.
- Contrary to public opinion, Smith presupposed the government provision of legal infrastructure, defence, transport infrastructure and education for the proper functioning of liberal capitalism.

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- For him, the responsibility of providing institutions "for promoting the instruction of the people" is one of the chief duties of the state.
- The state, he said, must undertake this responsibility just as it accepts responsibility "for protecting society from the violence and invasion of other independent societies"

Education is not a commodity:

- Smith conceived of education in a broad manner. Education for him not only includes the "study of wisdom" but also the learning of good moral sentiments such as virtue, sympathy, gratitude and benevolence.
- Since Smith considered education as central to a flourishing society, he did not treat it as a commodity.
- He argued that the costs of education should be such that "even a common labourer may afford it".
- Smith advocated accessible education for the entire class of workers, which constitutes the majority of the population.
- In fact, he advocated compulsory education for them so that it offsets part of the debilitating effects from the division of labour.
- Smith also believed that education would empower the citizens to make wise decisions which contribute to the "safety of the government".
- Yet another reason is that education positively affects customary wages, which over time, would increase workers' real wages.

Conclusion:

- It would therefore be wise to take heed of Smith's views on education, which comprise both the learning of "wisdom" and "moral sentiments", and not only strengthen but also expand India's public education system.

General Studies-2

A renewed attack on privacy

Introduction:

- The Lok Sabha, without any attendant discussion, passed the Aadhaar and Other Laws (Amendment) Bill, 2018.
- Unless Rajya Sabha places a hold on the bill, the bill will become a renewed attack on individual privacy given the situation that India still does not have proper data protection and privacy laws.

Features of the Bill:

The important features of the Aadhaar and Other Laws (Amendment) Bill 2018 are:

- The bill seeks to amend the Aadhaar (Targeted Delivery of Financial and Other Subsidies, Benefits and Services) Act, 2016, the Indian Telegraph Act, 1885 and the Prevention of Money-laundering Act, 2002.
- The amendment permits children, who would turn 18 years old, to opt out of the system.
- The amendments make sharing of Aadhaar details voluntary for opening bank accounts, school admissions and procuring mobile SIM cards.
- The bill provides for stiff penalties for violation of norms set for the use of Aadhaar.
- The amendment bill ban storing of core biometric information as well as Aadhaar number by service providers in cases of individuals who have voluntarily offered the national ID as a means of authentication.
- The bill makes it clear that anyone not offering Aadhaar cannot be denied any service, be it a bank account or a SIM card.

Pitfalls in the bill:

- The bill would enable commercial exploitation of an individual biometric and demographic information by the private entities.
- Since the Supreme Court has found that the operation of Aadhaar by private entities violates fundamental rights, there is today no avenue available for fresh legislative intervention, unless the government chooses to amend the Constitution.
- Private entities might exploit Aadhaar in fraud given no rigid data protection law.

- There is no valid reason of why a private entity should have access to such crucial identification card like Aadhaar.

Conclusion:

- SC in the Aadhaar case unanimously struck down sec 57 of Aadhaar act, giving a legislation for voluntary use of Aadhaar only weakens the judicial verdict.

Let the grassroots breathe

Introduction:

- One of the first decisions of the newly elected Ashok Gehlot government in Rajasthan has been to scrap the minimum educational qualification criteria for candidates contesting local body elections.
- This reverses the amendments introduced by the previous government of the BJP in 2015 which required candidates contesting the zila parishad and panchayat samiti elections to have passed Class 10 and those contesting sarpanch elections to have passed Class 8.
- Further, it disallowed those without functional toilets in their home to contest. Following this, Haryana also introduced similar restrictions for contesting local body elections.

SC response:

- The decisions by the Rajasthan and Haryana governments were widely criticised and also challenged in the courts.
- However, in December 2015, a two-judge Bench of the Supreme Court in Rajbala v. State of Haryana upheld the validity of the amendments to the Haryana Panchayati Raj Act.
- In a contentious judgment authored by Justice J. Chelameswar, the court held that prescription of educational qualification was justifiable for better administration and did not violate the right to equality enshrined in the Constitution.

Denying local democracy:

- The undermining of local governments as representative institutions does not take place solely through the introduction of restrictions for contesting elections.
- Often it takes a more brazen form: not holding elections to local governments. Over the years, many State governments have sought to defang local governments

by simply delaying elections on various grounds.

- Elections to panchayats and municipalities in Tamil Nadu have not been held since 2011. In Visakhapatnam, elections to its Municipal Corporation were last held in 2007.
- These local governments now function as bureaucratic machines without an elected council to hold them accountable.

Conclusion:

- India prides itself as a robust democracy, at least in the procedural sense, with regular elections and smooth transfer of power.
- However, the absence of elected councils in some local governments punches holes in this claim.
- The lack of alarm caused by the denial of local democracy reveals our collective bias regarding the place of local governments.
- Delaying elections and adding restrictions to contest prevent local governments from becoming truly representative institutions.

Will not accept high-value Indian currency, says Nepal

Why in news?

- Upset over continued delays by New Delhi in exchanging demonetized currency, Nepal says it will not accept high-value Indian notes until the government gives specific assurances against future shocks.

