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**Current
Affairs**
(CONSOLIDATION)

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Polity and Governance

Highlights

- The President's Address to Parliament (1)
- Banning of Unregulated Deposit Schemes Bill, 2018 (1)
- Registration of Marriage of NRI Bill, 2019 (2)
- Ladakh Gets Divisional Status (2)
- Kerala Sets Up Drug Price Monitoring & Research Unit (3)
- Rajasthan to Scrap Education Criterion (4)
- EC Launches WVIP, cVIGIL and PwD Apps (5)
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The President's Address to Parliament

Recently, President of India addressed both the houses of parliament at the beginning of last Budget session of the 16th Lok Sabha.

- After the presidential address, Motion of Thanks was passed in both the houses.
- The President's speech essentially highlights the government's policy priorities and plans for the upcoming year. The address provides a broad framework of the government's agenda and direction.

Constitutional Provision

- **Article 86(1)** of the Constitution provides that the President may address either House of Parliament or both Houses assembled together, and for that purpose require the attendance of members.
- **Article 87** of the constitution provides two instances when the President specially addresses both Houses of Parliament:
 - At the **beginning of the first Session after each general election** when the reconstituted lower house meets for the first time.
 - At **beginning of the first session of each year**.

Motion of Thanks

- **Under article 87 (2) of the Constitution**, this address of the president is discussed in both the Houses of Parliament on a motion called the 'Motion of Thanks'.
- At the end of the discussion, the motion is put to vote. This motion must be passed in the House. Otherwise, it amounts to the defeat of the government.

Sessions of Parliament

- The President from time to time summons each House of Parliament to meet. The maximum gap between two sessions of Parliament cannot be more than six months (**Article 85 (1)**).
- There are usually three sessions in a year:
 - the Budget Session (February to May);
 - the Monsoon Session (July to September); and
 - the Winter Session (November to December).

Banning of Unregulated Deposit Schemes Bill, 2018

The union cabinet has approved amendments to the **Banning of Unregulated Deposit Schemes Bill, 2018**.

- It provides for a mechanism to ban unregulated deposit schemes and protect the interests of depositors.

Background

- The Finance Minister in the **Budget Speech 2016-17** had announced that comprehensive central legislation would be brought in to deal with the illicit deposit.
- Recently the country has seen rising instances of people being defrauded by illicit deposit-taking schemes. For example Rose Valley Scam and Sharada chit fund scam.
- The worst victims of these schemes are **the poor and financially illiterate, and the operations of such schemes are often spread over many States**.

Provisions in the Bill

- The Bill defines **deposit as an amount of money received through an advance, a loan, or in any other form, with a promise to be returned with or without interest**.

Note:

- Such deposit may be returned either in cash or as a service, and the time of return may or may not be specified.
- A deposit-taking scheme is defined as ‘unregulated’ if it is not registered with the relevant regulators listed in the Bill like the Reserve Bank of India (RBI), the Securities and Exchange Board of India (SEBI), the Ministry of Corporate Affairs and state and union territory governments.
- The Bill defines **Deposit Taker** as all possible entities (including individuals) receiving or soliciting deposits, except specific entities such as those incorporated by legislation.
 - Banks and entities incorporated under any other law are not included as deposit takers.
- **Competent Authority:** The Bill provides for the appointment of one or more government officers, not below the rank of Secretary to the state or central government, as the Competent Authority. Police officers receiving information about offences committed under the Bill will report it to the Competent Authority. The Competent Authority will have powers similar to those vested in a civil court.
- **Three different types of offenses under the Bill:**
 - Running (advertising, promoting, operating or accepting money) unregulated deposit schemes.
 - Fraudulently defaulting on regulated deposit schemes.
 - Wrongfully inducing depositors to invest in unregulated deposit schemes by willingly falsifying facts.
- **Severe punishment** and heavy fines to act as a deterrent.
- **Provision for repayment of deposits** in cases where such schemes manage to raise deposits illegally.
- **Attachment of properties/assets by the Competent Authority**, and selling off assets for repayment to the depositor.
- **Clear-cut timelines have been provided for attachment of property and reimbursement to depositors.**
- Creation of an **online central database**, for collection and sharing of information on deposit-taking activities in the country.
- **Designation of Courts** to oversee repayment of depositors and to try offenses under the bill.

Registration of Marriage of NRI Bill, 2019

The Union Cabinet has approved the introduction of **Registration of Marriage of Non-Resident Indian (NRI) Bill, 2019.**

- The Bill proposes to offer greater protection to Indian women married to NRIs and serve as a deterrent against their harassment.
- The introduction of the Bill was necessitated by the Ministry of External Affairs due to numerous complaints received from Indian nationals mostly women deserted or harassed by their Non-Resident Indian Spouses.

Provisions in the Bill

- **Registration of Marriages by Non-Resident Indians**
 - The Bill provides for **compulsory registration of marriage within 30 days** of marriage if marriage has taken place or solemnized in India or at Indian mission or consulates (if it has taken place or solemnized abroad).
- **Amendment of the Passports Act, 1967**
 - This amendment would **empower the Passport Authority to impound or revoke the passport of NRI** if it is brought to its notice that the NRI has not registered his marriage within 30 days from the date of marriage.
- **Amendment to the Code of Criminal Procedure 1973.**
 - This amendment **empowers the Courts for the issuance of summons, warrants.**
 - It also provides provisions for attachment of properties belonging to the NRI, if he does not appear before the Court and is declared as Proclaimed Offender by the Court.

Ladakh Gets Divisional Status

The government of Jammu Kashmir has granted **Ladakh a divisional status**, thus creating **three administrative units** in the state which are **Jammu, Kashmir, and Ladakh.**

- This **division will comprise Leh and Kargil districts** with its headquarter at Leh.
- **Ladakh was earlier a part of the Kashmir division.** The divisional status will create a separate administrative and revenue Division for Ladakh.

Note:

- Earlier the government established the Ladakh Autonomous Hill Development Councils (LAHDC) Leh and Kargil to give more autonomy to Ladakh region. These hill development councils have local administrative powers.
- Now the Kashmir valley is geographically the smallest division at 15,948 sq. km, Jammu division at 26,293 sq. km and Ladakh, the biggest division, at 86,909 sq. km.

Why a Separate Division?

- During winter months the entire Ladakh region, comprising both Leh and Kargil, remains **cut-off from rest of the country for almost six months** and air travel via Leh is the only mode of transport available to this region, which makes it difficult for people to visit other parts of the country for various purposes.
- Consequently, the region faces problems with respect to the delivery of developmental schemes, redressal of public grievances, the conduct of administrative affairs and governance as such.
- **The remoteness and inaccessibility of the area makes it eligible for establishing a separate Division.**

Ladakh

- Ladakh is one of the most sparsely populated regions in Jammu and Kashmir and is the highest plateau in the State, with most of it being over 9,800 feet above sea level.
- Ladakh has a population of 1.33 lakh. The biggest ethnic group is **Buddhist having 77.30%** of the population followed by **Muslims with 13.78%** and **Hindus with 8.16%**.
- **The Jammu and Kashmir Ladakh Autonomous Hill Development Council Act, 1997**
 - Under the Act, the Hill Development Councils were established both for Leh and Kargil Districts.
 - In order to strengthen the respective Hill Development Councils of Leh and Kargil, the LAHDC Act, 1997 have been amended further in 2018 to give them more powers.

Kerala Sets Up Drug Price Monitoring & Research Unit

Kerala has become the **first State** to set up a **Price Monitoring and Research Unit (PMRU)** to track violation

of prices of essential drugs and medical devices under the **Drugs Price Control Order (DPCO)**.

Composition

- PMRU has been registered as a society with the **State Health Secretary as its Chairman** and the Drugs Controller as its member secretary.
- Its members include a State government representative, representatives of private pharmaceutical companies, and those from consumer rights protection fora.
- The society which has been set up to get Central assistance for the functioning of the unit it would also have an executive committee headed by the Drugs Controller.

Background

- The decision to set up PMRU comes more than five years after the **National Pharmaceutical Pricing Authority (NPPA) proposed** such a system for the States and the Union Territories.
- The suggestion to set up PMRUs was made against the backdrop of the lack of a field-level link between the NPPA and the State Drugs Controllers and State Drug Inspectors to monitor drug prices.
- No price control review mechanism has been in place until now.

Objective

- The PMRU will work to develop synergy between the **central and state authorities**.
- It will provide **technical help to the State Drug Controllers** and the NPPA to monitor notified prices of medicines.
- Detect **violation** of the provisions of the **DPCO**.
- Look at **price compliance**.
- To collect test samples of medicines and compile market-based data of scheduled as well as non-scheduled formulations.

National Pharmaceuticals Pricing Authority

- NPPA is an organization under **Department of Pharmaceuticals, Ministry of Chemicals and Fertilizers** which was **set up in 1997** to revise the prices of controlled bulk drugs and formulations. It also enforces prices and availability of the medicines in the country, under the Drugs (Prices Control) Order (DPCO), 1995.

Note:

- The prices are **now fixed/revised** under **Drugs (Prices Control) Order (DPCO), 2013**.
- It also monitors the prices of decontrolled drugs in order to keep them at reasonable levels.
- Drug Price Control Orders (DPCO) are issued by the Government, under the Essential Commodities Act, 1955, for enabling the Government to declare a ceiling price for essential and life saving medicines (as per a prescribed formula) so as to ensure that these medicines are available at a reasonable price to the general public.

Rajasthan to Scrap Education Criterion

Recently, the Rajasthan Assembly **passed two Bills** which seek to end the minimum education criterion for **panchayat and civic poll candidates**.

Background

- This **reverses the amendments** introduced by the **previous government 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.
- **In December 2015**, a two-judge Bench of the Supreme Court in **Rajbala v. the State of Haryana** upheld the validity of the amendments to the Haryana Panchayati Raj Act.
- The latest decision of the Rajasthan government has once again **revived the debate** on the fairness of having such restrictions.

Arguments Against the Criteria of Minimum Education Qualification

- It **restricts a citizen's right** to contest elections and thereby challenges the basic premise of republican democracy.
- Denying the right to contest effectively restricts the right of a citizen to vote for a candidate of her choice since more than half the population is restricted from contesting.

- It disproportionately **disenfranchises the more marginal sections of society**: women, Dalits and poor.
- This approach **goes against the very objective of the 73rd and 74th Amendments** that sought to make panchayats and municipalities representative institutions with adequate representation from **Scheduled Castes, Scheduled Tribes, and women**.
- The disqualification of candidates who don't have toilets in their home or defecate in open places more importance to the implementation of a particular programme like the Swachh Bharat Mission over the need for representative government.
- **Such restrictions do not exist** for those contesting parliamentary or Assembly elections, and the restriction at the panchayat level is unreasonable. In fact, in the 16th Lok Sabha, 13% of MPs are under-matriculantes, a share higher than those of women MPs.

Arguments in Favour of the Criteria of Minimum Education Qualification

- In **Rajbala case**, the Apex court held that prescription of educational qualification is relevant for **"better administration of the panchayats"**.
 - The Bench consisting of Justice Chelameswar and A.M.Sapre held that both the rights namely **"Right to Vote"** and **"Right to Contest"** are **not fundamental Rights but only constitutional rights** of the citizen. So, the minimum qualification for contesting election can be imposed.
- With minimum education qualification, there can be a reduction in the chances of getting misled by other people.
- Setting educational criteria would motivate society to be literate.
- A well-educated individual is considered as the resource for the development of the country. And if the leaders of the human resource are illiterate then there would be no proper guidelines for human resource.

Way Forward

- Local bodies should be elected for its representative character and not for its administrative functions. Giving a voice to the people is more important than following bureaucratic procedures at the grassroots level.

Note:

EC Launches VVIP, cVIGIL and PwD Apps

The Election Commission of India has launched a **Voter Verification and Information Programme (VVIP)** for citizens for **verification of their names, new registrations, changes in the voter details and corrections in the Voter Id Cards** for the **upcoming General Elections 2019**.

- EC has also launched the **cVIGIL App**. This app provides **time-stamped, evidence-based proof of the Model Code of Conduct/Expenditure Violation, having live photo/video with auto location data**.
- Any citizen can lodge a complaint through the Mobile App. Flying Squads will then investigate the matter and the Returning Officer takes the decision.
- The status of cVIGIL can be shared with the cVIGIL complainant within a specified time limit.
- A **'PwD App'** is a **mobile application to enable Persons with Disabilities (PwDs) to request for new registration, change in address, change in particulars and mark themselves as PwD** through the app was also launched. PwDs can also request for a wheelchair during polling.

Buddhist Tourism Circuit

- Recently, the Union Ministry of Tourism has sanctioned **five new projects** under the **Buddhist Circuit**.
- The five states where the project under Buddhist Circuit has been sanctioned are **Madhya Pradesh, Uttar Pradesh, Bihar, Gujarat and Andhra Pradesh**.
- The Buddhist Circuit is one among the **fifteen thematic circuits** identified for development under **Swadesh Darshan Scheme**.

Swadesh Darshan Scheme

- Swadesh Darshan, a **Central Sector Scheme**, was launched in 2014-15 for integrated development of theme based tourist circuits in the country.
- Under the scheme, the Ministry of Tourism provides **Central Financial Assistance (CFA)** to State Governments/Union Territory Administrations for infrastructure development of circuits.
- This scheme is envisioned to **synergise with other schemes** like Swachh Bharat Abhiyan, Skill India, Make in India etc. with the idea of positioning the tourism sector as a major engine for job creation, driving force for economic growth, building synergy with various sectors to enable tourism to realise its potential.

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Economic Scenario

Highlights

- Interim Budget 2019: Constitutional Provisions and Social Sector (6)
- Interim Budget 2019: Infrastructure and Economy (7)
- Interim Budget 2019: Rural Sector (8)
- International Financial Services Centres Authority Bill, 2019 (9)
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- Kisan Credit Cards (16)
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- Kisan Urja Suraksha evam Utthaan Mahabhiyan (KUSUM) Scheme (17)
- International Cotton Advisory Committee (ICAC) (18)
- Light House Projects Challenge (18)
- Workshop on Gross Domestic Knowledge Product (GDKP) (19)

Interim Budget 2019: Constitutional Provisions and Social Sector

Constitutional Provisions

- According to **Article 266** of the Constitution, **Parliamentary approval** is required to draw money from the **Consolidated Fund of India**.
- Besides, **Article 114 (3) of the Constitution** stipulates that **no amount can be withdrawn** from the Consolidated Fund without the **enactment of a law (i.e. Appropriation bill)**.
- The passing of Appropriation bill **takes time** and usually goes on till the end of April. But the government needs money to carry on its **normal activities after 31st March (the end of the financial year)**.
- To overcome this functional difficulty, **Article 116 of the Constitution** has authorised the Lok Sabha to make any grant in advance in respect to the estimated expenditure for a part of the financial year. This provision is **known as the 'vote on account'**.
- Vote on Account was frequently used until 2016 when the Budget was presented on the last working day of February.
- However, **since 2017**, the budget presentation date was **advanced to February 1**. This helped the government to use almost 2 months time to get the full-budget passed in the same financial year.
- Since 2017, Vote on Account is **not usually used** as part of the government budgeting process, unless in **special cases** like an **election year**.
- An outgoing government presents only an interim Budget or seeks a vote on account.
- An **Interim Budget is not the same as a 'Vote on Account'**. While a 'Vote on Account' deals **only with the expenditure side** of the government's budget, an Interim Budget is a **complete set of accounts, including both expenditure and receipts**.
- However, the estimates are presented for the entire year, as is the case with the regular Budget. Having said this, the **incoming government** has full freedom to **change the estimates completely** when the final Budget is presented.

Social Sector

- **Health**
 - For the government's ambitious flagship scheme for universal health insurance, **Ayushman Bharat**, the government has **increased** the allocation by **166% over the past year (₹6,400 crore from ₹2,400 crore)**.
 - An additional allocation of ₹250 crore is provided under the **National Urban Health Mission** for building **wellness centres**.

Note:

- Allocation to the **Rashtriya Swasthya Bima Yojna**, which provides health insurance to families below the poverty line, **increased by 142%**.
- Setting up of a new – the **22nd AIIMS in Haryana announced**.
- Allocation for **Integrated Child Development Scheme (ICDS)** is being increased from ₹23,357 crore in 2018-19 to ₹27,584 crore in 2019-20.
- The allocations for **National Health Mission** that covers various health services such as immunization, neonatal care, ASHA workers, Vector Borne Diseases, TB, Leprosy and communicable disease **grew 3.46%**.
- Swachh Bharat Mission's allocation **decreased** to ₹12,750 crore from ₹16,978 crore last year.
- **Poor, Backward and Vulnerable Sections**
 - **25% additional seats in educational institutions** to meet the 10% reservation for the poor.
 - Targeted expenditure to bridge urban-rural divide & to improve quality of life in villages. The Government to make 1 lakh villages into **Digital Villages** over the next five years.
 - All willing households to be provided electricity connections by March 2019
 - A **new committee under NITI Aayog** to identify all the **remaining De-notified nomadic and semi-Nomadic tribes**.
 - **New Welfare development Board under the Ministry of Social Justice** and empowerment for development and welfare of Denotified nomadic and semi nomadic tribes.
- **Education**
 - The fund allocation for the **National Education Mission has been increased by about 20%**. The four prominent schemes under National Education Mission are: **Saakshar Bharat, Sarva Shiksha Abhiyan, Rashtriya Madhyamik Shiksha and Teacher training programs**.
 - National programme on **Artificial Intelligence (AI)** has been envisaged by the government, which also includes education and training of youths for AI-related jobs.

Interim Budget 2019: Infrastructure and Economy

Interim budget 2019 has following proposal for Economy and Infrastructure.

