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செல்லும் வாய் எல்லாஞ் செயல்.

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POLITY AND GOVERNANCE

NEW CVC
Why in news?

- Sanjay Kothari, the Secretary to the President, has been selected as the new Chief Vigilance Commissioner by a high-powered committee.
- The committee has also chosen by a majority decision, former Information and Broadcasting Secretary Bimal Julka, currently serving as an Information Commissioner, as the new Chief Information Commissioner in the Central Information Commission.
- The Central Vigilance Commission is an-corruption watchdog with autonomous status.
- It is free of control from any executive authority and has the responsibility of monitoring all vigilance activities in the Central government besides advising various authorities in planning, executing, reviewing and reforming their vigilance work.
- The Central Information Commission was constituted under the Right to Information Act and has the jurisdiction over all central public authorities.

DELIMITATION COMMISSION
Why in news?

- About six months after the State of Jammu and Kashmir was split into the Union Territories of J&K and Ladakh, the government moved to start the delimitation of Assembly constituencies in J&K.
- According to the Delimitation Commission Act, 2002, the Delimitation Commission appointed by the Centre has to have three members: a serving or retired judge of the Supreme Court as the chairperson, and the Chief Election Commissioner or Election Commissioner and the State Election Commissioner as ex-officio members.

Delimitation
Delimitation literally means the act or process of fixing limits or boundaries of territorial constituencies in a country or a province having a legislative body.

Points to remember

- The Delimitation Commission in India is a high power body whose orders have the force of law and cannot be called in question before any court.
- Delimitation Commissions have been constituted 4 times – in 1952 under the Delimitation Commission Act, 1952, in 1963 under Delimitation Commission Act, 1962, in 1973 under Delimitation Act, 1972 and in 2002 under Delimitation Act, 2002.

ALL INDIA CONFERENCE OF CENTRAL ADMINISTRATIVE TRIBUNAL 2020
Why in news?

- The annual All India Conference of the Central Administrative Tribunal (CAT) was held in New Delhi. The one day conference was attended by Judicial and Administrative Members from all 17 Benches of CAT from across the country, members of the CAT BAR Association, and eminent Jurists, who deliberated on key issue related to the functioning of the Tribunal and priorities for 2020.
- The conference was presided by Union Minister for Law and Justice.
- Union Territory of Jammu & Kashmir and Ladakh will soon be covered by the CAT.

Central Administrative Tribunal (CAT)
The CAT has been established by an Act of Parliament namely Administrative Tribunals Act,1985 under Article 323-A of the Constitution. It mandate to adjudicate complaints and disputes with respect to recruitment/ terms 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.

ECI AWARDED 'SILVER'
Why in news?

- The Election Commission of India (ECI) has been awarded Silver for Excellence in Government Process re-engineering for digital transformation for the year 2019-20
- The award seeks to recognize the projects that involved analysis and re-design of workflow and which resulted in

improvement in outcomes related to efficiency, effectiveness of process, cost, quality, service delivery or a combination of these.

- The award was presented during the 23rd National Conference on e-Governance February 7-8, 2020 at Mumbai by Department of Administrative Reforms and Public Grievances (DARPG), Government of India.

22ND LAW COMMISSION
Why in news?

- The Union Cabinet gave its approval to set up the 22nd Law Commission.
- The Law Commission advises the government on complex legal issues. The term of the previous law panel ended in August 2019.
- It will identify laws that are no longer needed or are irrelevant and can be repealed immediately.
- The Commission will examine the existing laws and suggest ways for reforms. It will take all necessary steps to use law and legal processes in the service of poor people.
- The commission also suggest the necessary laws to implement the Directive Principles mentioned in the Preamble of the Constitution.
- The Law Ministry will now notify the new panel, which will have a three-year term.
- Apart from having a full-time chairperson, the commission will have four full-time members, including a member-secretary.
- Law and Legislative Secretaries in the Law Ministry will be the ex-officio members of the commission.
- A retired Supreme Court judge or Chief Justice of a High Court will head the Commission.

The Law Commission of India

- It is a non-statutory body constituted from time to time by the Government of India.
- Originally formed in 1955, the commission is reconstituted every three years and so far, 277 reports have been submitted to the government.

REMOTE VOTING SYSTEM
Why in news?

