

1. NATIONAL

1.1 President of India Inaugurated 34th Surajkund International Crafts Mela in Surajkund, Haryana

- President of India Inaugurated 34th Surajkund International Crafts Mela in Surajkund, Faridabad, Haryana from Feb 1 - 16. President of India Shri. Ram Nath Kovind inaugurated the 34th edition of Surajkund International Crafts Mela in Haryana.
- The Mela is organized by the SurajkundMela Authority & Haryana Tourism in collaboration with Union Ministries of Tourism, Textiles, Culture and External Affairs.

Key Points:

- Objective:-The main motto of this mela is to promote handicrafts, rural crafts, arts and the culture of the Country and also to highlight our country's heritage among new generations.
- Surajkund International Crafts Mela (Largest crafts fair in the world) will be held every year at Surajkund in Faridabad district, Haryana. In 2020, the Mela was held from Feb 1 to 16.
- Haryana Police have launched Remotely Operated Vehicle (ROV) to enhance the security of the fair.
- He had visited the pavilion of the Himachal Pradesh with theme 'Apna Ghar' and Himachal Pradesh has been chosen as theme State in the 34th Surajkund Crafts Mela, 2020. Nearly 20 Countries & all Indian States participated in the Mela.

1.2 Santusht Portal

- The Ministry of Labour and Employment has launched 'Santusht portal' to monitor the implementation of labour laws at the grassroots level.
- The objective of 'Santusht' is to promote transparency, accountability, effective delivery of public services and implementation of policies, schemes of Ministry of Labour and Employment at the grassroots level through constant monitoring.
- Entering 2020, the government aims to implement all four codes on wages, industrial relations, social security and occupational safety, health and working conditions. These are expected to improve ease of doing business and safeguard the interest of workers.
- For public grievances, Centralized Public Grievance Redressal and Monitoring System (CPGRAMS) portal is already functional.

Centralized Public Grievance Redressal and Monitoring System (CPGRAMS)

- It is an online web-enabled system developed by National Informatics Centre (Ministry of Electronics & IT [MeitY]), in association with Directorate of Public Grievances (DPG) and Department of Administrative Reforms and Public Grievances (DARPG) under the Ministry of Personnel, Public Grievances & Pensions.

- It aims to receive, redress and monitor the grievances of the public.
- It provides the facility to lodge grievances online from any location.
- It enables the citizen to track online the grievance being followed up with Departments concerned and also enables DARPG to monitor the grievance.

1.3 Pradhan Mantri Matru Vandana Yojana Awards

- States, Union Territories and Districts have been awarded the Pradhan Mantri Matru Vandana Yojana Awards by the Ministry of Women & Child Development for best performances in the implementation of the maternity benefit programme since its inception in 2017.

Best performers

- States/ UTs with a population of more than 1 Crore: Madhya Pradesh - Andhra Pradesh - Haryana
- States/ UTs having a population of less than 1 Crore: Dadra & Nagar Haveli - Himachal Pradesh - Chandigarh
- Districts having a population of more than 1 Crore: Indore (Madhya Pradesh) - Kurnool (Andhra Pradesh) - South SalmaraMankachar (Assam)
- Districts having a population of less than 1 Crore: Serchhip (Mizoram) - Unain (Himachal Pradesh) and Puducherry

Matru Vandana Saptah

- Matru Vandana Saptah (MVS) was held from 2nd to 8th December 2019.
- The objective of observing MVS was to increase the implementation of the Scheme and create a healthy competition amongst States/ UTs.
- The theme of the Saptah was “towards building a healthy nation – Surakshit Janani, Viksit Dharini”.

1.4 Anti-Dumping Duty on PTA Abolished

- The government has abolished anti-dumping duty on a chemical called Purified Terephthalic Acid (PTA). The same was mentioned by the Finance Minister in her Budget speech.
- PTA is an important raw material which is used in making various products, including polyester fabrics.
- PTA makes up for around 70-80% of a polyester product and is, therefore, important to those involved in the manufacture of man-made fabrics or their components.
- The latest move has come after persistent demand from the manufacturing and textile industry to source PTA at an affordable rate.

Meaning and Purpose of Anti Dumping Measures

- Dumping is said to occur when the goods are exported by a country to another country at a price lower than the price it normally charges in its own home market. This is an unfair trade practice which can have a distortive effect on international trade.

- Anti-dumping is a measure to rectify the situation arising out of the dumping of goods and its trade distortive effect.
 - Many countries impose stiff duties (known as anti-dumping duties) on products they believe are being dumped in their national market, undercutting local businesses and markets.
- The use of anti-dumping measure as an instrument of fair competition is permitted by the World Trade Organisation (WTO).

Background

- The anti-dumping duty on PTA was imposed after domestic manufacturers approached the Directorate General of Trade Remedies (DGTR) in October 2013.
- DGTR imposed anti-dumping duties on PTA imported from South Korea, Thailand, China, Indonesia, Taiwan, Iran and Malaysia between 2014 and 2016.
- However, companies using PTA to manufacture polyester products claimed that the move left them with limited domestic suppliers of PTA.
 - The companies alleged that the cost of PTA became more expensive domestically, which made their own products pricier and less attractive for their domestic and international buyers.

Directorate General of Trade Remedies

- It is the apex national authority under the Ministry of Commerce and Industry for administering all trade remedial measures including anti-dumping, countervailing duties and safeguard measures.
- It provides trade defence support to the domestic industry and exporters in dealing with increasing instances of trade remedy investigations instituted against them by other countries.

Similar Case of Mono Ethylene Glycol

- Mono Ethylene Glycol (MEG) is another such raw material used in the manufacturing of polyester and is under anti-dumping duty investigation initiated by the DGTR, recently.
- The manufacturers of MEG have argued that top MEG exporters like Kuwait, Saudi Arabia, Singapore and the United Arab Emirates (UAE) have been dumping the product because of which the domestic industry is suffering.
- Textile Companies have approached DGTR against the imposition of anti-dumping duties on MEG as the step would lead to the same situation that developed after imposing anti-dumping duty on PTA.

1.5 Conference on Capacity Building Reforms and iGOT

- Recently, the Department of Personnel and Training (DoPT) had organised a conference to explore the training requirements of Government Officers at various levels of hierarchy.
 - DoPT is the nodal department for the training of Government functionaries and is primarily responsible for formulating policies with regard to capacity building and strengthening the Human resources within the government.

- During the conference, it has been decided to widen the scope and coverage of the initiative of Integrated Government Online Training (iGOT) programme which was launched in December 2018.
 - iGOT aims to augment the existing training mechanism with online module-based training.
- It also aims to make training inputs available to Government officers on-sight and on-flexi-time basis.
- A consultation paper on ‘Approach to Strategy and Implementation of iGOT 2.0’ was also released.
 - iGOT 2.0 will play a major role in achieving a comprehensive and systematic capacity building initiative for the Civil Servants in the light of the current challenges like lack of political will, lack of communication and coherence, implementation issues, etc.
- The conference also intended to familiarize the Cadre Controlling Authorities (CCAs) and Central Training Institutes (CTIs) with the new digital capacity-building framework to deliver online content.

1.6 World Heritage Site Certificate to Jaipur

- The Chief Minister of Rajasthan dedicated the United Nations Educational, Scientific and Cultural Organisation (UNESCO) world heritage site certificate for Jaipur to the people on 5th February, 2020.
- The walled city of Jaipur, famous for its grid plan-based architecture and buildings constructed with the pink facade, was declared a world heritage site by UNESCO in July 2019.
- A brochure on “Intangible Heritage Promotion Project” has also released.

Intangible Heritage Promotion Project

- It is signed between the Tourism Department of Rajasthan and UNESCO and aims at developing 10 new cultural tourism destinations in the State.
- It would be implemented during the next three years at a cost of Rs. 7.50 crore.
- It will directly benefit about 1,500 artists in the Districts such as Jodhpur, Barmer, Jaisalmer and Bikaner, known for folk music and traditional handicrafts.

Jaipur

- It was founded in 1727 AD by the then Kachwaha Rajput ruler of Amber, Sawai Jai Singh II. It also serves as the Capital City of the State of Rajasthan.
- The City was established on the plains and built according to a grid plan interpreted in the light of Vedic architecture.
- The City's urban planning shows an exchange of ideas from ancient Hindu and modern Mughal as well as Western cultures.

- Designed to be a commercial capital, the City has maintained its local commercial, artisanal and cooperative traditions to this day.
- The iconic monuments in the city include the Govind Dev temple, City Palace, Jantar Mantar, Hawa Mahal etc.
- Jaipur has become the second City of the Country after Ahmedabad to get the recognition of the World Heritage Site.

1.7 Amrabad Tiger Reserve

- Amrabad Tiger Reserve lies in Nallamala hills of Telangana.
- It is India's second-largest tiger reserve, next only to Nagarjunasagar, Srisailam Tiger Reserve (Andhra Pradesh and Telangana).
- It has a large presence of the Chenchu tribe.
- It harbours great biodiversity, consisting of around 70 species of mammals, more than 300 hundred avian varieties, 60 species of reptiles and thousands of insects, all supported and nourished by more than 600 different plant species.

Chenchu Tribe

- The Chenchus are Scheduled Tribe in the Indian states of Andhra Pradesh, Telangana, Karnataka, and Odisha. Many Chenchus live in the dense Nallamala forest of Andhra Pradesh.
- They are an aboriginal tribe whose traditional way of life has been based on hunting and gathering.
- The Chenchus speak the Chenchu language, a member of the Dravidian language family.
- Chenchu's relationship with non-tribal people has been largely symbiotic.

1.8 International Intellectual Property Index: US Chamber of Commerce

- India has slipped to 40th position on the International Intellectual Property (IP) Index, 2020 from the 36th position in 2019.
- It is released by the US Chamber of Commerce's Global Innovation Policy Center.
- The US, the UK, France, Germany and Sweden are the top five economies on the IP Index in 2020.
- India's rank has slipped despite the government's focused efforts to support investments in innovation and creativity through increasingly robust IP protection and enforcement, since the release of the National Intellectual Property Rights (IPR) Policy, 2016.
 - It encompasses and brings to a single platform all IPRs, taking into account all inter-linkages and thus aims to create and exploit synergies between all forms of intellectual property (IP), concerned statutes and agencies.
 - Its implementation has improved the speed of processing for patent and trademark applications and increased awareness of IP rights among Indian innovators and creators.

US Chamber of Commerce

- It is the world's largest business federation representing the interests of more than 3 million businesses of all sizes, sectors, and regions, as well as state and local chambers and industry associations.
- The 2020 U.S. Chamber International IP Index titled 'Art of the Possible' creates a template for economies that aspire to become the 21st century, knowledge-based economies through more effective IP protection.
 - In its eighth edition, the Index maps the IP ecosystem in 53 global economies, representing over 90% of global GDP.
 - The Index evaluates the IP framework in each economy across 50 unique indicators which industry believes represent economies with the most effective IP systems. The indicators create a snapshot of an economy overall IP ecosystem and span nine categories of protection: patents, copyrights, trademarks, design rights, trade secrets, commercialization of IP assets, enforcement, systemic efficiency, and membership and ratification of international treaties.

1.9 Increasing Neonatal Deaths in MP

According to the National Health Mission (NHM) data, Madhya Pradesh has recorded the highest percentage of newborn deaths at 11.5% against the total admissions to government-run Sick Newborn Care Units (SNCUs) in the past three years across the country.

- The Country's average percentage of newborn deaths is at 7 %.
- The neonatal deaths in India mainly occur due to premature births and low birth weight (35.9%), pneumonia (16.9%), birth asphyxia and birth trauma (9.9%), other non-communicable diseases (7.9%), diarrhoea (6.7%), congenital anomalies(4.6%) and infections (4.2%).

According to **UNICEF**, in India (2018),

- Under 5 Mortality Rate is 39 deaths per 1000 live births.
- Infant Mortality Rate (under one year of age) is 32 deaths per 1000 live births.
- Neonatal Mortality Rate (during the first 28 days of life) is 24 deaths per 1000 live births.

Key Points

- **Madhya Pradesh Compared to the National Scenario:**
 - The admissions of neonates in the hospital of Madhya Pradesh have dropped (lower than West Bengal, Rajasthan and Uttar Pradesh) from April 2017 to December 2019 but the percentage of deaths still remained at 12.2%.
 - Within the same time period, West Bengal reported maximum neonatal deaths (34,344) in the country but reported the declining percentage of deaths (from 9.2% in 2017 to 8.9% in 2019) which coincided with a decrease in admissions at hospitals.

- **Scenario in Tribal and Rural areas of MP:**
 - Most Tribal (31 out of 51) Districts in Madhya Pradesh report low nutrition and weak maternal health levels and thus death percentage of more than 10.
 - The absence of community referrals, significantly aided by Accredited Social Health Activist (ASHA) workers is lacking in rural and tribal areas as only one in ten sick neonates born outside a hospital is taken to an SNCU.
 - It is majorly due to the absence of transport, inability to identify a disease by parents, and lack of awareness.
- **Scenario in Urban Areas:**
 - Urban areas of Madhya Pradesh report a higher death percentage as they offer tertiary care, and admit several serious cases from peripheral districts.
- **Reasons:**
 - Staff crunch, low community referrals, absence of a special neonatal transport service to health centres, reliance on units in cities as last resort and the non-availability of enough units to cater to increasing institutional deliveries have contributed to the increase in the percentage of deaths.
 - Only one against the required five (82% shortfall) of surgeons, gynaecologists, physicians and paediatricians are available at hospitals.
 - With increasing institutional deliveries in the State (80.8% as per the National Family Health Survey-4, 2015-2016), the number of neonatal care units has not increased proportionally.
- **Sex Ratio in Admissions at Hospitals:**
 - Madhya Pradesh has recorded an abysmal sex ratio in admission (number of girls admitted against 1,000 boys) at 663 in the three years against the country average of 733.
 - More admissions of boys (almost three-fourths of the cases) show a bias against the girl child in society,
 - The other reason for the lower admissions of a girl child can be attributed to better immunity among girl children to combat diseases.
- **Cases of Under reporting:**
 - The NHM data also reveals the cases of underreporting in 43 districts where government officials didn't report more than 50% of deaths of children under five to keep clean records.
- **Accredited Social Health Activist (ASHA)**
 - ASHA is a trained female community health activist. Selected from the community itself and accountable to it, the ASHA works as an interface between the community and the public health system.
 - The role of an ASHA is that of a community-level care provider. This includes a mix of tasks: facilitating access to health care services, building awareness about health care entitlements

especially amongst the poor and marginalized, promoting healthy behaviours and mobilizing for collective action for better health outcomes and meeting curative care needs as appropriate to the organization of service delivery in that area and compatible with her training and skills.

1.10 Central Administrative Tribunal (CAT)

- The annual All India Conference of the Central Administrative Tribunal (CAT) was held in New Delhi on 16th February, 2020.
- The Conference was presided over by the Union Minister for Law and Justice.
- Apart from central services issues, the CAT will soon have jurisdiction to handle disputes and other issues related to the non-central services in the Union Territory of Jammu and Kashmir.

Central Administrative Tribunal

- Article 323 - A: The Central Administrative Tribunal had been established under Article 323 - A of the Constitution for adjudication of disputes and complaints with respect to recruitment and conditions of service of persons appointed to public services and posts in connection with the affairs of the Union or other authorities under the control of the Government.
 - In pursuance of Article 323-A, the Parliament has passed the Administrative Tribunals Act in 1985. The act authorises the Central government to establish one Central Administrative Tribunal and the State Administrative Tribunals. This act opened a new chapter in the sphere of providing speedy and inexpensive justice to the aggrieved public servants.
- **Benches:** There are 17 Benches and 21 Circuit Benches in the Central Administrative Tribunal all over India.
- **Objective and Composition:** The CAT is a specialist body consisting of Administrative Members and Judicial Members who by virtue of their specialized knowledge are better equipped to dispense speedy and effective justice. It was established in 1985.
 - The Chairman, who has been a sitting or retired Judge of a High Court, heads the Central Administrative Tribunal.
- **Operating Principles:**
 - It exercises jurisdiction only in relation to the service matters of the parties covered by the Administrative Tribunals Act, 1985.
 - The Tribunal is guided by the principles of natural justice in deciding cases and is not bound by the procedure, prescribed by the Civil Procedure Code.
 - Under Section 17 of the Administrative Tribunal Act, 1985, the Tribunal has been conferred with the power to exercise the same jurisdiction and authority in respect of contempt of itself as a High Court.

- Independence: The conditions of service of the Chairman and Members are the same as applicable to a Judge of High Court as per the Administrative Tribunals (Amendment) Act, 2006.
- Appeals against Orders: The orders of Central Administrative Tribunal are challenged by way of Writ Petition under Article 226/227 of the Constitution before respective High Court in whose territorial jurisdiction the Bench of the Tribunal is situated.

1.11 100 years of Jamshedpur City

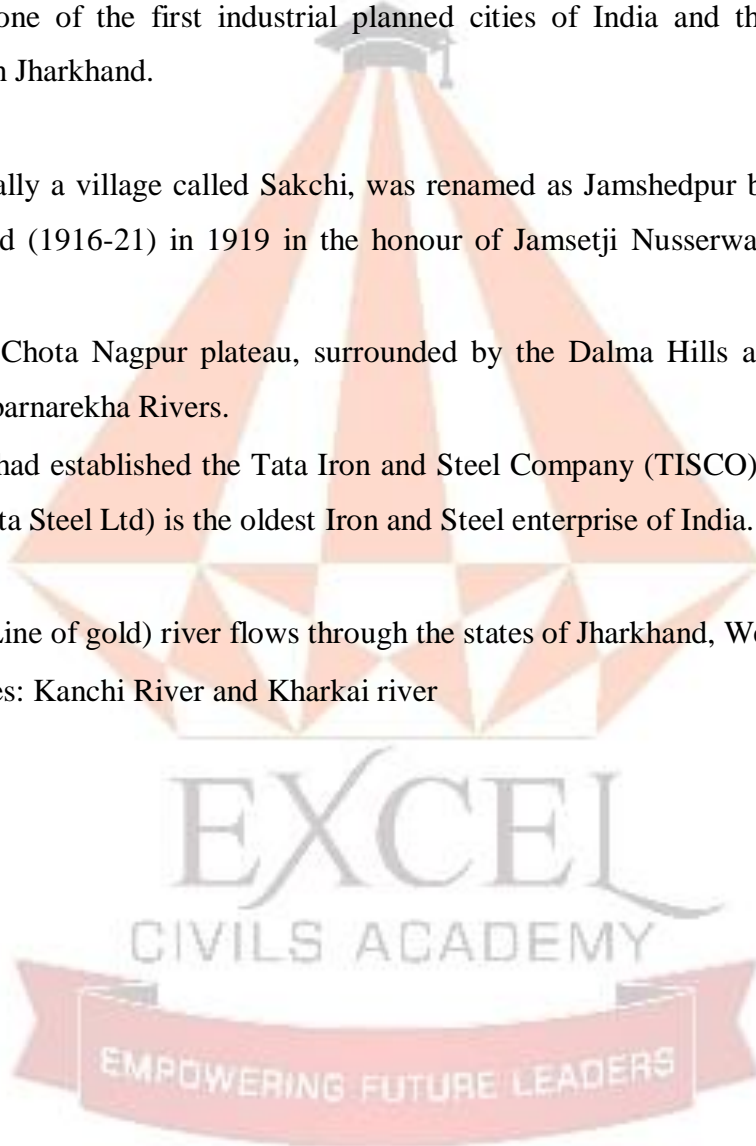
- Jamshedpur City is celebrating the completion of 100 years.
- Jamshedpur is one of the first industrial planned cities of India and the most populous urban agglomeration in Jharkhand.

Key Points

- The city, originally a village called Sakchi, was renamed as Jamshedpur by then Viceroy of India Lord Chelmsford (1916-21) in 1919 in the honour of Jamsetji Nusserwanji Tata, founder of the Tata group.
- It is located in Chota Nagpur plateau, surrounded by the Dalma Hills and at the confluence of Kharkai and Subarnarekha Rivers.
- Jamshedji Tata had established the Tata Iron and Steel Company (TISCO) in Jamshedpur in 1907. TISCO (now Tata Steel Ltd) is the oldest Iron and Steel enterprise of India.

Subarnarekha River

- Subarnarekha (Line of gold) river flows through the states of Jharkhand, West Bengal and Odisha.
- Major Tributaries: Kanchi River and Kharkai river



2. INTERNATIONAL RELATIONS

2.1 Ujh Multipurpose (National) Project

Why in news?

The Minister of State for Development of North Eastern Region (I/C), Prime Minister's Office, Personnel, Public Grievances & Pensions, Atomic Energy and Space, Dr. Jitendra Singh and Sh. Rattan Lal Kataria, Union Minister of State for Jal Shakti chaired a meeting on 03.02.2020 to fast-track the implementation of Ujh Multipurpose (National) Project, Jammu & Kashmir.

Highlights of the meeting:

- Secretary (WR, RD & GR), Ministry of Jal Shakti, other officers from Ministry of Jal Shakti, Ministry of Home Affairs, Ministry of Power, State Government of Punjab and UT of J&K participated in the Meeting.
- As per Government's commitment to fast track utilization of India's rights under Indus Waters Treaty, the project is planned to be constructed in Kathua District of J&K on the River Ujh which is a major tributary of River Ravi.
- This project will store around 781 Million Cubic meter of waters of river Ujh (a tributary of river Ravi). After construction of the project, utilization of waters of Eastern Rivers allotted to India as per the Indus Water Treaty would be enhanced by utilizing of the flow that presently goes across border unutilized.
- It was decided that the project will be constructed in two stages. The stage-I of the project costing about 5850 crore has already been accepted by Advisory Committee of DoWR, RD & GR, Ministry of Jal Shakti and will now be presented to Expenditure Finance Committee for firming up the funding arrangements.

2.2 Indus Waters Treaty:

- The Indus system comprises the Indus, Jhelum, Chenab, Ravi, Beas and Sutlej. The basin is shared by India and Pakistan.
- This is a unique treaty involving a third party since it was mediated by the World Bank.
- Under the Indus Waters Treaty signed between India and Pakistan in 1960, the waters of three rivers, namely Ravi, Sutlej and Beas (Eastern Rivers) shall be available for the unrestricted use of India.
- While, the waters of Western rivers - Indus, Jhelum, and Chenab were allocated to Pakistan except for specified domestic, non-consumptive and agricultural use permitted to India as provided in the Treaty.
- India is also allowed to use 20% of water from Indus, Chenab and Jhelum (Western rivers) for irrigation, power generation and transport purposes.
- India has also been given the right to generate hydroelectricity through run of the river (RoR) projects on the Western Rivers which, subject to specific criteria for design and operation is unrestricted.

- A Permanent Indus Commission was set up as a bilateral commission to implement and manage the Treaty.
- The Commission solves disputes arising over water sharing.
- The Treaty also provides an arbitration mechanism to solve disputes amicably.

2.3 Somalia declares massive locust infestation a national emergency

- Somalia has declared a national emergency following locust infestation sweeping the Horn of Africa, as insects devastate food supplies in one of the poorest and most vulnerable regions in the world. Agriculture Ministry said food sources for people and their livestock are at risk. Experts say the locust swarms are the result of extreme weather swings. Somalia's declaration -- the first country in the region to do so -- is aimed at boosting national efforts in tackling the hungry insects.

According to the regional Food Security and Nutrition Working Group, East Africa is already experiencing a high degree of food insecurity, with over 19 million people facing acute hunger. There have been six major desert locust plagues in the 1900s, the last of which was in 1987-89. The last major upsurge was in 2003-05.

2.4 Australian Minister resigns over funding scandal

- In Australia, the Agriculture Minister has been forced to resign over a funding scandal. She was found to have steered public money to Sports Clubs. Prime Minister Scott Morrison said Bridget McKenzie has resigned for failing to reveal she was a member of one of the shooting clubs that received taxpayer's cash.
- Morrison, who is already facing heavy criticism for his handling of Australia's months-long bushfire crisis, insisted he had dealt with the week-long grants scandal in a stable manner.