- **Textile Sector**
 - Two major schemes implemented by the Ministry of Textiles – the **Amended Technology Upgradation Fund Scheme and the Remission of State Levies** – have seen lower allocation for 2019-20. Allocation for the textiles sector in the Interim Budget has been reduced by over ₹1,000 crore.
 - **Amended Technology Upgradation Fund Scheme**
 - The Technology Upgradation Fund Scheme was introduced by the Government in 1999 to facilitate new and appropriate technology for making the textile industry globally competitive and to reduce the capital cost for the textile industry.
 - In 2015, the government approved “Amended Technology Upgradation Fund Scheme (ATUFS)” for technology upgradation of the textiles industry.
- **Railways**
 - In the interim budget 2019, Railways has been allocated ₹1.5 lakh crore for the year 2019-20, This is the highest-ever allocation for the Indian Railways.
 - **Vande Bharat Express (Previously known as Train-18)**
 - The government has introduced Vande Bharat Express which is the first indigenously developed and manufactured semi high-speed train.
- **Micro Small And Medium Enterprises (MSME)**
 - Interim budget has proposed that **GST-Registered SME units will get 2% interest rebate on the incremental loan of ₹1 crore**. MSME sector will get a major boost from this proposal.
 - The budget has also proposed extending the government eMarketplace (GeM) platform to MSME's to support domestic services and trade. This will benefit MSMEs that are based in rural areas.
- **Direct Taxes**
 - Interim budget has proposed that Individual taxpayers having taxable annual income up to ₹5 lakhs will not be required to pay any income tax.
 - The government also released data on taxpayers and tax revenue stating that the **tax collections has increased significantly** from ₹6.38 lakh crore in 2013-14 to almost ₹12 lakh crore this year.

Note:

- The number of returns filed has also increased from 3.79 crores to 6.85 showing **80% growth in the tax base**
- **Reasons for widening tax base are**
 - **Demonetization**
 - Increase in the use of **digital technology** for information collection
 - The movement towards **digital assessment** and a decrease in the number of cases being picked up for scrutiny
 - The **ease of getting the refund**, majorly by small and medium taxpayers.
- **Growth and Foreign Direct Investment**
 - Due to Goods and Services Tax (GST) and other tax reforms, there is a potential for high growth in the future. The GST reforms have resulted in an increased tax base, higher tax collections, and ease of trade.
 - India attracted as much as \$239 billion of Foreign Direct Investment (FDI) during the last 5 years.
 - The GST collection has fallen short of the budget target by ₹1 lakh crore for 2018-19.
- **Defense Sector**
 - There is a hike in defense budget considering the mega defense tenders are in the pipe as **part of military modernization**.
 - The defense budget of India will be crossing ₹3,00,000 crore for the first time in 2019-20.

Vision of India for 2030

- To build social as well as physical infrastructure and to provide ease of living.
- To create digital India, digitize government processes with leaders from youth.
- Making India pollution free by leading transport revolution with electric vehicles and focus on renewables.
- Expanding rural industrialization using modern digital technologies.
- Clean rivers, safe drinking water to all Indians and use of micro-irrigation.
- Besides scaling up of Sagarmala, coastline and ocean waters powering India's development and growth.
- Aim for India's space programme becoming the launch pad of satellites for the world.
- Making India self-sufficient in food, exporting to the world to meet their food needs.

- A healthy India via Ayushman Bharat with women having equal rights and concern for their safety and empowerment.
- Transforming India into a "minimum government maximum governance" nation with proactive and responsible bureaucracy.

Interim Budget 2019: Rural Sector

Interim Budget 2019 has following proposals in Rural sector:

Agriculture and Allied Sector

- **Pradhan Mantri Kisan Samman Nidhi (PM-KISAN)**
 - The Government will launch the **Pradhan Mantri Kisan Samman Nidhi (PM-KISAN)** to provide an assured income support to the small and marginal farmers.
 - This scheme is **along the lines of Rythu Bandhu scheme of Telangana** which offers ₹10,000 per acre a year to all farmers, excluding tenant farmers and the **Krushak Assistance for Livelihood and Income Augmentation (KALIA) scheme of Odisha** which offers direct benefit cash transfer of ₹25,000 for a farm family over five seasons to small and marginal farmers.
 - Under this programme, vulnerable landholding farmer families, having cultivable land upto 2 hectares, will be provided direct income support at the rate of ₹6,000 per year.
 - This income support will be transferred directly into the bank accounts of beneficiary farmers, in three equal instalments of ₹2,000 each.
 - This programme will entail an annual expenditure of ₹75,000 crore which will be funded by the Government of India. Around 12 crore small and marginal farmer families are expected to benefit from this.
- Government has announced the setting up of a '**Rashtriya Kamdhenu Aayog**' to upscale sustainable genetic upgradation of cattle resources and to enhance the production and productivity of cows. The Aayog will also look after effective implementation of laws and welfare schemes for cattle.
- ₹750 crore has been allocated under the **Rashtriya Gokul Mission (RGM)** which is **aimed at conserving indigenous Indian breeds of cattle through selective breeding**.

Note:

- To provide sustained and focused attention towards development of fisheries sector, the Government has decided to **create a separate Department of Fisheries**.

Rural Infrastructure

- Pushing rural infrastructure in the new financial year, **union budget of 2019-20 allocated ₹19,000 crore against ₹15,500 crore in revised estimates of 2018-19** for development of roads in rural and backward area under **Pradhan Mantri Gram Sadak Yojana (PMGSY)**.
 - PMGSY was launched in 2000 to provide all-weather road connectivity to unconnected villages in India.
- Government will develop **one lakh villages as Digital Villages** over next five years which will be achieved by **expanding the Common Service Centres (CSCs)**.

MGNREGA

- The **Mahatma Gandhi National Rural Employment Guarantee Act (MGNREGA)** scheme was **allocated only ₹60,000 crore for 2019-20**, slightly lower than its revised estimate of ₹61,084 crore for 2018-19.
- According to activists, the fund crunch is resulting in difficulties in meeting the demand for work, as well as delayed payment of wages to workers.

Pension Scheme

- The Centre has allocated **₹500 crore for a new pension scheme for workers** in the unorganised sector, while reducing its allocation for an **existing pension scheme National Social Assistance Programme (NSAP)** (a pension scheme administered by the Ministry of Rural Development) from ₹9,975 crore in the 2018-19 budget to ₹9,200 crore for 2019-20.
- The new scheme, to be called the **Pradhan Mantri Shram-Yogi Maandhan**, will benefit unorganised sector workers who have a monthly income up to ₹15,000. It will provide them a monthly pension of ₹3,000 from the age of 60.
- Workers will contribute an amount ranging from ₹55 to ₹100 each month, depending on their age, at the time of joining the scheme, while the government will deposit a matching contribution. The Centre expects 10 crore workers to get the benefit within the next five years.

International Financial Services Centres Authority Bill, 2019

The Union Cabinet has approved **International Financial Services Centres Authority Bill, 2019** which seeks to **establish a unified authority** for regulating all financial services in **International Financial Services Centres (IFSCs)** in India.

International Financial Service Centre (IFSC)

- An IFSC caters to customers **outside the jurisdiction** of the domestic economy. Such centres deal with **flows of finance, financial products** and services **across borders**.
- An expert panel headed by former **World Bank economist Percy Mistry** submitted a report on making **Mumbai an international financial centre in 2007**. However, the global financial crisis in 2008 made countries including India cautious about rapidly opening up their financial sectors.
- In India, IFSC has been **defined in SEZ Act, 2005**. As per the Act:
 - The **Central Government may approve the setting up** of an International Financial Service Centre in a Special Economic Zone and may prescribe the requirements for setting up and operation of such centre.
 - The Central Government shall approve **only one International Financial Services Centre in a Special Economic Zone**.

Special Economic Zone (SEZ)

- In India, the Special Economic Zones (SEZs) **policy was announced in April 2000**.
- The **Special Economic Zones Act, 2005**, was passed by Parliament in May, 2005 and **came into effect in 2006**.
- SEZs addresses the issue of multiplicity of controls and clearances, have world-class infrastructure, and a stable fiscal regime.
- SEZs focus on economic growth supported by quality infrastructure complemented by an attractive fiscal package, both at the Centre and the State level, **with the minimum possible regulations**.
- **GIFT (Gujarat International Finance Tec-City), located in Gandhinagar** is India's **first International Financial Services Centre**.

- Since India has **many restrictions on the financial sector**, such as **partial capital account convertibility**, **high SLR (statutory liquidity ratio) requirements** and **foreign investment restrictions**, an SEZ can serve as a testing ground for financial sector reforms before they are rolled out in the entire nation.

Background

- Currently, the banking, capital markets and insurance sectors in IFSC are **regulated by multiple regulators**, i.e. **RBI, SEBI and IRDAI**.
- The dynamic nature of business in the IFSCs necessitates a **high degree of inter-regulatory coordination**. It also requires regular clarifications and frequent amendments in the existing regulations governing financial activities in IFSCs.
- The development of financial services and products in IFSCs would **require focussed and dedicated regulatory interventions**. Hence, a need for a **unified financial regulator for IFSCs in India** to provide world class regulatory environment to financial market participants.
- Further, this would also be essential from an **ease of doing business perspective**. The unified authority would also provide the much needed impetus to further development of IFSC in India **in-sync with the global best practices**.

Salient Features of the Authority

- **Composition:** The Authority shall consist of a **Chairperson, one Member** each to be nominated by the **Reserve Bank of India (RBI)**, the **Securities Exchange Board of India (SEBI)**, the **Insurance Regulatory and Development Authority of India (IRDAI)** and the **Pension Fund Regulatory and Development Authority (PFRDA)**, **two members** to be nominated by the Central Government along with two other whole-time or full-time or part-time members.
- **Functions:** The Authority shall **regulate all such** financial services, financial products and Financial Institutions in an IFSC. It may also **recommend to the Central Government** such other financial products, financial services and financial institutions which may be permitted in the IFSCs.
- **Powers:** All powers exercisable by the respective financial sector regulatory (viz. RBI, SEBI, IRDAI, and PFRDA etc.) under the respective Acts shall be **solely**

exercised by the Authority in the IFSCs in so far as the regulation of financial products, financial services and FIs that are permitted in the IFSC are concerned.

- **Processes and procedures:** The processes and procedures to be followed by the Authority shall be governed in accordance with the provisions of the respective Acts of Parliament of India applicable to such financial products, services or institutions, as the case may be.
- **Grants by the Central Govt.:** The Central Govt. may, after due appropriation made by Parliament by law in this behalf, make to the Authority grants of such sums of money as the Central Government may think fit for being utilized for the purposes of the Authority.
- **Transactions in foreign currency:** The transactions of financial services in the IFSCs **shall be done in the foreign currency** as specified by the Authority in consultation with the Central Govt.

UNCTAD Report on Trade Wars

Recently the UN body has released a report on trade wars titled "**Trade Wars: The Pain and the Gain**".

- This dispute between China and the United States will **not benefit domestic producers in either country** but could have "**massive**" implications on the global economy.

Background

- The ongoing trade tensions initially came out in **early 2018 when China and the United States** imposed tariffs on about \$50 billion of each other's goods.
- The confrontation quickly escalated, and in **September 2018 the United States imposed 10% tariffs** covering about \$200 billion of Chinese imports, to which **China retaliated by imposing tariffs** on imports from the United States worth an additional \$60 billion.
- The 10% tariffs were initially due to rise to 25% in January 2019. However, in early December 2018 the parties agreed to freeze the tariff increase until 1 March 2019.

Positive Impacts

- Amid tit for tat tariff hikes between Washington and Beijing, **trade is being diverted** and a handful of countries stand to benefit from the ongoing trade tensions.

- The trade war between the US and China is expected to **boost the Indian economy with a rise of 3.5% in exports.**
- The countries that are expected to benefit the most from the trade war are:
 - The **EU members**, as exports in the bloc are likely to grow by USD 70 billion.
 - **Japan and Canada** will see exports increase by more than USD 20 billion each.
 - Other countries set to benefit from the trade tensions include **Australia, with 4.6% export gains, Brazil (3.8) India (3.5), Philippines (3.2) and Vietnam (5).**
- However, the study also underscores that even for countries whose exports are set to increase because of the trade disruptions, not all the results will be positive.

Negative Impacts

- One major concern is the risk that trade tensions **could spiral into currency wars, disturbances in commodity prices, financial markets, etc.** all of which will have important repercussions for developing countries.
- The **magnitude and duration of tariffs is unclear**, because of which producers have been reluctant to make investment decisions that may turn out to be unprofitable if the tariffs are revoked.
- More countries may join the fray and that protectionist policies could escalate to a global level, which is against the rule based order, thus hurting weaker countries the most.

UNCTAD

- Established in 1964, UNCTAD (United Nations Conference on Trade and Development) promotes development-friendly integration of developing countries into the world economy.
- UNCTAD is a **permanent intergovernmental body established in 1964.**
- Headquarters – **Geneva, Switzerland.**
- Some of the reports published by it are:
 - Trade and Development Report
 - World Investment Report
 - The Least Developed Countries Report
 - Information and Economy Report
 - Technology and Innovation Report
 - Commodities and Development Report

DIPP Renamed as DPIIT

The government has notified changing the name of the **Department of Industrial Policy & Promotion (DIPP)** to the **Department for Promotion of Industry and Internal Trade (DPIIT)** under the **Ministry of Commerce and Industry.**

- The renamed body will also be in charge of four new categories of responsibilities:
 - the **promotion of internal trade** (including retail trade).
 - the **welfare of traders** and their employees.
 - matters relating to **facilitating Ease of Doing Business.**
 - matters relating to **start-ups.**
- The new responsibilities are in addition to the previous responsibilities of the erstwhile DIPP relating to general industrial policy, administration of the Industries, industrial management, productivity in industry, and matters related to e-commerce.

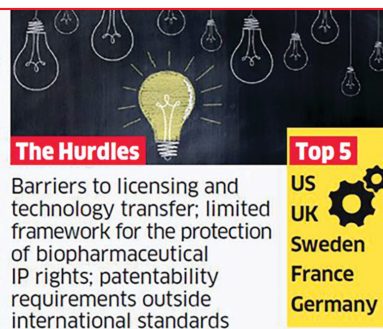
International Intellectual Property (IP) Index: US Chamber of Commerce

Acknowledging the **improvement in India's innovation ecosystem**, the **US Chamber of Commerce** has moved India up eight places in its **international intellectual property (IP) index by ranking it 36th amongst 50 countries in 2019.**

Major Gains

36.04%: India's overall score in 2019, up substantially from 30.07% in the previous edition

2nd year in a row, India's score represents the largest gain by any country on the index



- The improvement in India's performance is a result of specific reforms, including its **accession to the WIPO Internet Treaties, the agreement to initiate a patent prosecution highway with international patent offices, a dedicated set of IP incentives for small businesses, and administrative reforms to address the patent backlog.**

- However, the report noted that there were still substantial challenges regarding the country's patenting and IP enforcement environment.
- The **seventh edition titled "Inspiring Tomorrow"**, analyses the IP climate in 50 world economies, based on 45 indicators critical to an innovation-led economy.

World Intellectual Property Organisation

- WIPO is the global forum for intellectual property services, policy, information and cooperation. It is a self-funding agency of the United Nations, with 189 member states.
- Its mission is to lead the development of a balanced and effective international intellectual property (IP) system that enables innovation and creativity for the benefit of all.
- Its mandate, governing bodies and procedures are set out in the WIPO Convention, which **established WIPO in 1967**.
- Some agreements under the ambit of WIPO:
 - **Marrakesh Treaty** for visually impaired patients
 - **Patent cooperation treaty** in 1970
 - **Madrid system**
- Headquarters: Geneva, Switzerland.

Agri-Market Infrastructure Fund

Recently, the Cabinet Committee on Economic Affairs (CCEA) approved a corpus of **₹2,000 crore for Agri Market Infrastructure Fund (AMIF)** to be created with **NABARD** for development and upgradation of agricultural marketing infrastructure in rural agricultural markets.

- The Agri-Market Infrastructure Fund was **announced in 2018 Budget** for developing and upgrading agricultural marketing infrastructure in the **22,000 Gramin Agricultural Markets (GrAMs)** and **585 Agricultural Produce Market Committee (APMC)**.
- At present, GrAMs are being developed from **MGNREGA fund**.
- The scheme being **demand-driven**, progress will depend on demand from states.

Objectives

- The fund will provide **subsidised loans to states and Union Territories** for 585 APMC mandis and 10,000 GrAMs.

- States can also utilise this fund for innovative integrated market infrastructure projects, including hub and spoke model and in public-private partnership mode.

Significance

- More than **86% of farmers in India are small and marginal** who are not always in a position to directly transact at APMCs and other wholesale markets.
- A network of rural godowns enables small farmers to enhance their holding capacity in order to sell their produce at remunerative prices and avoid distress sales.
- Accordingly, Government of India launched '**Grameen Bhandaran Yojana**' in **2001**, which has been subsumed into "**Agricultural Marketing Infrastructure (AMI)**" from **2014**.
- Main objectives of scheme include **creation of scientific storage capacity** with allied facilities in rural areas to meet out various requirements of farmers for storing farm produce, processed farm produce, agricultural inputs, etc.

RBI Lifts Curbs on Three PSBs

The Reserve Bank of India (RBI) has decided to allow three public sector banks – Bank of India, Bank of Maharashtra and Oriental Bank of Commerce (OBC) – to exit the Prompt Corrective Action (PCA) framework following capital infusion by the government and a decline in net non-performing asset ratio.