Background:

- In fact, it is surprising that Nepal's demonetisation of high-value notes was so long in coming, i.e. more than two years after India demonetised notes of Rs 500 and Rs 1000.
- Nepal, like Bhutan, has always used and traded in Indian rupees. Simply because it was easier to do so.
- At the same time, long before Prime Minister Narendra Modi's note ban, notes of Rs 500 and Rs 1000 were banned in Nepal.
- Most transactions were restricted to notes of Rs 100 and lesser value.
- More than the current ban, the actual surprise is that Nepal had allowed free use of the new notes of Rs 2000, Rs 500 and Rs 200 till recently though there were large sections, especially of business and trade, that did not accept these.

Reasons for ban Indian currency in Nepal:

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- The reasons why Nepal let the high-value notes circulate for two years can only be speculated upon.
- One of the reasons is said to be that Nepal was negotiating exchange of the demonetised Rs 500 and Rs 1000 notes; and, that Nepal Rastra Bank reportedly holds over \$1 billion worth of these erstwhile notes.
- Therefore, it did not reiterate the ban after demonetisation because it expected GoI to accommodate its interests.
- Recent economic upheavals in Nepal and India combined with political changes on both sides of the border had resulted in an erosion of confidence in the Indian currency.
- There was a marked decline in the usage of Indian money. And, pending political stability, Nepal did not want to worsen the economic situation by banning the newly issued Indian notes.
- That would have been unsettling for businessmen, traders, migrants, Nepalese workers in India, tourists and the millions of Nepalese who keep their savings in cash at home.
- The speculation that Nepal's ban on the new Indian notes is retaliation for India refusing to replace its stock of demonetised notes (of Rs 1000 and Rs 500) with new ones.
- It is undeniable that the Nepalese economy and people have lost billions of rupees, which they can scarce afford to, because of India's demonetisation.

Implications of such move:

- Nepal's ban on India's Rs 200, Rs 500 and Rs 2000 notes should not come as a surprise to India.
- It is also an opportunity for China to make Nepal shift gradually towards using the **yuan** instead of the Indian rupee. Yet to see Nepal's decision as one driven by China and not its own national interests would be a gross misreading of the situation.
- It is clear that demonetisation has demolished confidence in the Indian currency in the neighbourhood where the rupee was much valued especially as a savings instrument.

What needs to be done?

- India is Nepal's largest trading partner and supplies bulk of Nepal's essentials and consumer goods.

- India is also home to millions of Nepalese and the 'Sarkar' is paying pension to legions of Gorkha ex-servicemen.
- There is no way China can take the place of India vis-à-vis Nepal, and it is for India to reinforce its position and strengthen ties.
- In the present case, India should help Nepal implement its decision and, at the same time, uphold the primacy of the Indian rupee.
- The first step in this direction is to enable the Nepalese (and Indian tourists going to Nepal, who are mostly from middle- and lower-income groups) to freely and easily exchange their high-value currency for Rs 100 notes.
- Such actions will revive confidence in India and the Indian currency.
- That is a necessary condition for resolving the larger issue of dealing with cross-border movement of black money and counterfeit currency, which is at the root of Nepal's demonetisation.

National Clean air Program

Introduction:

- India is one of the fastest growing economies in the world. The country is undergoing a rapid phase of Industrialization and urbanization for the past three decades.
- These rapid changes in the state of Industrialization and urbanization have led to various types of pollution problems particularly the Air pollution.
- Over the years, the government of India has taken various initiatives to improve the air quality in the country such as National Ambient Air Quality Standards, Sector Specific emission and effluent standards for Industries, Air Quality monitoring network, Introduction of cleaner fuel CNG, LPG etc. Leapfrogging from BS IV to BS VI, Launching of Air Quality Index.
- National Clean Air Program is the latest initiative taken by the government of India to create strategies for reduction in air pollution levels at **both regional and urban scale**.

Key features of NCAP:

- **The program will not be notified under the Environment Protection Act or any other Act** to create a firm mandate with a strong legal back up for cities and regions

Officers IAS Academy, Chennai to implement NCAP in a time bound manner for effective reduction.

- **Achieve a national-level target** of 20-30% reduction of PM2.5 and PM10 concentration by between 2017 and 2024.
- **Central Pollution Control Board (CPCB) will execute this nation-wide program** in consonance with the section 162 (b) of the Air (Prevention and Control of Pollution) Act, 1986.
- **The program has been launched with an initial budget of ₹300 crore** for the first two years.
- **The plan includes 102 non-attainment cities**, across 23 states and Union territories, which were identified by Central Pollution Control Board (CPCB) on the basis of their ambient air quality data between 2011 and 2015.
- **Non-attainment cities are those** which have been consistently showing poorer air quality than the National Ambient Air Quality Standards. These include Delhi, Varanasi, Bhopal, Kolkata, Noida, Muzaffarpur, and Mumbai.
- As part of the program, **the Centre also plans to scale up the air quality monitoring network across India**. At least 4,000 monitors are needed across the country, instead of the existing 101 real-time air quality (AQ) monitors, according to an analysis.
- **The plan proposes a three-tier system**, including real-time physical data collection, data archiving, and an action trigger system in all 102 cities, besides extensive plantation plans, research on clean-technologies, landscaping of major arterial roads, and stringent industrial standards.
- **It also proposes state-level plans** of e-mobility in the two-wheeler sector, rapid augmentation of charging infrastructure, stringent implementation of BS-VI norms, boosting public transportation system, and adoption of third-party audits for polluting industries.
- **Various committees:** The national plan has proposed setting up an apex committee under environment minister, a steering committee under-secretary (environment) and a monitoring committee under a joint secretary. There would be project monitoring committees at the state-level with scientists and trained personnel.