2.5 Mike Pompeo calls on countries to offer asylum to ethnic minorities fleeing China

- US Secretary of State Mike Pompeo on 2nd February, 2020 called on countries to offer asylum to ethnic minorities fleeing China's troubled Xinjiang region. He said this during his visit to oil-rich Kazakhstan, a country that borders the Xinjiang region of China.
- The US simply asks to provide safe refuge and asylum for those seeking to flee China. Kazakhstan has allowed several ethnic Kazakhs of Chinese citizenship who fled the region to stay in the country but has not given any of them asylum, a reluctance local activists attribute to Chinese pressure.

2.6 Organization of Islamic Cooperation rejects Donald Trump's peace plan

- Days after Arab League rebuffed United States President Donald Trump's Peace Plan for the Middle East calling it unfair to the Palestinians, the Organization of Islamic Cooperation (OIC) rejected it

yesterday asking its member states not to cooperate with the US with the implementation of the programme.

- The Pan Islamic body called all its member States not to implement the peace plan. A meeting of Foreign Ministers at OIC headquarters in the Saudi City of Jeddah called on all member States not to deal with this plan or cooperate with the US Administration efforts to enforce it in any way or form. The statement by the OIC said that it rejected this US-Israeli plan as it did not meet the minimum aspirations and legitimate rights of the Palestinian people and contradicted the terms of reference of the peace process. The OIC reiterated its support for east Jerusalem as capital of a future Palestinian state, stressing its Arab and Islamic character.
- The US Peace Plan for the Middle East unveiled by President Trump last week said that Israel would retain control of the disputed city of Jerusalem as its undivided capital and annex settlements on Palestinian lands.
- OIC has 57 member states and represent 1.5 billion Muslims worldwide. Iran could not be represented in the meeting, as the regional rival Saudi Arabia did not give timely visa for the delegates. Iran has already denounced the US Peace Plan.

2.7 World Bank calls for global effort against corona virus

- World Bank has called for global effort against the new coronavirus. In a statement, World Bank said, it is reviewing financial and technical resources that can be mobilized quickly to support affected countries.
- It is also closely coordinating with international partners to accelerate the international response. World Bank said it is monitoring the wider economic and social impacts of this crisis.

2.8 World Cancer Day being observed on 4th February

- World Cancer Day is observed on 4th February every year to create awareness about cancer and to encourage its prevention, detection, and treatment. Cancer is the second leading cause of death globally.

World Health Organization (WHO) has warned that Cancer cases will rise by 81 percent in low and middle-income countries by 2040 because of a lack of investment in prevention and care. It said, these countries have focused their limited resources on combating infectious diseases and improving maternal and child health instead of fighting cancer.

- WHO said, they often had the highest cancer mortality too.

2.9 New natural gas field containing 80 trillion cubic feet of gas discovered in UAE

- The United Arab Emirates on 3rd February, 2020 announced the discovery of a new natural gas field containing 80 trillion standard cubic feet of gas in the cross-border area of the Emirates of Abu Dhabi and Dubai.

- A press statement by the Government of Dubai stated that the discovery of the Jebel Ali gas field will contribute to achieving gas self-sufficiency for the nation and support the next phase of its major development projects in line with the nation's strategic development plan for the coming 50 years.
- This new gas field, spanning an area of 5,000 square kilometers in the cross-border area of the two emirates, represents one of the largest natural gas discoveries in the UAE. The discovery strengthens the UAE's position among countries with the world's largest natural gas reserves. This discovery will help UAE in transiting the gulf nation from a net importer of gas to a potential net exporter of gas in coming times.

2.10 Sri Lankan government says National anthem will be sung only in Sinhala, not in Tamil

- Sri Lankan Government has said that the national anthem will be sung only in Sinhala and not in Tamil, during the main Independence Day celebrations to be held in Colombo.
- The national anthem in Tamil has not been included in celebrations for the first time since 2016, when previous government under President Maithripala Sirisena had initiated it in an attempt of reconciliation with Tamil minorities. Minister of State for Home Affairs Mahinda Samarasinghe said that the use of Tamil version will be permitted at province-based ceremonies although there will be only Sinhala version at the main ceremony. Tamil political parties had demanded to keep both versions of national anthem.
- Tamil politician and former Minister for National Integration Mano Ganesan said, the national anthem in Tamil is not just another song, but the Sri Lankan identity of the Tamil speaking community. The intent to sing national anthem in Sinhala only was made by a Minister soon after new President Gotabaya Rajapaksa took over though it was not announced earlier. Mr. Rajapaksa was overwhelmingly rejected by minorities at the Presidential polls held last November.
- Meanwhile, the President has granted pardon to 512 prisoners on the occasion of 72nd Independence Day which marks Sri Lanka's freedom from British rule in 1948. Sri Lanka has around 12 per cent Tamil ethnic population and LTTE had led a three-decade long separatist war for a separate nation.

2.11 WHO Chief Tedros Adhanom calls for greater solidarity among countries to contain spread of Coronavirus

- World Health Organization Chief Tedros Adhanom has said that the drastic measures taken by China to rein in the deadly Novel Coronavirus outbreak have prevented significant spread abroad. UN health agency's chief has also called for greater solidarity, accusing some governments of wealthy countries of being well behind in sharing data on virus cases.
- While 99 percent of cases are in China, just 176 cases are in rest of the world.
- The WHO had received complete case report forms for only 38 percent of the cases outside China. More than 20,400 cases of the virus have been confirmed in China since the virus was first detected on 31st of December last year.

- The WHO was sending masks, gloves, respirators and 18,000 protective isolation gowns to 24 countries, as well as 2,50,000 test kits to speed up the process of diagnosis for carriers of the virus.
- He also reiterated his call for countries not to impose travel and trade restrictions because of the virus.

2.12 European Union rejects President Trump's proposal for securing peace in Middle East

- The European Union rejected United States President Donald Trump's proposal for securing peace in the Middle East. EU also expressed concern about Israel's plans to annex more Palestinian land.
- Mr Trump's plan, which was unveiled last week, would foresee the eventual creation of a Palestinian state, but it falls far short of minimal Palestinian demands and would leave sizable chunks of the occupied West Bank in Israeli hands.
- In a statement, EU Foreign Policy Chief Josep Borrell underlined the bloc's commitment to a two-state solution, based along the 1967 lines. He said, to build a just and lasting peace, the unresolved final status issues must be decided through direct negotiations between both parties. Gulf Arab states also rejected the White House plan calling it as biased.
- No Palestinian representatives attended. Prime Minister Benjamin Netanyahu has said that he wants to move forward with plans to annex West Bank territory.

2.13 TTCSP releases 2019 Global Go To Think Tank Index Report

- Think Tanks and Civil Societies Program (TTCSP) of the Lauder Institute at the University of Pennsylvania has released the 2019 Global Go To Think Tank Index Report. India's Observer Research Foundation (ORF) has been ranked at 27th position among 176 global think tanks (U.S. and non-U.S.). It was ranked at 118th position in the 2018 Global Go To Think Tank Index Report.

2.14 China starts clinical trial for remdesivir medicine in coronavirus treatment

- China has started clinical trial for remdesivir medicine in coronavirus treatment in Wuhan Jinyintan Hospital. A 68-year-old male patient with serious symptoms was the first to be given the drug. However, Gilead Sciences Inc which developed Remdesivir said that the drug is not yet licensed or approved anywhere globally and it has not been demonstrated to be safe or effective for coronavirus infection treatment. The company said it had filed patent applications for the drug's use on coronaviruses in China and some other countries and regions in 2016, but it has not yet received approval in China.
- It said its focus is now on rapidly determining remdesivir's potential as a treatment for the 2019 novel coronavirus, rather than discussing compulsory licensing or any other kind of permissions for drug manufacturing. The comments came after the Wuhan Institute of Virology said on 5th February, 2020 that it had filed a patent application to use remdesivir to treat the novel coronavirus on January 21, which has sparked debate on China's social media about intellectual property issues. Meanwhile, Chinese Health authorities have confirmed new deaths caused by the novel coronavirus

epidemic yesterday at 73. With this the death toll rose to 638 globally including one in Philippines. According to data released this morning by China's National Health Commission, newly confirmed cases rose by 3 thousand 143, a second consecutive daily drop, bringing the total to 31 thousand 2 hundred 11 cases in the country. Around 240 cases have been confirmed abroad.

2.15 US President Donald Trump acquitted of all impeachment charges

- The United States President Donald Trump has been acquitted of all impeachment charges. The US Senate has acquitted President Trump on two articles of impeachment that are- abuse of power and obstruction to Congress.
- The Republican-majority Senate voted 52-48 to acquit him of abuse of power and 53-47 to acquit him of obstruction of Congress. Democrats required two-thirds of votes in the 100-member House to impeach the president. The ruling Republican party has 53 seats while the Democrats have 47. Republican Senator Mitt Romney, who was the party's presidential nominee in 2012, voted against the president on the first charge, but followed the party line on the second article of impeachment. Rest of the members voted on party lines.

2.16 Romania's pro-European government collapses after no-confidence vote

- Romania's pro-European government collapsed in a parliamentary no-confidence vote on 5 February, 2020 after only three months in office.
- A total of 261 of 465 MPs voted in favour of a motion against the minority government led by Ludovic Orban, which took over in November. Leader of opposition Social Democrats, Marcel Ciolacu, said the fall of the Orban government is a very big step for Romanian democracy.
- The move was triggered by Orban's attempt to change the law for local elections. President Klaus Iohannis must now appoint a new Prime Minister who in turn must try to assemble a majority.

2.17 IMF says Sri Lanka's economy gradually recovering from last year's Easter Sunday terrorist attacks

- The International Monetary Fund (IMF) has said Sri Lanka's economy is gradually recovering after Easter Sunday terrorist attacks last year with GDP growth projected at 3.7 percent in 2020. An IMF staff mission to Sri Lanka estimated the real GDP growth at 2.6 percent last year but expected the GDP to bounce back this year on the back of a recovery in tourism.
- A staff team from the IMF visited Colombo from the 29th of January to meet with the new administration and discuss its policy agenda. The team noted that renewed efforts to advance fiscal consolidation will be essential for macroeconomic stability given risks to debt sustainability and large refinancing needs over the medium term.

- The mission concluded that ambitious structural and institutional reforms are needed to anchor policy priorities, bolster competitiveness and foster inclusive growth in Sri Lanka. It said the government should move ahead with growth-enhancing structural reforms to fully harness Sri Lanka's economic potential and foster greater social inclusion.
- The team welcomed the authorities' plans to enhance the efficiency of state-owned enterprises, enabling them to operate on a sound commercial basis adding these plans would need to be supported by a visible commitment to strengthen governance and transparency.



3. INDIAN ECONOMY

The Economic Survey 2019-20 with the theme of **wealth creation** was tabled in the Parliament by the Union Minister for Finance.

- It is an official government's report on the state of the economy in the past one year, the key challenges it anticipates, and their possible solutions.
- The document is prepared by the **Economic Division of the Department of Economic Affairs (DEA)** under the guidance of the Chief Economic Adviser (CEA)

Size of the economy

The WEO of October 2019 has estimated India's economy to become the fifth largest in the world, as measured using GDP at current US\$ prices, moving past United Kingdom and France. The size of the economy is estimated at US\$ 2.9 trillion in 2019

Table 1: Top 10 Economies in the world in terms of GDP at current US\$ trillion

Sl. No.	Country	2017	2018	2019 (E)	Change in position in 2019
1	United States	19.5	20.6	21.4	-
2	China	12.1	13.4	14.1	-
3	Japan	4.9	5.0	5.2	-
4	Germany	3.7	4.0	3.9	-
5	India	2.7	2.7	2.9	▲
6	United Kingdom	2.6	2.8	2.7	▼
7	France	2.6	2.8	2.7	▼
8	Italy	2.0	2.1	2.0	-
9	Brazil	2.1	1.9	1.8	-
10	Korea	1.6	1.7	1.6	-

Data Source: World Economic Outlook, October 2019 database

Notes: E : IMF's estimate; ▲ indicates improvement in rank; ▼ indicates drop in rank and - indicates unchanged rank

3.1 GVA and GDP growth

The National Statistical Office (NSO) has estimated India's GDP to have grown at 4.8 per cent in the first half (H1) (April-September) of 2019-20, lower than 6.2 per cent recorded in the second half (H2) (October-March) of 2018-19.

Table 2: Quarter wise growth of real Gross Value Added (GVA) and GDP (per cent)

	2018-19				2019-20	
	Q1	Q2	Q3	Q4	Q1	Q2
GVA at basic prices	7.7	6.9	6.3	5.7	4.9	4.3
Agriculture, forestry & fishing	5.1	4.9	2.8	-0.1	2.0	2.1
Industry	9.8	6.7	7.0	4.2	2.7	0.5
Services	7.1	7.3	7.2	8.4	6.9	6.8
GDP at market prices	8.0	7.0	6.6	5.8	5.0	4.5

Data Source: National Statistical Office

3.2 FIRST ADVANCE ESTIMATES: 2019-20

As per First Advance Estimates, growth in real GDP during 2019-20 is estimated at **5.0 per cent**, as compared to the growth rate of 6.8 per cent in 2018-19. The nominal GDP is estimated at ` 204.4 lakh crore in 2019-20 with a growth of 7.5 per cent over the provisional estimates of GDP (` 190.1 lakh crore) for 2018-19.

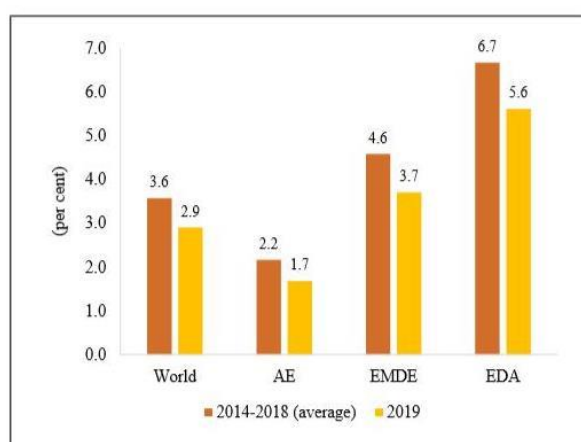
3.3 GLOBAL ECONOMY IN 2019-20

The World Economic Outlook (WEO) Update of January 2020 published by IMF has estimated the global output to grow at 2.9 per cent in 2019, declining from 3.6 per cent in 2018 and 3.8 per cent in 2017. The global output growth in 2019 is estimated to be the slowest since the global financial crisis of 2009, arising from a geographically broad-based decline in manufacturing activity and trade. Stabilizing, yet uncertain, trade tensions between China and the USA have contributed

As in other major economies, India's Gross Domestic Product (GDP) growth also correlates with the growth of global output, an observation earlier made in the Economic Survey of 2015-16. Not surprisingly, the deceleration in India's GDP growth since 2017 has tracked the decline in world output (Figure 2). However, for three years prior to 2017, when global output growth was not declining, India surged ahead of the rest of the world, recording in 2014-18 an average growth significantly higher than that of any comparable peer, both among advanced and

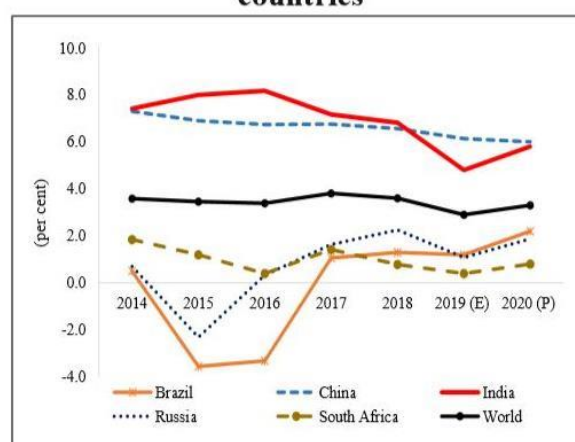
To the decline of world output and trade. The growth of advanced economies has similarly declined from 2.5 per cent in 2017 to 2.2 per cent in 2018 and is estimated to further decline to 1.7 per cent in 2019 (Figure 1). The larger group of OECD countries has also seen a drop in their growth from 2.6 per cent in 2017 to 2.3 per cent in 2018 and is estimated to grow at 1.7 per cent in 2019. WEO has projected the declining growth of global output to rebound in 2020 with a modest uptick to 3.3 per cent.

Figure 1: Growth of global output



Data Source: World Economic Outlook, October 2019 database and January 2020 update
 Note: AE – Advanced Economies, EMDE – Emerging Market and Developing Economies, EDA – Emerging and Developing Asia.

Figure 2: Growth of individual BRICS countries



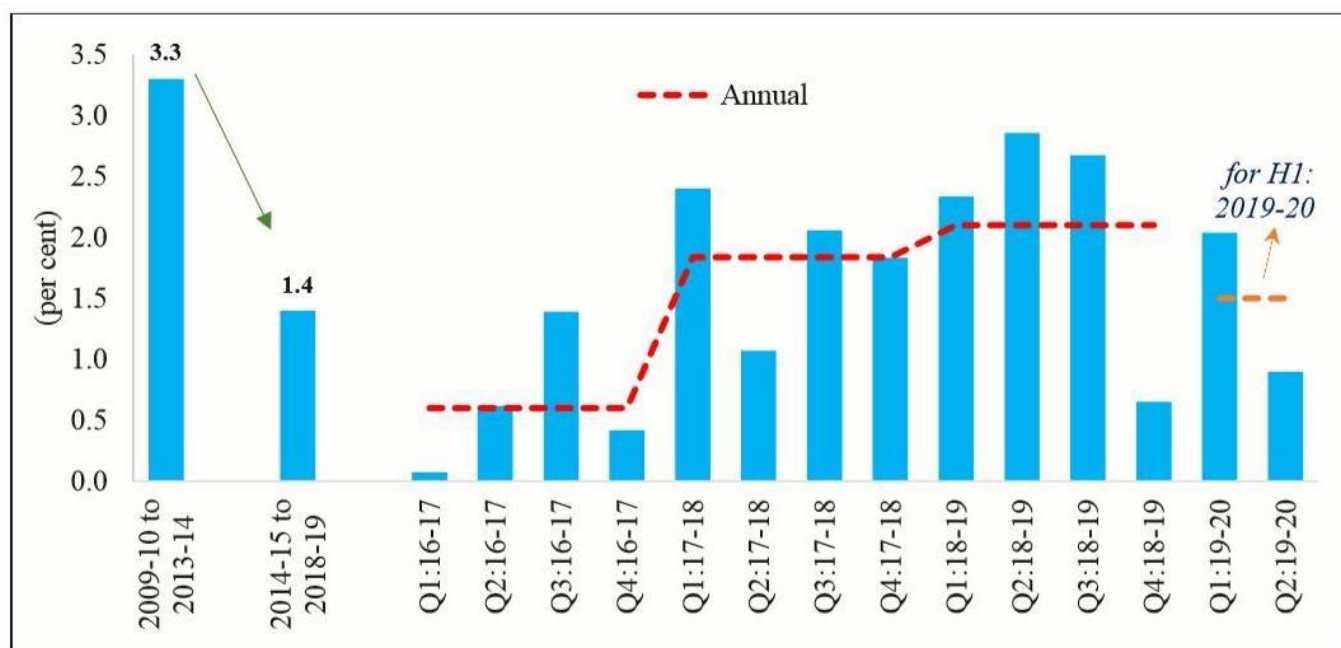
Data Source: World Economic Outlook, October 2019 database and January 2020 update
 Note: E – Estimates of IMF, P – Projections of IMF

3.4 CURRENT ACCOUNT DEFICIT

Lower Current Account Deficit (CAD) reflects reduced external indebtedness of the country making domestic economic policy increasingly independent of external influence. The CAD, which was 2.1 per cent of GDP in 2018-19, has improved to 1.5 per cent in H1 of 2019-20 on the back of significant reduction in trade deficit (Figure 20). 1.31 Foreign Direct Investment (FDI) provides a more stable source of financing the CAD as compared to external borrowings. During 2014-19, gross FDI to India has been robust as compared to the previous five years; the trend has continued in 2019-20 as well. In the first eight months of 2019-20, both gross and net FDI flows to the country have been more than the flows received in corresponding period of 2018-19. Net FPI inflow in H1 of 2019-20 was also robust at US\$ 7.3 billion as against an outflow of US\$ 7.9 billion in H1 of 2018-19

Consequent to the improvement in current account and higher capital flows into the country, the Balance of Payments (BoP) position of the country has improved from foreign exchange reserves of US\$ 302 billion in end March, 2019 to US\$ 461.2 billion as on 10th January 2020.

Current Account Deficit as percentage of GDP



Data Source: RBI

3.5 KEY HIGHLIGHTS OF UNION BUDGET 2020-21

Presenting the first Union Budget of the third decade of 21st century, Finance Minister Smt. Nirmala Sitharaman, today unveiled a series of far-reaching reforms, aimed at energizing the Indian economy through a combination of short-term, medium-term, and long-term measures.

The Key Highlights of Union Budget 2020-21 are as follows:

Three prominent themes of the Budget

- **Aspirational India** - better standards of living with access to health, education and better jobs for all sections of the society
- **Economic Development for all** - “SabkaSaath ,SabkaVikas , SabkaVishwas”.
- **Caring Society** - both humane and compassionate; Antyodaya as an article of faith.
- Three broad themes are held together by:
 - Corruption free, policy-driven *Good Governance*.
 - Clean and sound *financial sector*.
- **Ease of Living** underlined by the three themes of Union Budget 2020-21.

Three components of Aspirational India

- Agriculture, Irrigation, and Rural Development
- Wellness, Water, and Sanitation
- Education and Skills

Sixteen Action Points for Agriculture, Irrigation and Rural Development

- Rs. 2.83 lakh crore to be allocated for the following 16 Action Points:
 - Rs. 1.60 lakh crore for Agriculture, Irrigation & allied activities.
 - Rs. 1.23 lakh crore for Rural development & PanchayatiRaj.
- Agriculture credit:
 - Rs. 15 lakh crore target set for the year 2020-21.
 - PM-KISAN beneficiaries to be covered under the KCC scheme.
 - NABARD Re-finance Scheme to be further expanded.
- Comprehensive measures for 100 water-stressed districts proposed.
- **Blue Economy:**
 - Rs. 1 lakh crore fisheries’ exports to be achieved by 2024-25.
 - 200 lakh tonnes fish production targeted by 2022-23.
 - 3477 SagarMitras and 500 Fish Farmer Producer Organisations to involve youth in fisheries extension.
 - Growing of algae, sea-weed and cage culture to be promoted.
 - Framework for development, management and conservation of marine fishery resources.
- **Kisan Rail** to be setup by Indian Railways through PPP:
 - To build a seamless national cold supply chain for perishables (milk, meat, fish, etc).
 - Express and Freight trains to have refrigerated coaches.
- **Krishi Udaan** to be launched by the Ministry of Civil Aviation:
 - Both international and national routes to be covered.
 - North-East and tribal districts to realize Improved value of agri-products.