- The RBI, conducted a review of PCA following governments request to lift the restrictions on Public Sector Banks (PSB's) in order to boost credit growth in the country.
- The PCA framework is triggered when a bank breaches one of the three risk thresholds, namely **capital to risk-weighted assets ratio, net non-performing assets (NPA) and return on assets (RoA)**.
- The three public sector banks are now out of PCA, but there are another eight public sector banks which are still facing restrictions under PCA.

Prompt Corrective Action

- **Prompt Corrective Action (PCA)** is a framework under which banks with weak financial metrics are put under watch by the RBI.
- The RBI introduced the PCA framework in 2002 as a structured early-intervention mechanism for banks

that become undercapitalized due to poor asset quality, or vulnerable due to loss of profitability.

- PCA is intended to help alert the regulator as well as investors and depositors if a bank is heading for trouble.

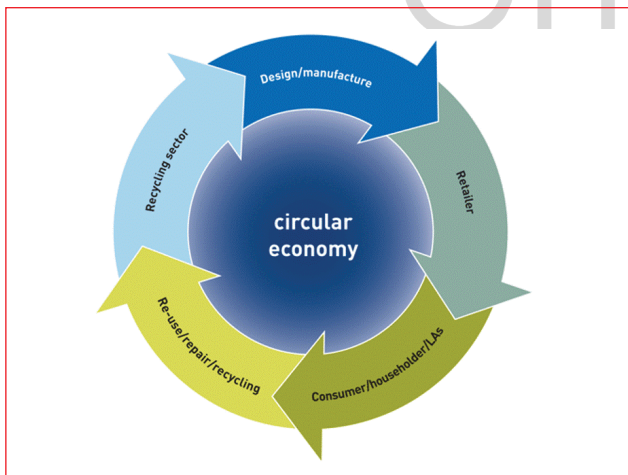
National Productivity Council

The **National Productivity Council (NPC)** celebrated its **61st Foundation Day (as Productivity Day)** on **February 12, 2019** and also observes **National Productivity Week from February 12-18, every year.**

- The **theme** for 2019 is **“Circular Economy for Productivity & Sustainability”** to mark the transition from a linear to a circular economy that embraces economic growth and environmental sustainability and represents a unique opportunity for circular business models for **Make – Use – Return.**

National Productivity Council

- NPC is a national **level organization** to promote productivity culture in India.
- Established by the **Ministry of Commerce and Industry, in 1958**, it is an **autonomous, multipartite, non-profit organization.**
- NPC is a constituent of the **Tokyo-based Asian Productivity Organisation (APO)**, an Intergovernmental Body, of which the Government of India is a founder member.



Circular Economy

- A circular economy is an industrial system that is **restorative or regenerative** by intention and design.

- It replaces the **end-of-life concept with restoration**, shifts towards the use of renewable energy, eliminates the use of toxic chemicals which impair reuse and return to the biosphere.
- It aims for the elimination of waste through the superior design of materials, products, systems and business models.
- Circular economy is based on **four principles**. They are:
 - Circular economy aims to **design out waste**. The products are designed and optimized for a cycle of disassembly and reuse. This sets it apart from disposal and even recycling, where large amounts of embedded energy and labour are lost.
 - It introduces a strict **differentiation between consumable and durable components** of a product.
 - Consumables in the circular economy are largely made of **biological ingredients** that are non-toxic and possibly even beneficial, and **can safely be returned to the biosphere**, either directly or in a cascade of consecutive uses.
 - **Durables** such as engines or computers, on the other hand, are made of technical nutrients unsuitable for the biosphere, such as metals and most plastics. These are designed from the start for reuse, and products subject to rapid technological advance are designed for upgrade.
 - The energy required to fuel this cycle should be **renewable by nature**, again to decrease resource dependence and increase systems resilience.
 - It replaces the concept of a consumer with that of a user which calls for a **new contract between businesses and their customers** based on product performance. The durable products are leased, rented or shared wherever possible. If they are sold, there are incentives or agreements in place to ensure the return and thereafter the reuse of the product.
- Circular economy has the potential to **increase productivity and create jobs**, whilst reducing carbon emissions and preserving valuable raw materials. It provides for a way of creating value.
- However, the challenge lies in **building circular economy knowledge and capacity.**

Note:

India's First Career Portal

The Rajasthan government has launched India's first "career portal" to address the needs of secondary and higher secondary students (from class 9th to 12th) for information on scholarships and career choices.

- The portal launched with the support of United Nations International Children's Emergency Fund (UNICEF) is expected to help the students take "informed decisions" about their academic and professional pursuits.
- By enabling the students to choose their career path matching with their aspirations, interest, inclination and aptitude, the portal would reduce dropouts at various stages in schools and improve retention in jobs.
- The portal was developed by UNICEF after an assessment of needs, awareness and perspective of students, teachers and system functionaries.
- It will provide information on 200 vocational and 237 professional careers, 455 employment avenues, 960 scholarships, 955 competitive examinations and 10,000 institutions of higher education to the students from Classes IX to XII.

Why Rajasthan?

- UNICEF had selected Rajasthan for launching the portal because of its track record in employment-oriented education.
- Most of the boys and girls in the State were keen to join the workforce as soon as they finished Class X or XII. Besides, the assessment revealed a substantial progress in terms of gender equality among the students.
- According to the assessment conducted by UNICEF, two largest sources of career information for students are teachers and family members. About 69% of students mentioned that they were using Internet for their career-related queries, which indicates that the adolescents will quickly learn to use the career portal.
- The establishment of Rajiv Gandhi Career Counselling Cell for adolescents and youths was also announced. The cell will link school and college students with skill development programmes and internship opportunities in the pursuit of their career choices.

United Nations International Children's Emergency Fund (UNICEF)

- The United Nations International Children's Emergency Fund was created by the United Nations General Assembly in 1946, to provide emergency food and healthcare to children in countries that had been devastated by World War II.
- In 1950, its mandate was broadened to address the long-term needs of children and women in developing countries everywhere. UNICEF became a permanent part of the United Nations system in 1953.
- UNICEF is headquartered in New York, USA.

100th Anniversary of ILO

In 2019, the **International Labour Organization (ILO)**, the UN specialized agency celebrates its 100th anniversary.

- In the run up to the anniversary **seven Centenary Initiatives** are being implemented as part of a package of activities aimed at equipping the organization to tackle up successfully the challenges of its social justice mandate in the future.

Seven Centenary Initiatives

- **The future of work initiative** : Initiating and cultivating a global dialogue on the future of work, to build the ILO's ability to prepare and guide governments, workers and employers to better meet the world of work challenges of the next century.
- **The end to poverty initiative**: Promoting a multi-dimensional response through the world of work, labor markets, and social and employment protection to eradicate global poverty.
- **The women at work initiative**: Reviewing the place and conditions of women in the world of work and engaging workers, employers and governments in concrete action to realize equality of opportunity and treatment.
- **The green initiative**: Scaling up the ILO's office-wide knowledge, policy advice and tools for managing a just transition to a low carbon, sustainable future.
- **The standards initiative**: Enhancing the relevance of international labour standards through a standards review mechanism and consolidating tripartite consensus on an authoritative supervisory system.

- **The enterprises initiative:** Establishing a platform for ILO engagement with enterprises which would contribute to their sustainability and to ILO goals.
- **The governance initiative:** Reforming the ILO's governance structures, assessing the impact of the 2008 Declaration as set out in its final provisions, and act on its findings.

Eight Core International Labour Organisation (ILO) Conventions

- **India has ratified six out of the eight core/fundamental ILO Conventions.** These are
 - Forced Labour Convention, 1930 (No. 29),
 - Abolition of Forced Labour Convention, 1957 (No. 105),
 - Equal Remuneration Convention, 1951 (No. 100),
 - Discrimination (Employment and Occupation) Convention, 1958 (No. 111),
 - Minimum Age Convention, 1973 (No. 138) and
 - Worst Forms of Child Labour Convention, 1999 (No. 182).
- India has **not ratified** the core/fundamental Conventions, namely **Freedom of Association and Protection of the Right to Organise Convention, 1948 (No. 87)** and **Right to Organise and Collective Bargaining Convention, 1949 (No. 98)**.
- The main reason for non-ratification of ILO Conventions No.87 & 98 is **due to certain restrictions imposed on the Government servants.**
- The ratification of these conventions would involve granting of certain rights that are prohibited under the statutory rules, for the Government employees, namely, to strike work, to openly criticize Government policies, to freely accept financial contribution, to freely join foreign organizations etc.
- In India, **convention is ratified only when the national laws are brought fully into conformity with the provisions of the Convention.**
- Ratification of ILO convention is a voluntary process and no time frame has been agreed for the same.

About International Labour Organization (ILO)

- The International Labour Organization (ILO) is a United Nations agency dealing with labour issues, particularly international labour standards, social protection, and work opportunities for all.
- ILO was created in **1919**, as part of the Treaty of Versailles that ended World War I, to reflect the belief

that universal and lasting peace can be accomplished only if it is based on social justice. It **became a specialized agency of the United Nations in 1946.**

- It is a tripartite organization, the **only one of its kind bringing together representatives of governments, employers and workers in its executive bodies.**
- Since 1919, the International Labour Organization has maintained and developed a system of international labour standards aimed at promoting opportunities for women and men to obtain decent and productive work, in conditions of freedom, equity, security & dignity.
- In **1969, ILO received the Nobel Peace Prize for improving fraternity and peace among nations**, pursuing decent work and justice for workers, and providing technical assistance to other developing nations.
- **India is a founder member of the International Labour Organization.**
- The **Headquarter** of ILO is in **Geneva, Switzerland.**

Atal Bhujal Yojana

- Recently, the **World Bank has approved Atal Bhujal Yojana (ABHY), a Central Sector, ₹6000 Crore scheme**, for sustainable management of groundwater with community participation.
- The **funding pattern is 50:50 between Government of India and the World Bank.**
- The identified over-exploited (OE) and water-stressed areas for the implementation of the scheme fall in the States of Gujarat, Haryana, Karnataka, Madhya Pradesh, Maharashtra, Rajasthan, and Uttar Pradesh.
- **ABHY envisages active participation of the communities in various activities such as the formation of 'Water User Associations', monitoring and disseminating ground water data, water budgeting, preparation & implementation of Gram-panchayat-wise water security plans and IEC activities related to sustainable groundwater management.**

Central Schemes

- The central schemes are divided into Central Sector Schemes and Centrally Sponsored Schemes (CSS).
- Central sector schemes:
 - These schemes are 100% funded by the Central government.
 - Implemented by the Central Government machinery.

Note:

- Formulated on subjects mainly from the Union List.
- E.g.: Bharatnet, Namami Gange-National Ganga Plan, etc.
- Centrally Sponsored Schemes are the schemes by the centre where there is financial participation by both the centre and states.
 - Centrally Sponsored Schemes (CSS) are again divided into Core of the Core Schemes, Core Schemes and Optional schemes.
 - Currently, there are 6 core of the core schemes while 22 core schemes.
 - Most of these schemes prescribes specific financial participation by states. For example, in the case of MGNREGA, state governments have to incur 25% material expenditure.
 - The 6 core of the core CSS are:
 - National Social Assistance Programme
 - Mahatma Gandhi National Rural Employment Guarantee Program
 - Umbrella Scheme for Development of Scheduled Castes
 - Umbrella Programme for Development of Scheduled Tribes
 - Umbrella Programme for Development of Minorities
 - Umbrella Programme for Development of Other Vulnerable Groups

Status of Groundwater Depletion

- **India is the world's largest user of groundwater**, withdrawing about 250 cubic kilometers per year, more than twice that of the US.
- As per the latest assessment of the Central Ground Water Board, out of 447 billion cubic metre (BCM) of total replenishable groundwater available annually, 228 BCM is currently being used for irrigation, while 25 BCM is being used for domestic, drinking and industrial purposes.
- **The 5th Census of Minor Irrigation (2017)** has underlined that in 661 districts of the country about 13 million dugwells and shallow tube wells and five million medium tube wells and deep tubewells irrigate about 38 million hectares (mha) and 23 mha of land, respectively.
- Besides, the **Standing Committee of Water Resources in its 23rd report on Socio-Economic Impact of**

Commercial Exploitation of Water by Industries (2017-18) has highlighted that about 85% of rural drinking water schemes in about 17.14 lakh habitations in the country are based on groundwater as source; nearly 7,426 licenses have been given to packaged drinking water plants in the water-stressed States of Andhra Pradesh, Gujarat, Karnataka, Tamil Nadu, and Uttar Pradesh.

- According to a latest **survey by the Central Groundwater Board (CGWB)**, Andhra Pradesh, Tamil Nadu, Kerala, and Karnataka are in a worse state as far as groundwater decline is concerned.
- Not only this, many multinational beverages and packaged drinking water companies in various States reportedly draw about 6.5-15 lakh liters of groundwater per day against the permissible limit of 2.4 lakh litres.
- **It is estimated that as much as 50 lakh litres of groundwater is extracted illegally on a daily basis by tanker mafia in most metropolitan cities.**
- The rate of groundwater extraction is so severe that NASA's findings suggest that India's water table is declining alarmingly at a rate of about 0.3 metres per year.
- The NITI Aayog in its Report on Composite Water Management Index (2018) has revealed that about 54% of the country's groundwater wells have declined and most of the States have achieved less than 50 % of the total score in the augmentation of groundwater resources.
- If the present rate of groundwater depletion persists, India will only have 22% of the present daily per capita water available in 2050, possibly forcing the country to import its water.
- **The NITI Aayog's water report has warned that if the situation persists, there will be a 6% loss in the country's GDP by 2050.**
- Falling groundwater tables will result in an escalation of irrigation costs and, thereby, a rise in cost of cultivation. Up to a quarter of India's harvest has been estimated to be at risk due to groundwater depletion.

Kisan Credit Cards

- The Government of India has decided to launch a campaign aimed at financial inclusion of farmers by enhancing the coverage of **Kisan Credit Cards (KCC)**.

Note:

- This campaign will be launched through the **Financial Institutions including Commercial Banks, Cooperative Banks and Regional Rural Banks in collaboration with the State Governments.**
- At present, there are around 6.95 crores active KCCs. However, there are still a large number of farmers who do not have access to institutional credit either because they have not been issued a KCC or the KCC issued earlier have been inactive due to various reasons.
- **Kisan Credit Card (KCC) was introduced in August 1998** to enable farmers in having quick and **timely access to affordable credit.** It was **launched by the NABARD and Reserve Bank of India.**
- The scheme aims to reduce farmers' dependency on informal banks for credit, which is often lucrative yet very expensive.

Credit Linked Capital Subsidy and Technology Upgradation Scheme

The Cabinet Committee on Economic Affairs (CCEA) has approved the continuation of the **Credit Linked Capital Subsidy and Technology Upgradation Scheme (CLCS-TUS)** for the year 2017-18 to 2019-20.

About CLCS-TUS

- This scheme aims at **improving the competitiveness of MSMEs** by integrating various ongoing schematic interventions aimed at up-grading technology through the Credit Linked Capital Subsidy (CLCS).
- Special provisions have been made in this scheme to promote entrepreneurship for SC/STs, women, North Eastern Region, Hill States, Island Territories (Andaman & Nicobar and Lakshadweep) and the Aspirational Districts/Left Wing Extremism (LWE) Districts.
- The subsidy will be given for investment in acquisition/replacement of plant & machinery/equipment & technology up-gradation of any kind.
- In addition, the scheme through **Zero Defect & Zero Effect**, component will promote the reduction in emission level of greenhouse gases and improve the competitiveness through the reduction in defect/wastage during the manufacturing process of the products.

- It will also promote the innovation, digital empowerment of MSMEs, design interventions and support the protection of intellectual property of MSMEs.
- The scheme will facilitate technology up-gradation to MSEs, improvement in Quality of products by MSMEs, enhancement in productivity, reduction in waste and shall promote a culture of continuous improvement.
- The Credit Linked Capital Subsidy Scheme (CLCSS) for Technology Upgradation of SSI was launched by the Government of India during 2000-01.
- Along with Small Industries Development Bank of India (SIDBI) and the National Bank for Agriculture and Rural Development (NABARD), there are 12 Nodal Banks/Agencies under CLCSS for the implementation of this scheme.

Kisan Urja Suraksha Evam Utthaan Mahabhiyan (KUSUM) Scheme

- The Government of India is formulating a Scheme '**Kisan Urja Suraksha evam Utthaan Mahabhiyan (KUSUM)**' which aims to **promote use of solar energy among the farmers.**
- The proposed scheme provides for:
 - Setting up of **grid-connected renewable power plants** each of 500 KW to 2 MW in the rural area,
 - Installation of **standalone off-grid solar water pumps** to fulfil irrigation needs of farmers not connected to grid, and
 - **Solarization of existing grid-connected agriculture pumps** to make farmers independent of grid supply and also sell surplus solar power generated to Discom and get extra income.
- The farmers will have to **tolerate only 10% of the total expenditure** to acquire and install a solar pump. The **Central Govt. will provide 60%** cost while the **remaining 30% will be taken care** of by bank as credit.

1st Aqua Mega Food Park

- Union Minister for Food Processing Industries has commissioned **Godavari Mega Aqua Food Park at West Godavari District, Andhra Pradesh.**
- **This is India's first Mega Aqua Food Park operationalized exclusively for fish and marine products** processing in the state of Andhra Pradesh.