Need of the hour:

- The MoEF&CC, as a nodal central and apex agency, will have to **flex its authority to ensure all NCAP indicators are integrated with multi-sector and inter-ministerial programmes** to align with the air quality target and objectives.
- **NCAP should not become only a top-down prescriptive approach.** In fact, within the federal structure, NCAP, while ensuring compliance, will also have to create enough room for tighter action that can be even stronger than the common minimum national programme as defined by NCAP.
- **State governments and city authorities should be encouraged and enabled to take those extra steps to meet local targets.** City-wise air quality targets will clearly show where much deeper cuts will be needed for hotspot and stronger regional action.
- **NCAP will also have to join all critical dots with clarity.** For instance, in case of vehicular pollution, the main body of the plan has ignored mobility, transportation and urban planning strategies, though fortunately, the indicative broadsheet of action at the end has listed public transport, transit-oriented development policies, and non-motorised transport. But these will have to be detailed out with clear pathways and milestones and integrated well with the NCAP strategies.
- **NCAP will also have to be more nuanced and adopt appropriate approaches for small and big cities** according to their dominant pollution profile while several strategies may remain uniform.

Conclusion:

- The formulation of NACP highlights government's intention to mitigate the issue of air pollution from across the country.
- A report by WHO said 14 of the world's 15 most polluted city is in India.
- The formulation and implementation of the ambitious targets of NACP could be an answer to the concerns of WHO.
- Overall it is a great step forward to in addressing the most basics of the human needs a clean air to breathe.

- India's relation with the neighbourhood countries is said to be developing over the years.
- With "Act East policy" of Indian government, the country has taken various initiatives to increase its ties.
- But the relationship with china and Pakistan are said to been fluctuating over the time.

India-Pakistan

- The India-Pakistan relationship, since the creation of both the nations in 1947 has been rocky, where the nations have been involved in four wars.
- Kashmir has been the major issue between both the nations and has been an unresolved boundary dispute.
- Terrorism, particularly targeting India which is inherited on Pakistani soil is yet another major issue which has blocked the relationship between the two countries.
- Kulbhushan Jadav case, Cross-border fatalities and repeated violation of the ceasefire by Pakistan are also other major issues.
- Despite many positive initiatives such as Pakistan's PM Nawaz Sharif attended swearing-in ceremony of PM Modi in 2014, In 2015, PM Modi paid a surprise visit to Lahore which signal's positive development of relationship between India and Pakistan.
- However, with the attack on the Indian Air Force Base in 2016 (Pathankot) and Uri attack, there was a complete stoppage of talks at all levels in between the nations.
- Terror and talks cannot go together on a same line.
- The internal problems in Pakistan between the civilian government and military is major reason for political unrest.
- The economic condition of Pakistan is also deteriorating, with lowering reserves and low trade engagement.

Pakistan in International arena

- The BRICS based Xiamen declaration has firmly classified Taliban, ISIL/DAISH, Al-Qaida and its affiliates, including Eastern Turkistan Islamic Movement (ETIM), Islamic Movement of Uzbekistan, the Haqqani network, Lashkar-e-Taiba, Jaish-e-Mohammad, TTP and Hizb ut-Tahrir as terror groups.

India's China-Pak policy

Overview

- It was the first time when Pakistan-based LeT and the JeM has been named by BRICS.
- FATF has put Pakistan on “grey list,” subjecting it to direct monitoring and intense scrutiny by the International Cooperation Review Group (ICRG) on terror financing.
- Financial action task force said that Pakistan is involved in providing monetary assistance to terrorism and related causes for failing to curb terror financing on its soil.

India-china

- On 1 April, 1950, India became the first non-socialist bloc country to establish diplomatic relations with the People’s Republic of China.
- India-China relations, though occasionally showing signs of peace and cooperation, have often been afflicted by tension and mistrust.
- Several areas of dispute between the two countries such as Doklam issue, CPEC, Line of Actual Control (LAC).
- India and China have bilateral trade of about \$84.44 billion, in which India’s trade deficit is massive \$63 billion.
- India is expecting China to make investments in India, while China tries to restrict Indian exports into China.
- The informal Wuhan summit between PM Narendra Modi and Chinese President Xi Jinping, has given a boost to India-China ties.



- The recent investment of China in building defence equipment is seen as a threat to India.
- China is seeking to encircle India by setting up new strategic ports, airfields in Pakistan (Gwadar), Sri Lanka (Hambantota) and Bangladesh (Chittagong), Myanmar

Officers IAS Academy, Chennai (kyaukpyu), which is known as “string of pearls”.

- India recently strengthened ties with Japan and US, which PM termed as JAI (Japan-America-India) and Quad grouping (Australia also included).

India-China in Afghanistan

- With uncertainty about the presence of US in Afghanistan, China tries to maintain stability in the region, which is a most vital part of its Belt and Road initiative (BRI).
- China is also the part of Quadrilateral coordination group along with Afghanistan, US, Pakistan to help in maintaining peace and stability.
- It has investments in areas of mining, roads, railways, health etc.
- It has helped Afghanistan to get observer status in Shanghai Cooperation Organisation (SCO).
- India has played an important role in reconstruction and rehabilitation of Afghanistan, making significant investments in technical cooperation and capacity building in the country.
- India helped build Delaram-Zaranj highway connecting the Delaram district in Afghanistan to the border of Iran.
- India has constructed Afghan-India Friendship Dam (earlier known as Salma Dam) in Herat province.
- India constructed a new parliament building in Afghanistan.
- India is running several programmes for training and capacity building for civil servants and police force in Afghanistan.
- India, which initially told it would not participate in the peace talks with Afghanistan, later changed its stand to send two retired diplomats to Russia for talks.
- Afghanistan also confirms that peace talks are slow because of the presence of different factions among the Taliban.
- Being two of the largest powers in Asia, India-China must coordinate with each other to create stability in Afghanistan.
- Already India-China had started joint training projects for Afghan diplomats.
- India and China must work together in SCO, to gain a member status for Pakistan.