- **One-Product One-District** for better marketing and export in the Horticulture sector.
- Balanced use of all kinds of fertilizers - traditional organic and innovative fertilizers.
- Measures for organic, natural, and integrated farming:
 - JaivikKheti Portal – online national organic products market to be strengthened.
 - Zero-Budget Natural Farming (mentioned in July 2019 Budget) to be included.
 - Integrated Farming Systems in rain-fed areas to be expanded.
 - Multi-tier cropping, bee-keeping, solar pumps, solar energy production in non-cropping season to be added.
- **PM-KUSUM** to be expanded:
 - 20 lakh farmers to be provided for setting up stand-alone solar pumps.
 - Another 15 lakh farmers to be helped to solarise their grid-connected pump sets.
 - Scheme to enable farmers to set up solar power generation capacity on their fallow/barren lands and to sell it to the grid.
- **Village Storage Scheme:**
 - To be run by the SHGs to provide farmers a good holding capacity and reduce their logistics cost.
 - Women, SHGs to regain their position as **Dhaanya Lakshmi**.
- NABARD to map and geo-tag agri-warehouses, cold storages, reefer van facilities, etc.
- Warehousing in line with Warehouse Development and Regulatory Authority (WDRA) norms:
 - Viability Gap Funding for setting up such efficient warehouses at the block/taluk level.
 - Food Corporation of India (FCI) and Central Warehousing Corporation (CWC) to undertake such warehouse building.
- Financing on Negotiable Warehousing Receipts (e-NWR) to be integrated with e-NAM.
- State governments who undertake implementation of model laws (issued by the Central government) to be encouraged.
- Livestock:
 - Doubling of milk processing capacity to 108 million MT from 53.5 million MT by 2025.
 - Artificial insemination to be increased to 70% from the present 30%.
 - MNREGS to be dovetailed to develop fodder farms.
 - Foot and Mouth Disease, Brucellosis in cattle and Peste Des Petits ruminants (PPR) in sheep and goat to be eliminated by 2025.
- **Deen Dayal Antyodaya Yojana** – 0.5 crore households mobilized with 58 lakh SHGs for poverty alleviation.

Wellness, Water and Sanitation

- Rs. 69,000 crore allocated for overall Healthcare sector.

- Rs. 6400 crore (out of Rs. 69,000 crore) for **PM Jan Arogya Yojana** (PMJAY):
 - More than 20,000 hospitals already empanelled under PM Jan Arogya Yojana (PMJAY).
 - Viability Gap Funding window proposed for setting up hospitals in the PPP mode.
 - Aspirational Districts with no Ayushman empanelled hospitals to be covered in the first phase.
 - Targeting diseases with an appropriately designed preventive regime using Machine Learning and AI.
- **Jan Aushadhi Kendra Scheme** to offer 2000 medicines and 300 surgicals in all districts by 2024.
- **TB Harega Desh Jeetega** campaign launched - commitment to end Tuberculosis by 2025.
- Rs. 3.60 lakh crore approved for **JalJeevan Mission**:
 - Rs. 11,500 crore for the year 2020-21.
 - Augmenting local water sources, recharging existing sources, and promoting water harvesting and de-salination.
 - Cities with million-plus population to be encouraged to achieve the objective during the current year itself.
- Rs. 12,300 crore allocation for **Swachh Bharat Mission** in 2020-21:
 - Commitment to ODF-Plus in order to sustain ODF behaviour.
 - Emphasis on liquid and grey water management.
 - Focus also on Solid-waste collection, source segregation, and processing.

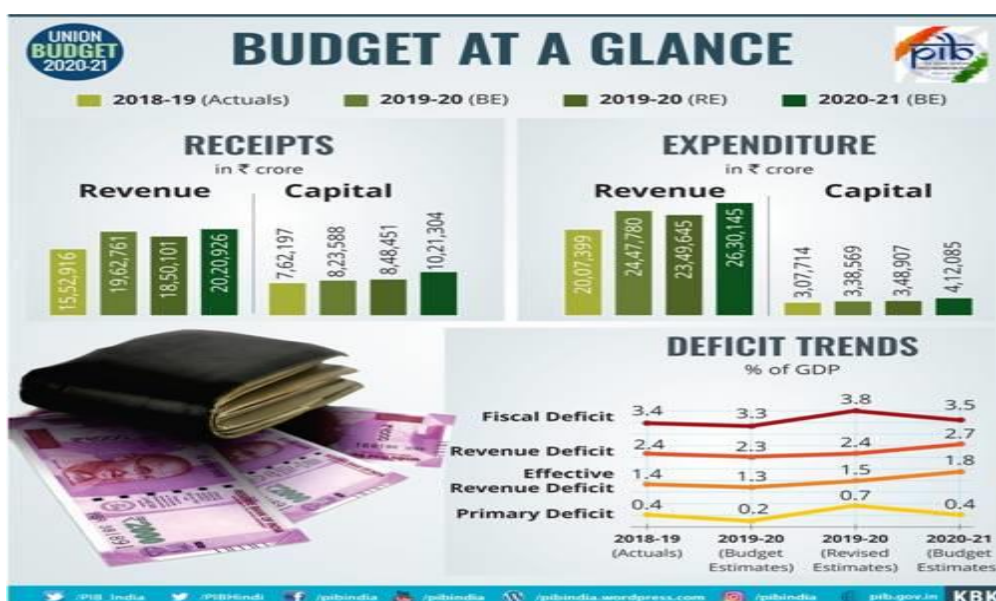
Education and Skills

- Rs. 99,300 crore for education sector and Rs. 3000 crore for skill development in 2020-21.
- New Education Policy to be announced soon.
- **National Police University** and **National Forensic Science University** proposed for policing science, forensic science, and cyber-forensics.
- Degree level full-fledged online education program by Top-100 institutions in the National Institutional Ranking Framework.
- Up to 1-year internship to fresh engineers to be provided by Urban Local Bodies.
- Budget proposes to attach a medical college to an existing district hospital in PPP mode.
- Special bridge courses to be designed by the Ministries of Health, and Skill Development:
 - To fulfill the demand for teachers, nurses, para-medical staff and care-givers abroad.
 - To bring in equivalence in the skill sets of the workforce and employers' standards.
- 150 higher educational institutions to start apprenticeship embedded degree/diploma courses by March 2021.
- External Commercial Borrowings and FDI to be enabled for education sector.
- Ind-SAT proposed for Asian and African countries as a part of **Study in India** program.

3.6 Economic Development

Industry, Commerce and Investment

- Rs. 27,300 crore allocated for 2020-21 for development and promotion of Industry and Commerce.
- **Investment Clearance Cell** proposed to be set up:
 - To provide “end to end” facilitation and support.
 - To work through a portal.
- Five new smart cities proposed to be developed.
- Scheme to encourage manufacture of mobile phones, electronic equipment and semi-conductor packaging proposed.
- **National Technical Textiles Mission** to be set up:
 - With four-year implementation period from 2020-21 to 2023-24.
 - At an estimated outlay of Rs 1480 crore.
 - To position India as a global leader in Technical Textiles.
- New scheme **NIRVIK** to be launched to achieve higher export credit disbursement, which provides for:
 - Higher insurance coverage
 - Reduction in premium for small exporters
 - Simplified procedure for claim settlements.
- Turnover of Government e-Marketplace (GeM) proposed to be taken to Rs 3 lakh crore.
- Scheme for Revision of duties and taxes on exported products to be launched.
 - Exporters to be digitally refunded duties and taxes levied at the Central, State and local levels, which are otherwise not exempted or refunded.
- All Ministries to issue quality standard orders as per PM’s vision of “**Zero Defect-Zero Effect**” manufacturing.



Infrastructure

- Rs.100 lakh crore to be invested on infrastructure over the next 5 years.
- National Infrastructure Pipeline:
 - Rs. 103 lakh crore worth projects; launched on 31st December 2019.
 - More than 6500 projects across sectors, to be classified as per their size and stage of development.
- A National Logistics Policy to be released soon:
 - To clarify roles of the Union Government, State Governments and key regulators.
 - A single window e-logistics market to be created
 - Focus to be on generation of employment, skills and making MSMEs competitive.
- National Skill Development Agency to give special thrust to infrastructure-focused skill development opportunities.
- Project preparation facility for infrastructure projects proposed.
 - To actively involve young engineers, management graduates and economists from Universities.
- Infrastructure agencies of the government to involve youth-power in start-ups.
- Rs.1.7 lakh crore proposed for transport infrastructure in 2020-21.



Highways:

- Accelerated development of highways to be undertaken, including:
 - 2500 Km access control highways.
 - 9000 Km of economic corridors.
 - 2000 Km of coastal and land port roads.
 - 2000 Km of strategic highways.
- Delhi-Mumbai Expressway and two other packages to be completed by 2023.
- Chennai-Bengaluru Expressway to be started.
- Proposed to monetise at least 12 lots of highway bundles of over 6000 Km before 2024.

Indian Railways:

- Five measures:
 - Large solar power capacity to be set up alongside rail tracks, on land owned by railways.
 - Four station re-development projects and operation of 150 passenger trains through PPP.
 - More Tejas type trains to connect iconic tourist destinations.
 - High speed train between Mumbai and Ahmedabad to be actively pursued.
 - 148 km long Bengaluru Suburban transport project at a cost of Rs 18600 crore, to have fares on metro model. Central Government to provide 20% of equity and facilitate external assistance up to 60% of the project cost.
- Indian Railways' achievements:
 - 550 Wi-fi facilities commissioned in as many stations.
 - Zero unmanned crossings.
 - 27000 Km of tracks to be electrified.

Ports & Water-ways:

- Corporatizing at least one major port and its listing on stock exchanges to be considered.
- Governance framework keeping with global benchmarks needed for more efficient sea-ports.
- Economic activity along river banks to be energised as per Prime Minister's *Arth Ganga* concept.

Airports:

- 100 more airports to be developed by 2024 to support Udaan scheme.
- Air fleet number expected to go up from present 600 to 1200 during this time.

Electricity:

- "Smart" metering to be promoted.
- More measures to reform DISCOMs to be taken.

Power:

- Rs.22, 000 crore proposed for power and renewable energy sector in 2020-21.

- Expansion of national gas grid from the present 16200 km to 27000 km proposed.
- Further reforms to facilitate transparent price discovery and ease of transactions.

New Economy

- To take advantage of new technologies:
 - Policy to enable private sector to build Data Centre parks throughout the country to be brought out soon.
 - Fibre to the Home (FTTH) connections through Bharatnet to link 100,000 gram panchayats this year.
 - Rs.6000 crore proposed for Bharatnet programme in 2020-21.
- Measures proposed to benefit Start-ups:
 - A digital platform to be promoted to facilitate seamless application and capture of IPRs.
 - Knowledge Translation Clusters to be set up across different technology sectors including new and emerging areas.
 - For designing, fabrication and validation of proof of concept, and further scaling up Technology Clusters, harbouring test beds and small scale manufacturing facilities to be established.
 - Mapping of India's genetic landscape- Two new national level Science Schemes to be initiated to create a comprehensive database.
 - Early life funding proposed, including a seed fund to support ideation and development of early stage Start-ups.
- Rs.8000 crore proposed over five years for National Mission on Quantum Technologies and Applications.

3.7 Caring Society

- Focus on:
 - Women & child,
 - Social Welfare;
 - Culture and Tourism
- Allocation of Rs. 35,600 crore for nutrition-related programmes proposed for the FY2020-21.
- Rs.28, 600 crore proposed for women specific programs.
- Issue about age of a girl entering motherhood - proposed to appoint a task force to present its recommendations in six months' time.
- Financial support for wider acceptance of technologies, identified by Ministry of Housing and Urban Affairs to ensure no manual cleaning of sewer systems or septic tanks, to be provided.
- Rs. 85, 000 crore proposed for 2020-21 for welfare of Scheduled Castes and Other Backward Classes.
- Rs. 53, 700 crore provided to further development and welfare of Scheduled Tribes.
- Enhanced allocation of Rs. 9,500 crore provided for 2020-21 for senior citizens and Divyang.

Culture & Tourism

- Allocation of Rs. 2500 crore for 2020-21 for tourism promotion.
- Rs.3150 crore proposed for Ministry of Culture for 2020-21.
- An Indian Institute of Heritage and Conservation under Ministry of Culture proposed; with the status of a deemed University.
- 5 archaeological sites to be developed as iconic sites with on-site Museums:
 - Rakhigarhi (Haryana)
 - Hastinapur (Uttar Pradesh)
 - Shivsagar (Assam)
 - Dholavira (Gujarat)
 - Adichanallur (Tamil Nadu)
- Re-curation of the Indian Museum in Kolkata, announced by Prime Minister in January 2020.
- Museum on Numismatics and Trade to be located in the historic Old Mint building in Kolkata.
- 4 more museums from across the country to be taken up for renovation and re-curation.
- Support for setting up of a Tribal Museum in Ranchi (Jharkhand).
- Maritime museum to be set up at Lothal- the Harrapan age maritime site near Ahmedabad, by Ministry of Shipping.
- State governments expected to develop a roadmap for certain identified destinations and formulate financial plans during 2021 against which specified grants to be made available to the States in 2020-21.

Environment & Climate Change

- Allocation for this purpose to be Rs.4400 crore for 2020-21.
- Proposed to advise the utilities to close the running old thermal power plants with carbon emission above the pre-set norms.
- States that are formulating and implementing plans for ensuring cleaner air in cities above one million to be encouraged.
- PM launched Coalition for Disaster Resilient Infrastructure (CDRI) with Secretariat in Delhi. Second such international initiative after International Solar Alliance.

Governance

- Clean, corruption-free, policy driven, good in intent and most importantly trusting in faith.
- Taxpayer Charter to be enshrined in the Statute will bring fairness and efficiency in tax administration.
- Companies Act to be amended to build into statutes, criminal liability for certain acts that are civil in nature.
 - Other laws with such provisions are to be corrected after examination.
- Major reforms in recruitment to Non-Gazetted posts in Government and Public sector banks:

- An independent, professional and specialist *National Recruitment Agency (NRA)* for conducting a computer-based online Common Eligibility Test for recruitment.
- A test-centre in every district, particularly in the Aspirational Districts.
- A robust mechanism to be evolved for appointment including direct recruitment to various Tribunals and specialised bodies to attract best talents and professional experts.
- Contract Act to be strengthened.
- New National *Policy on Official Statistics* to:
 - Promote use of latest technologies including AI.
 - Lay down a road-map towards modernised data collection, integrated information portal and timely dissemination of information.
- A sum of Rs. 100 crore allocated to begin the preparations for G20 presidency to be hosted in India in the year 2022.
- Development of North East region:
 - Improved flow of funds using online portal by the Government.
 - Greater access to financial assistance of Multilateral and Bilateral funding agencies.
- Development of Union Territories of J&K and Ladakh:
 - An amount of Rs. 30,757 crore provided for the financial year 2020-21.
 - The Union Territory of Ladakh has been provided with Rs. 5,958.

Financial Sector

- Reforms accomplished in PSBs :
 - 10 banks consolidated into 4.
 - Rs. 3,50,000 crore capital infused.
- Governance reforms to be carried out to bring in transparency and greater professionalism in PSBs.
- Few PSBs to be encouraged to approach the capital market to raise additional capital
- Deposit Insurance and Credit Guarantee Corporation (DICGC) permitted to increase Deposit Insurance Coverage to Rs. 5 lakh from Rs.1 lakh per depositor.
- Scheduled Commercial Bank's health under monitoring through a robust mechanism, keeping depositors' money safe.
- Cooperative Banks to be strengthen by amending Banking Regulation Act for:
 - Increasing professionalism.
 - Enabling access to capital.
 - Improving governance and oversight for sound banking through the RBI.
- NBFCs eligibility limit for debt recovery reduced from:
 - Rs. 500 crore to Rs 100 crore asset size.

- Rs 1 crore to Rs 50 lakh loan size.
- Private capital in Banking system:
 - Government to sell its balance holding in IDBI Bank to private, retail and institutional investors through the stock exchange.
- Easier mobility in jobs:
 - Auto-enrolment in Universal Pension coverage.
 - Inter-operability mechanism to safeguard the accumulated corpus.
- Pension Fund Regulatory Development Authority of India Act to be amended to:
 - Strengthen regulating role of PFRDAI.
 - Facilitate separation of NPS trust for government employees from PFRDAI.
 - Enable establishment of a Pension Trust by the employees other than Government.
- Factor Regulation Act 2011 to be amended to:
 - Enable NBFCs to extend invoice financing to the MSMEs through TReDS
- New scheme to provide subordinate debt for entrepreneurs of MSMEs by the banks
 - Would be counted as quasi-equity.
 - Would be fully guaranteed through the Credit Guarantee Trust for Medium and Small Entrepreneurs (CGTMSE).
 - The corpus of the CGTMSE would accordingly be augmented by the government.
- Window for MSME's debt restructuring by RBI to be extended by one year till March 31, 2021.
 - More than five lakh MSMEs have already been benefitted.
- An app-based invoice financing loans product for MSMEs to be launched.
 - To prevent the problem of delayed payments and consequential cash flows mismatches.
- Export promotion of MSMEs:
 - For selected sector such as pharmaceuticals, auto components and others.
 - An Rs 1000 crore scheme anchored by EXIM Bank together with SIDBI.
 - Hand holding support for technology upgradations, R&D, business strategy etc.

Financial Market

- Deepening Bond Market.
 - Certain specified categories of Government securities to be opened fully for non-resident investors also.
 - FPI limit in corporate bonds increased to 15% from 9% of its outstanding stock.
- New legislation to be formulated for laying down a mechanism for netting of financial contracts.
 - Scope of credit default swaps to expand.

- Debt Based Exchange Traded Fund expanded by a new Debt-ETF consisting primarily of Government Securities.
 - To give attractive access to retail investors, pension funds and long-term investors.
- A Partial Credit Guarantee scheme for the NBFCs formulated post the Union budget 2019-20 to address their liquidity constraints.
 - New mechanism to be devised to further this.
 - Government support to securities so floated.

Infrastructure Financing

- Rs.103 lakh crore National Infrastructure Pipeline projects earlier announced.
- Rs 22,000 crore to cater to the equity support to Infrastructure Finance Companies such as IIFCL and a subsidiary of NIIF.
- IFSC, GIFT city: full of potential to become a centre of international finance as well as a centre for high end data processing:
 - An International Bullion exchange(s) to be set up as an additional option for trade by global market participants with the approval of regulator.

Disinvestment

- Government to sell a part of its holding in LIC by way of Initial Public Offer (IPO).

Fiscal Management

- XV Finance Commission (FC):
 - XV Finance Commission has given its first report for FY2020-21
 - Recommendations accepted in substantial measure
 - Its final report for five years beginning 2021-22 to be submitted during the latter part of the year.
- GST Compensation Fund:
 - Balances due out of collection of the years 2016-17 and 2017-18 to be transferred to the Fund, in two instalments.
 - Hereinafter, transfers to the fund to be limited only to collection by way of GST compensation cess.
- Overhaul of Centrally Sponsored Schemes and Central Sector Schemes necessary:
 - To align them with emerging social and economic needs of tomorrow
 - **To ensure that scarce public resources are spent optimally**
- On the recent debate over transparency and credibility of projected fiscal numbers, it is assured that procedure adopted is compliant with the FRBM Act.
- For the FY 2019-20:
 - Revised Estimates of Expenditure: at Rs.26.99 lakh crore
 - Revised Estimates of Receipts: estimated at Rs.19.32 lakh crore.

- For year 2020-21:
 - Nominal growth of GDP estimated at 10%.
 - Receipts: estimated at Rs.22.46 lakh cr
 - Expenditure: at Rs.30.42 lakh cr.
- Significant tax reforms for boosting investments recently undertaken. However, expected tax buoyancy expected to take time.
- Fiscal deficit of 3.8% estimated in RE 2019-20 and 3.5% for BE 2020-21. It comprises two ingredients;
 - 3.3% for year 2019-20 and 3% for the 2020-21 budget estimate.
 - Deviation of 0.5%, consistent with Section 4(3) of FRBM Act, both for RE 2019-20 and BE 2020-21. (Section 4 (2) of the FRBM Act provides for a trigger mechanism for a deviation from the estimated fiscal deficit on account of structural reforms in the economy with unanticipated fiscal implications.)
 - Return path, committing to fiscal consolidation without compromising needs of investment out of public funds, is laid in Medium Term Fiscal Policy cum Strategy Statement.
 - Market borrowings: Net market borrowings: Rs.4.99 lakh crore for 2019-20 and Rs.5.36 lakh crore for 2020-21.
- A good part of the borrowings for the financial year 2020-21 to go towards Capital expenditure that has been scaled up by more than 21%.

UNION BUDGET 2020-21

CENTRAL GOVT EXPENDITURE

Budget Estimates for 2020-21 (in ₹ crore)

Heads	Heads
Pension 2,10,682	Interest 7,08,203
Defence 3,23,053	IT and Telecom 59,349
Major Subsidies 2,27,794	Planning and Statistics 6,094
Agriculture and Allied Activities 1,54,775	Rural Development 1,44,817
Commerce & Industry 27,227	Scientific Departments 30023
Development of North East 3,049	Social Welfare 53,876
Education 99,312	Tax Administration 1,52,962
Energy 42,725	Transfer to States 2,00,447
External Affairs 17,347	Transport 1,69,637
Finance 41,829	Union Territories 52,864
Health 67,484	Urban Development 50,040
Home Affairs 1,14,387	Others 84,256
	Grand Total 30,42,230

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3.8 Direct Tax

Direct Tax Proposals - To stimulate growth, simplify tax structure, bring ease of compliance, and reduce litigations.

- **Personal Income Tax:**

- *Significant relief to middle class taxpayers.*
- New and simplified personal income tax regime proposed:

Taxable Income Slab (Rs.)	Existing tax rates	New tax rates
0- 5 Lakh	Exempt	Exempt
5-7.5Lakh	20%	10%
7.5-10 Lakh	20%	15%
10-12.5 Lakh	30%	20%
12.5-15 Lakh	30%	25%
Above 15 Lakh	30%	30%

- **Around 70 of the existing exemptions and deductions (more than 100) to be removed** in the new simplified regime.
- Remaining exemptions and deductions to be reviewed and rationalised in coming years.
- New tax regime to be optional - an individual may continue to pay tax as per the old regime and avail deductions and exemptions.
- Measures to pre-fill the income tax return initiated so that an individual who opts for the new regime gets pre-filled income tax returns and would need no assistance from an expert to pay income tax.
- New regime to entail estimated revenue forgone of Rs. 40,000 crore per year.
- **Corporate Tax:**
 - Tax rate of 15% extended to new electricity generation companies.
 - Indian corporate tax rates now amongst the lowest in the world.
- **Dividend Distribution Tax (DDT):**
 - DDT removed making India a more attractive investment destination.
 - Deduction to be allowed for dividend received by holding company from its subsidiary.
 - Rs. 25,000 crore estimated annual revenue forgone.
- **Start-ups:**
 - Start-ups with turnover up to Rs. 100 crore to enjoy 100% deduction for 3 consecutive assessment years out of 10 years.

- Tax payment on ESOPs deferred.
- **MSMEs to boost less-cash economy:**
 - Turnover threshold for audit increased to Rs. 5 crore from Rs. 1 crore for businesses carrying out less than 5% business transactions in cash.
- **Cooperatives:**
 - Parity brought between cooperatives and corporate sector.
 - Option to cooperative societies to be taxed at 22% + 10% surcharge and 4% cess with no exemption/deductions.
 - Cooperative societies exempted from Alternate Minimum Tax (AMT) just like Companies are exempted from the Minimum Alternate Tax (MAT).
- **Tax concession for foreign investments:**
 - 100% tax exemption to the interest, dividend and capital gains income on investment made in infrastructure and priority sectors before 31st March, 2024 with a minimum lock-in period of 3 years by the Sovereign Wealth Fund of foreign governments.
- **Affordable housing:**
 - Additional deduction up to Rs. 1.5 lakhs for interest paid on loans taken for an affordable house extended till 31st March, 2021.
 - Date of approval of affordable housing projects for availing tax holiday on profits earned by developers extended till 31st March, 2021.