Note:

- The facilities at aqua food park include the **pre-processing, freezing line for Fish and shrimp, ice plant and food testing laboratory.**

Mega Food Park

- To give a **major boost to the food processing sector by adding value and reducing food wastage** at each stage of the supply chain with a particular focus on perishables, **Ministry of Food Processing Industries** is implementing Mega Food Park Scheme in the country.
- It aims to link agricultural production to the market by bringing together farmers, processors, and retailers.
- **Mega Food Parks create modern infrastructure facilities for food processing along the value chain from farm to market with strong forward linkages (market and transport etc) and backward linkages (raw material, packaging etc) through a cluster-based approach.**
- Common facilities and enabling infrastructure is created at **Central Processing Centre (CPC)** and facilities for primary processing and storage is created near the farm in the form of **Primary Processing Centers (PPCs) and Collection Centers (CCs).**
- The financial assistance under the scheme is provided in the form of a grant-in-aid, i.e. 50% of eligible project cost in general areas and 75% of eligible project cost in North East Region and difficult areas (Hilly States and ITDP areas) subject to a maximum of ₹50 crore per project.
- The modern infrastructure for food processing created at Park will **benefit the farmers, growers, processors, and consumers of Andhra Pradesh** and adjoining areas immensely and prove to be a big boost to the growth of the food processing sector in the State of Andhra Pradesh.

International Cotton Advisory Committee (ICAC)

- Recently, the **International Cotton Advisory Committee (ICAC)** stated that India's cotton production is expected to dip by 7% due to "insufficient rainfall" in growing regions.
- At the same time production in **China is expected to increase** because of better farming practices by about 1%, enabling China to regain the '**top producer**' title it lost to India in the 2015-16 season.

Issues with Cotton Production in India

- The **adverse climatic and water availability** situation in cotton growing regions. About 77% of India's growing region is non irrigated, making it highly dependent on rains.
- Reluctance to adding new areas for cotton cultivation because of the **pest menace.**
- The **lack of awareness among farmers** on good farming practices.

International Cotton Advisory Committee

- The ICAC is an association of members of cotton producing, consuming and trading countries. The Committee was **formed in 1939**, and the Secretariat was established in 1946.
- It is **headquartered in Washington DC, U.S.A.**
- **India is one of the 27 members of this grouping since 1939.**

Light House Projects Challenge

- The Ministry of Housing & Urban Affairs has instituted a challenge for States/UTs to select six sites across the country for constructing the Lighthouse projects under **Global Housing Technology Challenge (GHTC)-India.**
- The winning six States/UTs that score the highest marks across the prescribed criteria will be awarded lighthouse projects. The States/UTs will receive **Central Assistance** to construct these projects as per **Pradhan Mantri Awas Yojana Urban (PMAY-U) guidelines.**
- The selected sites for lighthouse projects will be used as an '**open laboratory**' for **live demonstration** and will receive due attention from academia, practitioners, policy makers (Central/State) and media apart from felicitation/recognition in Grand Expo-cum-Conference.

Lighthouse Project

The term lighthouse project refers to a model project that aims, besides its original purpose, to have a signal effect for numerous follow-up projects as they look towards it for inspiration and guidance.

Global Housing Technology Challenge

- Global Housing Technology Challenge – India is an initiative by **Ministry of Housing and Urban Affairs, Govt. of India**, with an aim to identify, evaluate and shortlist a basket of proven & potential innovative

- technologies from across the globe and subsequently mainstream them in Indian construction sector that are sustainable, green and disaster resilient.
- GHTC-India has following **three components**:
 - **Component 1** – Conduct of EXPO-Cum-Conference
 - **Component 2** – Identifying Proven Demonstrable Technologies :Inducting suitable established technologies from across the globe to the Indian market through shortlisting and actual construction of Light House Projects.
 - **Component 3** – Establishment of Affordable Sustainable Housing Accelerators India (ASHA-India) for Indian technologies which have potential but not market ready yet.

Workshop on Gross Domestic Knowledge Product (GDKP)

Ministry of Statistics and Programme Implementation (MoSPI) in collaboration with Indian Statistical Institute (ISI), Kolkata held a one-day workshop on the emerging area of **Gross Domestic Knowledge Product (GDKP)**.

Gross Domestic Knowledge Product

- The idea of GDKP was propounded by **Prof. Umberto Sulpasso of the University of Southern California**.
- The Gross Domestic Knowledge Product (GDKP) measures a nation's growth and future through four basic pillars:

- **Knowledge items (Ki)** – identification of both modern and local distinct culture knowledge items in distinct categories.
- **Country's Knowledge Producing Matrix (CKPM)** – comparison of knowledge produced by government, private institutions, and households as a differentiated way to impact on the GDP.
- **Country's Knowledge User Matrix (CKUM)** – the value of knowledge bought by individuals and private companies as a way to measure their modernization efforts.
- **Cost of Learning** – similar to the cost of living to be used as a political reference for government budgeting decisions through education family bonds, education credit card etc. to support young citizens.

GDKP for India

- GDKP will allow **calculation of the value of specific knowledge** items related to national culture produced and how these items change over time.
 - In India, for examples, these specific knowledge items include the **proliferation of cultural and religious teaching (yoga, Veda, and dance schools), religious festivals, and harvest festivals**.
- GDKP can also **facilitate the creation of a National Knowledge Education Platform**. It will also enhance GDP and the proper role of private investment with direct benefits to the Indian economy like software, publishing etc.



International Relations

Highlights

- NPT Must for India's Entry into NSG : China (20)
- India and Norway to Combat Marine Pollution (21)
- Intermediate-Range Nuclear Forces Treaty (22)
- India-Monaco Relations (23)
- 40 Years of Islamic Revolution: Iran (23)
- Wind-Rush Scheme (25)

NPT Must for India's Entry into NSG : China

Recently, the permanent members of the **United Nations Security Council (UNSC)** also known as **P5 countries (China, France, Russia, Britain and the US)** – have concluded their meetings to discuss issues related to nuclear disarmament, nuclear non-proliferation and peaceful uses of nuclear energy.

- **China** has said that **India** must sign the **Non-Proliferation Treaty (NPT)** to gain entry into **Nuclear Suppliers Group (NSG)**.
- Earlier, after India applied for the NSG membership, **Pakistan** too applied for the same following which China, a close ally of Pakistan, called for a **two-step approach** which states that **NSG members** first need to **arrive at a set of principles for the admission of non-NPT states** into the group and then **move forward discussions of specific cases**.

Nuclear Suppliers Group (NSG)

- NSG is a **group of nuclear supplier countries that seeks to contribute to the non-proliferation of nuclear weapons** through the implementation of **guidelines for nuclear exports and nuclear-related exports**.
- The NSG was **set up as a response to India's nuclear tests conducted in 1974**.
- The aim of the NSG is to ensure that **nuclear trade for peaceful purposes** does not contribute to the proliferation of nuclear weapons.
- The grouping has **48 participating governments** and the European Commission acts as an Observer.
- Since **2008**, India has sought membership in the NSG. The same year, the **NSG granted India a "clean waiver" from its existing rules**, which forbid nuclear trade with a country which has not signed the Nuclear Non-Proliferation Treaty (NPT).

- The waiver paved the way for India to engage in nuclear trade and led to the **Indo-US Civil Nuclear Deal**. India has since signed **civilian nuclear cooperation agreements** with the **U.S., U.K., France, Canada, Argentina, Australia, Russia, Kazakhstan, Mongolia, Namibia, and South Korea**.
- The drive for India's membership got a decisive boost when U.S declared support for India joining the quartet of **multilateral export control regimes**.

NOTE:

The four multilateral export control regimes are **Wassenaar Arrangement (WA), Missile Technology Control Regime (MTCR), Australia Group (AG) and Nuclear Suppliers Group (NSG)**. India is a member of all the groups **except NSG**.

Impediments to India's NSG bid

- **NSG operates by consensus** and all its current members are signatories to the Nuclear Non-Proliferation Treaty.
- **China** has relied on an **obstructionist** argument claiming that a "compulsory" requirement for NSG membership is that they must be signatories to the NPT.
- **China equates India with Pakistan** – which has an established history of nuclear proliferation, further complicating the scenario.

Significance of NSG Membership for India

- Membership of NSG will **increase India's access to state-of-the-art nuclear technology** from members of the Group.
- As per India's commitment under the **Paris climate agreement**, it has to ensure that **40% of its energy is sourced from renewable and clean sources by 2030**. In order to achieve this target, India needs to scale up nuclear power production. This can only happen if India gains access to NSG.

Note:

- Some nations are restricted by regional treaties (For eg., **Pelindaba Treaty**) to provide access to nuclear fuel and technology to India. If India joins the NSG, such restrictions are expected to be done away with.

Pelindaba Treaty (African Nuclear Weapon Free Zone Treaty)

- It establishes a **Nuclear-Weapon-Free Zone in Africa**.
- The treaty was signed in 1996 and came into effect in July 2009.
- It aims at preventing nuclear proliferation and preventing strategic minerals of Africa from being exported freely.
- This treaty **prohibits member parties to come into bilateral agreement with countries who are non signatories of NPT**.
- In **2016**, Namibia criticized the Treaty of Pelindaba for **disallowing Namibia to trade uranium to India** because India is not a member of the NPT.

India and Non-Proliferation Treaty (NPT)

- The **NPT is an international treaty** whose **objective is to prevent the spread of nuclear weapons and weapons technology**, to foster the peaceful uses of nuclear energy, and to further the goal of disarmament.
- It represents the only **binding commitment** in a multilateral treaty to the goal of disarmament by the nuclear-weapon States.
- **Nuclear-weapon states parties under the NPT** are defined as those that manufactured and exploded a nuclear weapon or other nuclear explosive device before **January 1, 1967**.
- India has argued that **treaties like NPT are discriminatory and are selectively applicable to only non-nuclear powers** and legitimized the monopoly of nuclear power by a few.
- Consequently India **conducted nuclear explosion test in May 1974**, all along maintaining that it was **committed to peaceful use of atomic energy**.
- In **1998**, India again **conducted a nuclear explosion tests**, and acquired the **capacity to use nuclear energy for military purposes**.
- To alleviate the fears of a world community, **India formulated a comprehensive nuclear doctrine**. The major tenets of this doctrine are:
 - Maintenance of a **credible minimum nuclear deterrence**.

- Professes **no first use policy**.
- Commitment to **global veritable and non-discriminatory nuclear disarmament** leading to a nuclear weapons free world.

- India has abided by both NPT and **Comprehensive Nuclear-Test-Ban Treaty (CTBT)** even though it is a non-signatory.

CTBT

- The Comprehensive Nuclear-Test-Ban Treaty (CTBT) is the treaty banning all nuclear explosions – everywhere, by everyone.
- The Treaty was negotiated at the **Conference on Disarmament in Geneva** and adopted by the **United Nations General Assembly**. It opened for signature on 24 September 1996.

India and Norway to Combat Marine Pollution

Recently, the **Ministry of Environment, Forests and Climate Change** signed a letter of Intent establishing the **India-Norway Marine Pollution Initiative** together with the **Norwegian Ministry of Foreign Affairs**.

- Both the governments **launched the first Joint initiative under this new partnership**. The India-Norway Marine Pollution Initiative will **combat marine pollution**, which is one of the fastest growing environmental concerns.
- In January, 2019, the Indian and Norwegian governments agreed to work more closely on oceans by signing an MoU and establishing the **India-Norway Ocean Dialogue** during the **Norwegian Prime Minister's visit to India**.
- A joint Task Force on **Blue Economy** with government officials, researchers and experts as well as private sector was established to develop sustainable solutions within strategic areas of the blue economy, such as maritime and marine sector in addition to energy sector.

Significance

- Through a range of implementing partners, this initiative will seek to
 - **support local governments** in implementing sustainable waste management practices,
 - develop systems for collecting and analyzing information about sources and scope of marine pollution and

- Improve private sector investment.
- Support will also be directed towards **beach clean-up efforts, awareness raising campaigns** and pilot project, for example, using plastic waste as fuel substitution for coal in cement production and developing frameworks for deposit schemes.
- In partnership, **Norway and India will share experiences and competence**, and collaborate on efforts to develop clean and healthy oceans, **sustainable use of ocean resources** and **growth in the blue economy**.

Marine Pollution

- Land-based sources (such as **agricultural run-off, discharge of nutrients and pesticides and untreated sewage including plastics**) account for approximately **80% of marine pollution**, globally.
- **Excessive nutrients from sewage** outfalls and agricultural runoff have contributed to the **increasing incidence of low oxygen (hypoxic)** areas known as **dead zones**, where most marine life cannot survive, resulting in the collapse of some ecosystems.
 - There are now close to **500 dead zones with a total global surface area of over 245,000 km², roughly equivalent to that of the United Kingdom**.
- The excess **nitrogen may lead to the proliferation of seaweeds and microorganisms** and cause **algal blooms**. Such blooms can be harmful, causing massive fish kills, contaminating seafood with toxins and altering ecosystems.
- **Litter can accumulate in huge floating garbage patches** or wash up on the coasts. Plastics float in the Ocean, releasing contaminants as they break down into toxic micro-particles that animals mistake for food.
 - Fish and birds can choke on these particles, get sick as they accumulate in their stomachs, or become entangled in larger debris.
- In 2010, the **Gulf of Mexico deep-water oil spill** had a devastating effect on the entire marine ecosystem, as well as the populations that depend on the marine areas for their livelihoods.
 - Smaller oil spills happen every day, due to drilling incidents or leaking motors, and cause the death of birds, marine mammals, algae, fish and shellfish.

Significance of Clean Ocean

- The ocean is a **vital source of nourishment, especially to people in the world's poorest nations**.
- Many depend on fish for their primary source of protein; **fisheries and aquaculture support the livelihoods of about 540 million people (8% of the world's population)** directly or indirectly.
- **Overfishing, loss of biodiversity** and the **possible extinction of species** put a **stress on these limited resources**. This could lead to famine, increased poverty and conflicts, including war.
- Learning to manage ocean sustainably is the only path to global prosperity and peace.

Intermediate-Range Nuclear Forces Treaty

The United States has suspended the **Intermediate-Range Nuclear Force Treaty** with Russia.

ARMS CONTROL TREATIES

Limited Test Ban Treaty (LTBT)

Banned nuclear weapon tests in the atmosphere, in outer space and under water. Signed by the US, UK and USSR in Moscow on 5 August 1963.
Entered into force on 10 October 1963.

Nuclear Non-Proliferation Treaty (NPT)

Allows only the nuclear weapon states to have nuclear weapons and stops others from acquiring them. For the purposes of the NPT, a nuclear weapon state is one which has manufactured and exploded a nuclear weapon or other nuclear explosive device prior to 1 January 1967. So there are five nuclear weapon states: US, USSR (later Russia), Britain, France and China. Signed in Washington, London and Moscow on 1 July 1968.
Entered into force on 5 March 1970. Extended indefinitely in 1995.

Strategic Arms Limitation Talks I (SALT-I)

The first round of the Strategic Arms Limitation Talks began in November 1969. The Soviet leader Leonid Brezhnev and the US President Richard Nixon signed the following in Moscow on 26 May 1972 — (a) Treaty on the limitation of Anti-Ballistic Missile Systems (ABM Treaty); and (b) Interim Agreement on the limitation of strategic offensive arms.
Entered into force on 3 October 1972.

Strategic Arms Limitation Talks II (SALT-II)

The second round started in November 1972. The US President Jimmy Carter and the Soviet leader Leonid Brezhnev signed the Treaty on the limitation of strategic offensive arms in Vienna on 18 June 1979.

Strategic Arms Reduction Treaty I (START-I)

Treaty signed by the USSR President Mikhail Gorbachev and the US President George Bush (Senior) on the reduction and limitation of strategic offensive arms in Moscow on 31 July 1991.

Strategic Arms Reduction Treaty II (START-II)

Treaty signed by the Russian President Boris Yeltsin and the US President George Bush (Senior) on the reduction and limitation of strategic offensive arms in Moscow on 3 January 1993.

Note:

- The treaty was signed in December 1987 by US President Ronald Reagan and Soviet General Secretary Mikhail Gorbachev.
- It prohibited the United States and the Soviet Union from possessing, testing and deploying ground-launched cruise and ballistic missiles of ranges between 500 and 5,500 kilometers.
- It also covered all land-based missiles, including those carrying nuclear warheads but did not cover sea-launched missiles.
- The objective of this treaty was to end the arms race between the two superpowers US and USSR.

India-Monaco Relations

Prince of Monaco Albert II came to India on his first official visit.



- During the visit, a number of agreements were signed which includes:
 - Cooperation on the environment, climate change, renewable energy.
 - Establishing linkages especially in infrastructure development.
 - Visa waiver for diplomatic passport holders of Monaco.
 - Scope for business cooperation.
 - Both sides also decided to step up cooperation in the field of ocean resources and urban affairs (including Smart Cities).

India-Monaco Relations

- The Principality of Monaco and India officially established diplomatic relations on September 21, 2007. However, Consular Relations between the

Principality of Monaco and India have existed since September, 30 1954.

Monaco

- Monaco is a **city-state** situated in Southern Europe, on the **Mediterranean coast**.
- Monaco is spread over 2 km² and is the second **smallest country** in the world after Vatican City.
- Monaco's **government structure is a hereditary constitutional monarchy**, governed by the Constitution established on December 17, 1962.
- The executive power rests under the high authority of Prince Albert II, Sovereign Prince of Monaco.

40 Years of Islamic Revolution: Iran

40 years have been completed of the **Iranian revolution** which took place in **February, 1979**.

- Iran's revolution began with a **popular democracy movement** and ended with the **establishment of the world's first Islamic state**.

Background

- By the end of the second world war, the **United States, provided Iran with economic and political support** in return for their **membership in the democratic Western block**.



- As a result **Mohammad Mosaddeq's National Front** became the **first democratically-elected Iranian government in 1951**.
- Mosaddeq was a modern, secular leaning, progressive leader who was able to gain the broad support of both the secular elite and the Iranian ulama (religious scholar).