Way Forward

- India must maintain a good relationship with Pakistan and China in order to maintain peace and stability in the Asian region.

- It could also help India to increase its trade interests in these regions.
- People to people interaction remains as the major key to develop the ties with neighbouring countries.

Raisina Dialogue 2019

About

- The Raisina Dialogue is an annual conference held in New Delhi.
- It is be India's flagship conference of geopolitics and geo-economics.
- The conference is held jointly by Ministry of External Affairs, India and the Observer Research Foundation (ORF), an independent think tank based in India.
- The name of conference comes from Raisina Hill which is the elevation in New Delhi where presidential palace of India, Rashtrapati Bhavan is located.
- The first edition of the conference was held in March 2016 with the theme "Asia: Regional and Global Connectivity".
- It is organized on the lines of the Shangri-La Dialogue held in Singapore.

2019 edition

- This year, the theme of the Dialogue is "A World Reorder: New Geometries; Fluid Partnerships; Uncertain Outcomes".
- This year the discussions were to address issues arising from ongoing global transitions and changes to the world order.

New forum in West Asia

- Iran's Foreign Minister Mohammad Javad Zarif proposed for a new regional forum in West Asia, to maintain stability in the region.
- The main reason for the need is said to be ongoing crisis in Gulf cooperation council (GCC).
- Crisis started since June 2017, when Saudi Arabia, the UAE and Bahrain stopped diplomatic ties with Qatar.
- They accused Qatar of supporting "terrorists" and being too close to Iran.
- Iran has called for the creation forum that gives importance to sovereignty, territorial integrity and the political independence of all states.
- It also stated that the forum must act against terrorism and extremism which are the major reasons for instability in the West Asian region.

Gulf Cooperation Council (GCC)

- GCC is a political and economic alliance of six countries in Arabian Peninsula.
- The countries are Kuwait, Oman, Bahrain, Qatar, Saudi Arabia and UAE.
- It promotes economic, security, cultural and social cooperation between the six states and holds annual summit to discuss cooperation and regional affairs.
- The Charter of GCC was signed in 1981, formally establishing the institution.
- Its headquarters is in Riyadh, capital city of Saudi Arabia.

Indo-Pacific

- Quad grouping which comprises of India, USA, Japan and Australia have come together to crate a free Indo-Pacific region.
- It has also decided to help the ASEAN countries to discuss the code of conduct in South China Sea with China to create more stability in the region.
- India by various multilateral ties, now appears ready to expand cooperation with the West or East on the basis of self-interest, which is done by QUAD.
- QUAD grouping also helps India improve its ability to defeat terrorism, improve regional connectivity and extend its naval reach.
- But mostly QUAD is seen as an anti-china alliance.
- China also sees this grouping as a blockade to its Belt and Road Initiative (BRI) policy.

US interest

- US has also announced strategic investments worth \$113.5 million in the Indo-Pacific, with particular emphasis on expanding digital connectivity, energy security and sustainable infrastructure.
- Cooperative projects were announced such as the 'Strategic Trade Authorisation Tier 1 Status' to India for export of high-technology items by American firms.
- These steps indicate efforts by the US administration to secure greater market access for American businesses in key regional markets such as India and Japan.
- Such market access in these countries is focused on areas that can provide American businesses control over production of strategic assets like energy.

- This is exactly the same reason the Chinese investments in the BRI are criticised.

Leaders in 2019 Edition

- Norwegian PM Erna Solberg said that all countries must give mutual respect to for international law, human rights and rules-based border.
- This could help in maintaining peace and stability around the world.
- The former Deputy Prime Minister of Malaysia Anwar Ibrahim said that communal politics is spread in the country and India should give importance to protection of freedom of religion for indigenous communities and religious minorities.

Way Forward

- Raisina Dialogue will farther increase India's opportunities in global politics and trade.
- This could also help in increasing India's chances for obtaining a permanent seat in UN security council.

India's Atlantic challenge

About

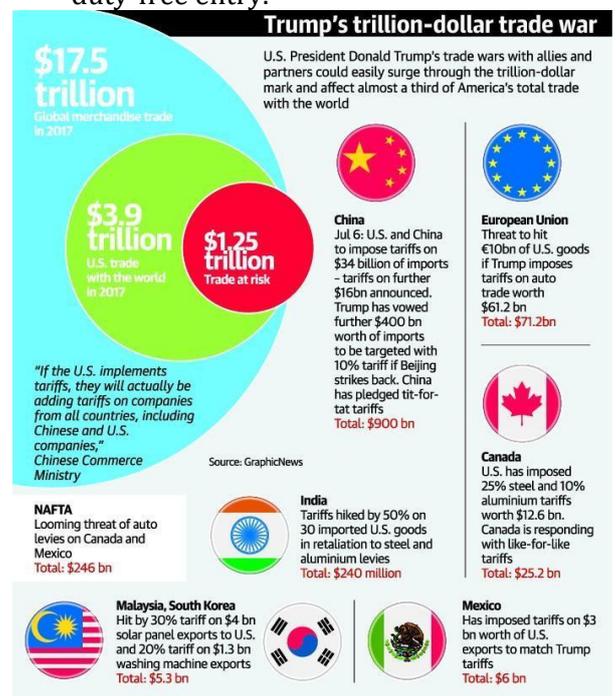
- India is one the fastly developing economies over the years, But recent policies by other countries acts as blockade to India's economic growth.
- The major problem for Indian trade lies in regions of US and UK.
- Where President Trump's "America First" policy and UK's Post Brexit trade policies