Tax Facilitation Measures

- **Instant PAN** to be allotted online through Aadhaar.
- **'Vivad Se Vishwas'** scheme, with a deadline of 30th June, 2020, to reduce litigations in direct taxes:
 - Waiver of interest and penalty - only disputed taxes to be paid for payments till 31st March, 2020.
 - Additional amount to be paid if availed after 31st March, 2020.
 - Benefits to taxpayers in whose cases appeals are pending at any level.
- **Faceless appeals** to be enabled by amending the Income Tax Act.
- **For charity institutions:**
 - Pre-filing in return through information of donations furnished by the donee.
 - Process of registration to be made completely electronic.
 - Unique registration number (URN) to be issued to all new and existing charity institutions.
 - Provisional registration to be allowed for new charity institutions for three years.
 - CBDT to adopt a Taxpayers' Charter.
- **Losses of merged banks:**

- Amendments proposed to the Income-tax Act to ensure that entities benefit from unabsorbed losses and depreciation of the amalgamating entities.

3.9 Indirect Tax

• **GST:**

- Cash reward system envisaged to incentivise customers to seek invoice.
- Simplified return with features like SMS based filing for nil return and improved input tax credit flow to be implemented from 1st April, 2020 as a pilot run.
- Dynamic QR-code capturing GST parameters proposed for consumer invoices.
- Electronic invoice to capture critical information in a centralized system to be implemented in a phased manner.
- Aadhaar based verification of taxpayers being introduced to weed out dummy or non-existent units.
- GST rate structure being deliberated to address inverted duty structure.

• **Customs Duties:**

- Customs duty raised on footwear to 35% from 25% and on furniture goods to 25% from 20%.
- Basic customs duty on imports of news print and light-weight coated paper reduced from 10% to 5%.
- Customs duty rates revised on electric vehicles and parts of mobiles.
- 5% health cess to be imposed on the imports of medical devices, except those exempt from BCD.
- Lower customs duty on certain inputs and raw materials like fuse, chemicals, and plastics.
- Higher customs duty on certain goods like auto-parts, chemicals, etc. which are also being made domestically.
- Trade Policy Measures
- Customs Act being amended to enable proper checks of imports under FTAs.
- Rules of Origin requirements to be reviewed for certain sensitive items.
- Provisions relating to safeguard duties to be strengthened to enable regulating such surge in imports in a systematic way.
- Provisions for checking dumping of goods and imports of subsidized goods being strengthened.
- Suggestions for reviews of exemptions from customs duty to be crowd-sourced.

• **Excise duty proposed to be raised on Cigarettes and other tobacco products**, no change made in the duty rates of *bidis*.

- Anti-dumping duty on PTA abolished to benefit the textile sector.

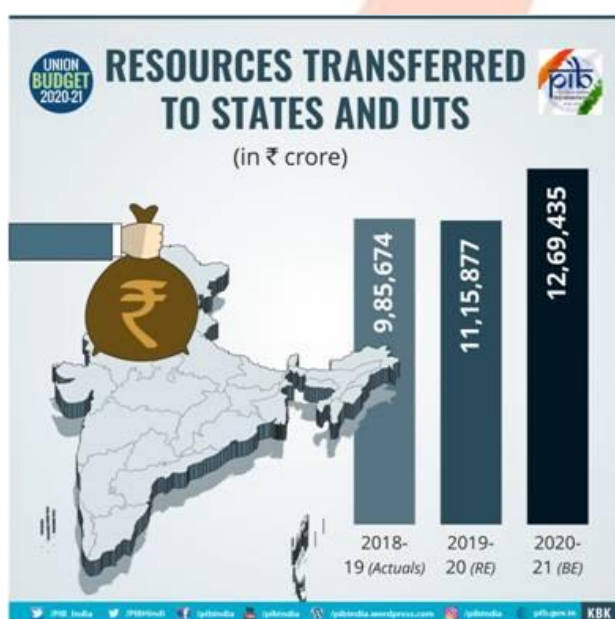
Unprecedented Milestones and Achievements of Indian Economy

- India now the fifth largest economy of the world.
- 7.4% average growth clocked during 2014-19 with inflation averaging around 4.5%.
- 271 million people raised out of poverty during 2006-16.

- India's Foreign Direct Investment elevated to US\$ 284 billion during 2014-19 from US\$ 190 billion during 2009-14.
- Central Government debt reduced to 48.7% of GDP (March 2019) from 52.2% (March 2014).
- Two cross-cutting developments:
 - Proliferation of technologies (Analytics, Machine Learning, robotics, Bio-informatics and Artificial Intelligence).
 - Highest ever number of people in the productive age group (15-65 years) in India.
- GST removed many bottlenecks in the system.

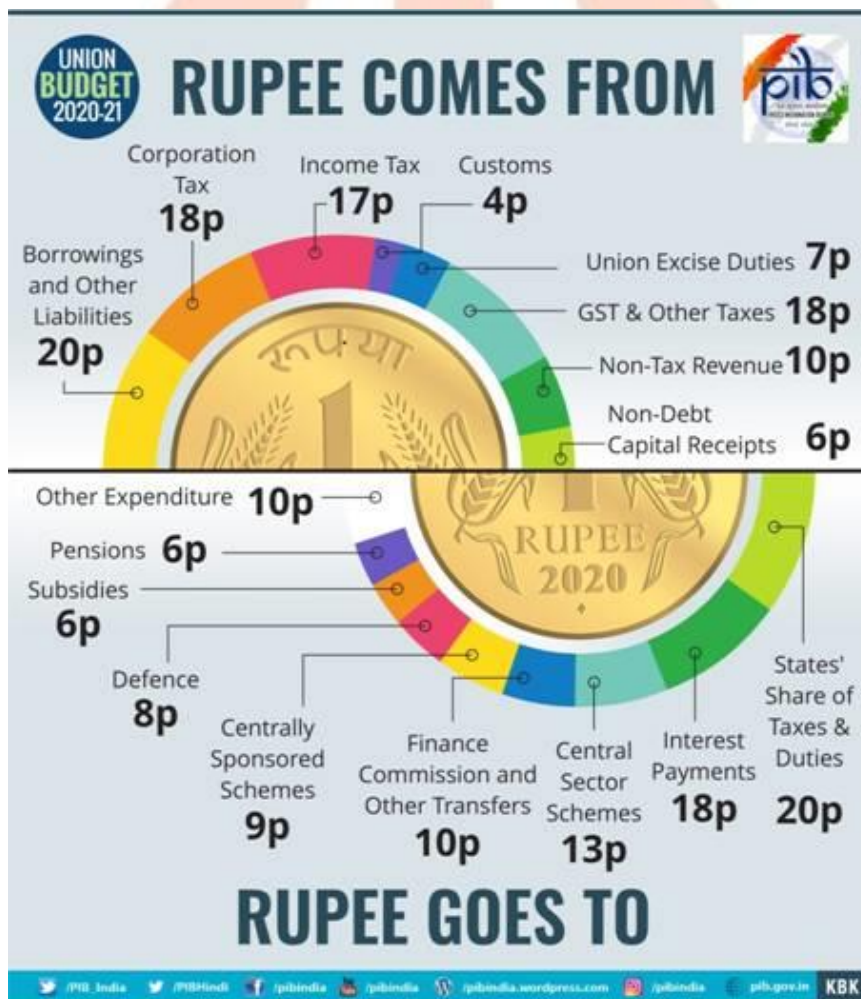
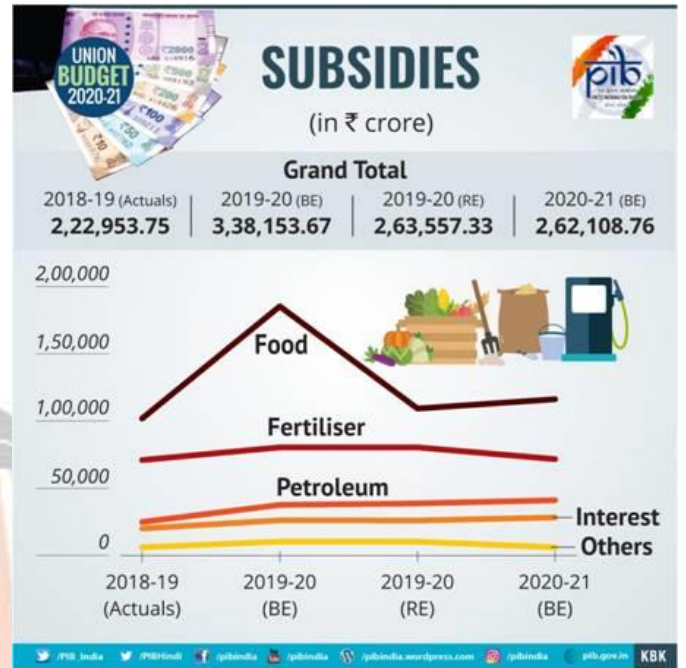
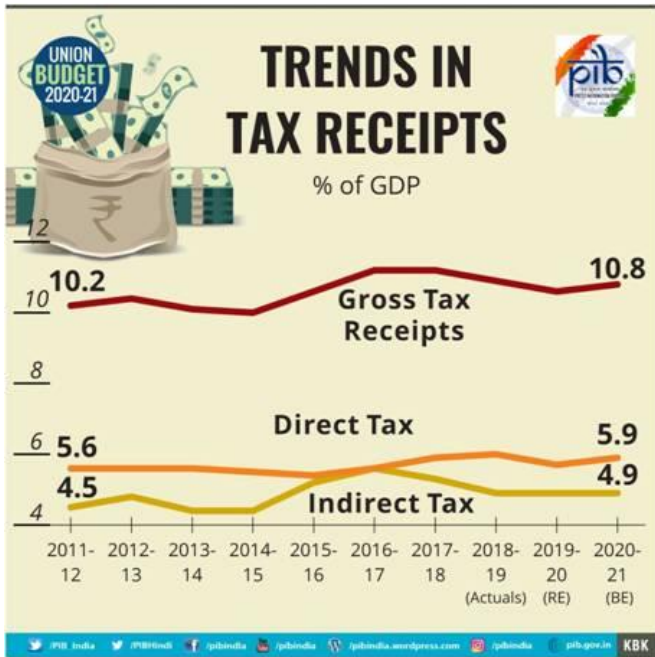
Future Aim for sustaining India's unique global leadership, driven by Digital Revolution

- Seamless delivery of services through Digital Governance.
- Improvement in physical quality of life through National Infrastructure Pipeline.
- Risk mitigation through Disaster Resilience.
- Social *security* through Pension and Insurance penetration.



KEY NUMBERS
(in ₹ crore)

	2018-19 (Actuals)	2019-20 (Budget Estimates)	2019-20 (Revised Estimates)	2020-21 (Budget Estimates)
Revenue Receipts	15,52,916	19,62,761	18,50,101	20,20,926
Capital Receipts	7,62,197	8,23,588	8,48,451	10,21,304
Total Receipts	23,15,113	27,86,349	26,98,552	30,42,230
Total Expenditure	23,15,113	27,86,349	26,98,552	30,42,230
Revenue Deficit	4,54,483	4,85,019	4,99,544	6,09,219
Effective Revenue Deficit	2,62,702	2,77,686	3,07,807	4,02,719
Fiscal Deficit	6,49,418	7,03,760	7,66,846	7,96,337
Primary Deficit	66,770	43,289	1,41,741	88,134



4. AGRICULTURAL EXPORT POLICY

Why in news?

Agricultural and Processed Food Products Export Development Authority (APEDA), along with State Government of Andhra Pradesh and one of the largest member exporter of banana, dispatched the first shipment of 890 MTs of high quality bananas, loaded in 43 refrigerated containers, from Tadipatri, Anantpur in Andhra Pradesh to Jawaharlal Nehru Port (JNPT) in Mumbai yesterday for export to international markets.

- Government of India under **Agri Export Policy** has notified banana cluster in Anantpur and Kadapa districts of Andhra Pradesh.
- The exporting company has been able to change the package of practices by providing expertise and technology to help banana growers in Andhra Pradesh for enhancing the quality of banana production.
- More than 500 farmers cultivating bananas in more than 1800 hectares have been trained to boost the production and export of the fruit from Anantpur and nearby districts.
- The long distance of the Andhra Pradesh farms to the export port in Mumbai affects the viability of export shipments due to high transport cost and quality losses during long transit.
- Efforts have been made for reducing the transit time to Mumbai port by using refrigerated rail containers.
- More than three thousand farmers with an annual production of over 1 lakh MT are being handled for exports directly.
- The efforts of APEDA with the support of the State Government and exporters are likely to provide a good opportunity for India to increase its share in world trade of banana

4.1 Launch of Portal Santusht

‘Santusht’ - Implementation Monitoring Cell (IMC) has been constituted in the Office of Minister of State (Independent Charge) for Labour and Employment in January 2020.

Objectives of SANTUSH:

- The objective of ‘Santusht’ is to promote transparency, accountability, effective delivery of public services and implementation of policies, schemes of Ministry of Labour and Employment at grassroot level through constant monitoring.
- For public grievances, Centralized Public Grievance Redressal and Monitoring System (CPGRAM) portal is already functional.
- Besides, written grievances as received from stakeholders are also disposed by the Ministry. Further, online portal under ‘Santusht’ for public grievances has not been started so far.
- This information was given by Shri Santosh Kumar Gangwar Union Minister of State (I/C) for Labour and Employment in written reply to a question in Lok Sabha.

4.2 China joins India, US to set new deadline for Pakistan

In a significant development, China and Saudi Arabia are learnt to have joined India, US and European Countries to send a stern message to Pakistan to complete its commitments on action against terrorist financing and money laundering given to the Financial Action Task Force (FATF) before the plenary Session in June, including “conviction and prosecution of top leaders of all terrorist organisations”. Diplomatic sources said Turkey was the only Country which held out in the end. This marks a major shift in China’s position, which has always backed Pakistan at the FATF.

Sources said it is now final that Pakistan will remain on the FATF grey list, and will face consequences if it doesn’t take appropriate action by June this year. An official announcement is likely to be made on Thursday.

After the second informal summit at Mahabalipuram last year, the Ministry of External Affairs had said Prime Minister Narendra Modi and Chinese President Xi Jinping were “concerned that terrorism continues to pose a common threat”.

“As countries that are large and diverse, (we recognise) the importance of continuing to make joint efforts to ensure that the international community strengthens the framework against training, financing (of) terrorist groups throughout the world and on a non-discriminatory basis,” Modi and Xi had said in a statement.

“In a desperate attempt to mislead its people and the world, Pakistan has always been indulging in false and selective media leaks of FATF proceedings. The fact is that despite Pakistan’s best attempts, it has remained, and will remain, on the grey list of FATF. The onus is on Pakistan to ensure that it acts on FATF parameters to avoid being blacklisted in future. Pakistan was given a stern message by almost all FATF member countries (except Turkey) to complete the remaining 13 action plan items by June 2020 plenary, including conviction and prosecution of top leaders of all terrorist organisations as mentioned in the action plan, else consequences will follow,” a diplomatic source told The Indian Express.

“Further, Pakistan has long been trying to politicise the technical process of FATF, which is proven beyond doubt from the statements of Turkey and Malaysia leaderships recently. FATF members must take note of this,” said the source.

Ahead of the FATF’s plenary session, a sub-group tasked to review Pakistan’s case has recommended that Islamabad should continue to be in the “grey list” for its failure to check terror funding. It has stopped short of recommending the country for the black list.

About FATF:

IT is an intergovernmental organization founded in 1989 on the initiative of the G7 continuous to develop policies to combat money laundering. In 2001 its mandate expanded to include terrorism financing. It monitors progress in implementing the FATF Recommendations through "peer reviews" ("mutual evaluations") of member countries. The FATF Secretariat is housed at the OECD headquarters in Paris.

The objectives of the FATF are to set standards and promote effective implementation of legal, regulatory and operational measures for combating money laundering, terrorist financing and other related threats to the integrity of the international financial system.

- **CBDT issues clarification on the new provision in Finance Bill 2020**

- Central Board of Direct Taxes (CBDT) has said that The Finance Bill, 2020 has proposed that an Indian citizen shall be deemed to be resident in India if he or she is not liable to be taxed in any country or jurisdiction.
- It said that the new provision in Finance Bill, 2020 is not intended to include in tax net those Indian citizens who are bonafide workers in other countries.
- CBDT issued a clarification on the new provision pertaining to residence in India saying this is an anti-abuse provision since it is noticed that some Indian citizens shift their stay in low or no tax jurisdiction countries to avoid payment of tax in India.
- CBDT noted that the interpretation by some section of the media that Indians who are bonafide workers in other countries, including in the Middle East, and who are not liable to tax in these countries, will be taxed in India on the income that they have earned there is incorrect.
- It stated that in case of an Indian citizen who becomes deemed resident of India under this proposed provision, income earned outside India, shall not be taxed in India unless it is derived from an Indian business or profession.

- **Insurance cover on bank deposits increases from Rs one lakh to five lakh**

- Insurance cover on bank deposits has been increased to five lakh rupees from one lakh rupees. The decision came into effect from 4 February, 2020.
- The Reserve Bank of India (RBI) said in a statement that the cover is provided by the Deposit Insurance and Credit Guarantee Corporation (DICGC), a wholly-owned subsidiary of the RBI. This, the RBI said, has been done with a view to providing a greater measure of protection to depositors.
- The move will help boost confidence of people in the banking system.
- As the insurance cover stands increased, the banks will pay a premium of 12 paise against 10 paise per 100 rupees deposited.
- The deposit insurance scheme covers all banks operating in India, including private sector, cooperative and even branches of foreign banks. There are some exemptions such as deposits of foreign governments, deposits of Central and State Governments, and inter-bank deposits. Deposit insurance was static at one lakh rupees since 1993.
- The demand for raising the deposit insurance limit gained momentum after a run on a large-sized multi-state cooperative bank, the Punjab and Maharashtra Cooperative Bank (PNCB) after it came under an RBI Administrator for financial irregularities pertaining to loans to real estate firm HDIL.

- **Government takes several steps to boost investment in renewable energy sector**

- Union Government has taken many steps to boost the investment in renewable energy sector in the country.
- An investment of over 36 thousand crore rupees have been made in the year 2019-20 up to December 2019.
- It is expected that renewable energy capacity addition in the current fiscal will exceed the capacity addition achieved in the year 2018-19.
- The Minister said the Renewable Energy capacity commissioned in 2018-19 was over 8,500 Megawatt. In the year 2019 up to December 2019 renewable energy capacity of around 7,600 Megawatt has been commissioned and renewable energy capacity of 34,160 Megawatt is under various stages of implementation.
- **RBI keeps repo rate, reverse repo rate unchanged**
 - RBI Governor Shaktikanta Das on 6 February, 2020 said that the Monetary Policy Committee's decision to maintain status quo on policy rates for the second time in a row, must not be viewed as a pointer for future action.
 - While stating that inflation outlook remains uncertain, the RBI Governor informed that a spike in onion prices last year, was alone responsible for a hike of 328 basis points in food inflation.
 - RBI's Monetary Policy Committee will continue to remain proactive as it was last year when the repo rate was reduced by 135 basis points. On the policy transmission front, the RBI Governor said, the transmission has remained sizeable so far.
 - In order to ensure availability of adequate liquidity in the banking system and also to encourage banks to lend more to productive sectors of the economy, the RBI Governor announced that it will soon start conducting long-term repos of one-year and three-year tenors of appropriate sizes for up to a total amount of 1,00,000 crore rupees.
 - This measure will assure banks about the availability of durable liquidity at a reasonable cost relative to prevailing market conditions.
 - Several budgetary announcements like reduction in Income Tax slabs and other sector-specific announcements are likely to boost demand and spurt public spending; he also clarified that the five-fold hike in deposit insurance will not have any large impact on bank balance sheets.
 - In another major announcement, RBI has announced that banks will now be allowed to deduct the equivalent of incremental credit disbursed by them as retail loans from their net demand and time for maintenance of cash reserve ratio.
 - This exemption will be available for incremental credit extended up to the fortnight ending 31st July, 2020 and only be valid for retail loans offered for automobiles, residential housing and loans to micro, small and medium enterprises.
- **EAM S Jaishankar calls upon Indian businesses to take initiatives vis-a-vis Central Asian markets**

- External Affairs Minister Dr S Jaishankar has called upon Indian businesses to take initiatives vis-a-vis the Central Asian markets. He said, the time has come for India and Central Asia to create common platform to share ideas and translate the goodwill and desires into practical outcomes.
- Addressing India - Central Asia Business Council organized by FICCI in New Delhi, DrJaishankar said, Central Asia is not a distant region for India and it is a part of country's extended neighbourhood.



5. ENVIRONMENT

5.1 World Wetlands Day

- World Wetlands Day is celebrated every year on the 2nd of February. This day marks the date of the adoption of the Convention on Wetlands on 2 February 1971 in the Iranian city of Ramsar.
- The theme for 2020 is ‘Wetlands and Biodiversity’.
- It was first celebrated in 1997.

Wetlands

- Wetlands are ecosystems saturated with water, either seasonally or permanently. They include mangroves, marshes, rivers, lakes, deltas, floodplains and flooded forests, rice-fields, coral reefs, marine areas no deeper than 6 metres at low tide, as well as human-made wetlands such as wastewater treatment ponds and reservoirs.
- Though they cover only around 6% of the Earth’s land surface, 40% of all plant and animal species live or breed in wetlands.

Significance of Wetlands

- Wetlands are a critical part of our natural environment. They mitigate floods, protect coastlines and build community resilience to disasters, reduce the impacts of floods, absorb pollutants and improve water quality.
- Wetlands are critical to human and planet life. More than 1 billion people depend on them 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.
- 30% of land-based carbon is stored in peatland.
- They play an important role in transport, tourism and the cultural and spiritual well-being of people.
- Many wetlands are areas of natural beauty and many are important to Aboriginal people.

Threats

- As per the IPBES (Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services)’s global assessment wetlands are the most threatened ecosystem.
- Wetlands are disappearing 3 times faster than forests due to human activities and global warming.
- According to UNESCO, the threat to wetlands will have an adverse impact on 40% of the world’s flora and fauna that live or breed in wetlands.
- Major threats: Agriculture, development, pollution and climate change.

IPBES

- IPBES is an independent intergovernmental body established to strengthen the science-policy interface for biodiversity and ecosystem services for the conservation and sustainable use of biodiversity, long-term human well-being and sustainable development.

- It was established in Panama City (US), in April 2012.
- It is not a United Nations body.

Status of Wetlands in India

- Recently, the Ramsar Convention declared 10 wetlands from India as Ramsar sites taking the total number of Ramsar Sites in the country to 37.
- Wetlands declared as Ramsar sites are protected under strict guidelines of the convention.
- There are currently over 2,300 Ramsar Sites around the world.
- India has over 7 lakh wetlands, covering 4.5% of the country's area, yet none of the wetlands has been notified under domestic laws.



- Wetlands are regulated under the Wetlands (Conservation and Management) Rules, 2017.
- The 2010 version of the Rules provided for a Central Wetland Regulatory Authority, but new Rules of 2017 replaced it with state-level bodies and created a National Wetland Committee, which functions in an advisory role.
- The newer regulations removed some items from the definition of “wetlands” including backwaters, lagoons, creeks, and estuaries.
- Under the 2017 regulations process to identify the wetlands has been delegated to the States.