Note:

- After coming to power **Mosaddeq** made a bold move to address the **issue of exploitation of Persian oil by Western powers** through **nationalising the previously British-owned Anglo-Iranian Oil Company (AIOC)**.
 - This did not work out in his favour, as it attracted **British and US economic sanctions**. This in turn **crippled the Iranian economy**.
- In **1953**, Mosaddeq was **replaced in a military coup organised by the Central Intelligence Agency(CIA) and British Intelligence**. As a result **Shah (king) Reza Pahlavi** (reigning monarch of Iran) was returned to power and the Anglo-Iranian Oil Company became BP, British Petroleum, with a 50-50 divide of profits.
 - Not only did this intervention leave Iranians with a **sense of bitter humiliation and betrayal**, its impact also reverberated within the wider Muslim world.
 - It sent the message that a **democratically-elected government would be toppled if it did not fit with Western interests**. This narrative continues to be the dominant discourse of Islamist activists to this day, used in explaining world events that affect the Muslim masses.
- Between 1953 and 1977, the **Shah relied heavily on the US** in his efforts to modernise the army, Iranian society and build the economy.
- Though his economic program brought prosperity and industrialisation to Iran and educational initiatives increased literacy levels, this all came at a hefty cost.
 - Wealth was unequally distributed, there was a development of an underclass of peasants migrating to urban centres and large scale political suppression of dissent.
 - Disillusioned religious scholars were alarmed at the top-down imposition of a Western lifestyle, believing Islam was being completely removed from society.

Revolution

- Distrust of the Shah's economic policy and resentment of his autocratic style fuelled dissent against his regime.
- Under these circumstances among many protests, sustained and indirect opposition came from the religious circles led by **Ayatollah Khomeini**, a shia cleric living in exile in Paris.
- The persistent protests instigated by Khomeini's followers swelled to include all major cities which culminated in the revolution on February 1, 1979, when Khomeini triumphantly returned to Iran.



The Impact of the Revolution

- The Iranian revolution was a **watershed event** that not only transformed Iran completely, but also had **far-reaching consequences for the world**.
- It caused a **deep shift in Cold War and global geopolitics** as US not only lost a key strategic ally against the communist threat, but it also gained a new enemy.
- The Iranian revolution **dramatically altered Middle Eastern politics**. It flamed a **regional sectarian cold war between Iran and Saudi Arabia**. The revolution challenged Saudi Arabia's monarchy and its claim for leadership of the Muslim world.

Was the Revolution a Success?

- From the perspective of longevity, **the revolution still stands**. It has managed to survive four decades, including the eight-year Iran-Iraq war as well as decades of economic sanctions. Comparatively, the **Taliban's attempt at establishing an Islamic state only lasted five years**.
- Khomeini and his supporters had promised to end the gap between the rich and the poor, and deliver economic and social progress.
 - However, the **Iranian economy is in poor shape**, despite the oil revenues that holds back the economy from the brink of collapse.
 - People are dissatisfied with **high unemployment rates and hyper-inflation**. They have little hope for the economic fortunes to turn.
- The most important premise of Islamism of **making society more religious through political power has also failed to produce the desired results**. Even though 63% of Iranians were born after the revolution, they are no more religious than before the revolution.

Note:

- Although there is **still significant support for the current regime**, a significant proportion of **Iranians want more freedoms**, and disregard religion being forced from above. There are growing protests demanding economic, social and political reforms as well as an end to the Islamic republic.
- Most Iranians blame the failures of the revolution on the never-ending US sanctions. Even though Iran trades with European powers, China, Russia and India, they believe the West does not want Iran to succeed at all costs.

Wind-Rush Scheme

More than 450 Indians have been confirmed their British citizenship under the **British government's 'Windrush Scheme'**.

- Under the **Windrush Scheme**, citizenship has been granted to **immigrants from Commonwealth countries to the UK**, who arrived or settled in the **UK before 1 January 1973** and have been continuously resident in the UK since their arrival.
- The 'Windrush Generation' refers to citizens of former British colonies who **arrived in the UK before 1973**, when the rights of such Commonwealth citizens to live and work in Britain was substantially curtailed.
- While a large proportion of them were of Jamaican/ Caribbean descent, they also included Indians and other South Asians.
- The immigrants referred to under the bracket of 'Windrush Generation' **relates to a ship named 'Windrush', which brought Jamaican workers to the UK shores in 1948.**



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Science and Technology

Highlights

- GSAT-31 Launched by ISRO (26)
- Shift in Magnetic North Pole (27)
- MarCO Cubesat (28)
- 150 years of the Periodic Table (28)
- AI 'Project Debater' Lost to Human (29)

GSAT-31 Launched by ISRO

Indian Space and Research Organisation (ISRO) has launched GSAT-31 onboard Ariane 5 rocket from French Guiana in South America.

➤ **GSAT-31 is India's 40th communication satellite.**

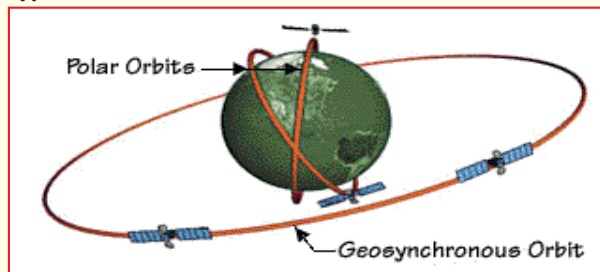
About GSAT-31

- **Weight:** 2,536 kg
- **Payload:** Ku-Band Transponders
- **Coverage Area:** India Mainland and Islands
- **Mission Life:** 15 Years
- **Orbit:** Geostationary Orbit

Significance

- GSAT 31 will replace the satellites INSAT-4CR and INSAT-4A which are going to expire soon and will help in maintaining continuity of services currently provided by these satellites.
 - The satellite will provide connectivity to very small aperture terminals (VSAT) for ATM, stock exchange, e-governance applications, and Direct-to-Home (DTH) services.
 - It will also provide telecommunication applications for bulk data transfer for a host of applications, emergency communications, disaster management support.

Types of Orbits



In general, there are two types of orbits:

- Polar Synchronous
- Geosynchronous

Polar Orbit

- A polar orbit travels north-south over the poles and takes approximately 90 minutes for a full rotation.
- These orbits have an inclination near 90 degrees. This allows the satellite to see virtually every part of the Earth as the Earth rotates underneath it.
- These satellites have many uses such as monitoring crops, global security, measuring ozone concentrations in the stratosphere or measuring temperatures in the atmosphere.
- Almost all the satellites that are in a polar orbit are at lower altitudes.
- An orbit is called sun-synchronous when the angle between the line joining the center of the Earth and the satellite and the Sun is constant throughout the orbit.
- These orbits are also referred to as "Low Earth Orbit (LEO)" which enables the onboard camera to take images of the earth under the same sun-illumination conditions during each of the repeated visits, thus making the satellite useful for earth resources monitoring.
- It passes over any given point on Earth's surface at the same local solar time.

Geosynchronous Orbit

- Geosynchronous satellites are launched into orbit in the same direction the Earth is spinning and can have any inclination.
- When the satellite is in orbit at a specific altitude (approximately 36,000km above the Earth's surface), it will exactly match the rotation of the Earth.

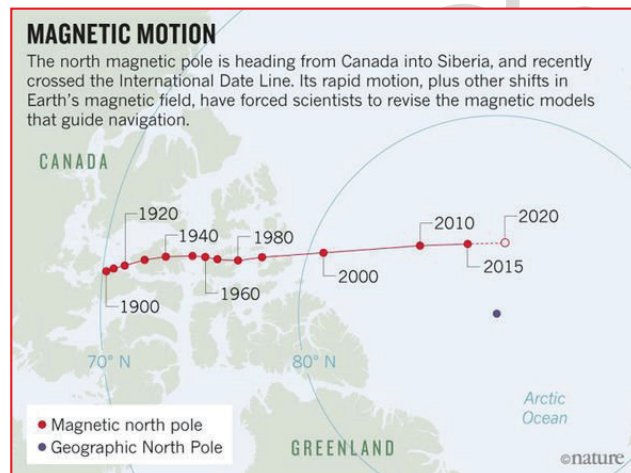
Note:

- While, Geostationary orbits fall in the same category as geosynchronous orbits, but with that one special quality of being parked over the equator.
- In the case of geostationary satellites, the Earth's force of gravity is exactly enough to provide acceleration required for circular motion.
- Geosynchronous Transfer Orbit(GTO): To attain geostationary or geosynchronous earth orbits, a spacecraft is first launched into a Geosynchronous Transfer Orbit.
- From the GTO the spacecraft uses its engines to shift to geostationary or geosynchronous orbit.

Shift in Magnetic North Pole

Recently, the updated World Magnetic Model has been released.

- **The World Magnetic Model was scheduled to be released in 2020, but it was preponed due to shifting in earth's magnetic north pole.**
 - The Magnetic model which is updated at every five years and was supposed to be updated in 2020, but due to the unexpected shift, it has been preponed to January 30, 2019.
- British Geological Survey has reported that the earth's magnetic north pole is moving from its current position in Canada to Siberia.



- **The shift is causing geophysicists to reconsider the world magnetic model which is used for navigation purposes.**
 - The World Magnetic Model (WMM) is a standard model of the core and large-scale crustal magnetic field.

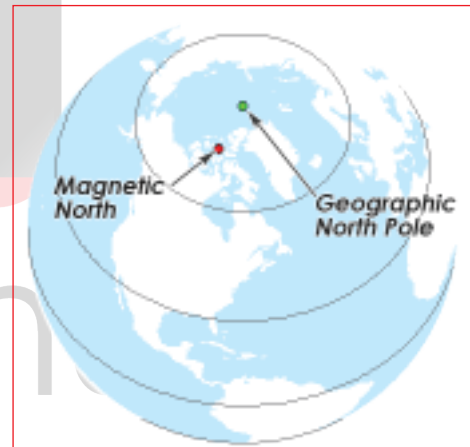
- It is used extensively for navigation by the United Kingdom and the US for Defence purposes, the North Atlantic Treaty Organization (NATO) and the International Hydrographic Organization (IHO).
- It is also used widely in civilian navigation.
- Scientists think that reasons for such shifts are geomagnetic pulses beneath South America and the high-speed jet of liquid iron beneath Canada.

Geographical Poles vs. Magnetic Poles

➤ Geographic Poles

- **The Earth rotates on the geographic north and south poles.**
 - The geographic north and south poles are where lines of longitudes (meridians) converge in the north.
 - The south and north pole are directly opposite to one another.

➤ Magnetic North Pole



- The Earth consists of a solid iron core. Surrounding the iron core is an ocean of hot, liquid metal. The liquid metal that flows in Earth's core creates electrical currents, which in turn creates our magnetic field.
- The Magnetic North Pole (also known as the North Dip Pole) is a point on Ellesmere Island in Northern Canada where the northern lines of attraction enter the Earth.
- **This means that a compass needle point to the Magnetic North Pole – which is different from the geographic north.**
- **Magnetic equator does not coincide with geographical equator.**

Note:

International Hydrographic Organization

- The International Hydrographic Organization is an intergovernmental consultative and technical organization that was established in 1921 to support the safety of navigation and the protection of the marine environment.
- India is also a member of IHO.

MarCO Cubesat

- NASA has lost contact with its two mini-satellites Mars Cube One (MarCO) named as MarCO-A and MarCO-B.
 - CubeSats are a class of spacecraft based on a standardized small size and modular use of off-the-shelf technologies.
 - All previous CubeSats have orbited the Earth. MarCO was the first attempt to orbit another planet.
 - MarCO CubeSats were launched along with InSights Mission to serve as communication relays during its Mars landing.
 - After InSight's landing, these spacecraft were launched further on their own trajectories to test if such low-cost technology can operate in deep space.

150 years of the Periodic Table

The United Nations has designated 2019 as the International Year of the Periodic Table (IYPT2019) to commemorate the 150th anniversary of the establishment of the Periodic Table of Chemical Elements by Dmitri Ivanovich Mendeleev on 17th February 1869.

	Mendeleev's periodic table		Modern periodic table
1.	Elements are arranged in the increasing order of their atomic masses.	1.	Elements are arranged in the increasing order of their atomic numbers.
2.	Elements having similar properties were placed directly under one another.	2.	Elements having the same valence shell are present in the same period while elements having the same number of valence electrons are present in the same group.
3.	The position of hydrogen could not be explained.	3.	Hydrogen is placed above alkali metals.
4.	No distinguishing positions for metals and non-metals.	4.	Metals are present at the left hand side of the periodic table whereas non-metals are present at the right hand side.

- The International Year aims to recognize the importance of the Periodic Table of Chemical Elements as one of the most important and influential achievements in modern science reflecting the essence not only of chemistry but also of physics, biology and other basic sciences disciplines.
- The initiative for IYPT2019 is supported by the International Union of Pure Applied Chemistry (IUPAC) in partnership with other science-related organizations.

Mendeleev was not the First

One to Create the Table of Elements

- Earliest of such efforts was due to the father of modern chemistry, Antoine Lavoisier, in 1789 who also classified elements terms of their properties.
- John Newlands introduced the concept of octaves in chemistry, wherein properties repeat for every eighth element.
- Mendeleev's periodic table was designed in the order of increasing atomic weight while the modern periodic table has been designed according to increasing atomic number.

Important Facts about Periodic Table

- There are 118 confirmed elements in the periodic table.
 - Among those, 90 elements can be found in nature, others are strictly man-made.
 - Technetium was the first man-made element.
 - Hydrogen is the lightest element with its atomic weight 1. Uranium is the heaviest element with an atomic weight of 238.
 - Helium, neon, argon, krypton, xenon, and radon are known as the Noble Gases as they were believed to be unreactive, but recent studies have shown reactive compounds of xenon, krypton, and radon.
 - The International Union of Pure and Applied Chemistry (IUPAC) is responsible for maintaining the periodic table.
 - Most of the elements on the periodic table are metals (almost 75 percent).
 - Different forms of pure elements are called allotropes. For example, diamond, graphite, buckminsterfullerene, and amorphous carbon are allotropes of Carbon.
 - The only two elements that are liquid at room temperature are mercury and bromine.

Note:

The International Union of Pure and Applied Chemistry (IUPAC)

- **IUPAC, is the world authority on chemical nomenclature and terminology**, including the naming of new elements in the periodic table; on standardized methods for measurement; and on atomic weights etc.
- **A neutral and objective scientific organization**, IUPAC was established in 1919 by academic and industrial chemists who shared a common goal – to unite a fragmented global chemistry community for the advancement of the chemical sciences via collaboration and the free exchange of scientific information.
- **Four new elements discovered in the year 2015 have been named by the IUPAC**
 - These are Nihonium (113Nh), Moscovium (115Mo), Tennessine (117Te) and Oganesson (118Og).
 - Of these elements, Nh-278 is highly radioactive with a very short half-life of 0.24 milliseconds.

AI 'Project Debater' Lost to Human

- Recently **International Business Machines Corporation's (IBM)** artificial intelligence (AI) system-**Project Debater lost the public debate with a human**

champion, Harish Natarajan, at Think 2019 in San Francisco, U.S.

- The winner of the event was determined by **Project Debater's ability to convince the audience of the persuasiveness** of the arguments.
- Project Debater is taught to debate unfamiliar topics, as long as these are well covered in the massive corpus that the system mines including hundreds of millions of articles from numerous well-known newspapers and magazines.

NOTE:

- A decade ago, **IBM's supercomputer Deep Blue defeated then world chess champion, Gary Kasparov.**
- In March 2016, Alphabet-owned AI firm DeepMind's computer programme, **AlphaGo**, beat **Go (ancient Chinese game) champion Lee Sedol.**
- On 7 December 2017, **AlphaZero** (modelled on AlphaGo) took just four hours to learn all chess rules and master the game enough to defeat the **world's strongest open-source chess engine, Stockfish.**

- Project Debater is endowed with three capabilities:
 - data-driven speech writing and delivery,
 - listening comprehension that can identify key claims hidden within long continuous spoken language and
 - modelling human dilemmas in a unique knowledge graph to enable principled arguments.



Environment and Ecology

Highlights

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World Wetlands Day

- Recently the World Wetlands Day was celebrated with a theme – ‘**Wetlands and climate change**’.
- The World Wetlands Day is celebrated every year on **2nd February**. This day marks the date of the adoption of the ‘**Convention on Wetlands**’ on **2nd February 1971**, in the **Iranian city of Ramsar**.

Wetlands

- Wetlands are ecosystems saturated with water, either seasonally or permanently. They include **mangroves, marshes, rivers, lakes, deltas, floodplains and flooded forests, rice-fields**, and even **coral reefs**.
- Wetlands are vital for human survival as they are among the world’s most productive environments; cradles of biological diversity that provide water and productivity upon which countless species of plants and animals depend for survival.

Why are wetlands important?

- Wetlands are the vital link between land and water.
- Wetlands **mitigate floods, protect coastlines and build community resilience to disasters, reduce the impacts of floods, absorb pollutants and improve water quality**.
- More than one billion people depend on wetlands for a living and 40% of the world’s species live and breed in wetlands.
- They are a **vital source for food, raw materials, genetic resources for medicines**, and hydropower.

- They play an important role in **transport, tourism and the cultural and spiritual well-being** of people.
- They provide **habitat for animals and plants and many contain a wide diversity of life**, supporting plants and animals that are found nowhere else.
- Many wetlands are areas of natural beauty and some are important to Aboriginal people.
- Wetlands also **provide important benefits for industry**. For example, they form nurseries for fish and other freshwater and marine life and are critical to commercial and recreational fishing industries.