India-USA

- India-USA bilateral trade in goods and services increased from \$104 billion in 2014 to \$114 billion in 2016.
- India and the US have set up a bilateral Investment Initiative in 2014, with a special focus on facilitating FDI, portfolio investment, capital market development and financing of infrastructure.
- But after the election of Donald Trump as US President, things started changing as he started his "America First" policy, a new era of Protectionism in a globalized era.
- He announced 25 per cent and 10 per cent tariffs respectively on steel and aluminum imports.
- USA has also filed a complaint at the World Trade Organization (WTO)—the first WTO

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action of this administration—over several export subsidy programmes in India.

- Restrictions on H1-B visa is another hurdle for Indians.
- The trade war between two global powers USA and China could affect diplomacy and security between the countries.
- The USA has also said it will review the process to terminate the Generalised System Preferences (GSP) status for India, partly in response to complaints from U.S. manufacturers of medical devices.
- 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.



India -UK

- After Brexit, India is trying to negotiate a Free trade agreement with UK, which could benefit both countries.
- With the exit, Britain will have full control over its economic policy and thus will act as a facilitator for India's easier access to its market.
- The EU- India FTA is stuck for years and with the Brexit a possibility of entering into Bilateral FTA with the country will open up.
- UK will implement immigration controls affecting large number of Indian diasporas in the country.
- EU countries will start imposing tariffs on British products, making it far less attractive for Indian businesses like Tata

Motors to have a manufacturing base in the U.K.

Way Forward

- India must coordinate to other world powers without losing its sovereignty to increase its trade value in global level.
- Soft power diplomacy, frequent dialogues could help India to overcome this protectionist hurdle.

Stability in Afghanistan

History

- The political history of the modern state of Afghanistan started with the Hotak and Durrani dynasties.
- Then It was fight between British India and the Russian empire in 19th century and became free of foreign influence after the Third Anglo-Afghan War in 1919 (by Anglo Afghan Treaty of 1919).
- Taliban then ruled it after 1996 as a totalitarian regime till it was removed by NATO-led coalition in 2001 forming a new democratically elected government political structure.

Pashtun Nationalism

- Afghan Talibans said to be seen as a new form of Pashtun nationalism.
- Pashtun dynasties are one which ruled Afghanistan for about 200 rulers and announce themselves as the rulers of the region.
- They comprise over 40% of the population of Afghanistan.
- While after American invasion in 2001, the power equation changed, where pashtuns lost their power.

Pakistan and Pashtun

- Pashtun nationalism in Afghanistan was based on ethnicity and tribal loyalties and not connected to religion.
- The Soviet invasion of Afghanistan in December 1979 fundamentally changed the nature of Pashtun nationalism.
- It led to American and Saudi support for the Afghan insurgency, with Pakistan acting as the supplier for American arms and Saudi financial support to the tribes fighting the Soviets.
- Pakistan's military help to Pashtun Taliban helped them to rule three-quarters of Afghanistan from 1996 to 2001.
- They also implanted religious values into Pashtuns.

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- The corruption and inefficiency have helped the Taliban gain renewed support among parts of the Pashtun population.

Indian Policy

- As India refused to publicly criticize, the Soviet invasion of 1979 in Afghanistan, its ties Pashtun are not so good as Pakistan.
- As USA is planning to move out of Afghanistan, India should take this opportunity to increase its ties with Afghanistan's largest and traditionally dominant ethnic group.
- It will help to create stability in the region.

ROLE OF INDIA IN AFGHANISTAN

- India has focused on development of infrastructure and military aid in Afghanistan. India has aided the overthrow of Taliban and became the largest regional provider of humanitarian and reconstruction aid to Afghanistan.
- India wants to improve transport connectivity and economic collaboration with countries in Central and South Asia. India has invested billions of dollars in Afghanistan and has worked on projects like Salma Dam.
- India is also investing in the expansion of Chabahar port in Southeastern Iran, which will improve its connectivity to Afghanistan and Central Asia.
- The talks in Afghanistan is slowed down due to different factions among the Taliban.

Conclusion

- Groups like Taliban and ISIS have been trying to get a control over Afghanistan using violent means.
- There is thus, a need for some kind of strong regional grouping (like Heart of Asia platform)- both diplomatic and military- to help in improving the control of Afghanistan Government over the region and tackle threats like terrorism and extremism in the region.

Kuriles Lesson to Kashmir

Introduction

- The Second World War left behind many problems in form of multiple disputed territories.
- One of them is four islands in the Kurile chain that are claimed by

Japan but occupied by Russia as successor state of the Soviet Union.

- Despite the passage of over 70 years, the dispute didn't reach a final solution.