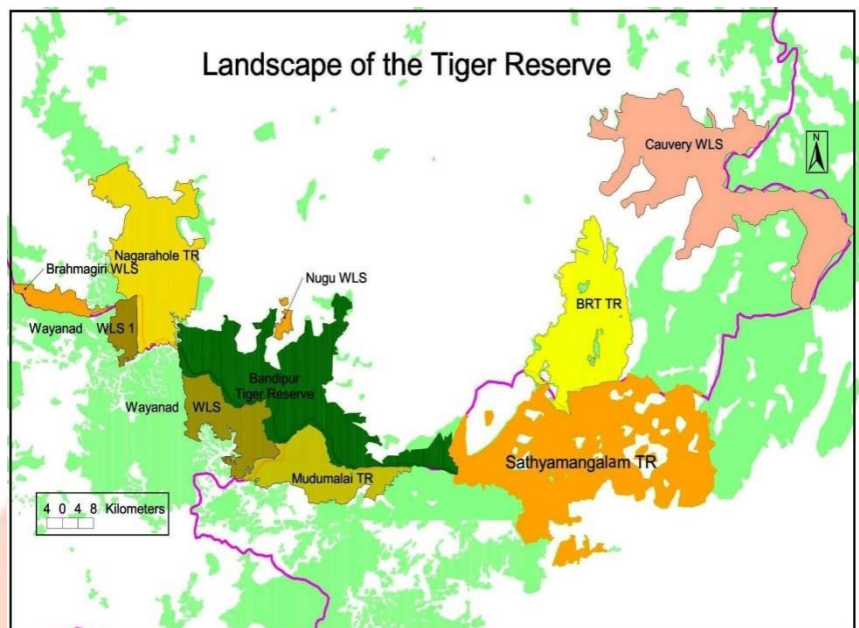
5.2 Waterholes revival in Bandipur Tiger Reserve

- Prolonged monsoon and unseasonal rains have helped to rejuvenate the waterholes in Bandipur Tiger Reserve, Karnataka.
- There are 370 big and small waterholes (a depression in which water collects from where animals usually drink) in Bandipur and 85% of them are full.
- At Bandipur, majority of waterholes dry up by February and March leading to severe water stress situation for animals. But this year, it is expected that the depletion of water levels will take a little longer.
- Also, in the areas of water stress, 37 solar-powered borewells have been arranged that will function to replenish the waterholes periodically to further minimise the water scarcity.

Bandipur Tiger Reserve

- **Established in:** Bandipur Tiger Reserve was established in 1973 under Project Tiger. In 1985, by including adjacent areas from Venugopala Wildlife Park, it was enlarged and named as Bandipur National Park.

- **Location:** The Tiger Reserve is situated in two contiguous districts (Mysore and Chamarajanagar) of Karnataka and is located at the tri-junction area of the States of Karnataka, Tamil Nadu and Kerala. It forms a part of Nilgiri Biosphere Reserve.



- **Ecological Diversity:** Bandipur Tiger Reserve lies in one of the richest biodiversity areas of the country. It is surrounded by
 - Mudumalai Tiger Reserve in the South,
 - Wayanad Wildlife Sanctuary in the South-west &
 - The Kabini Reservoir separates the Bandipur and Nagarahole Tiger Reserve on the North-west.
- **Biodiversity:** The Reserve is endowed with rich floral and faunal diversity and is recognized as one of the Mega Biodiversity Areas in the country. The Tiger and the Elephants are the flagship (iconic or symbolic species for a defined habitat, issue, campaign or environmental cause) and umbrella (species selected for making conservation-related decisions) species for the conservation of all the biota that this ecosystem represents.
 - The Bandipur along with Nagarahole, Mudumalai, Sathyamangalam & Wayanad constitutes the single largest Wild population of Tigers in the world. This landscape comprises of 21% of the total forested area of the Western Ghats and holds one-eighth of the world's Tiger population (one-fourth of India's Tiger population).
 - This Landscape is also home to the single largest Asian Elephant population in the world and is part of the Mysore Elephant Reserve (MER).
- **Rivers:** The park is located between the Kabini river in the north and the Moyar river in the south. The Nuguriver runs through the park. The highest point in the park is on a hill called Himavad Gopalaswamy Betta.

5.3 Coral Restoration Through Biorock

- The Zoological Survey of India (ZSI), with help from Gujarat's forest department, is attempting for the first time a process to restore coral reefs using biorock or mineral accretion technology.

Mineral Accretion Technology

- Also called 'Biorock Technology', it is a method that applies safe, low voltage electrical currents through seawater, causing dissolved minerals to crystallize on structures, growing into a white limestone (CaCO_3) similar to that which naturally makes up coral reefs and tropical white sand beaches.
 - Biorock, also known as Seacrete or Seament, refers to the substance formed by electro-accumulation of minerals dissolved in seawater.
- The formed material has a strength similar to concrete. It can be used to make robust artificial reefs on which corals grow at very rapid rates.
 - Fragments of broken corals are tied to the biorock structure, where they are able to grow at least four to six times faster than their actual growth as they need not spend their energy in building their own calcium carbonate skeletons.
 - The technology also helps corals, including the highly sensitive branching corals, to counter the threats posed by global warming.
- **Working**
 - The technology works by passing a small amount of electrical current through electrodes in the water.
 - When a positively charged anode and negatively charged cathode are placed on the seafloor, with an electric current flowing between them, calcium ions combine with carbonate ions and adhere to the structure (cathode). This results in calcium carbonate formation (CaCO_3).
 - Coral larvae adhere to the CaCO_3 and grow quickly.
- Biorock projects can be powered by a wide range of electrical sources including renewable energy like windmills, photovoltaic solar panels and tidal current generators. This enables their construction in areas where conventional electric power is unavailable.
- The mineral accretion process was first developed by architect Wolf Hilbertz in 1976 in order to provide alternative construction materials. He and Tom Goreau of the Global Coral Reef Alliance later developed its use for reef restoration and shore protection.

Use of Technology in India

- A biorock structure was installed one nautical mile off the Mithapur coast in the Gulf of Kachchh on 19th January, 2020. The scientists have used solar panels for power in this case.

- The calcification (conversion into calcium carbonate) has started but real success will come when attached and new organisms (corals) start grow faster.

Coral Reefs

- Corals are made up of genetically identical organisms called polyps. These polyps have microscopic algae called zooxanthellae living within their tissues.
- The corals and algae have a mutualistic relationship.
 - The coral provides the zooxanthellae with the compounds necessary for photosynthesis.
 - In return, the zooxanthellae supply the coral with organic products of photosynthesis, like carbohydrates, which are utilized by the coral polyps for the synthesis of their calcium carbonate skeletons.
 - Zooxanthellae are also responsible for the unique and beautiful colors of corals.
- It is the above relationship that allows shallow water corals to grow fast enough to build the enormous structures called reefs.
 - Often called the “rainforests of the sea,” coral reefs are home to a spectacular variety of organisms.
- India has four major coral reefs areas: Andaman and Nicobar Islands, Lakshadweep, Gulf of Mannar and the Gulf of Kachchh.
- The coral reefs are threatened by climate change induced acidification as well as by anthropogenic factors such as overfishing, pollution.

Zoological Survey of India

- The Zoological Survey of India (ZSI) is a subordinate organization of the Ministry of Environment and Forests which was established in 1916.
- It is a national centre for faunistic survey and exploration of the resources leading to the advancement of knowledge on the exceptionally rich faunal diversity of the country.
- It has its headquarters at Kolkata and 16 regional stations located in different geographic locations of the country.

5.4 Forest fire prevention and management

- Minister of State for Environment, Forests and Climate Change (MoEF&CC) has provided information about forest fires management and prevention during a reply to the question tabled in Rajya Sabha (Budget Session 2020).
- The area covering 93,273 hectares was affected by forest fires in 2019. However, it also includes “ground fires”, i.e. burning of ground vegetation.

- Forests are a subject in the concurrent list of the Seventh Schedule of the Indian Constitution. The MoEF&CC has prepared a National Action Plan on forest fires (2018) after consultation with all states and Union Territories.
- Additionally, MoEF&CC also provides forest fire prevention and management measures under the Centrally Sponsored Forest Fire Prevention and Management scheme,

National Action Plan on Forest Fires

- National Action Plan on Forest Fires (NAPFF) was launched in 2018 to minimise forest fires by informing, enabling and empowering forest fringe communities and incentivising them to work with the State Forest Departments.
- The plan also intends to substantially reduce the vulnerability of forests across diverse forest ecosystems in the country against fire hazards.
- It also aims to enhance capabilities of forest personnel and institutions in fighting fires and swift recovery subsequent to fire incidents.

Forest Fire Prevention and Management Scheme

- The Forest Fire Prevention and Management Scheme (FPM) is the only centrally funded program specifically dedicated to assist the states in dealing with forest fires.
- The FPM replaced the Intensification of Forest Management Scheme (IFMS) in 2017. By revamping the IFMS, the FPM has increased the amount dedicated for forest fire work.
- Funds allocated under the FPM are according to a center-state cost-sharing formula, with a 90:10 ratio of central to state funding in the Northeast and Western Himalayan regions and a 60:40 ratio for all other states.
- It also provides the states to have the flexibility to direct a portion of the National Afforestation Programme (NAP) and Mission for Green India (GIM) funding toward forest fire work.

5.5 Indian Pangolin

The Madhya Pradesh forest department, for the first time, has radio-tagged an Indian Pangolin.

- Radio-tagging involves attaching a transmitter to an animal to monitor its movements. Several wild animals — tigers, leopards and migratory birds — have been tagged over decades.
- Indian Pangolin has been radio-tagged in order to know its ecology and develop an effective conservation plan for it.
- This measure comes as the world gets ready to observe the ninth ‘World Pangolin Day’ on 15th February, 2020.
 - World Pangolin Day, celebrated on the third Saturday in February every year, is an international attempt to raise awareness of pangolins and bring together stakeholders to help protect these species from extinction.

- The radio-tagging is part of a joint project by the forest department and non-profit organisation, the Wildlife Conservation Trust (WCT).

Pangolins in India

- Out of the eight species of pangolin, the Indian Pangolin (*Manis crassicaudata*) and the Chinese Pangolin (*Manis pentadactyla*) are found in India.
- Indian Pangolin is a large anteater covered by 11-13 rows of scales on the back. A terminal scale is also present on the lower side of the tail of the Indian Pangolin, which is absent in the Chinese Pangolin.
- **Habitat**
 - Indian Pangolin is widely distributed in India, except the arid region, high Himalayas and the North-East. The species is also found in Bangladesh, Pakistan, Nepal and Sri Lanka.
 - Chinese Pangolin is found in the Himalayan foothills in Eastern Nepal, Bhutan, Northern India, North-East Bangladesh and through Southern China.
 - Threats to Pangolins in India: Hunting and poaching for local consumptive use (e.g. as a protein source and traditional medicine) and international trade for its meat and scales in East and South East Asian countries, particularly China and Vietnam.
 - Protection Status
 - IUCN Red List
 - Indian Pangolin: Endangered
 - Chinese Pangolin: Critically Endangered
 - Both these species are listed under Schedule I, Part I of the Wildlife (Protection) Act, 1972.

5.6 CMS COP-13

India is hosting the 13th Conference of Parties (COP) of the Convention on the Conservation of Migratory Species of Wild Animals (CMS) from 17th to 22nd February, 2020 at Gandhinagar in Gujarat.

- The theme of CMS COP-13 is 'Migratory species connect the planet and we welcome them home'.
- The mascot for CMS COP-13 is 'Gibi – The Great Indian Bustard'. It is a critically endangered species (according to the IUCN) and has been accorded the highest protection status (listed in Schedule I) under the Wildlife Protection Act, 1972.

Convention on the Conservation of Migratory Species of Wild Animals

- In order to protect the migratory species throughout their range countries, a Convention on Conservation of Migratory Species (CMS), has been in force since 1983, under the aegis of the United Nations Environment Programme.
- Also referred to as the Bonn Convention, it provides a global platform for the conservation and sustainable use of migratory animals and their habitats and 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.

- Under this convention, migratory species threatened with extinction are listed on Appendix I and Parties strive towards strictly protecting these animals, conserving or restoring the places where they live, mitigating obstacles to migration and controlling other factors that might endanger them.
- Migratory species that need conservation and management or would significantly benefit from international co-operation are listed in Appendix II of the Convention.
- India has signed a non legally binding Memorandum of Understanding (MoU) with CMS on the conservation and management of Siberian Cranes (1998), Marine Turtles (2007), Dugongs (2008) and Raptors (2016).
 - 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.

5.7 Wildfires in the Mukurthi National Park

- Ahead of summer and peak fire season, ‘fire lines’ or ‘fire breaks’, in the Mukurthi National Park (MNP) are being constructed by the Tamil Nadu government.
- Fire line is an artificially formed break in foliage or forest cover to control the spread of wildfires by limiting the amount of combustible vegetation available.
- Other Measures Being Taken to Control Wildfires in the Park :
 - Cool Burning : Cool burning is done in a controlled manner by artificially creating small, localised fires to limit the amount of vegetation available in any given area. It means that any fires will not have any build-up of “vegetative fuel” to use to become a large, uncontrollable fire.
 - Removal of invasive trees such as wattle is also being done in the Park in order to reduce the fuel for wildfires.

Wildfires

- Wildfire is a general term which includes any uncontrolled, unplanned forest fires, grassland fires, bushfires, brush fires and any other vegetation fire in countryside areas.
- Wildfires occur in every continent except Antarctica.

Mukurthi National Park

- **Extent:** Mukurthi National Park (MNP) is located in the northwest corner of Tamil Nadu in the Western Ghats. It is a part of Nilgiri Biosphere Reserve (UNESCO World Heritage Site) along with Mudumalai Wildlife Sanctuary, Bandipur National Park, Nagarhole National Park, Wayanad Wildlife Sanctuary and Silent Valley.

- **Keystone Species :** The park was created to protect its keystone species, the NilgiriTahr.
 - There has been almost a 27% increase in the population of the Tahr in the Nilgiris over the last few years.
- **Forest Type:** The park is characterised by montane grasslands and shrublands interspersed with sholas in a high altitude area of high rainfall, near-freezing temperatures and high winds.
- **Peaks:** The Park is also home to Mukurthi Peak, one of the highest peaks in the Nilgiri Hills.
- **Tribes Living Inside:**Todas
 - Todas are a pastoral tribe of the Nilgiri Hills.

5.8 State of India's Bird 2020

Recently, the State of India's Bird 2020 was released at the 13th Conference of Parties of the Convention on the Conservation of Migratory Species of Wild Animals which is taking place in Gandhinagar, Gujarat.

- The first-of-its-kind analysis was carried out by ten research and conservation organisations across India.
- It used a massive database of over 10 million observations uploaded by 15,000 birdwatchers on the online platform (e-Bird) and 'citizen science data' to assess the distribution and trends of common Indian birds.

Declining trend:

- The groups that show the greatest decline are raptors, migratory shorebirds, and habitat specialists, including White-rumped Vulture, Richard's Pipit, Indian Vulture, Large-billed Leaf Warbler, Pacific Golden Plover and Curlew Sandpiper.

Increasing Trend:

- The species that have shown an increase in numbers include Rosy Starling, Feral Pigeon, Glossy Ibis, Plain Prinia and the Ashy Prinia

Categorisation of Birds:

- The study categorised 101 species as "high concern", 319 as "moderate concern" and 442 into "low concern".
- Out of the species categorised as a high concern, 26% are classified globally by IUCN as "least concern".

Analysis of Species

Indian Peacocks:

- The numbers of India's national bird, the Indian Peacock, has increased dramatically over the past few decades.

- The increase in numbers of the species has been attributed to a combination of the bird expanding its range (earlier it was absent in Kerala), conservation efforts and associated penalties for poaching under Schedule I of the Wildlife Act.
- It is listed as 'Least Concern' on the IUCN Red List.

Indian vultures:

- It has experienced catastrophic population declines starting in the early 1990s.
- The declines are almost entirely attributable to inadvertent poisoning by the livestock anti-inflammatory drug diclofenac.
- Surveys conducted have shown that White-rumped Vulture has suffered the most severe declines, followed by Indian Vulture and Egyptian Vulture.

House Sparrow:

- The House Sparrow has been found to be stable across the country as a whole, although declining in the major cities.
- It has been declared as the "State Bird of Delhi" to save the species and enhance awareness about their life and habitat.
- The reasons for the decline include decreasing insect populations (a key part of the diet of sparrow chicks) and paucity of suitable nesting sites.
- Moreover, the popular theory that radiation from mobile phone towers is a factor is not supported by the findings of this report.

Bustards in India:

- All the four species of bustards in India (the Great Indian Bustard, Macqueen's Bustard, Lesser Florican and Bengal Florican) have suffered continuous population declines.
- The decline is observed due to historical hunting and widespread habitat loss, with their slow growth and reproduction.

Waterbirds:

- It showed overall long-term declines, amongst which migratory shorebirds and gulls and terns appear to have declined the most.
- Overall, migratory species (both long-distance and within-subcontinent) show steeper declines than residents.

Key Recommendations

- Updation of global and national priorities using conservation assessments.
- Fund conservation efforts on High Concern species and habitats where species have declined.
- Support monitoring efforts by citizen scientists and researchers.
- Promote collaborations between researchers and the public at large

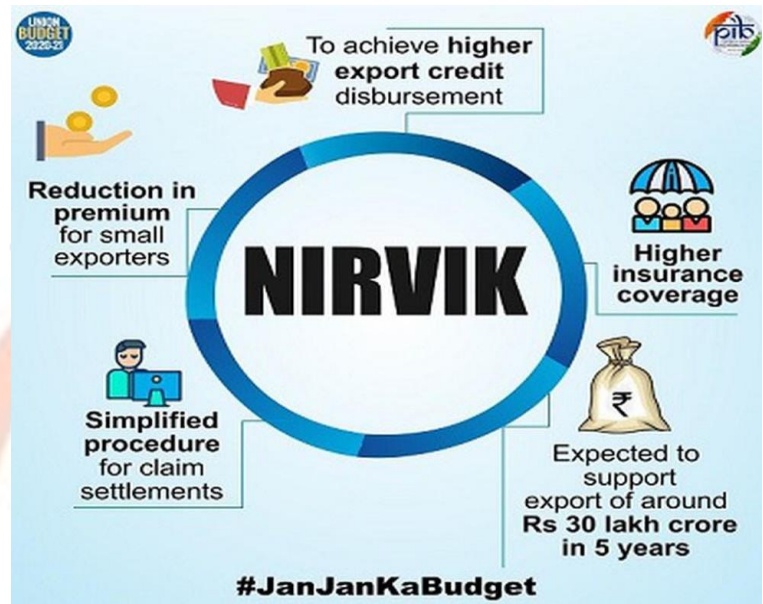
6. GOVERNMENT SCHEMES

6.1 Nirvik Scheme

The Finance Minister announced the NIRVIK scheme in the Union Budget 2020-21 in Parliament.

About the scheme

- To achieve higher export credit disbursement, a new scheme NIRVIK is being launched which provides for high insurance cover, reduction in premium for small exporters and simplified procedures for claim, settlement



- The Scheme is being prepared by the Commerce and Industry Ministry.

- Under the Scheme, also called the Export Credit Insurance Scheme (ECIS), the insurance guarantee could cover up to 90% of the principal and interest.
- India's exports contracted for a fifth month in a row by 1.8 percent in December 2019 to USD 27.36 billion and imports declined 8.9 percent to USD 357.39 billion, leaving a trade deficit of USD 118.10 billion.

6.2 PMMVY Awards

Union Minister of Women & Child Development gave away the “PradhanMantriMatruVandanaYojana (PMMVY)” awards to States, Union Territories and Districts for best performance.

PMMVY:

- PMMVY stands for “PradhanMantriMatruVandanaYojana”.
- The PMMVY is a **maternity benefit programme** being implemented in all districts of the country from 01.01.2017.
- Under PMMVY a cash incentive of 5000 is provided directly to the bank/ post office account of **Pregnant Women and Lactating Mothers (PW&LM)** for the first living child of the family subject to fulfilling specific conditions relating to maternal and child health.
- PMMVY is implemented using the platform of **Anganwadi Services Scheme** of Umbrella **ICDS** under the Women Child Development Ministry in respect of States/ UTs implementing scheme through Women and Child Development Department/ Social Welfare Department and through

health system in respect of States/ UTs where scheme is implemented by Health and Family Welfare Department.

Key Data's:

- In the category of best performance since inception of the Scheme to **States/ UTs having population of more than 1 crore** the first position was awarded to the State of
 - Madhya Pradesh, followed by
 - Andhra Pradesh and
 - Haryana was in the third position
- In the same category, among **States/ UTs having population of less than 1 crore**
 - Dadra & Nagar Haveli is in the first position
 - Himachal stood second and
 - Chandigarh is at the third position
- **District level awards** for States/ UTs with population of **more than 1 crore**
 - The first position went to Indore in Madhya Pradesh.
 - Kurnool in Andhra Pradesh is in second position and
 - South SalmaraMankachar in Assam was third.
- Among the **Districts of States/ UTs having population of less than 1 crore** the
 - First position went to Serchhip in Mizoram
 - Second position to Unain Himachal Pradesh and
 - Puducherry was in the third position
- The second category of awards was announced for performance by States/ UTs during the .

Matru Vandana Saptah (MVS) held from 2nd to 8th December 2019.

- The objective of observing MVS was to **increase the implementation of the Scheme and create a healthy competition** amongst States/ UTs. The theme of the Saptah was “**towards building a healthy nation – SurakshitJanani, ViksitDharini**”.
- Awards for MatruVandanaSaptah for the States/ UTs having population more than 1 crore
- The first position for **outstanding performance** went to Andhra Pradesh,
 - Maharashtra stood second and
 - Madhya Pradesh came third
- The States/ UTs having population of **less than one crore**, who were recognized for their outstanding performance during the MatruVandanaSaptah were
 - Dadra & Nagar Haveli which was first,
 - Sikkim came second and
 - Manipur third

6.3 Sophisticated Analytical & Technical Help Institutes: SATHI

The Department of Science & Technology (Ministry of Science and Technology) has launched a unique scheme called Sophisticated Analytical & Technical Help Institutes (SATHI).

- The DST has already set up 3 such centres in the country, one each at IIT Kharagpur, IIT Delhi and BHU. It is planned to set up 5 SATHI Centres every year for the next four years.
- These Centres have major analytical instruments and advanced manufacturing facilities to provide common services of high-end analytical testing, thus avoiding duplication and reduced dependency on foreign sources.

Key Points

- Science and Technology infrastructure:
 - Address the need for shared, professionally managed and strong Science and Technology infrastructure in the country which is easily accessible to academia, start-ups, manufacturing, industry and R&D labs.
- Efficient Use of Equipments:
 - Address the problems of accessibility, maintenance, redundancy and duplication of expensive equipment in Institutions.
- Intellectual Property Rights :
 - Address the issue of Intellectual property (IP) creation and protection, a digital platform will be created which will facilitate seamless application and capture IPRs (Intellectual Property Rights).
- Knowledge Translation Clusters:
 - These clusters will be set up across different technology sectors including in new and emerging sectors for designing, fabrication and proof of concept and further scaling up technology clusters.
- Besides the SATHI initiative, extra funds to 100 top-performing departments in universities and IITs etc will be provided in 2020 for augmentation of their research facilities to global benchmarks.
- The research efforts of these supported departments will be in sync with the national priorities of excellence in manufacturing, waste processing, clean energy and water, and Start-up India, etc.

SAATHI & SATH

- SAATHI (Sustainable and Accelerated Adoption of efficient Textile technologies to Help Small Industries) Initiative
 - It is an initiative of the Ministry of Textiles.
 - Objective: To sustain and accelerate the adoption of energy efficient textile technologies in the powerloom sector and cost savings due to use of such technology.
- SATH (Sustainable Action for Transforming Human capital) Program

- It is a program of NITI Aayog.
- Objective: To initiate transformation in the education and health sectors and build 3 future 'role model' states.
- The program addresses the need expressed by many states for technical support.

6.4 Top 20 Smart Cities to help bottom 20 as 'Sister Cities'

- The Ministry of Housing and Urban Affairs has decided to pair the 20 best performing smart cities as 'sister cities' with the poorly performing 20 Smart Cities.
- According to the list, PM Modi's parliamentary constituency Varanasi will guide Amritsar. Similarly, Ahmadabad will help to improve Chandigarh.
- These 'sister cities' will help each other to implement projects under the same mission.
- The Ministry of Housing Urban Affairs has issued an advisory for the same to select 20 best and 20 worst cities.
- The smart city mission aimed at ensuring the overall development of various cities in the world.