Threats to Wetlands

- **Agriculture and Development:** Wetlands are often underappreciated because they are viewed as being more valuable for their water and undeveloped land than the ecosystem services they provide.
 - They are often drained to make room for agriculture or human settlements and any other wetlands nearby may lose its own water to this development.
- **Pollution:** Wetlands act as natural water filters. However, they can only clean up the fertilizers and pesticides from agricultural runoff and not mercury from industrial sources and other types of pollution.
 - There is a growing concern about the effect of industrial pollution on drinking water supplies and the biological diversity of wetlands.
- **Climate Change :** Climate change brings a variety of alterations to patterns of water and climate.
 - In some places, rising sea levels are swamping shallow wetlands and drowning some species of mangrove trees. In others, droughts are destroying estuaries, floodplains and marshes.

Note:

- According to Global Wetland Outlook, released by the Ramsar Convention on Wetlands, approximately 35% of the world's wetlands were lost between 1970-2015.
- In some places the pace of wetlands destruction occurs at incredible speeds. For example, In the **Philippines, 80% of coastal wetlands have been degraded**, drained or destroyed in the last 30 years.

'Wise Use' of Wetlands

- According to Ramsar Convention on Wetlands, '**Wise use' of wetlands** is the **maintenance of their ecological character**, achieved through the implementation of ecosystem approaches, within the **spirit of sustainable development**. 'Wise Use' guidelines encourage Contracting Parties to:
 - **Adopt national wetland policies** with legislations and institutional arrangements to deal with wetland;
 - **Develop programmes of wetland inventory**, monitoring, research, training, education and public awareness; and
 - **Take actions involving the development of integrated management plans** covering every aspect of the wetlands and their relationships with their catchments.

Ramsar Convention

- The Convention on Wetlands, called the Ramsar Convention, is the **intergovernmental treaty that provides the framework for the conservation and wise use of wetlands** and their resources.
- The Convention was adopted in the **Iranian city of Ramsar in 1971** and came into force in 1975. Since then, almost 90% of UN member states, from all the world's geographic regions, have acceded to become "Contracting Parties".
- **India has 27 Ramsar Sites** which are the Wetlands of International importance.

Montreux Record

- Montreux Record under the Ramsar Convention is a **register of wetland sites on the List of Wetlands of International Importance where changes in ecological character have occurred, are occurring, or are likely to occur** as a result of technological developments, pollution or other human interference.
- It is maintained as a part of the Ramsar List.
- Currently, two wetlands of India are in Montreux record: **Keoladeo National Park** (Rajasthan) and **Loktak Lake** (Manipur).

Ramsar Sites In India



NOTE:

Chilika lake (Odisha) was placed in the record but was later removed from it.

Polar Vortex

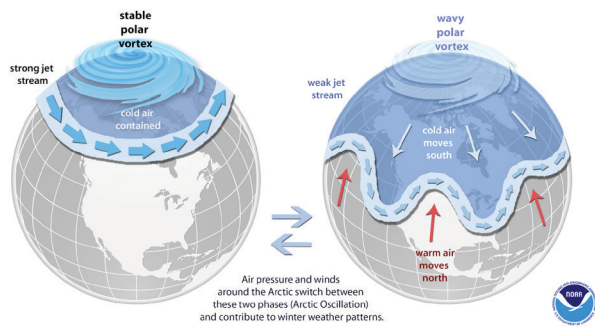
The **United States** is grappling with the **extreme cold**, with the temperature reaching -30°C in cities like Chicago and Dakota.

- This is caused by a blast of **Arctic air**, which is a result of a "**polar vortex**" event.
- The polar vortex is a **large area of low pressure and cold air** surrounding both of the Earth's poles. It is also known as the **Polar Pig**.
- The term "vortex" refers to the **counterclockwise flow of air** that helps keep the colder air near the Poles. It **always exists** near the poles, but weakens in summer and strengthens in winter.
- However, many times **during winter** in the northern hemisphere, the **polar vortex expands, sending cold air southward**. This occurs regularly during wintertime and is often associated with large outbreaks of Arctic air in the **United States and portions of Europe and Asia**.
- Also, it is not a feature that exists at the Earth's surface, rather it exists tens of **thousands of feet up in the atmosphere**.
- By itself, the only danger to humans is the magnitude of how cold temperatures will get when the polar vortex expands, sending Arctic air southward into areas that are not typically that cold.

Note:

The Science Behind the Polar Vortex

The polar vortex is a large area of low pressure and cold air surrounding the Earth's North and South poles. The term vortex refers to the counterclockwise flow of air that helps keep the colder air close to the poles (left globe). Often during winter in the Northern Hemisphere, the polar vortex will become less stable and expand, sending cold Arctic air southward over the United States with the jet stream (right globe). The polar vortex is nothing new — in fact, it's thought that the term first appeared in an 1853 issue of E. Littell's *Living Age*.



How is it linked to Global Warming?

- The global temperature has risen by 0.8°C since 1880.
- The Arctic has warmed over twice the average.
- The temperature difference between the North Pole and regions like North America has reduced.
- The energy generated by the jet stream travels upward and disrupts the polar vortex, causing it to split.
- One of these two “child” vortices has visited North America during February, causing the record low temperatures.

Melting Glaciers in Hindu Kush Himalayas

Recently, The Hindu Kush Himalayan Assessment study has been released by the International Centre for Integrated Mountain Development (ICIMOD).

Critical importance of Hindu Kush Himalayas

- ▶ The Hindu Kush Himalayas span eight countries, from Afghanistan to Myanmar, and encompass over 4.2 million sq. km
- ▶ The mountains are the source of 10 major river systems in Asia that include the Indus, Ganga and Brahmaputra
- ▶ They sustain the livelihood of 240 million mountain dwellers and 1.9 billion people living downstream
- ▶ Of the eight countries, India has the highest population of 50.3 million distributed across its 11 mountain states
- ▶ Researchers warn of more political unrest in the region due to conflicts over natural resources, especially river water



- The Hindu Kush Himalayan region is of critical importance, given that it holds the largest ice mass after the North and South Poles, and has been on a constant warming trend since the 1970s.

- The study warns that if global efforts to limit global warming to below 2°C above pre-industrial levels fail, it could lead to the melting of two-thirds of the region's glaciers by 2100.
- This trend could be catastrophic, given that there are 8,790 glacial lakes in the region, of which 203 could lead to floods due to glacial lake outbursts. On an average, 76 events of natural hazard occur every year in the Hindu Kush, with China accounting for 25 and India 18.
- The Indo-Gangetic Plain, an extremely polluted region, has amplified the effects of greenhouse gases. Deposits of black carbon and dust have speed up the melting of Hindu Kush glaciers.

Adverse Effects

- **Destabilizing Rivers**
 - Increasing glacial melts could destabilize rivers by changing their stream flow.
 - The Indus river could witness more stream flow due to high glacial melt till 2050, after which the flow would start reducing due to decreasing glacial melt.
 - The Ganga and the Brahmaputra, which are mainly monsoon-fed rivers, will also see variations, as the pre-monsoon flows may decline. This will hamper agriculture that accounts for the largest share of water usage.

International Centre for Integrated Mountain Development (ICIMOD)



- The International Centre for Integrated Mountain Development (ICIMOD) is a regional intergovernmental learning and knowledge sharing centre.
- It has eight regional member countries of the Hindu Kush Himalaya – Afghanistan, Bangladesh, Bhutan, China, India, Myanmar, Nepal, and Pakistan – and is based in Kathmandu, Nepal.

Note:

- Globalization and climate change have an increasing influence on the stability of fragile mountain ecosystems and the livelihoods of mountain people.
- ICIMOD aims to assist the mountain people to understand these changes, adapt to them, and to make the most out of new opportunities, while addressing upstream-downstream issues.
- **Impact on Monsoons**
 - The Hindu Kush range exerts a significant influence on seasonal shifts in the monsoon circulation and the distribution of rainfall over Asia in summer.
 - Changing monsoon patterns, including increased severity and frequency of storms, could lead to mountain hazards that may destroy critical infrastructure.
- **Forced Environmental Migration**
 - Forced migration could occur with an increase in the incidence and magnitude of extreme events such as floods.
- A separate study conducted by scientists from GB Pant National Institute of Himalayan Environment and Sustainable Development and the Centre for Earth Sciences at the Indian Institute of Science (IISc) has concluded that the Chaturangi Glacier, a tributary of Gangotri glaciers, is also receding.
- The study was done by using the satellite data from 1989 to 2016 and kinematic GPS.

Kinematic GPS

Kinematic Global Positioning System (GPS) is a satellite navigation technique used to enhance the precision of data from satellite-based positioning systems.

Findings of the Study

- Chaturangi glacier is retreating at a “considerable rate” and may vanish in the future.
- The Chaturangi glacier was connected with the Gangotri glacier till 1989 but it is now detached and retreating at the rate of about 22.84 m/year.
- The variability in retreating rate is not only controlled by climate change but is also governed by glacier size, type, topographic setting and debris cover.
- The retreating rate of the Chaturangi glacier is higher than the Gangotri glacier because of its smaller size and fast response time to climatic variability.

Impact of Glacier Retreat

- **The flow of Ganga:** Since Ganga originates from Gangotri glacier, which is fed by its tributary glaciers, the rapid retreat of glaciers like Chaturangi and Raktavarna will impact the flow and water level in the Ganga.
- **Impact on Human Life:** NASA’s Land Use Land Cover Change programme has predicted that glacial melt will impact water supplies in the Himalayan region.
 - Also, there will be an impact on agriculture, including soil loss due to soil erosion, landslides, and floods.
- **Glacial Lake Outburst Floods (GLOF):** Glacial lakes may also form due to the accumulation of melted ice, which may result in Glacial Lake Outburst Floods (GLOF).

About Gangotri Glacier

- Gangotri Glacier is situated in the Uttarkashi District of Uttarakhand.
- The Gangotri glacier originates at the northern slope of Chaukhamba range of peaks in Garhwal Himalayas. It is about 30 km long and 0.5 to 2.5 km wide.
- Gangotri is not a single valley glacier, but a combination of several other glaciers. This glacier comprises three main tributaries, namely Raktavaran (15.90 km), Chaturangi (22.45 km) and Kirti (11.05 km) and more than 18 other tributary glaciers.
- The Bhagirathi, one of the main tributaries of the Ganga, originates from the gangotri glacier.

National Board for Wildlife

- **National Board for Wildlife (NBWL)** which is charged with responsibility of allowing forest land in Protected Areas to be diverted for industrial use has, cleared 682 of the 687 **projects (99.82%) that came up for scrutiny.**
- On one hand few experts have criticised NBWL as merely a “**clearance house**”. On the other hand, officials state the **following reason** for increased clearances:
 - Streamlined processes.
 - Regular meetings since 2014.
 - Online filling of applications.
 - Projects coming to NBWL are one which has already passed scrutiny of respective state governments.

Note:

National Board for Wildlife (NBWL)

- National Board for Wildlife is a statutory Board **constituted officially in 2003** under the **Wild Life (Protection) Act, 1972**.
- The NBWL is **chaired by the Prime Minister**.
- The board is **'advisory' in nature** and is responsible for promotion of conservation and development of wildlife and forests.
- It reviews all wildlife-related matters and provides for the approval of projects in and around national parks and sanctuaries

2018 was the 4th Hottest Year

- According to **World Meteorological Organisation**, report, **2018 is set to be the fourth warmest year in recorded history**, stressing the urgent need for action to rein in runaway planetary warming.
- **WMO concluded that average global surface temperature in 2018 was 1°C (1.8°F) above pre-industrial baseline levels.**
- 2016, boosted by a strong El Nino remains the hottest year on record.
- The WMO said that the 20 warmest years in history all occurred within the last 22 years.
- The WMO said heightened temperatures also contributed to a number of extreme weather events such as hurricanes, droughts and flash flooding.

World Meteorological Organization (WMO)

- The **World Meteorological Organization (WMO)** is an intergovernmental organization, under United Nations, with a membership of 192 Member States and Territories.
- It originated from the **International Meteorological Organization (IMO)**, which was established after the 1873 Vienna International Meteorological Congress.
- **Established by the ratification of the WMO Convention on 23 March 1950**, WMO became the specialized agency of the United Nations for meteorology (weather and climate), operational hydrology and related geophysical sciences.
- WMO is headquartered in **Geneva, Switzerland**.

India to Host CMS COP 13 in 2020

The **13th Conference of Parties (COP)** of the **Convention on the Conservation of Migratory Species of Wild Animals**

(CMS) will be **hosted by India** during 15th to 22nd February, 2020 at **Gandhinagar** in Gujarat.

- **Great Indian Bustard (GIB)** will be the **mascot for the 13th Conference of Parties (COP)** of the UN Convention on the conservation of migratory species (CMS).
- Representatives from 129 Parties and eminent conservationists and international NGOs working in the field of wildlife conservation will attend the COP.
- Hosting of COP would give India an opportunity to showcase its conservation initiatives for wildlife species.
- It will provide a global platform for deliberations on the conservation and sustainable use of migratory wild animals and their habitat.

Migratory Species in India

- Migratory species are those animals that move from one habitat to another during different times of the year, due to various factors such as food, sunlight, temperature, climate, etc.
- The movement between habitats can sometimes exceed thousands of miles/kilometers for some migratory birds and mammals.
- A migratory route may involve nesting and also requires the availability of habitats before and after each migration.
- **India is a temporary home to several migratory animals and birds.** The important among these include **Amur Falcons, Bar-headed Geese, Black-necked cranes, Marine turtles, Dugongs, Humpback Whales**, etc.
- The **Indian sub-continent is also part of** the major bird flyway network, i.e, the **Central Asian Flyway (CAF)** that covers areas between the Arctic and Indian Oceans.
- India has also launched the National Action Plan for the conservation of migratory species under the Central Asian Flyway.

Convention on the conservation of migratory species of wild animals (CMS)

- It is an environmental treaty **under the aegis of the United Nations Environment Programme**, CMS (also referred to as the **Bonn Convention**) provides a global platform for the **conservation and sustainable use of migratory animals and their habitats.**

- CMS brings together the States through which migratory animals pass, the Range States, and lays the legal **foundation for internationally coordinated conservation measures** throughout a migratory range.
- It is the only global convention specializing in the conservation of migratory species, their habitats and migration routes.
- **India** has been a **Party to the CMS since 1983**. The Conference of Parties (COP) is the decision-making organ of this convention.
- **India** has also signed **non legally binding MOU with CMS on the conservation and management of Siberian Cranes (1998), Marine Turtles (2007), Dugongs (2008) and Raptors (2016)**.

Asiatic Lion Conservation Project

A dedicated **“Asiatic Lion Conservation Project”** has been launched by the Union Ministry of Environment, Forests and Climate Change (MoEFCC).

- MoEFCC has approved the project for three financial years from 2018 to 2021.
- The Asiatic Lion, **endemic to Gir landscape of Gujarat**, is one of the 21 **critically endangered species** identified by the Ministry for taking up recovery programmes.
- The project envisages scientific management with the involvement of communities in coordination with multi-sectoral agencies for disease control and veterinary care for overall conservation of Asiatic lion.
- This project has **“Species Conservation over a large landscape”** approach.

Large Landscape Conservation

- Large landscape conservation is an approach to conservation and management that focuses on actions that are taken across large areas, such as entire watersheds. Large landscape conservation generally involves many forest divisions, government agencies, and conservation organizations.
- As Asiatic Lions are found only in the Gir Landscape, this project will focus on conservation efforts of Asiatic Lions over whole Gir Range.
- Modern Information and Communication Technology (ICT) is proposed in the conservation, protection and development efforts of the Greater Gir Region. Additional ICT will include the following:

- GPS based tracking like Surveillance Tracking Animal Tracking and Vehicle Tracking
- Automated Sensor Grid like Magnetic Sensors, Movement Sensors, and Infrared heat sensors
- Night vision capability enhancement
- GIS-based real-time monitoring, analysis and report generation.

Asiatic lion (*Panthera leo persica*)

- Asiatic lions are slightly smaller than African lions.
- Males have only moderate mane growth at the top of the head so that their ears are always visible.
- The most striking morphological character, which is always seen in Asiatic lions, and rarely in African lions, is a longitudinal fold of skin running along its belly.

Status of Asiatic Lions as per various wildlife protection laws:

- Wildlife (Protection) Act 1972: Schedule 1
- CITES Appendix I
- **IUCN Red List:** Endangered
- Asiatic lions were once distributed to the state of West Bengal in east and Rewa in Madhya Pradesh, in central India.
- At present Gir National Park and Wildlife Sanctuary is the only abode of the Asiatic lion.

World Sustainable Development Summit 2019

- Recently, the three-day **World Sustainable Development Summit 2019** was **inaugurated in New Delhi**.
- The theme of summit was **‘Attaining the 2030 Agenda: Delivering on our Promise’**.
- The World Sustainable Development Summit (WSDS) is the annual flagship event of **The Energy and Resources Institute (TERI)**.
- It has been conceptualized as a single platform to accelerate action towards sustainable development and climate change.
- The goal of the World Sustainable Development Summit is to bring together global leaders and thinkers in the fields of sustainable development, energy and environment sectors on a common platform.
- It was earlier known as **Delhi Sustainable Development Summit**.

Note:

The Energy and Resources Institute (TERI)

- TERI is a **non-profit research institute**.
- It conducts research work in the fields of energy, environment and sustainable development for India and the Global South.
- It was **established in 1974 as Tata Energy Research Institute** and later renamed to The Energy Resources Institute in 2003.

Asian Elephant Alliance

- The **Asian Elephant Alliance** has decided to raise about 187 crore rupees to secure 96 out of the 101 elephants corridors across 12 States in India in the next 10 years.
- Asian Elephant Alliance is a joint initiative by **five non-governmental organizations(NGOs)**.
- Five NGOs include **Elephant Family, International Fund for Animal Welfare, IUCN Netherlands, World Land Trust and Wildlife Trust of India**.