Kuril Islands

- The Kuril Islands dispute, also known as the Northern Territories dispute, is a disagreement between Japan and Russia.
- The San Francisco Peace Treaty signed between the Allies and Japan in 1951, states that Japan must give up "all right, title and claim to the Kuril Islands", but it also does not recognize the Soviet Union's sovereignty over them.
- All Kuril Islands are under Russian jurisdiction.
- However, Japan currently claims the 2 southernmost big-sized islands (Kunashiri and Etorofu), as well as the Habomai and Shikotan groups as the "Northern Territories" of Japan.

Prominence about South Kuril Islands:

- The prime value of the islands, however, is strategic.
- The Russians have deployed missile systems, plan a submarine project.
- On the other side of the dispute, resource-starved Japan could certainly use the resource-rich Exclusive Economic Zone surrounding the islands.

Concerns



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- Moscow is concerned about Tokyo amending Article 9 of the Japanese Constitution, which disallows Japan from maintaining a military force or using force to settle international dispute.
- Japan is among the world's biggest spenders on defence and has a very powerful military.
- Japan plays host to American bases and missile systems, and plans to spend \$240 billion up to 2024 on cruise missiles, missile interceptors, fighter jets and aircraft carriers.

Towards Solution

- In two summits last year, they agreed to joint field surveys and joint economic activities with the identification of specific projects, the enterprises that would undertake them, and three levels of supervision.
- These proposals cover marine species and aquaculture, greenhouse strawberry and vegetable cultivation, development of package tourism, wind power generation, and the reduction and disposal of garbage.
- They also agreed to scheduled visits by Japanese families who sought to visit the graves of their ancestors, and two such visits have already taken place.
- The Japanese have further proposed safe opportunities for fishing salmon and trout without using prohibited driftnet methodology, and cooperation in disaster prevention.
- Trust is said to be built using Summits and Foreign Ministers' meetings.
- The next target of the upcoming negotiations is solving the island issue and concluding a peace treaty.

A new solution for Kashmir

- The important lessons to be drawn from the manner in which traditionally hostile neighbours can identify common interests and explore unorthodox avenues along which to proceed in search of innovative solutions to apparently insoluble disputes.
- Both India and Pakistan can take steps towards a cooperative solution for Kashmir issue.

General Studies 3

The space race: on China's moon mission

- China's Chang'e-4 mission has landed on the far side of the moon making it the first spacecraft to land on the far side of the moon.

Chang'e-4

- Chang'e 4 is the fourth lunar probe launched by China since the country's lunar programme was opened in 2004.
- The mission which includes a lander and a rover was launched aboard Long March-3B rocket
- The exploration will gain first-hand information about the terrain and lunar soil components and other scientific data, which will help enrich human understanding of the moon and the universe.
- The rover has been programmed to launch ground penetration radar that would help map the moon's inner structures.
- It would also analyse soil and rock samples for minerals, apart from activating a radio telescope to search for possible signals from deep space.
- The tasks of the Chang'e-4 include astronomical observation, surveying the moon's terrain, landform and mineral composition, and measuring the neutron radiation and neutral atoms to study the environment on the far side of the moon.
- The Queqiao satellite was launched last May by China for the very purpose of helping Chang'e-4 communicate with earth, as a direct communication with it is not possible from the moon's far side, which never faces earth

Edge over other countries

- China is the first country to have landed on the dark side of the moon.
- The data which China obtains from this mission could give it an edge over other countries.
- The moon has an abundance of helium-3. It is also considering mining there for helium-3, a rare substance on earth that can be used as a fuel in nuclear fusion power generation
- It can also serve as fuel for spacecrafts in distant future and moon could be used as a launchpad.

- The rover, Yutu-2 will explore the South Pole-Aitken Basin. This region has vast amounts of ice and space scientists believe that this site could be best for lunar outpost.
- Moon is also a reservoir of precious natural resources which could lead to lunar colonization and China has the edge. Asteroids are considered as abundant sources of gold, platinum, silver and iridium.
- China aims to catch up with Russia and the U.S. to become a major space power by 2030. It is planning to launch construction of its own manned space station next year
- Beijing is also moving forward with plans to build a research base on the moon.

Way forward

- It should be ensured that a cold war over the moon doesn't start between the US and China. Space collaborations between the two countries can help but it is unlikely.

Banks get a breather on bad loans

Introduction

- The recently released RBI's half-yearly Financial Stability Report offer glimmers of hope to various stakeholder. The report indicates that the banking sector is on course to recovery.

Improving GNPA

- For the first time since the bad loan saga began to play out six years ago, Indian banks have reported a decline in the proportion of loans gone bad for the half-year ended September 2018.
- Their aggregate Gross Non-Performing Asset (GNPA) ratio dipped from 11.5% in March 2018 to 10.8% in September 2018.
- The bulk of bad loans remains concentrated with public sector banks (GNPA ratio of 14.8%), while private sector banks are much better off (3.8%).

Better accounting

- The proportion of restructured advances fell to 0.5% by September 2018. This shows that most of the doubtful loans in bank books are now accounted for.
- In 2013, for every bad loan that banks had recognised as NPA, there was another dicey one hidden from public view because of a cosy arrangement with the borrower to

restructure the loan. In March 2015, while banks reported a GNPA ratio of 4.6%, their restructured advances were far larger at 6.5%. Today, the GNPA ratio is at 10.8%, but restructured loans are down to 0.5%.