Top-20 Smart Cities

- According to internal rankings, 20 best performing Cities are - Ahmedabad, Varanasi, Ranchi, Udaipur, Nagpur, Bhopal, Surat, Kanpur, Visakhapatnam, Vellore, Tiruppur, Vadodara, Nashik, Agra, Dehradun, Davanagere, Kota, Pune, Indore, and Amravati.
- The program of pairing the best performing smart cities to poorly performing smart cities as 'sister cities' is being called 20-20 formula.
- Sister Cities will sign a memorandum agreement on February 20 under this program.

Smart Cities Mission

- Smart Cities Mission, sometimes referred to as Smart City Mission, is an urban renewal and retrofitting program by the Government of India with the mission to develop 100 smart cities across the country making them citizen friendly and sustainable.
- The Union Ministry of Urban Development is responsible for implementing the mission in collaboration with the state governments of the respective cities.

6.5 Ayushman Bharat : School Health Ambassador Initiative launched

- National Council of Educational Research and Training (NCERT), along with Union Ministry of Health and Family Welfare and Union Ministry of Human Resource Development, has prepared a curriculum for the School Health Ambassadors.
- Under the scheme, two teachers, preferably one male and one female, will be appointed as Health and Wellness Ambassadors, who will teach students about the promotion of health as well as the prevention of diseases.

- NCERT and the ministries have prepared the training material for the ambassadors in line with the Sustainable Development Goals – 3 (SDG-3).
- This programme is in addition to the ongoing Rashtriya Bal Swasthya Karyakram (RBSK), a health screening programme being carried out by RBSK, and the provision of health services like IFA, Albendazole and sanitary napkins.
- Initially, the curriculum will be implemented in the public upper primary, secondary and senior secondary schools of those districts which volunteer. The remaining districts will be covered in the second year.
- NCERT has constituted a 40-member National Resource Group (NRG) for the training purposes.
- All the NRG members are well trained and experienced in Adolescent Health and they will further train State Resource Groups comprising of six persons from each selected district at the five Regional Institute of Education (RIE) at Mysore, Shillong, Bhubaneswar, Ajmer, and Bhopal.

Ayushman Bharat-National Health Protection Mission

- Ayushman Bharat is National Health Protection Scheme, which will cover over 10 crore poor and vulnerable families (approximately 50 crore beneficiaries) providing coverage upto 5 lakh rupees per family per year for secondary and tertiary care hospitalization.
- Ayushman Bharat - National Health Protection Mission will subsume the on-going centrally sponsored schemes - Rashtriya Swasthya Bima Yojana (RSBY) and the Senior Citizen Health Insurance Scheme (SCHIS).

Salient Features

- Ayushman Bharat - National Health Protection Mission will have a defined benefit cover of Rs. 5 lakh per family per year.
- Benefits of the scheme are portable across the country and a beneficiary covered under the scheme will be allowed to take cashless benefits from any public/private empanelled hospitals across the country.
- Ayushman Bharat - National Health Protection Mission will be an entitlement based scheme with entitlement decided on the basis of deprivation criteria in the SECC database.
- The beneficiaries can avail benefits in both public and empanelled private facilities.
- To control costs, the payments for treatment will be done on package rate (to be defined by the Government in advance) basis.
- One of the core principles of Ayushman Bharat - National Health Protection Mission is to co-operative federalism and flexibility to states.

- For giving policy directions and fostering coordination between Centre and States, it is proposed to set up Ayushman Bharat National Health Protection Mission Council (AB-NHPMC) at apex level Chaired by Union Health and Family Welfare Minister.
- States would need to have State Health Agency (SHA) to implement the scheme.
- To ensure that the funds reach SHA on time, the transfer of funds from Central Government through Ayushman Bharat - National Health Protection Mission to State Health Agencies may be done through an escrow account directly.
- In partnership with NITI Aayog, a robust, modular, scalable and interoperable IT platform will be made operational which will entail a paperless, cashless transaction.

6.6 Atal Bhujal Yojana: GOI and World Bank signed loan agreement to improve groundwater in India

- The Government of India and the World Bank signed a \$450 million loan agreement to support the national programme (Atal Bhujal Yojana) to arrest the country's depleting groundwater levels and strengthen groundwater institutions.
- The \$450 million loan, from the International Bank for Reconstruction and Development (IBRD), has a 6-year grace period, and a maturity of 18 years.

Atal Bhujal Yojana

- **Aim**

The Atal Bhujal Yojana intends to strengthen the institutional framework for participatory groundwater management and encourage behavioral changes at the community level for sustainable groundwater resource management.

- **Key features**

- The programme will introduce a bottom-up planning process for community-driven development of water budgets and Water Security Plans (WSPs).
- Water budgets will assess surface and groundwater conditions (both quantity and quality) and identify current and future needs.
- The WSP, on the other hand, will focus on improving groundwater quantity and incentivize selected states to implement the actions proposed.
- The Yojana can be divided largely into two segments – one is in institutional capacity and the other involves incentivizing states.
- The Programme will support on-ground actions that are based on community ownership and judicious management of water resources.
- It is to be implemented over a period of 5 years (2020-21 to 2024-25).

- The former will include efforts to increase the capacity for sustainable groundwater management, strengthening of water user associations etc.
- The latter will reward states for improved data dissemination on groundwater, preparing water security plans, converging multiple schemes and so on.
- The scheme is an updated and modified version of the Groundwater Management and Regulation scheme which is in force since 2013.

Implementation

- The World Bank-supported Atal Bhujal Yojana (ABHY) – National Groundwater Management Improvement Programme will be implemented in the states of Gujarat, Maharashtra, Haryana, Karnataka, Rajasthan, Madhya Pradesh, and Uttar Pradesh and cover 78 districts. These states span both the hard rock aquifers of peninsular India and the alluvial aquifers of the Indo-Gangetic plains.

Criteria for selecting these states

- They were selected based on several criteria, including
 - Degree of groundwater exploitation and degradation
 - Established legal and regulatory instruments
 - Institutional readiness, and
 - Experience in implementing initiatives related to groundwater management.

Significance of the project

- The programme will, among others, enhance the recharge of aquifers and introduce water conservation practices
- Promote activities related to water harvesting, water management, and crop alignment
- Create an institutional structure for sustainable groundwater management; and
- Equip communities and stakeholders to sustainably manage groundwater.

6.7 Pradhan Mantri Fasal Bima Yojana: 4th National Conference held in Udaipur

- The fourth National Conference of Pradhan Mantri Fasal Bimayojana was held in Udaipur, Rajasthan. The Conference was organized by Ministry of Agriculture and Farmers Welfare.
- The Conference was attended by more than 140 members. It included members from NABARD (National Bank of Agriculture and Rural Development), RBI(Reserve Bank of India), insurance companies, etc.
- Currently, the scheme has three active participants namely the state government, banking sector and the insurance sector.
- According to the experts at the conference, for the scheme to achieve success, active participation of all the three stakeholder is essential.

PradhanMantriFasalBimaYojana

- The scheme was launched in 2016. It replaced the Modified National Agricultural Insurance Scheme and National Agricultural Insurance Scheme.
- Under the scheme the farmers are paid a premium of 2% for Kharif crops and 1.5% for Rabi crops in case of crop damages. The scheme is in line with One Nation-One Scheme theme.

6.8 Soil Health Card Day 2020

- Soil health card day highlights the report of soil's current health status. Farmers get health status recommendations through this card.
- This day is being observed across the country on February 19, 2020
- The government of India organizes various awareness and informative programs of this day for farmers.
- A government agency collects the soil samples from villages and distributes Soil Health Cards to all the farmers. Apart from that, farmers are also given information about using natural fertilizers.

Significance of Soil Health Card Day

- Soil health card day highlights the report of soil's current health status.
- The soil health status report is prepared by the soil testing laboratory and issued a card which is called the Soil Health Card.
- Farmers get the health status recommendations through this card and increase the fertility of their farm soil.
- Soil Health Card helps farmers to increase crop production by using a balanced amount of fertilizers.
- Farmers realize the fertile strength, status and capacity of their farm soil through Soil Health Card.
- This day highlights all these benefits to the farmers. It is also important to know the type of soil. Mostly, three kinds of soil land is found in India - Saline, Alkaline and Acidic.

Benefits of Soil Health Card

- Farmers get detailed information about their farm soil health.
- A Soil Health Card also informs about the suitability of the soil for which crops. As per the media reports, farmers can increase crop production by using balanced amounts of fertilizers for the selected crop based on nutrients available in the soil.
- A Soil Health Card also informs that excessive use of fertilizers is not good for crops. This soil health card also helps to save money to increase the fertility of the soil.

6.9 Swachh Bharat Mission (Grameen) Phase-II Approved

- The Union Cabinet has approved the Phase II of the Swachh Bharat Mission (Grameen) [SBM (G)].
- It will focus on Open Defecation Free Plus (ODF Plus), which includes ODF sustainability and Solid and Liquid Waste Management (SLWM).

Key Points

- SBM (G) Phase-II will be implemented from 2020-21 to 2024-25 in a mission mode with a total outlay of Rs. 1,40,881 crores.
- Funding Pattern and Norms: The fund sharing pattern between Centre and States will be 90:10 for North-Eastern States and Himalayan States and UT of J&K; 60:40 for other States; and 100% for other Union Territories.
 - Funding Norms for Solid and Liquid Waste Management (SLWM) have been rationalized and changed to per capita basis in place of number of households.
- The SLWM component of ODF Plus will be monitored on the basis of output-outcome indicators for 4 key areas:
 - Plastic waste management,
 - Biodegradable solid waste management (including animal waste management),
 - Greywater management
 - Fecal sludge management.
- It will continue to generate employment and provide impetus to the rural economy through construction of household toilets and community toilets, as well as infrastructure for SLWM such as compost pits, soak pits, waste stabilisation ponds, material recovery facilities etc.
 - It will also help the rural India effectively handle the challenge of solid and liquid waste management and will help in substantial improvement in the health of the villagers in the country.
- **Swachh Bharat Mission (G) Phase-I:** The rural sanitation coverage in the country at the time of launch of SBM (G) on Oct, 2 2014 was reported as 38.7%.
 - More than 10 crore individual toilets have been constructed since the launch of the mission; as a result, rural areas in all the States have declared themselves ODF as on 2nd October, 2019.

6.10 TILHAN Mission

- Union Agriculture Minister announced that the government will launch Tilhan Mission to make the country self-reliant in oilseed production.
- India is the fourth largest vegetable oil economy in the world after the USA, China and Brazil.
- Today, the oilseeds account for 13% of the cropped area in the country.
- Still, India is the largest importer of palm oil in the world.
- **Second Advance Estimates of Production of Oilseeds for 2019-20:**
 - Total Oilseeds production in the country during 2019-20 is estimated at 34.19 million tonnes which is higher by 2.67 million tonnes than the production of 31.52 million tonnes during 2018-19.

- Further, the production of oilseeds during 2019-20 is higher by 4.54 million tonnes than the average oilseeds production.

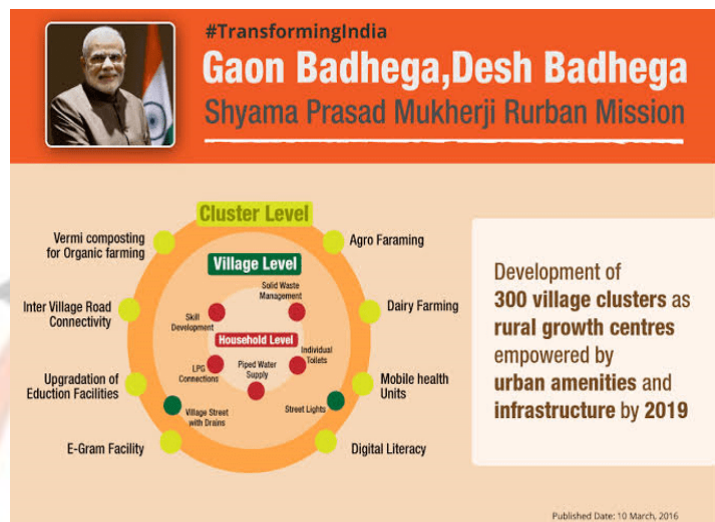
6.11 Union Cabinet approves Revamping of PM FasalBimaYojana and RWBCIS schemes to address challenges

- The Union Cabinet approved revamping of challenges in insurance schemes such as PradhanMantriFasalBimaYojana (PMFBY) and Restructured Weather Based Crop Insurance Scheme (RWBCIS).
- These changes are proposed to be implemented from Kharif 2020 Season throughout the Country.
- **It is proposed to modify certain parameters/provisions of ongoing schemes of PMFBY and RWBCIS as under:**
 - Allocation of business to Insurance Companies to be done for three years (Both PMFBY/RWBCIS).
 - The option shall be given to States/UTs to choose Scale of Finance or district level Value of National Average Yield (NAY) i.e. NAY* Minimum Support Price (MSP) as Sum Insured for any district crop combination (Both PMFBY/RWBCIS).
 - Central Subsidy under PMFBY/RWBCIS to be limited for premium rates upto 30% for unirrigated areas/crops and 25% for irrigated areas/crops.
 - Districts having 50% or the more irrigated area will be considered as irrigated area/district (Both PMFBY/RWBCIS).
 - Enrolment under the Scheme to be made voluntary for all farmers (Both PMFBY/RWBCIS).
 - Central Share in Premium Subsidy to be increased to 90% for the North Eastern States from the existing sharing pattern of 50:50 (Both PMFBY/RWBCIS).
- **Benefits:**
 - With these changes, it is expected that farmers would be able to manage risk in agriculture production in a better way and will succeed in stabilizing the farm income.
 - Further, it will increase coverage in the northeastern region enabling farmers of NER to manage their agricultural risk in a better way.
 - These changes will also enable quick and accurate yield estimation leading to faster claims settlement

6.12 Shyama Prasad Mukherji Rurban Mission

- 4th anniversary of the Shyama Prasad Mukherji Rurban Mission observed. It was Launched from Kurubhat in Rajnandgaon District of Chhattisgarh on 21st February 2016.
- About Shyama Prasad MukherjiRurban Mission:
 - Launched in 2016, the programme is designed to deliver catalytic interventions to rural areas on the threshold of growth. It is now a Centrally Sponsored Scheme.

- **Funding:** Shared between the Centre and the State in a ratio of 60:40 for Plain area States and 90:10 for Himalayan and NE States.
- The Mission aims at development of 300 Rurban clusters, in five years. The objective is to give a boost to economic activities, skill development and infrastructure amenities in the regions.
- **Development:** Under the mission, the Central government in coordination with the district administration has taken measures to bring about multi-layered phased development of the rural gram panchayats and villages on the lines of urban cities with proper civic amenities keeping the soul of villages intact.



- **What are Rurban areas? Why develop them?**

- A 'Rurban cluster', would be a cluster of geographically contiguous villages with a population of about 25000 to 50000 in plain and coastal areas and with a population of 5000 to 15000 in desert, hilly or tribal areas.
- These clusters typically illustrate potential for growth, have economic drivers and derive locational and competitive advantages.

- **The larger outcomes envisaged under this Mission are:**

- Bridging the rural-urban divide-viz: economic, technological and those related to facilities and services.
- Stimulating local economic development with emphasis on reduction of poverty and unemployment in rural areas.
- Spreading development in the region.
- Attracting investment in rural areas.

6.13 PM KISAN Scheme

- PM-KISAN Scheme completes one year on February 24, 2020.
- So far, over 8 crore 46 lakh farmers covered under PradhanMantriKisanSammanNidhi. Central Government transfers Rs.6,000 in three tranches every year to beneficiaries.

About Pradhan Mantri Kisan Samman Nidhi:

- The scheme was started with a view to augment the income of the farmers by providing income support to all landholding farmers' families across the country, to enable them to take care of expenses related to agriculture and allied activities as well as domestic needs. Under the Scheme an amount of Rs.6000/- per year is transferred in three 4-monthly installments of Rs.2000/- directly into the bank accounts of the farmers, subject to certain exclusion criteria relating to higher income status.
- The entire responsibility of identification of beneficiaries rests with the State / UT Governments.

INTERIM BUDGET 2019-20

Pradhan Mantri Kisan Samman Nidhi (PM-KISAN)

Direct income support of ₹6,000 p.a for farmers, effective 01.12.2018

To benefit 12 cr small and marginal farmer families having cultivable land upto 2 ha

Direct transfer into the bank accounts in three equal instalments

First installment upto 31.03.2019, to be paid this year itself

₹75,000 cr in outlay for 2019-20 and ₹20,000 cr in RE 2018-19

Pradhan mantra kisan samman**Scope:**

- The Scheme initially provided income support to all Small and Marginal Farmers' families across the country, holding cultivable land upto 2 hectares.
- Its ambit was later expanded w.e.f. 01.06.2019 to cover all farmer families in the country irrespective of the size of their land holdings.

Exceptions:

- Affluent farmers have been excluded from the scheme such as Income Tax payers in last assessment year, professionals like Doctors, Engineers, Lawyers, Chartered Accountants etc and pensioners drawing at least Rs.10,000/- per month (excluding MTS/Class IV/Group D employees).

6.14 GoI launches "SPICe+" to improve Ease of Doing Business in the country

- The Government of India launched SPICe+, a web form that integrates 10 services of various ministries and departments.
- This will help boost Ease of Doing Business in India.
- It was launched by the Ministry of Corporate Affairs. India ranked 63rd in Ease of Doing Business ranking published by World Bank.
- **Highlights**
 - The Simplified Proforma for Incorporating Company Electronically Plus provides 10 services thereby saving time, cost for starting a business in India.

- It offers 10 services namely DIN allotment, issue of PAN, TAN, EPFO. ESIC registration, opening bank account for a company, allotment of GSTIN, issue of Profession Tax, etc.
 - The service will help to improve Ease of Doing Business in the country, especially for a startup.
 - **Ease of Doing Business Ranking**
 - In 2019, the World Bank placed India at the 136th rank for Ease of Starting Business.
 - It was provided the 154th and 115th ranks for paying taxes and enforcing contracts respectively.
- Therefore, it is essential for initiatives such as SPICe+ to improve India's position globally.

6.15 EESL of GoI completes one successful year in making India Energy Efficient

- The EESL (Energy Efficiency Services Limited) recently celebrated its 10 years of successful operation. The Company adopted the policy of making India Energy Efficiency a year back.
- It has successfully completed its one year of energy efficiency policy.
- **Highlights**
 - In the last one year, the company has installed more than 10 lakh smart meters all over India under the Smart Meter National Programme.
 - The company has replaced more than 10.6 million street light bulbs with LED lights. This helped to reduce 20 million tonnes of Carbon-Dioxide.
 - Low cost LED bulbs were distributed through UnnatJyoti Programme (UJALA). Today, UJALA is the largest domestic lighting project in the world.
- **About EESL**
 - EESL is the largest energy service company in the world.
 - Apart from Indian projects, the company has also taken up transformation in foreign countries such as UK, south Asia, Middle East and South-East Asia.
- **Way Forward**
 - In the future, the company is to commission 100 MW of decentralized solar power plants.

6.16 National Technical Textile Mission

The Cabinet Committee on Economic Affairs has given its approval to set up a National Technical Textiles Mission with a view to position the country as a global leader in Technical Textiles.

What are Technical Textiles?

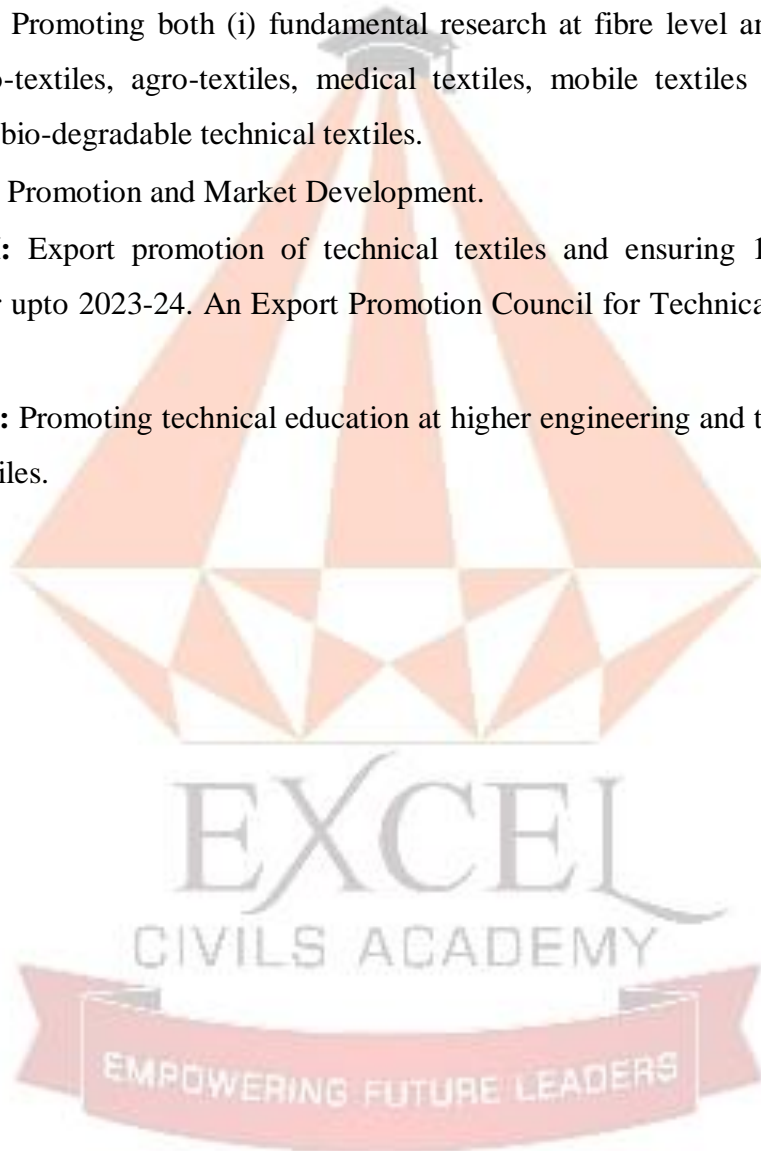
- Technical textile is a textile product manufactured for non-aesthetic purposes, where the function is primary criterion.
- They are functional fabrics that have applications across various industries including automobiles, civil engineering and construction, agriculture, healthcare, industrial safety, personal protection etc.
- Technical Textiles is a high technology sunrise sector which is steadily gaining ground in India.

National Technical Textiles Mission

- The Mission would have a four year implementation period from FY 2020-21 to 2023-24.
- It will move into sunset phase after four years period.
- A Mission Directorate in the Min. of Textiles headed by an eminent expert in the related field will be made operational.
- The Directorate will not have any permanent employment and there will be no creation of building infrastructure for the Mission purpose.

Components of the mission

- **Component-I:** Promoting both (i) fundamental research at fibre level and (ii) application-based research in geo-textiles, agro-textiles, medical textiles, mobile textiles and sports textiles and development of bio-degradable technical textiles.
- **Component-II:** Promotion and Market Development.
- **Component-III:** Export promotion of technical textiles and ensuring 10% average growth in exports per year upto 2023-24. An Export Promotion Council for Technical Textiles will be set up for this purpose.
- **Component-IV:** Promoting technical education at higher engineering and technology levels related to technical textiles.



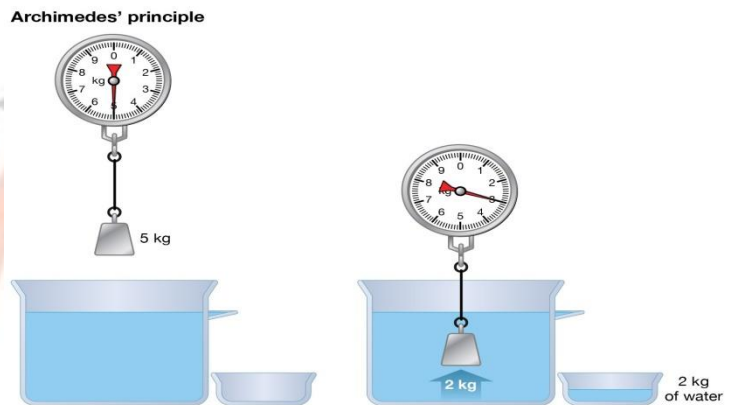
7. SCIENCE & TECHNOLOGY

7.1 Archimedes Principle

Recently, Archimedes Principle was used in Jharkhand to rescue baby elephant stuck in a well. The rescue team filled the well with water using motorized pipes, after which the struggling elephant floated to the top and was able to climb out through a ramp placed for it.