Giant Cavity in Antarctic Glacier

- NASA scientists have discovered a gigantic cavity, almost 300 meters tall, growing at the bottom of the Thwaites Glacier in West Antarctica.
- **Cavity indicates rapid decay of the ice sheet and acceleration in global sea levels due to climate change.**
- The cavity was revealed by ice-penetrating radar in **NASA's Operation IceBridge**, an airborne campaign beginning in 2010 that studies connections between the polar regions and the global climate.
- Thwaites Glacier is currently responsible for about 4% of global sea level rise.

Indus River Dolphin

- Recently the **Punjab Government**, declared the Indus River dolphin, as the **state's aquatic animal**.
- Indus river dolphin is found **only in the main channel of the Indus River** in Pakistan and in the **Beas river in India**.
- Indus river dolphins also known as **Bhulan** are one of the **only four river dolphin species** and subspecies

in the world that are found in freshwater. Others include the **Chinese river dolphin, Ganges river dolphin and Amazon river dolphin**.

- Indus river dolphin is the **national marine mammal of Pakistan** and the **Gangetic dolphin is the national aquatic animal of India**.
- The Indus river dolphin is a **marine mammal** which means it is **warm-blooded, breathes air, gives birth and produces milk to feed its young**.
- It is listed **endangered** in the **IUCN's Red List of Threatened Species** and its International trade is prohibited by virtue of it being listed under **Appendix I of the Convention on International Trade in Endangered Species (CITES)**.
- It is placed in **Schedule I of India's Wildlife Protection Act**.
- Indus dolphin like Ganges River dolphin is **functionally blind** and relies on **echolocation to navigate, communicate and hunt prey in muddy river water**.

Black Softshell Turtle

- The **black softshell turtle** is being bred in the pond of **Hayagriva Madhab Temple at Hajo in Guwahati, Assam**.
- Locals regard the turtles in the pond as Kurma avatar of Lord Vishnu to whom the Hajo temple is dedicated.
- India hosts 28 species of turtles, of which 20 are found in Assam. Threats to turtles include hunting for meat and eggs, silt mining, encroachment of wetlands and change in flooding pattern have had a disastrous impact on the turtle population.

Black Softshell Turtle (*Nilssonina nigricans*)

- IUCN Status: **Extinct in Wild**
- CITES: **Appendix 1**
- Wildlife Protection Act (WLPA): **Schedule IV**
- Habitat: **Bangladesh and Indian state of Assam**.

Hayagriva Madhava Temple

- The Hayagriva Madhava temple is one of the important centers for **Vaishnavism**.
- The temple exists on a hilly place which is located at **Hajo nearby Guwahati, Assam**.
- It was estimated that the temple was built during the **Pala period of 10th-12th century A. D.**

Note:

Rashtriya Kamdhenu Aayog

- The Union Cabinet has approved the proposal for the establishment of **Rashtriya Kamdhenu Aayog for Conservation protection and development of cows and their progeny** in pursuance of the announcement in the Union Budget 2019-20.
- Rashtriya Kamdhenu Aayog will lead to **conservation, protection, and development of the cattle population in the country** including the development and conservation of indigenous breeds.
- It will result in **increased growth of the livestock sector** which is more inclusive, benefiting women, and small and marginal farmers.
- The Rashtriya Kamdhenu Aayog will work in collaboration with **Veterinary, Animal Sciences or Agriculture University or departments or organizations of the Central/State Government** engaged in the task of research in the field of breeding and rearing of the cow, organic manure, biogas etc.
- According to **Article 48 of the Indian Constitution** the state must organise agriculture and animal husbandry on modern and scientific lines and, in particular, it must take steps for preserving and improving the breeds, and prohibiting the slaughter, of cows and calves and other milch and draught cattle.



drishti

Art & Culture

Highlights

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Land of Stupas: Sarnath

Sarnath, Varanasi is known for two things: **Buddha's first sermon** and for **the Ashoka Pillar**.

- **In ancient times, this place was known by many names – Rishipatana, Mrigadava and Mrigadaya.**
 - The word Sarnath comes from a corruption of the name Saranganatha (lord of deer).
- The ashes of the Buddha were buried in stupas built at locations associated with important events in the Buddha's life including:
 - **Lumbini** (where he was born), **Bodh Gaya** (where he achieved Enlightenment), **Deer Park at Sarnath** (where he preached his first sermon sharing the Four Noble Truths also called the dharma or the law), and **Kushinagara** (where he died).



Stupas at Sarnath

- Two hundred years after Buddha, the Mauryan emperor, Ashoka, fought the battle of Kalinga and, disgusted by the bloodshed, became a Buddhist.
- Ashoka built many beautiful stupas and monasteries at Sarnath.

- Sir Alexander Cunningham (First Director-General of Archaeological Survey of India), excavated the Dhamekh, Dharmarajika, and Chaukhandi stupas along with a monastery and temple between 1834 and 1836.

- Many excavations followed these, the most famous among them being the 1904-05 excavation by Friedrich Oscar Oertel of the Ashoka Pillar, including the Lion Capital.

- **According to an inscription at Chaukhandi stupa, Humayun sought refuge in Sarnath when he was escaping from the battle of Chausa.**

- **Note:** The battle of Chausa was fought between the Mughal emperor, Humayun, and the Afghan, Sher Shah Suri in 1539 at Chausa (modern-day Bihar, India).

Invasions and Restorations

- **Dharmarajika stupa is the one said to have been built by Ashoka to commemorate Buddha's first sermon.**

- After Ashoka, the other rulers who added to Sarnath's glory were the Kushans, the Guptas and Harshavardhana.

- **Under the Guptas, the Dhamekh stupa (synonymous with Sarnath) was encased with stone-carved floral designs.**

- Sarnath suffered from the Huna invasions, but Harshavardhana later restored some of the earlier buildings.

- The Chinese pilgrim Hiuen-Tsang (602-664) left detailed accounts of the Dharmarajika stupa and Ashoka's lion pillar.

Note:

- Sarnath also suffered when it was attacked by Mahmud of Ghazni in the 11th century.
- After that, Mahipala, the Pala king, restored the monuments.
- The last great monument of Sarnath, a monastery named Dharmachakra Jina Vihara was built in the 11th century by Kumaradevi, wife of Govindachanda of the Gahadavala dynasty.

State Emblem

- The State Emblem of India is an adaptation from the Sarnath Lion Capital of Ashoka.
- In the original, there are four lions, standing back to back, mounted on an abacus with a frieze carrying sculptures in high relief of an elephant, a galloping horse, a bull and a lion separated by intervening wheels over a bell-shaped lotus.
- Carved out of a single block of polished sandstone, the Capital is crowned by the Wheel of the Law (Dharma Chakra).
- In the State Emblem, adopted by the Government of India on 26 January 1950, only three lions are visible, the fourth being hidden from view.
 - The wheel appears in relief in the centre of the abacus with a bull on right and a horse on left and the outlines of other wheels on extreme right and left.
 - The bell-shaped lotus has been omitted.
 - The words Satyameva Jayate from Mundaka Upanishad, meaning 'Truth Alone Triumphs', are inscribed below the abacus in Devanagari script.



Promotion and Protection of Maithili

The Ministry of Human Resource Development has decided to apply some of the recommendations of a committee constituted in 2018 for the promotion and protection of Maithili language and its scripts.

- The accepted recommendations include:
 - Establishment of a script and manuscript centre in Darbhanga either at Kameshwar Singh Sanskrit University or Lalit Narayan Mithila University.
 - Early completion of work pertaining to Unicode scripts of Mithilakshar by the Technology Development of Indian Languages.
 - Preparation of audio-visual materials for teaching the Mithilakshar scripts.

Mithilakshar Script of Maithili Language

- Mithilakshar or Tirhuta is the script of broader cultural Mithila.
- Mithilakshar, Bangla, Assamese, Nebari, Odia and Tibetan are a part of the same family of scripts.
- It is an ancient script and is one of the scripts of the broader North Eastern India.
- Mithilakshar script emerged during 10th Century AD as its oldest form was found in Sahodara stone inscriptions of 950 AD.
- The script has been used throughout Mithila from Champaran to Deoghar.
- The use of this script has been declining since the last 100 years, which is the primary reason for the cultural decline.

Maithili Language

- Maithili is a language spoken in Bihar belonging to the eastern sub-group of the Indo-Aryan branch.
 - Bhojpuri and Magadhi are closely related to the language.
- The language is claimed to have developed from Magadhan Prakrit.
 - It was the literary language of all of eastern India during the medieval period.
 - This language was popularised in fourteenth century by poet Vidyapati and solidified the importance of the language in literature.
- Maithili language has been accorded Constitutional status in 2003 and it became one of the 22 languages mentioned in the 8th Schedule.

Sangeet Natak Akademi Awards

- The President of India confers the prestigious Sangeet Natak Akademi Awards at Rashtrapati Bhawan, New Delhi.

- **The General Council of the Sangeet Natak Akademi, the National Academy of Music, Dance and Drama, an autonomous body of the Ministry of Culture** had selected forty-two (42) artists from the field of Music, Dance, Theatre, Traditional/Folk/Tribal Music/Dance/Theatre, Puppetry and Overall contribution/scholarship in the Performing Arts for the Sangeet Natak Akademi Awards (Akademi Puraskar) for the year 2017.
- **The honour of Akademi Award has been conferred since 1952.**
 - These honours not only symbolize the highest standard of excellence and achievements, but also recognize sustained individual work and contribution.
- The honour of Akademi Award carries with it **₹1,00,000/- (Rupees one lakh), besides a Tamrapatra and shawl.**

Statue of Guru Padmasambhava

- A 19-foot-high statue of **Guru Padmasambhava, the founder of Tibetan Buddhism**, was unveiled at **Jirang in Gajapati district, Odisha.**
- This 29 tonne stone statue is placed in the middle of 'Padma Sarovar', a large tank near **Padmasambhava Mahavihara, the largest Buddhist monastery in eastern India.**
 - The Dalai Lama had inaugurated Padmasambhava Mahavihara monastery in 2010.
- Historians claim that Guru Padmasambhava, also known as second Buddha, was born and brought up in Odisha before he left for Tibet.

Kawtchhuah Ropui Heritage Site, Mizoram

- Archaeological Survey of India (ASI) has discovered traces of an ancient civilization in Vangchhia, a village in Mizoram's Champhai district bordering Myanmar.
- The site has been named as the **Kawtchhuah Ropui heritage site.**
 - Kawtchhuah Ropui means the Great Entranceway.
 - **Kawtchhuah Ropui the heritage site is Mizoram's first site which is under the protected monuments of Archaeological Survey of India's (ASI).**

- The site, measuring about 45 sq km has yielded pictographs etched on large stone slabs, menhirs (large standing stones), a necropolis (a large cemetery), a water pavilion among other artifacts.
 - The ancient people of Vangchhia also carved terraces on rocks for their settlement – the main excavated site consists of 15 such terraces.



Mahamastakabhisheka Celebrations

Recently, the 10-day long Mahamastakabhisheka for the monolith 39-foot high Bahubali statue started in Dharmasthala, Karnataka.

- This year (2019), Mahamastakabhisheka Mahotsava will be observed from February 9 to February 18.
- This is the **fourth mahamastakabhisheka** of Lord Bahubali since its installation in 1982. Earlier were performed in 1982, 1995, and in 2007 in Dharmasthala.
- It was sculpted by **Renjala Gopalakrishna Shenoy** under the aegis of Ratnavarma Heggade in 1973. It was then positioned atop **Ratnagiri Hill** in the temple town of **Dharmasthala in 1982.**

NOTE:

- In 2018, the anointing ceremony of the **Gomateshwara Bahubali statue at Shravanabelagola** took place from February 17 to February 25.
- The statue at Shravanabelagola is believed to be **one of the largest free-standing statues** in the world (at 57 feet), which was built in **983 AD by the minister of the Ganga dynasty, Chamunda-Raya.**

Mahamastakabhisheka

- The word Mahamastakabhisheka is a combination of three words viz: **Maha (great), Masthaka (head) and Abhisheka (anointing)** which literally means 'the head anointing ceremony'.

- The ceremony is called Mahamastakabhisheka (also referred as Grand Consecration) and not Mastakabhisheka because the ceremony is performed **only once in 12 years**.
- The Mahamastakabhisheka Mahotsava is an anointing ceremony of the statue of Lord Bahubali.

Lord Bahubali

- Lord Bahubali was the **son of lord Rishabhanatha** who was the first of the **24 Jain Tirthankaras**.
- Jain mythology holds up Bahubali as the one who succeeded in **attaining liberty from worldly desires** through a long period of **sustained meditation**.
- The sculpture of Lord Bahubali is in upright posture of **meditation known as Kayotsarga** which stands for renunciation, self-control and subjugation of the ego as a reflection of his life.
- This is the **digambara form of Bahubali** which represents complete victory over earthly desires and needs, which forms the edifice for spiritual ascent towards divinity.

Jainism

- The most famous thinker of the Jainas, **Vardhamana Mahavira was born in 540 B.C.** in Kundagram village near Vaishali. He was a **Kshatriya prince** belonging to the **Lichchhavi clan**.
- According to the beliefs of the Jain tradition, Mahavir was the **24th Tirthankara, who succeeded the 23rd Tirthankara, Parshvanatha**.
- Tirthankara is a Sanskrit word meaning '**Fordmaker**', i.e., one who is able to ford the river, to cross beyond the perpetual flow of earthly life.
- Mahavir attained '**kaivalya**' or **omniscience at the age of 42**.
- He passed away at the age of 72 at a place called Pavapuri, near modern day Rajgir (in Bihar) after preaching for thirty years.
- Jainism attaches utmost importance to ahimsa or non-violence. It preaches **5 mahavratas (the 5 great vows)**:

- Ahimsa (Non-violence)
- Satya (Truth)
- Asteya or Achaurya (Non-stealing)
- Brahmacharya (Celibacy/Chastity)
- Aparigraha (Non-attachment/Non-possession)
- The **three jewels or triratna of Jainism** include **Samyak Darshana (right faith), Samyak Gyana (right knowledge) and Samyak Charitra (right conduct)**.
- Jainism is a religion of self-help. There are no gods or spiritual beings that will help human beings. It does not condemn the varna system.
- The texts containing the teachings of Mahavira are **called the Agamas**.
- In later times, it got divided into **two sects: Shvetambaras (white-clad) under Sthalabahu and Digambaras (sky-clad) under the leadership of Bhadrabahu**.

Hindi Becomes Third Official Language in UAE

- **United Arab Emirates (UAE)** has included **Hindi as the third official language** in their judicial system alongside **Arabic and English** to make justice delivery system simpler and more accessible to Indians.
- Indians form the **largest immigrant community in the UAE**, with more than three million living in Dubai.
- The landmark decision undertaken by the judicial department will benefit a major chunk of workers, who mostly come from Hindi speaking regions of central and north India.
- The Indian workforce in UAE can now file their complaints to the labour courts in the country in their own mother-tongue.

NOTE: Hindi is popular in many other countries, including Nepal, Guyana, Trinidad and Tobago, Suriname, Fiji and Mauritius. **Hindi and Nepalese share the same script- Devnagari.**



Social Issues

Highlights

- World Cancer Day (42)
- Endosulfan in Kerala (42)
- Awareness Campaign on Trans Fatty Acids (43)
- POSHAN Abhiyaan (43)
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- e-AUSHADHI Portal (44)
- National Deworming Day (44)

World Cancer Day

World Cancer Day is organized by the Union for International Cancer Control (UICC) and celebrated each year on 4 February.

- The theme for 2019-2021 is "I am and I will" – all about individual stories and commitments to beat cancer.
- The objective of World Cancer Day is aligned with Sustainable Development Goal (SDG-3.4), i.e. to reduce by one third premature mortality from non-communicable diseases through prevention and treatment and promote mental health and well-being by 2030.
- The World Cancer Day aims to save millions of preventable deaths each year through education, raising awareness and by pressing governments and individuals across the world to take action.

Cancer

- Cancer is a generic term for a large group of diseases characterized by the growth of abnormal cells beyond their usual boundaries that can then invade adjoining parts of the body and/or spread to other organs.
 - Other common terms used for cancer are malignant tumours and neoplasms.
- Cancer is the second leading cause of death globally and is estimated to account for 9.6 million death in 2018.

Union for International Cancer Control (UICC)

- The Union for International Cancer Control (UICC) is a membership organisation to help the global health community accelerate the fight against cancer.
- It was founded in 1933 and is based in Geneva.

Non-Communicable Diseases Burden in India

- According to recently released data by the World Health Organisation (WHO), nearly 61% of deaths in India are now attributed to non-communicable diseases (NCDs).
 - Cardiovascular diseases (coronary heart disease, stroke, and hypertension) contribute to 45% of all NCD deaths, followed by chronic respiratory disease (22 %), cancer (12 %) and diabetes (3%).
- NCDs are also a major cause and consequence of poverty.
- Although, the percentage of deaths from NCDs is still lower in India compared to many other countries across the world but the burden is rapidly increasing because of changing lifestyle and factors like pollution.
 - Four risk factors responsible are tobacco, unhealthy diet, physical inactivity and harmful use of alcohol.
 - Major metabolic risk factors are obesity, and raised blood pressure, blood glucose and blood cholesterol levels.

Endosulfan in Kerala

In news because the representatives of the victims of endosulfan poisoning in Kasaragod district of Kerala called off the sit-in in front of the state Secretariat in Thiruvananthapuram.

What is EndoSulfan?

- Endosulfan is an organochlorine insecticide which was first introduced in the 1950s and is commonly known by its trade name Thiodan.

Note:

Use of Endosulfan

- Sprayed on crops like cotton, cashew, fruits, tea, paddy, tobacco etc. for control of pests such as whiteflies, aphids, beetles, worms etc.