- It is RBI's asset quality reviews and its February 2018 circular asking banks to wind up all their restructuring schemes that have hastened this recognition.
- The total proportion of 'stressed' loans on bank books (NPAs plus restructured loans) peaked at 12.3% in September 2016 and has steadily declined to 11.3% now.

Provisioning Coverage Ratio

- The Provisioning Coverage Ratio PCR (which refers to the percentage of the loan amount that the bank has set aside as provisions to meet an eventuality where the loan might have to be written off it becomes irrecoverable) for all banks stood at 52.4% at the end of September 2018.
- This suggests that the dent to bank profitability from bad loan provisions will continue over the next many quarters. Rising provisions were the reason why even as their overall bad loan position improved, five banks saw their capital positions dip below RBI-mandated levels of 9%.
- The average capital adequacy ratio (CAR) for all banks was at a comfortable 13.4% as of September 2018.

Conclusion

- RBI Governor Shaktikanta Das said that though the stress test results suggest further improvement in NPA ratio, its current level remains still high for comfort.
- While the report noted that the banking sector is on course to recovery, it stressed that public sector banks need governance reforms.

Govt. says GDP to grow at 7.2% for FY19

Introduction

- The Central Statistics Office (CSO) and the World Bank have released their growth estimates for India.

First advance estimates

- According to the first advance estimates of national income for 2018-19 released by the CSO, the GDP growth for the full year 2018-19 is projected at 7.2%.

- It implies that growth in the second half of the year would slow significantly to 6.8% from the 7.6% clocked in the first half of the year.
- The agriculture sector would be 3.8% in 2018-19, faster than the 3.4% in the previous year. The manufacturing sector is estimated to grow at 8.3% in 2018-19 compared with 5.7% in 2017-18. However, this represents a dramatic slowdown in the manufacturing sector in the second half of the year, to 6.3% from 10.3% in the first half.
- The growth rate in Per Capita Income is estimated at 6.1 per cent during FY19, as compared to 5.4 per cent in the same period last year.
- Investment spending, which has ailed the economy for long, is expected to pick up finally. Gross fixed capital formation as a percentage of GDP is expected to reach 33%, the highest in three years.
- Economists, however, feel that the government's prediction of GDP for the second half of the year is too conservative. They said the final numbers would depend on three factors
 - how the oil prices pan out and hence, inflation
 - the government spending in the pre-election last quarter and
 - the mood of the economy post conclusion of U.S.-China trade negotiations.

Global Economic Prospects report

- According to the Global Economic Prospects report released by the World Bank, India's GDP is expected to grow at 7.3% in the fiscal year 2018-19, and 7.5% in the following two years.
- The World Bank said India will continue to be the fastest growing major economy in the world. It attributed the high growth rate to an upswing in consumption and investment.
- China's economic growth is projected to slow down to 6.2% each in 2019 and 2020 and 6% in 2021.
- In 2018, the Chinese economy is estimated to have grown by 6.5% as against India's 7.3%. In 2017, China with 6.9% growth was marginally ahead of India's 6.7%, mainly because the slowdown in the Indian economy due to demonetisation and implementation of the GST.

Caution ahead

- One of the significant near-term risks to the economy is the general election that is expected to be held in May.
- Regime uncertainty associated with the election may put a halt to investments as corporations might decide to hold back on big ticket investments until things clear up.
- A major risk in the medium to long term is the absence of meaningful structural reforms that are necessary to increase economic productivity combined with populist policies that eventually damage the economy.
- Another perennial risk is the over-dependence on imported oil, which makes growth heavily dependent on external events often beyond the control of the government.

Conclusion

- Ahead of the general election, the government may wish to help growth by boosting spending, but any such move would be ill-advised.
- With the fiscal deficit exceeding the Budget estimate by 15% in just the first eight months of the fiscal year, the government cannot crank up spending without severely affecting its finances, along with investor confidence in the economy.

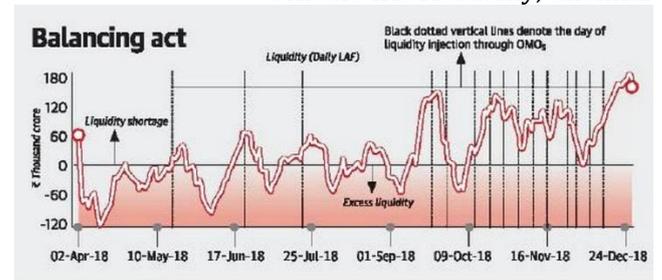
Can open market operations ease tight liquidity conditions?

Introduction

- The latest monetary policy statement of the RBI highlighted the issue of liquidity crunch being faced by the banking system.
- Consequently, the RBI decided to scale up its open market operations (OMO) in December and January. It further added that liquidity conditions will continue to be monitored and depending on the assessment, RBI will consider similar quantum of OMO purchases until the end of March 2019.

(OMOs are conducted by the RBI which involve sale or purchase of G-Secs to or from the market.

If there is excess liquidity in the system, the RBI resorts to sale of securities which reduces the volume of money. Similarly, when the liquidity conditions are tight, it buys securities from the market, thereby releasing money into the market.)



Liquidity shortfall

- In the current fiscal, liquidity remained in a comfortable position and mostly in excess, in the first two quarters. On an average, there was an excess of nearly Rs 1,000 crore between April 2018 and mid-September 2018.
- However, there was a huge shortage of liquidity between September 15 and 26 averaging Rs 1.18 lakh crore. The RBI, consequently, announced OMOs of Rs 30,000 crore. This move did ease liquidity temporarily but the shortage again shot up October 15 onwards. Since, then, liquidity deficit had averaged nearly Rs 90,000 crore.