What is the 'Archimedes Principle'?

- In physics, the Archimedes Principle refers to the law of buoyancy (the ability or tendency of something to float in water or other fluids).
- According to the principle, when an object is completely or partially submerged in a fluid, whether gas or liquid, it is acted upon by an upward force (buoyancy) equal to the weight of the fluid it has displaced.
- The force acting downward on the object is the weight of the object. The upward force is the one given by the Archimedes Principle.
- The difference between the two forces is the net force acting on the object.
- If the buoyant force is more than the weight, the object rises; if it is less, the object sinks.
- If the net force is zero, the object remains in place, and neither rises nor sinks.

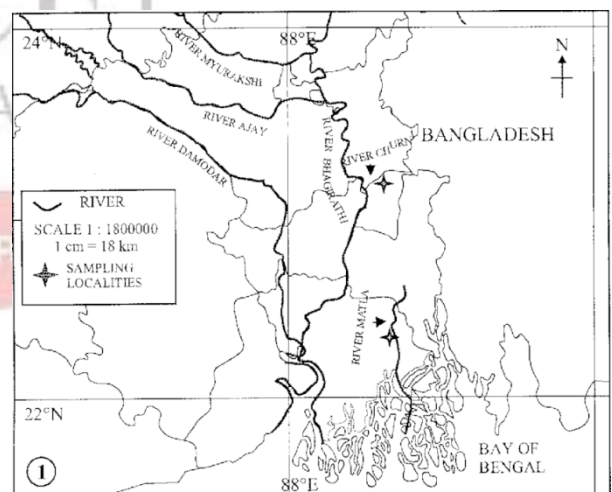


7.2 Navy conducts Coastal security exercise 'Matla Abhiyaan'

- The Indian Navy carried out a five-day coastal security exercise, "Matla Abhiyaan" along the riverine border with Bangladesh
- The exercise is named after Matla River.
- It aims to interact with coastal communities to spread awareness on coastal security. It also seeks to understand the navigational complexities in the Sunderban deltaic waters.

Matla River:

- It is a tidal river in South 24 Parganas district of West Bengal.
- It forms a wide estuary in and around the Sundarbans.



7.3 Velutheeyam Alloy

- A tri-metal sculpture of Jesus Christ(Healing Christ) in Thiruvalla, Kerala has entered the Universal Records Forum's (URF) book of world records.
- The statue was sculpted with an alloy of zinc, copper, and velutheeyam (an alloy of tin and aluminium).
- A URF team adjudged that the 368-cm tall statue, weighing 2,400 kg, is the largest one of its kind in the world.
- It took 18 months for sculpting the statue.

7.4 Def Expo 2020

DefExpo, a flagship biennial event of the Ministry of Defence, is being held for the first time in Lucknow (Uttar Pradesh) from 5th to 9th February 2020.

- This is the 11th edition of DefExpo - a mega defence exhibition. DefExpo is one of the largest events of its kind.
 - The 10th edition of the event was held at Chennai (Tamil Nadu) in 2018.
- The main theme of the DefExpo India- 2020 is 'India: The Emerging Defence Manufacturing Hub' and the focus will be on 'Digital Transformation of Defence'.
- DefExpo-2020 promises to bring new technologies, technological solutions, where defence manufacturing companies from India and abroad showcase their products and services in defence arena, on a single platform. This provides Indian defence industry an opportunity to promote its export potential.
- Defence Expo 2020 will showcase the comprehensive spectrum of India's aerospace, defence and security interests.
- The fifth India Russia Military Industry Conference will be held on the sidelines of the event.
 - The Conference primarily aims at addressing issues related to life-cycle support and maintenance of major Russian-origin equipment/ platforms such as SU-30 MKI aircraft, Mi-17 Helicopters, MiG-29K aircraft, INS Vikramaditya and T-90 tanks.

7.5 Purified Terephthalic Acid (PTA)

- During her Budget speech, Finance Minister said the government was abolishing in "public interest" an anti-dumping duty that was levied on imports of a chemical called PTA.
- Purified Terephthalic Acid (PTA) is a crucial raw material used to make various products, including polyester fabrics. PTA makes up for around 70-80% of a polyester product.
- This includes products like polyester staple fibre and spun yarn. Some sportswear, swimsuits, dresses, trousers, curtains, sofa covers, jackets, car seat covers and bed sheets have a certain proportion of polyester in them.

- The duty had meant importers were paying an extra \$27-\$160 for every 1,000 kg of PTA that they wanted to import. Removing the duty will allow PTA users to source from international markets and may make it as much as \$30 per 1,000 kg cheaper than now.

7.6 Euthermia: the anomaly of human body temperature

- Euthermia refers to normal body temperature.
- The thermometer reading of 98.6°F has been a gold standard for a century and a half, ever since a German doctor laid it down as the “normal” body temperature.
- A new research has found that body temperatures have, in fact, been declining over the last two centuries.

Why we follow 98.6°F?

- In 1851, Carl Reinhold August Wunderlich pioneered the use of the clinical thermometer.
- It was a rod a foot long, which he would stick under the armpits of patients at the hospital attached with Leipzig University, and then wait for 15 minutes (some accounts say 20 minutes) for the temperature to register.
- He took over a million measurements of 25,000 patients, and published his findings in a book in 1868, in which he concluded that the average human body temperature is 98.6°F.
- Most modern scientists feel Wunderlich’s experiments were flawed, and his equipment inaccurate.
- Another study concluded that the average human body temperature is closer to 98.2°F, and suggested that the 98.6°F benchmark be discarded.

The body is cooler

- The Stanford University the researchers confirmed some known trends — body temperature is higher in younger people, in women, in larger bodies and at later times of the day.
- Additionally, they found that the bodies of men born in the early to mid-1990s is on average 1.06°F cooler than those of men born in the early 1800s.
- And the body temperature of women born in the early to mid-1990s is on average 0.58°F lower than that of women born in the 1890s.
- The calculations from the research correspond to a decrease in body temperature of 0.05°F every decade.

Why there is a decrease in body temperature?

- The researchers have proposed that the decrease in body temperature is the result of changes in the environment over the past 200 years, which have in turn driven physiological changes.
- The decrease in average body temperature in the US, they said, could be explained by a reduction in metabolic rate, or the amount of energy being used.

- The environment that we're living in has changed, including the temperature in our homes, our contact with microorganisms and the food that we have access to.
- Actually the human body is changing physiologically.

So what's the normal temperature?

- The strong influences of age, time of day, and genders determine the healthy body temperature.

7.7 Sharang Artillery Gun

The Ordnance Factory Board (OFB) has handed over Sharang, the first 130mm M-46 artillery gun upgraded to 155mm to the Indian Army.

About Sharang

- Sharang is the 130mm artillery gun 'up-gunned' to 155mm, 45 calibre up-gunning based on the Army's tender.
- The gun's range has now gone from 27km to over 36km with the upgrade.
- It also has more explosive capability and hence and more damage potential.
- This step will reduce the logistic trail of the Army as it does away with the need to carry 130mm shells and support equipment as the mainstay of the Army's long range artillery is 155mm guns.

Other artilleries of Indian Army

- After close to three decades, the Army inducted its first modern artillery guns system in November 2018.
- These include M-777 Ultra Light Howitzers (ULH) from the U.S. and K9 Vajra-T self-propelled artillery guns from South Korea.
- The Army has the older, battle-proven Bofors 155mm guns in service. The 155mm Dhanush towed gun system, developed based on the Bofors guns by OFB, is under induction.
- In October last year, the Army procured and inducted 155mm Excalibur precision guided ammunition from the U.S. which gives its 155mm artillery guns extended range and also the ability to hit targets with very high accuracy.

7.8 Genome India project

- The Rs 238-crore Genome India Project will involve 20 leading institutions including the Indian Institute of Science (IISc) in Bengaluru and a few IITs.
- The first stage of the project will look at samples of "10,000 persons from all over the country" to form a "grid" that will enable the development of a "reference genome".
- The IISc's Centre for Brain Research, an autonomous institute, will serve as the nodal point of the project.
- The project is said to be among the most significant of its kind in the world because of its scale and the diversity it would bring to genetic studies.

- The data generated would be accessible to researchers anywhere for analysis. As the genetic landscape differs across the world, it is necessary that genetic data is shared in order to derive greater knowledge from information and serve the purpose of enabling better treatment outcomes.
- The initiative will pave the way for identifying genes and genetic variations for common diseases, treating Mendelian disorders, enabling the transformation of the Precision Medicine landscape in India, and thus improving the healthcare of the general population in our country.

Need for genome sequencing:

- Mapping the diversity of India's genetic pool will lay the bedrock of personalised medicine and put it on the global map.
- Considering the diversity of population in our country, and the disease burden of complex disorders, including diabetes, mental health, etc., once we have a genetic basis, it may be possible to take action before the onset of a disease.

What is genome sequencing?

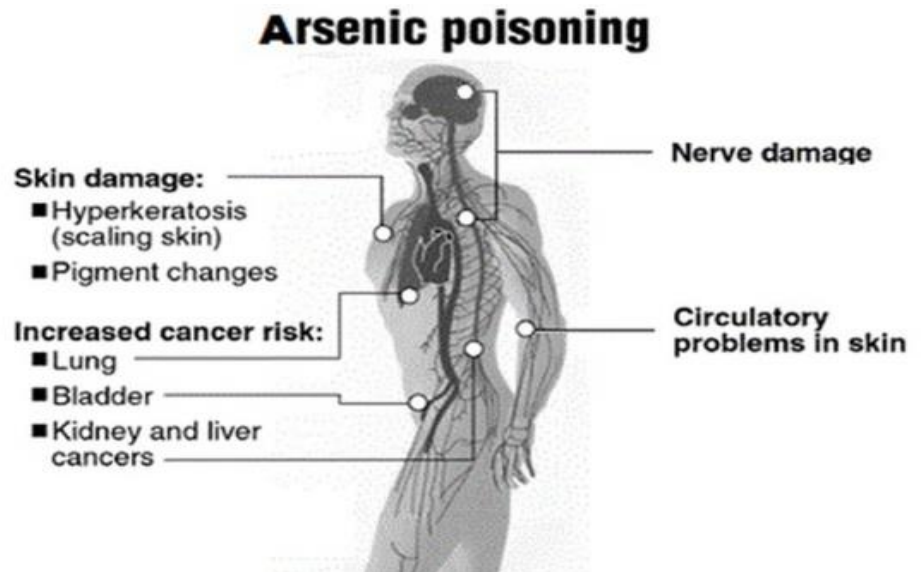
- A genome is an organism's complete set of DNA, including all of its genes.
- Genomics is an interdisciplinary field of science focusing on the structure, function, evolution, mapping, and editing of genomes.
- Genomics also involves the sequencing and analysis of genomes through uses of high throughput DNA sequencing.
- Advances in genomics have triggered a revolution in discovery-based research and systems biology to facilitate understanding of even the most complex biological systems such as the brain.

7.9 MUKTOSHRI

- Researchers in West Bengal have developed and commercialised a rice variety that is resistant to arsenic.
- The new rice variety, Muktosshri — also called IET 21845 — was developed jointly by the Rice Research Station at Chinsurah, coming under West Bengal's Agriculture Department and the National Botanical Research Institute, Lucknow, over several years
- A gazette notification for the commercial use of Muktosshri was issued by West Bengal last year.
- This variety absorbs very less amount of arsenic from soil and water than the other varieties of rice.
- West Bengal is among the States with the highest concentration of arsenic in groundwater, with 83 blocks across seven districts having higher arsenic levels than permissible limits.

Important Info :

Several studies have shown that Arsenic from groundwater and the soil can enter the food chain through paddy. Long-term exposure to arsenic, mainly through drinking water and food, can lead to poisoning. Skin lesions and skin cancer are the most characteristic effects.

**7.10 Fermentophone**

- Fermentation, the chemical breakdown of a substance by microorganisms such as bacteria or yeasts, results in some of the most delicious foods and beverages, including cheese, chocolate and wine. Now, research has shown it can result in music, too.
- Joshua Rosenstock of the Worcester Polytechnic Institute has shown that the chemical processes of fermentation can be used to create spontaneous tunes.
- He has built multiple art exhibits called Fermentophone to showcase how fermentation can make music.
- First, different fruits and veggies are placed in glass jars and fermented. As the fermentation kicks off, the yeast — or bacteria — present in the food chows down on the foods' sugars, which results in the release of carbon dioxide bubbles.
- The release of these bubbles creates a tiny sound, which is picked up by underwater microphones.
- A computer processes the sounds and, with the help of algorithms plugged in, electronic music is created.
- Rosenstock said in a statement that you can eat these fermented foods, too.

7.11 Safer Internet Day

- Safer Internet Day is an international event which was first initiated in 2004.
- The day aims to promote a safer and more responsible use of online technology and mobile phones by children and young people across the world.
- It is organised by the Insafe/INHOPE network of awareness centres that is spread across 30 countries and is funded by the Connecting Europe Facility program(CEF) of the EU.

- To expand the initiative's reach, Safer Internet Day (SID) Committees were introduced in 2009. In India, the NGO DISC (Developing Internet Safe Community) Foundation is the SID Committee.

7.12 Gender gap in science

- February 11 was the International Day of Women and Girls in Science, established by the United Nations to promote equal access to and participation in science for women and girls.
- According to a 2018 fact sheet prepared by UNESCO on women in science, just 28.8% of researchers are women. It defines researchers as "professionals engaged in the conception or creation of new knowledge". In India, this drops to 13.9%.
- Between 1901 and 2019, 334 Nobel Prizes have been awarded to 616 Laureates in Physics, Chemistry and Medicine, of which just 20 have been won by 19 women. The double Laureate is Marie Curie.
- In 2019, the American mathematician Karen Uhlenbeck became the first woman to win the Abel Prize, following 16 male mathematicians.
- The Fields Medal so far has also been awarded to only one woman mathematician, the late Maryam Mirzakhani of Iran, as opposed to 59 men since 1936.
- UNESCO data from 2014-16 show that only around 30% of female students select STEM (science, technology, engineering and mathematics)-related fields in higher education.
- In India, a 2016-17 NITI Aayog report compared female enrolment in various disciplines over five years, until 2015-16. In 2015-16, 9.3% of female students in undergraduate courses were enrolled in engineering, compared to 15.6% across genders.

7.13 The SuperCam on Mars 2020 Rover

- NASA is sending a robot called SuperCam aboard the Mars 2020 rover to study rocks and look for signs of past life on Mars.
- The robot uses a camera, laser and spectrometers for studying mineralogy and chemistry from up to about 7 metres away.
- SuperCam's laser is uniquely capable of remotely clearing away surface dust, giving all of its instruments a clear view of the targets.
- It can fire a laser to study rock targets smaller than a pencil point.
- It will look at rock textures and chemicals to find those that formed or changed in the water on Mars' long ago.
- It will at different rock and 'soil' types to find ones that could preserve signs of past microbial life on Mars - if any ever existed.
- It will identify which elements in the Martian dust may be harmful to humans.

- It will measure the air so that the scientists can learn about how atmospheric molecules, water ice, and dust absorb or reflect solar radiation. This data improves our ability to predict Martian weather.

Mars 2020 rover

- Mars 2020 rover will be launched by NASA in July-August 2020.
- It has been designed to better understand the geology of Mars and seek signs of ancient life. The mission will collect and store a set of rock and soil samples that could be returned to Earth in the future.
- It will also test new technology to benefit future robotic and human exploration of Mars.

7.14 U.S. nod for air defence system sale to India

- U.S. Department of State has approved the potential sale of a \$1.867 billion Integrated Air Defence Weapon System (IADWS) to India.
- The Integrated Air Defence Weapon System, also known as the National Advanced Surface to Air Missile System (NASAMS), provides integrated air missile defence
- The IADWS system includes radar, launchers, targeting, and guidance systems, advanced medium-range air-to-air missile (AMRAAM) and Stinger missiles, and related equipment and support

AMRAAM

- The AIM-120 Advanced Medium-Range Air-to-Air Missile (AMRAAM)
- It is an American beyond-visual-range air-to-air missile (BVRAAM) capable of all-weather day-and-night operations fire-and-forget weapon
- AMRAAM is the world's most popular beyond-visual-range missile

7.15 Yara Virus

- Researchers have discovered an unusually small virus in a lake in Brazil.
- The virus has been named Yaravirus after 'Yara', a water-queen figure in Brazilian mythology.
- The Yaravirus infects amoeba and has genes that have not been described before, something that could challenge how Deoxyribonucleic Acid (DNA) viruses are classified.
- DNA viruses are classified based on the protein that makes up their shell, or capsid. The Yaravirus' capsid doesn't resemble any previously known protein.
- The Yaravirus does not infect human cells.

Virus

- A virus is a small parasite that cannot reproduce by itself. Once it infects a susceptible cell, however, a virus can direct the cell machinery to produce more viruses.
- Most viruses have either Ribonucleic acid (RNA) or Deoxyribonucleic Acid (DNA) as their genetic material.
- Diseases caused by Virus: HIV/AIDS, smallpox, Ebola, etc.

7.16 **BHABHA KAVACH**

- India's lightest bullet-proof jacket, Bhabha Kavach, was launched at the International Police Expo 2019 in New Delhi.
- Developed jointly by the Ordnance Factories Board and the public sector metals and metal alloys manufacturer MIDHANI.
- It can withstand bullets from an AK-47 assault rifle (7.62 mm hard steel core bullets), and the 5.56 mm INSAS rifle.
- The Kavach weighs 9.2 kg and has a five-year warranty.
- The jacket "is powered with nano technology from Bhabha Atomic Research Centre".
- Bhabha Kavach meets US National Institute of Justice (NIJ) Level III standards, which guarantees protection against 7.62 mm NATO-standard bullets.
- Most army bulletproof jackets meet the lesser NIJ Level II standard, which protects soldiers from 9 mm bullets fired from a carbine or handgun.
- Bhabha Kavach is built from layers of "high-density, high-tenacity polyethelene, which are thermo-sealed" by MIDHANI.
- Each Bharat Kavach has four hard armour plates.
- BARC has transferred the carbon nanomaterial technology to the OFB.
- Types of bulletproof jackets
 - Bulletproof jacket armour is of two types.
 - Soft armour provides lesser protection, suitable for threats from handgun and small arms bullets and is worn by bodyguards and VIPs against personal threats.
 - Hard armour is stronger and heavier and is designed to stop high calibre rounds. NIJ Level IV jackets even provide protection against armour-piercing rounds.
- Body armor protection levels
 - The two most commonly recognized standards for body armor come from the US National Institute of Justice (NIJ) and the UK Centre for Applied Science and Technology (CAST, formerly HOSDB).
 - These are widely held to be the world leaders in standardizing body armor.
 - These standards outline exactly what threats each level of body armor will protect against, as well as the strength of the attack it will stop.

7.17 **Apiary on Wheels**

- The Ministry of Micro, Small and Medium Enterprises has flagged off 'Apiary on Wheels'.
- 'Apiary on Wheels' is a unique concept designed by the Khadi and Village Industries Commission (KVIC) for the easy upkeep and migration of Bee Boxes having live Bee colonies.

- It is a holistic approach to address the challenges faced by the beekeepers. It is designed so as to reduce the labour and cost of maintaining and upkeeping Bee Boxes and live bee colonies across India.
- Apiary on Wheels is a platform which can carry 20 Bee Boxes from one place to another without any difficulty.
- It is like an attachment which can be easily connected with a Tractor or a Trolley and may be pulled to any suitable destination.
- The KVIC launched Honey Mission in 2017 and has been training beekeepers, distributing Bee Boxes and helping rural, educated but unemployed youth to earn extra income through beekeeping activities, at their doorstep.
- **Khadi and Village Industries Commission**
 - KVIC is a statutory body established under the Khadi and Village Industries Commission Act, 1956.
 - The KVIC is charged with the planning, promotion, organisation and implementation of programmes for the development of Khadi and other village industries in the rural areas in coordination with other agencies engaged in rural development wherever necessary.
 - It functions under the Ministry of Micro, Small and Medium Enterprises.
- **National Honey Mission**
 - The mission since its launch has been training beekeepers, educating unemployed youths, distributing bee boxes. Under the mission, KVIC provides training and awareness to Bee farmers.

7.18 ISRO to launch 10 Earth Imaging Satellites in 2020

- According to the latest annual report of the Indian Space Research Organisation for 2019-20, India will send up 10 earth observation (EO) satellites during 2020-21.
- ISRO had proposed launching six EO satellites, of which two are due to go. For 2021-22, the plan is to add eight EO satellites. The project includes new categories such as the first Geo Imaging Satellite, GISAT-1.
- Three Communication Satellites and two navigation satellites are planned for the coming financial year starting April. The annual plan mentions 36 missions, another high for a year: these include both satellites and their launchers.
- According to ISRO 19 national EO Satellites, 18 Communication Satellites and eight navigation Satellites are in service, driving uses from broadcasting, telephony, Internet services, weather and agriculture-related forecasting, security, disaster-time rescue and relief and location-based services.
- **RISATs:**

- The satellites such as RISATs, which carry a synthetic aperture radar on them, provide all-weather, 24-hour information to security agencies.
- The upcoming EO satellites include radar imaging satellites RISAT-2BR2, RISAT- 1A and 2A; Oceansat-3 and Resourcesat-3/3S.
- The RISAT-2BR2 will form a triad fleet with its predecessors RISAT-2B and RISAT-2B1, all going around 120 degrees apart. They will “increase the frequency of observation in the areas of interest to provide all-weather, day/night imaging services from space.
- **HSATs:**
 - Apart from GISAT-1 that is apparently fixed over the subcontinent at an orbit 36,000 km high, the space agency plans to launch a new series of high-resolution HRSATs as a threesome on a single PSLV launcher.

7.19 Indian National Centre for Ocean Information launched new Alert System

- The Hyderabad based INCOIS (Indian National Centre for Ocean Information) launched a new alert system that will help reduce damage and losses to fishermen due to swell surges.
- The Swell Surges splash strong waves in the coast damaging boats and nets.
- The system will help fishermen to get prior alerts about swell surges and safeguard their boats.

Highlights

- The INCOIS, an autonomous body operating under Ministry of Earth Sciences launched the alert system that will help provide early warnings about Swell Surges.
- This is to be launched exclusively for coastal population.
- The Coastlines of Indian Sub-continent after Tsunami has been experienced damages due to swell waves that originate in distant Southern Indian Ocean.
- The Swell Surges are more common in west coast than the east coast.

What are Swell Surges?

- A Swell Surge is caused due to surface gravity. They are surface gravity waves and not wind waves (the common waves).
- Wind Waves are generated by the local winds. On the other hand, swell surges are generated due to distant weather systems.
- They take place without any noticeable changes in local winds or coastal environment.

7.20 GISAT-1 — Geo Imaging Satellite

- Indian Space Research Organisation (ISRO) is preparing to launch GISAT-1, a new earth observation satellite, in the first week of March.
- It will be the first of two planned Indian EO spacecraft to be placed in a geostationary orbit of around 36,000 km.

- It will apparently be in a fixed spot looking over the Indian continent at all times.
- It will have high-resolution cameras which will help to monitor any changes in borders and the overall geographical condition of the country, etc.

- **Background:**

Earth Observation Satellites of ISRO has been successfully able to establish many operational applications in the country. Both at Central and State level, there are large number of users who utilise space based inputs for various purposes. Some of the important missions of ISRO, in terms of IRS series of satellites, that has enabled unique applications of space based imaging are, Cartosat-1 & 2, Resourcesat-1 & 2, Oceansat-1 & 2, Risat-1, Megha-Tropiques, SARAL, Scatsat, INSAT series, and host of other satellites.