Impact of Endosulfan

- Environment
 - Endosulfan in the environment gets accumulated in food chains leading to higher doses causing problems.
 - **If Endosulfan is released to water, it may bioconcentrate in aquatic organisms.**
- Humans And Animals
 - **Endosulfan ingestion results in diseases ranging from physical deformities, cancer, birth disorders and damage to the brain and nervous system.**

Ban on Endosulfan

- The Supreme Court in India has banned the manufacture, sale, use, and export of Endosulfan throughout the country, citing its harmful health effects in 2015.
- Endosulfan is listed under both Rotterdam Convention on the Prior Informed Consent and the Stockholm Convention on Persistent Organic Pollutants.

Rotterdam Convention 1998

- The convention aims to promote cooperation and responsibility sharing measures amongst different countries dealing with trade in hazardous chemicals and pesticides.
 - PIC, i.e Prior Informed Consent is the main feature of the convention and is legally binding on the party members.
 - The Convention creates obligations for the implementation of the Prior Informed Consent (PIC) procedure.
 - PIC facilitates information exchange about nature and trade-related information amongst the party members.

Stockholm Convention 2001

- The convention aims to reduce the concentration of persistent organic pollutants (POPs) which are chemical substances that not only remain in the atmosphere for longer periods but also possess the ability to bioaccumulate.
 - The convention had listed 12 POPs as 'dirty dozen'.

Awareness Campaign on Trans Fatty Acids

- The Kerala Health Department has drawn up an action plan to generate public awareness on the **harmful effects of trans fatty acids (TFA)** in commercially available food items and to encourage the local food industry to meet the current statutory limits set for TFA.
- This initiative is being supported by the World Bank, World Health Organisation (WHO), the Food Safety and Standards Authority of India (FSSAI), and the State Food Safety wing.

Trans fatty acids		Enforcement activities	
Action plan			
Massive awareness campaigns			
<ul style="list-style-type: none"> ■ On harmful effects of trans fat and HFSS¹ in foods at public places, hospitals, movie halls 	<ul style="list-style-type: none"> ■ IEC² campaigns to rope in celebrities as ambassadors of healthy food 	<ul style="list-style-type: none"> ■ Identify manufacturers and suppliers of PHVOs³ to bakeries, restaurants, collect samples 	<ul style="list-style-type: none"> ■ Monitor oils, fats used for frying, making snacks; test samples
<ul style="list-style-type: none"> ■ Monitor retail sales of PHVOs and test samples of various brands 		<ul style="list-style-type: none"> ■ Testing of a range of food products to assess trans fat content 	<ul style="list-style-type: none"> ■ Meetings with bakers, restaurant owners, unorganised sector FBOs⁴
<ul style="list-style-type: none"> ■ Scientific sessions on TFA and training on using TFA-free alternatives 		<ul style="list-style-type: none"> ■ Preparing guidelines on action to be taken against violators 	

1. HIGH FAT, SUGAR, SALT
2. INFORMATION, EDUCATION, COMMUNICATION
3. PARTIALLY HYDROGENATED VEGETABLE OILS
4. FOOD BUSINESS OPERATORS

POSHAN Abhiyaan

- Recently, Ministry of Women and Child Development organized the 4th meeting of National Council on India's Nutrition Challenges under POSHAN Abhiyaan.
 - **POSHAN Abhiyaan (National Nutrition Mission) was launched by the government on March 8, 2018.**
 - **The Abhiyaan targets to reduce stunting, undernutrition, anemia (among young children, women and adolescent girls) and reduce low birth weight.**
 - The target of the mission is to bring down stunting among children in the age group 0-6 years from 38.4% to 25% by 2022.
 - POSHAN Abhiyaan aims to ensure service delivery and interventions by use of technology, behavioural change through convergence and lays-down specific targets to be achieved across different monitoring parameters.

The National Council on India's Nutrition Challenges

- Set up under the Poshan Abhiyaan, the Council is also known as National Council on Nutrition (NCN).

- The NCN is headed by the Vice-Chairman of the NITI Aayog.
- It provides policy directions to address nutritional challenges in the country and review programmes.
- **It is the national level coordination and convergence body on nutrition.**

Kerala's Village Millet Scheme

- Kerala government has decided to expand its Millet Village Scheme to other districts in the state.
- The Millet Village scheme was first launched in Attappady in Palakkad district of Kerala.
- Under the Millet Village scheme, the government promoted the harvest of ragi (finger millet), thina (foxtail millet), cholam (sorghum) and kuthiravaali (barnyard millet).
- The project aimed at protecting seeds of traditional varieties of millets and ensures food security and livelihood for tribals.
- The scheme also provides financial assistance to farmers for cultivation of millets crops.

Millets Production in India

- Millets are cultivated in low-fertile land, mountainous, tribal and rain-fed areas. These areas include Andhra Pradesh, Chhattisgarh, Gujarat, Haryana, Madhya Pradesh, Rajasthan, Maharashtra, Karnataka, Uttar Pradesh, Tamil Nadu, and Telangana.
- India celebrated 2018 as the national year of millets.
- Also, India's proposal to observe an International Year of Millets in 2023 has been approved by the Food and Agriculture Organisation (FAO).

Advantages of Millets

- **Millets also are known as 'nutri-cereals'** and have a high protein content, short growing season, are climate change resilience and have low water requirement.
- Millets are less expensive and nutritionally superior to wheat & rice owing to their high protein, fibre, vitamins and minerals like iron content. Millets are also rich in **antioxidants**.
- Millets **can provide nutritional security and act as a shield against nutritional deficiency**, especially among children and women. Its **high iron content** can fight high prevalence of anaemia in India women of reproductive age and infants.

- Millets have low carbon and water footprint and can withstand high temperature.

e-AUSHADHI Portal

- Recently, the Government launched the **e-AUSHADHI portal**, for **online licensing of Ayurveda, Siddha, Unani and Homoeopathy drugs and related matters**.
- The portal is intended for increased transparency, improved information management facility, improved data usability and increased accountability.
- This new e-portal is an **acronym for Ayurveda, Unani, Siddha and Homeopathy Automated Drug Help Initiative**.
- It will provide **real time information** of the licensed manufactures and their products, cancelled and spurious drugs, contact details of the concerned authority for specific grievances, and thereby **aid the licensing authority, manufactures and consumers**.
- It can be noted that recently the Cabinet also approved the **draft National Commission for Indian Systems of Medicine (NCIM) Bill, 2018** which seeks to enhance transparency.

National Deworming Day

- Recently, the Ministry of Health and Family Welfare conducted its eighth round of National Deworming Day. It was conducted in several rounds, from February 10-14, 2019.
- NDD (first round) is conducted on February 10 each year. It was **launched in 2015 with aim to reduce the prevalence of Soil-Transmitted Helminths and parasitic intestinal worms**.
- Helminths (worms) which are transmitted **through soil contaminated with faecal matter** are called soil-transmitted helminths (Intestinal parasitic worms). **Roundworm** (*Ascaris lumbricoides*), **whipworm** (*Trichuris trichiura*) and **hookworms** (*Necator americanus* and *Ancylostoma duodenale*) are worms that infect people.
- According to World Health Organization 241 million children between the ages of 1 and 14 years are at risk of parasitic intestinal worms in India, also known as Soil-Transmitted Helminths (STH).

- The objective of National Deworming Day is to deworm all preschool and school-age children (enrolled and non-enrolled) **between the ages of 1-19 years** through the platform of schools and Anganwadi Centers in order to improve their overall health, nutritional status, access to education and quality of life.
- The program is implemented with the **coordination of Ministries of Women and Child Development and Human Resource Development.**
- It falls under the purview of the **Extended Gram Swaraj Abhiyan** and is committed to improve the nutritional uptake in all children and adolescents.



Security

Highlights

- Project-75 India (46)
- Multinational Training Exercise 'CUTLASS EXPRESS' (46)
- Helicopter-Launched Anti-tank Missile 'Helina' (46)

Project-75 India

- Recently the government gave the approval to construct six new-generation conventional stealth submarines under the **"strategic partnership (SP)" model**.
- Under the Strategic Partnership (SP) model, the project will be executed by an **Indian shipyard collaborating with a foreign collaborator** under the "Make in India" policy.
- The SP model is aimed at boosting the **Indian private sector's role** in the production of new-generation weapon systems, in collaboration with global arms manufacturers through joint ventures.
- The **six submarines will be constructed under Project-75 India (P-75I)** and will have both land-attack cruise missiles and air-independent propulsion for greater underwater endurance.

Multinational Training Exercise 'CUTLASS EXPRESS'

- Recently, the **Indian Navy participated in CUTLASS Express exercise** from January 27-February 6, 2019.
- Cutlass Express is an **exercise sponsored by U.S. Africa Command (USAFRICOM) and conducted by Naval Forces Africa (NAVAF)**.

- The objective is to assess and improve maritime law enforcement capacity, promote national and regional security in eastern Africa, inform planning and operations, and shape security force assistance (SFA) efforts.
- Naval, Coast Guard and Marine Police personnel from East African countries were jointly trained by mentors from USA, India, and Netherlands, with support of International Maritime Organization, Combined Maritime Force and European Naval Forces.

Helicopter-Launched Anti-tank Missile 'Helina'

- Recently, India has test-fired **Helina, the helicopter-launched version of the Nag anti-tank guided missile** with a hit range of 7-8 km from an Army chopper.
- It is developed by the **Defence Research and Development Organisation (DRDO)**.
- It is said to be one of the most-advanced anti-tank weapons in the world.
- It is guided by an **infrared imaging seeker (IIR) operating** in the lock-on-before-launch mode and helps in further strengthening the defense capabilities of the country.



Miscellaneous

Highlights

- The Future of Rail Report (47)
- Sri Lanka To Re-introduce Death Penalty (47)
- Rail Tunnel for Vizhinjam Port Connectivity (47)
- Ladakh's Dard Aryan Tribes (48)
- Ujjwala Utsav (48)
- PETROTECH – 2019 (48)
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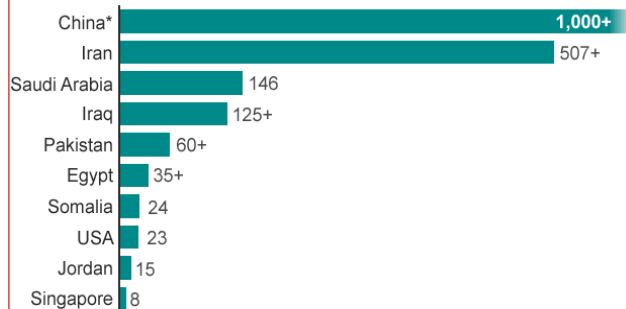
The Future of Rail Report

- The Minister of Railways recently launched the **International Energy Agency (IEA's)** Report “**The Future of Rail**”.
- “The Future of Rail” the **first-of-a-kind** report analyses the **current and future importance** of rail around the world through the perspective of its **energy and environmental implications**.
- This **first ever global report** has a **focus on India**, elaborating on the **unique social and economic role** of rail in India.

Sri Lanka To Re-introduce Death Penalty

- Sri Lanka has decided to end the country's **moratorium on capital punishment** due to an upsurge in drug-related crimes.
- Sri Lanka had imposed a moratorium on the capital punishment penalty in 1976.

Executions around the world in 2017



*Official data unavailable, but Amnesty International estimates that executions in China were in the thousands

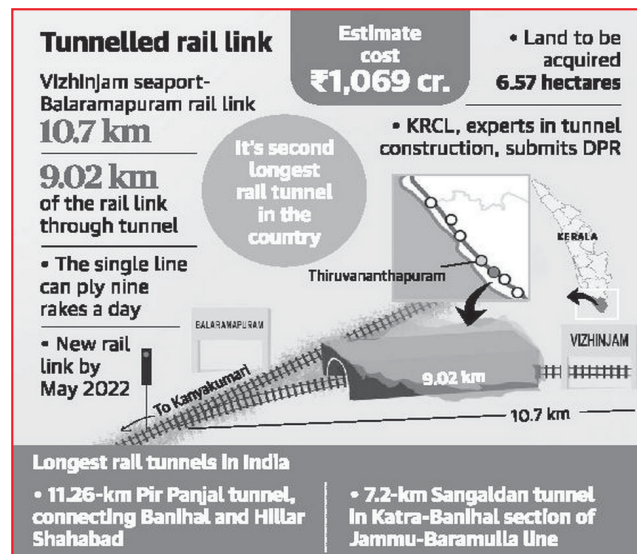
Source: Amnesty International

BBC

- Human rights groups have criticized the decision and said that there is no evidence that carrying out executions would serve as a deterrent to drug use or trafficking.
- **Global Trends**
 - As of October 2018, 170 States have either abolished the death penalty or introduced a moratorium on its use.
 - However, 23 states including India, have carried out at least one execution in the past decade.

Rail Tunnel for Vizhinjam Port Connectivity

- A 10.7 km railway line, including a 9.02 km tunnel, has been proposed to connect Balaramapuram station on the **Kanyakumari-Thiruvananthapuram railway line** to the upcoming **Vizhinjam International Multipurpose Deepwater Seaport**.



Note:

- It will be the **second longest railway tunnel of the country on completion after the Pir Panjal Tunnel which is in Jammu and Kashmir.**
- The development of the Balaramapuram railway station is being explored as part of the rail link to the seaport.

Ladakh's Dard Aryan Tribes

- **Dard Aryan tribe** of Ladakh has requested the central government to intervene to protect their culture and legacy.
- The 'Dard' is derived from a **Sanskrit word, 'Daradas'**, which refers to **people who live on hillsides.**
- Dard Aryan – **believed to be the original descendants of 'pure Aryan race'** – tribe is known for its liberal customs and ornate costumes. Many researchers believe that the 'Aryans of Ladakh' or the 'Brokpas' were a part of Alexander's army and had come to the region over 2,000 years ago.
- They live in the villages of Dha and Hanu (commonly called as Dhahanu), Darchik, and Gahanu – situated 163 km southwest of Leh, the administrative capital of Ladakh.
- The rich heritage of the Dard Aryans is under threat **due to rapid modernization, migration and religious conversion.**

Ujjwala Utsav

- The oil industry has observed Ujjwala Utsav to celebrate the role played by all stakeholders – District Nodal Officers, Policymakers, Distributors, and beneficiaries – in making **Pradhan Mantri Ujjwala Yojana (PMUY)** a success.
- The event was organized under the aegis of **Ministry of Petroleum & Natural Gas.**
- PMUY anthem – Ujjwala Bharat Ujjwala-was also launched during the event.

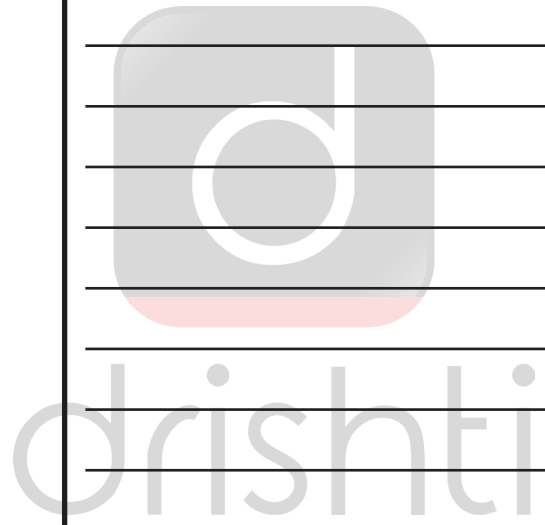
PETROTECH – 2019

- PETROTECH-2019, **India's flagship hydrocarbon conference** is being organised at India Expo Centre, Greater Noida, Uttar Pradesh under the aegis of the Ministry of Petroleum & Natural Gas, Government of India.
- This is the **13th edition with the theme of – 'Shaping the New Energy World through Innovation and Collaboration'.**
- PETROTECH is a **biennial platform** for national and international experts in the oil & gas industry to exchange views and share knowledge, expertise, and experiences.

Mobile-App e-Cocoon

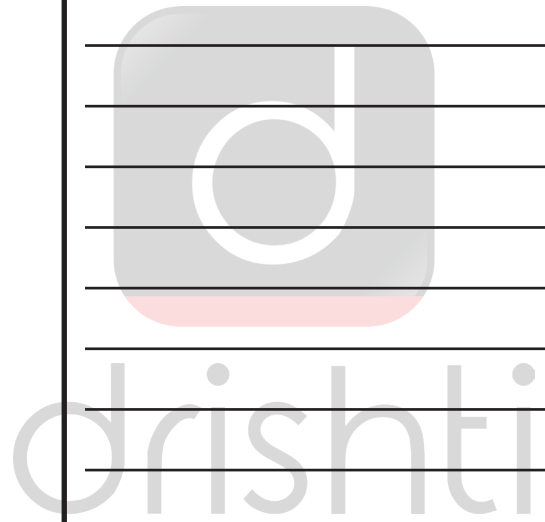
- Recently **Ministry of Textiles** launched a **mobile application e-cocoon for quality certification in silkworm seed sector.**
- Mobile app e-cocoon will be used for **quality certification in silk worm sector** as it will be used by the Seed Analysts and Seed Officers nominated under Central Seed Act for system and product certification through real time reporting.
- India has the unique distinction of **being the only country producing all the five known commercial silks-Mulberry, Tropical Tasar, Oak Tasar, Eri and Muga.**
- Mulberry Silk is produced mainly in Karnataka, Andhra Pradesh, Assam, Tamil Nadu, Jammu and Kashmir, Jharkhand and West Bengal.
- Non-Mulberry Silk or Vanya Silk (Tasar, Eri and Muga) is produced in Odisha, Chhattisgarh and North-Eastern States.
- **North East is the only region** that produces four varieties of silk-Mulberry, Oak Tasar, Muga and Eri.
- India is the **second largest producer of silk after China** and the largest consumer of silk.



Key Points**Details****Summary**

Key Points

Details



Summary