Why this shortfall?

- There are three key factors which have led to this situation.
 - The growth in bank credit take-off has improved in last few months, however growth in bank deposits remain tepid
 - Growth in currency in circulation has also accelerated during this period.
 - The most significant factor is the RBI had to draw down its foreign exchange reserves in excess of \$32 billion to smoothen exchange rate volatility. Consequently, liquidity in excess of Rs 2 lakh crore has been sucked out of the system.

RBI's response

- The RBI has responded to solve this issue by infusing liquidity through OMOs. The central bank has injected liquidity worth Rs 1.62 lakh crore of which Rs 1.35 lakh crore has happened since September.
- However, the OMOs so far have failed to provide requisite liquidity in the system. Liquidity deficit in the system continues to remain at high levels.

What should be done next to solve this issue?

- The banking system was facing severe liquidity crunch in the last two quarters of 2015-16. The RBI, just as now, had

responded by infusing liquidity through OMOs. In addition, the statutory liquidity ratio (SLR) and the policy repo rate were also cut by 25bps each.

- In the current scenario as well, the RBI needs to resort to other methods of durable liquidity infusion given the ineffectiveness of OMO operations in solving the issue so far.

Way Forward

- One possible option could be to reduce the SLR and/or cash reserve ratio (CRR) requirements of banks. A cumulative reduction in CRR and SLR by 1% would free up almost Rs 1.2 lakh crore for the banks which will significantly improve liquidity issue that these banks are facing at the moment.

GST can boost direct, indirect tax collections, say experts

Introduction

- The fact that the government is increasingly dependent on tax revenue, especially indirect taxes, to meet its fiscal requirements is not a cause for worry, according to tax analysts, who say that the real benefits of the GST have not yet taken effect. Once they do, government revenue from both direct and indirect taxes will grow significantly.

Increasing reliance on tax revenue

- An analysis of the budget documents of the last five years has shown that the government's dependence on tax revenue has steadily increased, with tax revenue making up a little more than 70% of its total receipts in 2018-19, up from 65% in 2014-15. Correspondingly, the share of revenue from non-tax sources (such as dividends from PSUs and the RBI) and capital receipts (such as disinvestment proceeds) has been declining.
- Within tax revenue, the share of indirect tax has been growing over the years, increasing to nearly 50% in 2018-19 from a little less than 45% in 2014-15.

Government's measures

- This increased dependence on tax revenue to meet its fiscal needs has meant that the government has had to push quite hard to increase its tax base at both the direct and indirect tax levels.

- The government cannot take the risk of increasing tax rates, whether direct or indirect, for fear of a backlash from the public. So, the only option it has to boost tax revenues is to increase the tax base and stop evasion, both of which the government has been trying to do.
- The other trend the government would be banking on is that increased economic activity and a higher GDP growth rate will boost consumption and hence, indirect tax collections.

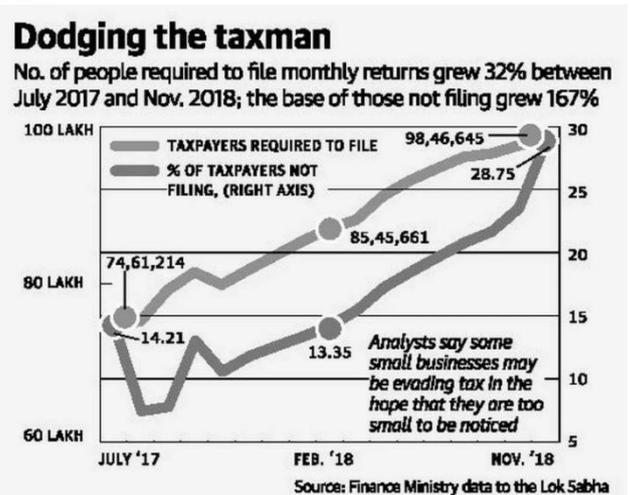
Efficiency gains

- Tax analysts said that the efficiency gains of GST haven't yet kicked in and once they do, this will give revenue buoyancy in the next 3-5 years.
- However, the worry for the government should be the fact that an increasing proportion of its indirect tax collections are coming from a single source — oil.

Non-tax revenue

- Despite this optimistic outlook of future growth in tax revenue, the government has also been trying to improve its collections from other sources such as dividends from public sector companies and the RBI, and also through disinvestments.
- However, these are untenable source of revenue for the government because they are based on finite resources.

GST returns non-filers grow faster than tax base



- The number of tax filers failing to file their returns has been increasing in the 17 months of GST implementation until November 2018. While the number of people required to file monthly returns has grown 32% from July 2017 to about 98.5 lakh in November 2018, the number of

people not filing these returns has grown 167% during that time.

- In other words, the number of people failing to file returns has grown faster than the tax base itself.
- Tax analysts say the reasons are varied, including some taxpayers having too low a turnover, and others getting registered onto GST only due to the insistence of their large clients (because the client can avail of input tax credits only if their supplies are

- Officers IAS Academy, Chennai from a GST-registered vendor), and yet others simply daunted by the filing process. Some of the initial challenges faced by smaller business on the GST portal may also have deterred some of them from attempting to file online returns.
- However, some experts point towards a more serious situation where small businesses are systematically and fraudulently evading tax in the hope that they are too small for the taxman to notice.