7.21 Exercise AJEYA WARRIOR-2020

- Fifth edition of Joint Military Exercise AJEYA WARRIOR-2020 between India and United Kingdom will be conducted at Salisbury Plains, United Kingdom from 13 to 26 February 2020.
- The aim of this exercise is to conduct army level joint training with emphasis on counter terrorism operations.
- The exercise will comprise of 120 soldiers each from Indian and United Kingdom Army who would be sharing their experiences gained during conduct of various counter insurgency and counter terrorist operations in the past.
- Training on modern weapon systems, equipment and simulator training have also been planned.
- Exercise AJEYA WARRIOR with United Kingdom is an important exercise in terms of the security challenges faced by both the nations in the realm of changing facets of global terrorism.
- The joint military exercise displays a bilateral willingness to work jointly and share operating procedures to deal with a situation in a specified operational setting.
- The exercise is conducted alternatively in United Kingdom and India.
- Exercise AJEYA WARRIOR will promote defence cooperation and enhance interoperability while sharing experiences between both the armies.
- Other joint exercises between India and UK:
 - Navy: Konkan
 - Air Force: Indradhanush

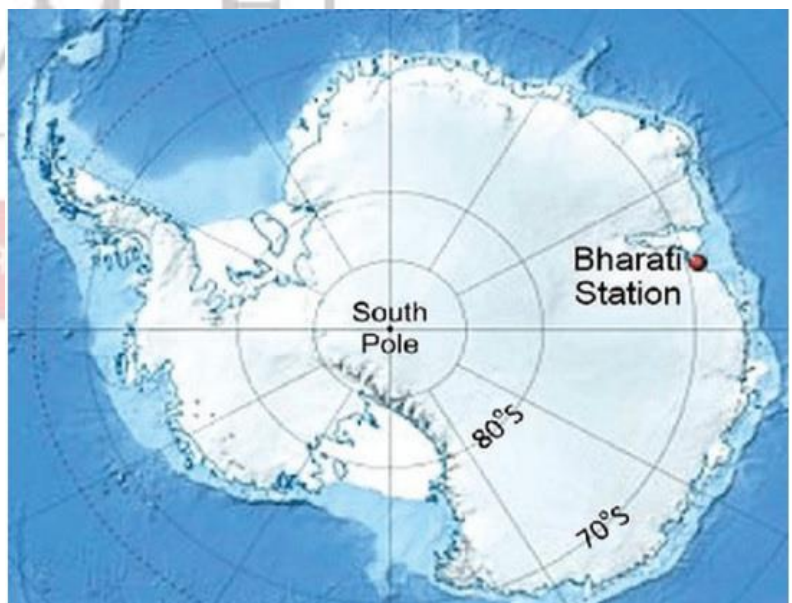


7.22 NASA's discovery program investigation

- NASA announced it has selected four Discovery Program investigations to develop concept studies for possible new missions.
- Two proposals are for trips to Venus, and one each is for Jupiter's moon Io and Neptune's moon Triton.
- After the concept studies are completed in nine months, some missions ultimately may not be chosen to move forward.
- **DAVINCI+**
 - DAVINCI+ stands for Deep Atmosphere Venus Investigation of Noble gases, Chemistry, and Imaging Plus.
 - This will analyse Venus's atmosphere to understand how it was formed and evolved, and if it ever had an ocean.
 - This will advance understanding of the formation of terrestrial planets.
- **IVO**
 - Io Volcano Observer is a proposal to explore Jupiter's moon Io, which is extremely volcanically active.
 - This will try to find out how tidal forces shape planetary bodies.
 - The findings could further knowledge about the formation and evolution of rocky, terrestrial bodies and icy ocean worlds in the Solar System.
- **TRIDENT**
 - This aims to explore Neptune's icy moon, Triton, so that scientists can understand the development of habitable worlds in the Solar System.
- **VERITAS**
 - Venus Emissivity, Radio Science, InSAR, Topography, and Spectroscopy will aim to map Venus's surface to find out why Venus developed so differently from Earth.

7.23 Southern Ocean Research Programme

- In January 2020, the South African oceanographic research vessel SA



Agulhas set off from Port Louise in Mauritius, on a two-month Indian Scientific Expedition to the Southern Ocean 2020.

- This week, the vessel was at Prydz Bay, in the coastal waters of “Bharati”, India’s third station in Antarctica.
- This is the 11th expedition of an Indian mission to the Southern Ocean, or Antarctic Ocean.
- This Indian expedition has been launched by the National Centre for Polar and Ocean Research (NCOPR) in Goa, which works under the Ministry of Earth Sciences.

Project objective:

- Study hydrodynamics and biogeochemistry of the Indian Ocean sector of the Southern Ocean to understand the formation of Antarctic bottom water.
- Study of organisms called coccolithophores that have existed in the oceans for several million years.

7.24 SUTRA PIC

- The government has unveiled a programme to research on ‘indigenous’ cows- SUTRA PIC.
- About SUTRA PIC- Scientific Utilisation Through Research Augmentation-Prime Products from Indigenous Cows:
 - It is led by the Department of Science and Technology (DST).
 - It is supported by the Department of Biotechnology, the Council of Scientific and Industrial Research, the Ministry for AYUSH (Ayurveda, Unani, Siddha, Homoeopathy) among others and the Indian Council of Medical Research as partners.
- It has **five themes**
 - Uniqueness of Indigenous Cows.
 - Prime-products from Indigenous Cows for Medicine and Health.
 - Prime-products from Indigenous Cows for Agricultural Applications.
 - Prime-products from Indigenous Cows for Food and Nutrition.
 - Prime-products from indigenous cows-based utility items.
- **Aims and objectives:**
 - Scientific research on the complete characterisation of milk and milk products derived from Indian indigenous cows.
 - Scientific research on nutritional and therapeutic properties of curd and ghee prepared from indigenous breeds of cows by traditional methods.
 - Development of standards for traditionally processed dairy products of Indian-origin cows, etc.

7.25 Yellow Rust

- Yellow Rust was recently detected in wheat crops in parts of Punjab and Haryana.

- It is a disease that appears as yellow stripes of powder or dust on leaves and leaf sheaths of the wheat crop.

How it occurs?

- This occurs when the rust colonies in the leaves drain the carbohydrates from the plant and reduce the green leaf area.
- Rain, dew and fog favour the disease's development.
- **Spread:**The disease can spread rapidly under congenial conditions and affects crop development, and eventually the yield.
- Yield due to the disease can be affected by between 5 and 30 per cent.

Where else is it observed in India?

- In India, it is a major disease in the Northern Hill Zone and the North-Western Plain Zone and spreads easily during the onset of cool weather and when wind conditions are favourable.

Disease management:

- Breeding resistant varieties is the most cost-effective method to control this rust.
- These resistance genes, however, have become ineffective due to the acquisition of virulence to that particular resistance gene rendering the variety susceptible.

7.26 Empowered 'Technology Group' on Emerging Technologies

- The Union Cabinet has approved the constitution of an empowered "Technology Group" to advise the Government on priorities and strategies for research on emerging technologies across sectors.
- **Composition:** It will be a 12-member group with the Principal Scientific Adviser to the Government of India (Prof. K VijayRaghavan) as its Chair.
- Mandate
 - To render timely policy advice on latest technologies;
 - Mapping of technology and technology products;
 - Commercialisation of dual use technologies developed in national laboratories and government Research and Development (R&D) organisations;
 - Developing an indigenisation road map for selected key technologies; and
 - Selection of appropriate R&D programs leading to technology development.
- The group will also facilitate cross-sector collaborations and research alliances with universities and private companies and formulate "standards and a common vocabulary" to screen proposals for research and development.
- The three pillars of the work of the Technology Group include:
 - Policy Support
 - Procurement Support

- Support on Research and Development proposals.

7.27 Bhaskaracharya National Institute for Space Applications and Geo-Informatics (Bisag(N))

- The Union Cabinet has approved Elevation of Bhaskaracharya Institute of Space Applications and Geoinformatics (BISAG), Gujarat as Bhaskaracharya National Institute for Space Applications and Geo-informatics (BISAG(N)) under Ministry of Electronics & Information Technology (MEITY), Government of India.
- At present, BISAG is a state agency of Department of Science and Technology Government of Gujarat, located at Gandhinagar, Gujarat.
- It is registered as a Society and Trust with the Charity Commissioner of Ahmedabad.
- Its Governing body is chaired by the Chief Secretary, Government of Gujarat.
- The elevation of BISAG has been done to expand its scope of activities & research and to ensure efficient rollout of GIS projects.
- Now it will be an Autonomous Scientific Society under Government of India instead of State Government.

LARRY TESLER

- Larry Tesler, the computer scientist who invented the “cut, copy, paste” command, find & replace, and more died in San Francisco. He was 74.
- He was a former Xerox researcher, who also went on to work in some of the other big tech companies, including Apple, Yahoo, Amazon.com to name a few.
- He is credited as the inventor of ‘modeless editing and cut, copy and paste’ while he was part of the research staff at Xerox. He also helped to invent the ability to find & replace text.
- His other contributions at Xerox included prototyping a page layout system similar to the later Pagemaker and hardware design of the first luggable computer called the Notetaker.
- Tesler also claimed he coined the word “browser” in 1976, to mean a point-and-click information navigation window, and the word “modeless” around 1970, which means a user interface in which the user is never “stuck” in a mode.
- In 2009 he was granted the John McCarthy Award for Excellence in Research and Research Environments.

7.28 5G Hackathon

- The Department of Telecommunications (DoT) has launched 5G Hackathon in association with various academic and industrial stakeholders.
- It will be spread across three phases beginning from February 2020 and culminating October 2020.
- It aims at shortlisting India’s cutting edge ideas that can be converted into workable 5G products and solutions.

- It is open to developers, students, start-ups, Small and Medium Enterprises (SMEs), academic institutions & registered companies in India and NRIs.
- Participants can develop 5G solutions from various categories including Healthcare, Education and Governance, AgriTech and Livestock, Environment, Public Safety and Disaster Management Enterprise, Smart Cities and Infrastructure, Cyber Security, Banking, Finance and Insurance, Logistics and Transportation, Multimedia and Broadcast, among others.

5G Technology

- 5G is the fifth generation cellular technology that apart from increasing the downloading and uploading speeds over the mobile network, also reduces the latency i.e. the time taken by a network to respond.
- 5G will provide a download speed of 1 Gbps, which is at least 100 times the existing data speeds.
- It also increases energy efficiency and offers more stable network connections.
- 5G will have a wider area in the frequency spectrum (range of frequencies) that will ensure no network congestion.
- In addition, it will also ensure connectivity to a full circle i.e. everything is connected to every other thing. Its application in different economic verticals is one of the most distinctive features of 5G technology.

7.29 Chatbot ASKDISHA

- The Indian Railways Catering & Tourism Corporation Limited (IRCTC) has powered voice-enabled ASKDISHA Chatbot to converse with customers in the Hindi language.
- The customers can now ask queries to ASKDISHA in Hindi by voice as well as text.

What is ASKDISHA Chatbot?

- It is an Artificial Intelligence-based chatbot. It is a special computer programme designed to simulate conversation with users, especially over the internet.
- Initially launched in the English language in October 2018. Developed by Indian Railway Catering and Tourism Corporation (IRCTC).
- The aim is to resolve queries of railway passengers over the internet pertaining to various services offered.

Services provided:

Since its initial launch, passengers seeking help on the reservation of tickets, cancellation, enquiry of refund status, fare, PNR search, train running status, enquiry about retiring rooms and tourism products have been benefited.

7.30 InSight MARS LANDER

- NASA published a set of six papers to reveal findings of NASA's InSight lander mission.

- **Name:**InSight is an acronym for “Interior Exploration using Seismic Investigations, Geodesy and Heat Transport”.
- **Agencies involved:** This mission is part of “NASA's Discovery Program.”
- **Significance:** It is the first mission to study in-depth the "inner space" of Mars: its crust, mantle, and core.
- **Mission Objectives:** InSight won't be looking for life on Mars. Instead It will study its insides i.e. it seeks to understand the formation and evolution of terrestrial planets through investigation of the interior structure and processes of Mars.
- **Timeline:** The mission successfully landed at Elysium Planitia on Mars in November 2018.
- **Important Info :**
 - Trembles: Mars trembles more often than expected, but also more mildly. Mars doesn't have tectonic plates like Earth, but it does have volcanically active regions that can cause rumbles.
 - Magnetism: At a Martian site called Homestead hollow, the magnetic signals are 10 times stronger than what was predicted earlier.
 - Dust devils: It has detected/felt (but hasn't seen yet) thousands of passing whirlwinds, which are called dust devils when they pick up grit and become visible.

7.31 RAISE 2020

- The Government of India (GoI) announced the mega event, RAISE 2020- ‘Responsible AI for Social Empowerment 2020,’ to be held from April 11-12 in New Delhi.
- RAISE 2020 is India's first Artificial Intelligence summit to be organized by the Government in partnership with Industry & Academia.
- The summit will be a global meeting of minds to exchange ideas to use AI for social empowerment, inclusion and transformation in key areas like Healthcare, Agriculture, Education and Smart Mobility amongst other sectors.
- The event will start with a Startup Challenge – Pitchfest followed by the two-day summit, organized by Government of India along with Ministry of Electronics and Information Technology.

7.32 NATIONAL SCIENCE DAY 2020

- National Science Day (NSD) is being celebrated at VigyanBhawan on February 28 with ‘Women In Science’ as the focal theme of the programme.
- National Science Day (NSD) is celebrated every year on 28 February by the Government of India to commemorate the discovery of the ‘Raman Effect’. designated 28 February as in 1986.
- On this day, Sir C.V. Raman announced the discovery of the 'Raman Effect' for which he was awarded the Nobel Prize in 1930.

- National Council for Science & Technology Communication (NCSTC), Department of Science and Technology (DST) acts as a nodal agency to coordinate celebration of the National Science Day throughout the country
- On the occasion, President Ram Nath Kovind presented several awards for science communication and popularization as well as for women scientists such as:
 - National Science and Technology and Communication Awards,
 - Augmenting Writing Skills For Articulating Research (AWSAR) awards,
 - SERB Women Excellence Awards and
 - National Award For Young Woman Showing Excellence Through Application Of Technology For Societal Benefits.



8. PERSONS

8.1 Gopal Baglay becomes India's next Ambassador to Sri Lanka

- Gopal Baglay has been appointed as the next High Commissioner of India to the Democratic Socialist Republic of Sri Lanka. He will replace Taranjit Sandhu.

8.2 Deepa Malik becomes president of Paralympic Committee of India

- Para-athlete and India's lone woman Paralympic medallist Deepa Malik has been elected as president of Paralympic Committee of India.
- She was elected unopposed as president in the PCI polls held in Bengaluru.
- Headquarters of Paralympic Committee of India: Bengaluru, Karnataka.

8.3 Mo O'Brien becomes the 1st deaf person to row Atlantic Ocean

- Mo O'Brien (60 years) has become the first deaf person on record to row an ocean by finishing a 3,000-mile journey across the Atlantic with her daughter Bird Watts, and their friend Claire Allinson.

8.4 NASA Astronaut Christina Koch returns to Earth after record-setting stay in space

- NASA's Astronaut Christina Koch returned from space to Earth safely.
- Koch returned after an 11-month mission, breaking the world record for the most time spent by a woman in space.
- Koch has spent 328 days on International Space Station ISS, surpassing the previous record of 289 days held by fellow American Peggy Whitson.
- Koch's medical data will be especially valuable to NASA scientists as the agency draws up plans for a long-duration manned mission to Mars.

8.5 Oscars 2020 winners list

The 92nd Academy Awards took place on February 9, 2020, presented by the Academy of Motion Picture Arts and Sciences (AMPAS).

Oscars 2020 winners:

- **Best picture** -Parasite
- **Best actress** -Renée Zellweger, Judy
- **Best actor** -Joaquin Phoenix, Joker
- **Best director** -Bong Joon-ho, Parasite
- **Music (original song)**-"(I'm Gonna) Love Me Again" from Rocketman
- **Music (original score)**-Joker
- **Visual effects**-1917
- **Best film editing**-Ford v Ferrari
- **Best cinematography** -Roger Deakins, 1917

- **Best sound mixing**-1917
- **Best sound editing**-Ford v Ferrari
- **Best supporting actress**-Laura Dern, Marriage Story
- **Documentary short feature** -Learning to Skateboard in a Warzone (If You're a Girl)
- **Documentary feature**-American Factory
- **Best costume design**-Jacqueline Durran, Little Women
- **Best production design** -Once Upon a Time... in Hollywood
- **Live-action short film**-The Neighbors' Window
- **Best adapted screenplay**-Taika Waititi, Jojo Rabbit
- **Best original screenplay**-Bong Joon-ho, Parasite
- **Animated short film** -Hair Love
- **Animated feature film**-Toy Story 4
- **Best supporting actor**-Brad Pitt, Once Upon a Time... in Hollywood

8.6 Indian scholar Gita Sen wins prestigious Dan David Prize

- India's pioneering feminist scholar and activist Gita Sen, has won the prestigious Dan David Prize for her expansive work in the fields of population policies, reproductive and sexual health, women's rights, poverty, labour markets and global governance.
- Ms. Sen, who is the Director of the Ramalingaswami Centre on Equity and social Determinants of Health at the Public Health Foundation of India, has combined her 35 years of academic career with policy advocacy and activism, helping to shape the global paradigm shift on population and development.

8.7 1988 batch IAS officer Rajiv Bansal becomes Air India's new CMD

- The government on 13 February, 2020 appointed the 1988 batch IAS officer of Nagaland Cadre Rajiv Bansal as the Chairman and Managing Director of Air India.
- Mr Bansal is presently serving as the Additional Secretary in the Ministry of Petroleum and Natural Gas.
- 1987 batch IAS officer of Uttar Pradesh Cadre Debashis Panda has been appointed as the Secretary, Department of Financial Services.
- Rajkumar, 1987 batch IAS officer of Gujarat cadre has been appointed Secretary Defence Production.
- Director-General of Archaeological Survey of India, Usha Sharma has been appointed Youth Affairs Secretary.
- Chief Executive Officer of Food Safety and Standards Authority of India Pawan Kumar Agarwal will be Consumer Affairs Secretary.

- Rajiv Ranjan has been appointed as Secretary, Department of Fisheries and Saraswati Prasad as Secretary of National Commission for Scheduled Tribes.

8.8 Rishi Sunak appointed as UK's new Finance Minister

- Infosys co-founder Narayana Murthy's son-in-law, Rishi Sunak has been appointed as UK's Finance Minister.
- He replaced Pakistani Chancellor Sajid Javid. After the reshuffle, three Indian origin Members of Parliament are now a part of Britain's most diverse cabinet led by UK Prime Minister Boris Johnson.
- The 47-year-old Priti Patel has been appointed as the Home Minister.
- The 51-year-old Alok Sharma has been appointed as the Business Secretary in the British Cabinet. Sharma was elevated to the role of the secretary of state for business, energy and industrial strategy.

8.9 Arvind Kejriwal sworn in as Chief Minister of Delhi for third time

- Aam Admi Party convenor Arvind Kejriwal took oath as Chief Minister of Delhi for the third consecutive time.
- Lieutenant Governor Anil Bajjal administered the oath of office and secrecy to Mr. Kejriwal and six Cabinet Ministers at Ramlila Maidan in the national capital.
- Mr. Kejriwal has retained all the Cabinet Ministers who were part of his last government.
- They are Manish Sisodia, Satyendar Jain, Gopal Rai, Kailash Gehlot, Imran Hussain and Rajendra Gautam.
- Mr. Kejriwal's first term lasted only for 49 days and completed the full tenure in the second term.
- The Aam Aadmi Party swept the Delhi Assembly polls held last week, bagging 62 out of 70 seats.

8.10 Supreme Court Collegium approves appointment of 3 judicial officers as Judges of J&K High Court

- The Supreme Court Collegium has approved the proposal for appointment of three Judicial Officers as Judges of Jammu and Kashmir High Court.
- The Officers are – Vinod Chatterji Koul, Sanjay Dhar and Puneet Gupta.
- The collegium, headed by Chief Justice of India S A Bobde, in a meeting on 19 of February, also recommended the proposal for elevation of Satya Gopal Chattopadhyay, Judicial Officer, as a Judge of the Tripura High Court. Besides, it approved the proposal for elevation of Advocate Ahanthem Bimol Singh as a Judge of the Manipur High Court.
- Apart from CJI Bobde, Justices N V Ramana, Arun Mishra, R F Nariman and R Banumathi are part of the new 5-judge Collegium.

8.11 Adline Castelino was crowned 2020 LIVA Miss Diva Universe

- Adline Castelino won the LIVA Miss Diva Universe 2020 title. She was crowned by Vartika Singh, Miss Diva Universe 2019, at an event held on Mumbai. The event was held on 22nd February. Castelino was followed by Aavriti Choudhary of Jabalpur. Choudhary was bestowed with the title of Miss Diva Supranational by her predecessor Shefali Sood.
- The jury included 2000 Miss Universe and Mentor Lara Dutta, Miss Supranational 2019 Antonia Porsild, Designers Shivan & Narresh, Nikhil Mehra and Gavin Miguel, Yami Gautam and veteran actor Anil Kapoor.
- **Adline Castelino:**
Adline Castelino is from Mangalore. She will represent the country at Miss Universe 2020.
- **Aavriti Choudhary:**
 - Aavriti Choudhary is from Jabalpur, Madhya Pradesh.
 - She graduated with a degree in business administration from Prestige Institute of Management and Research in Indore.
 - She will represent India at Miss Supra national 2020.

8.12 Sports minister conferred the 2019 Vishwakarma Awards

- Union Human Resource Development Minister Ramesh Pokhriyal 'Nishank' presents Vishwakarma Awards 2019 to the winners in New Delhi.
- It was organized in the All India Council for Technical Training.
- 23 groups were awarded the Chatra Vishwakarma Awards (CVA).
- Six institutes were awarded the Utkrisht Santhan Vishwakarma Award (USVA).
- The award recognizes college students who have good potential and are an asset to the nation. He appreciated NITI Ayog and Indian Institute of Technology Delhi (IIT-Delhi) to support college students by bringing their concepts into actuality.

8.13 Vishwakarma Awards:

- Vishwakarma Awards was instituted by the All India Council for Technical Education (AICTE) since 2017.
- The awards were instituted for the growth of society by means of the stakeholders of its accepted institutes.
- The Awards are aimed to motivate younger people and inspire leaders and organizations.
- **Class-I:** Chhatra Vishwakarma Awards (CVA) is conferred for Excellent Progressive Staff (for College students & Mentor).
- **Class-II:** Utkrisht Santhan Vishwakarma Award (USVA) is conferred for exemplary Institutional intervention.

- The award will boost the efficiency of their particular domains resulting in vital contributions in the direction of the expansion and growth of the Nation as an entire.
- The winners were chosen based on the theme "Methods to improve the revenue of Village".
- Indian Society of Technical Training (ISTE) and Atal Innovation Mission (AIM) of NITI Ayog agreed to collaborate with AICTE for the Vishwakarma Awards 2019.

8.14 Jawed Ashraf appointed as India's next Ambassador to France

- Diplomat Jawed Ashraf has been appointed as India's next Ambassador to France on 26th February.
- The announcement was made by the Ministry of External Affairs (MEA).
- He will take up the assignment shortly. The appointment comes in view of rising strategic ties between India and France.

Jawed Ashraf:

- Jawed Ashraf is a 1991-batch Indian Foreign Service (IFS) officer. He is currently serving as Indian High Commissioner to Singapore.
- He will replace Vinay Mohan Kwatra as India's Ambassador to France. Kwatra, on the other hand, has been appointed as India's Ambassador to Nepal.