- The model of an Aadhaar-linked electronic voting system that would enable electors to cast their votes from any part of the country — irrespective of where they are registered to vote — or even abroad, is being prepared for the Election Commission of India (ECI) by the Indian Institute of Technology-Madras (IIT-M).
- The model is likely to be presented before the Commission in March 2020 and if approved, a prototype could be readied by the end of the year or early next year.
- If the project is given the go-ahead by the ECI, changes to the election laws would be required for which the Law Ministry would be approached.

MAHADAYI TRIBUNAL'S AWARD
Why in news?

- The Supreme Court in its interim order allowed the plea of the Karnataka government for implementation of the final award by a tribunal for sharing of water between Goa, Karnataka, and Maharashtra from the Mahadayi river.
- The tribunal had allocated 13.42 TMC water from the Mahadayi river basin to Karnataka. Maharashtra was allotted 1.33 TMC water while Goa was given 24 TMC.
- The Karnataka government had petitioned the tribunal seeking the release of 7.56 TMC of water for the Kalasa-Banduri Nala project.

Mahadayi/Mandovi Tribunal

- The Mahadayi Water Disputes Tribunal (MWDT) is a tribunal that adjudicates the dispute over River Mhadei water allocation.
- In July, 2002, the State of Goa made a request under Section 3 of the Inter-State River Water Disputes Act, 1956 (as amended) for constitution of the Tribunal under the said Act.
- The sharing of the waters of river Mahadayi is a cause of dispute between the governments of Karnataka and Goa.
- The state government of Karnataka proposes to divert some water from the river Mahadayi to the River Malaprabha basin as part of the Kalasa-Banduri Nala project.

MORE TRIBES IN KARNATAKA IN ST CATEGORY
Why in news?

- Parliament approved the Constitution (Scheduled Tribes) Order (Second Amendment) Bill, 2019, which allowed to include 'Parivara and Talawara' and Siddi community people living in Belagavi and Dharwad district, in Scheduled Tribe category in Karnataka. Rajya Sabha has already passed it on 12 December 2019.
- The amendments have been made in the list of STs in Karnataka. Siddi tribes of Belagavi, Dharwad would also be included in the ST category apart from those living in Uttar Kannada districts.

PESTICIDE MANAGEMENT BILL 2020
Why in news?

- Union Cabinet has approved the Pesticide Management Bill 2020 the legislation will promote organic pesticides in the country.
- The new draft bill is aimed at protecting the interest of the farmers, so that they get safe and effective pesticides. Farmers would be empowered to get all information regarding the available pesticides, their strength, weaknesses, and risks from the dealers they choose to purchase the pesticide from.
- The bill seeks to replace the existing Insecticide Act, 1968, which was an "age-old and needs immediate re-writing". It comes against the backdrop of rising concern over the need to protect farmers from spurious and sub-standard pesticides, along with the need to assess their potential effects on the health of people and that of the environment.
- The bill also has a provision to provide compensation if there is any farm loss because of low quality or spurious pesticides. The penalty collected from the manufactures/dealers and funds put in by the government would be used to form a central fund.

TRIPURA TRIBAL COUNCIL
Why in news?

- The Tripura Tribal Areas Autonomous District Council (TTAADC) has moved resolutions to codify the customary laws of three tribal clans. The council introduced separate bills to adopt the law of the Mizo,

the Kaipeng and the Malsom communities to redress their long-standing demands.
- Several clans have been approaching the TTAADC, which was constituted under the Sixth Schedule of the Constitution, to codify their respective customary law. Tripura has 19 tribal communities, but some are left with very small population.
- Even after the codification, the customary law has limited jurisdiction and can only deal with elected civil law matters. Most of the customary laws of the numerous tribal groups in the northeast India are not in written structure.
- The TTAADC had earlier approved introduction of the law of the Bru (Reang) community in 2018, but it is yet to be implemented for not receiving clearance from the Law department of the State government.

TTAADC

- TTAADC is an autonomous district council administering the Tripuri-dominated areas of the state of Tripura.
- The objective behind setting up the Autonomous District Council is to hand over certain administrative and legal authority to the Council in order that it may devote concerted attention to all aspects of cultural, social and economic improvement of the tribal people who for historical reasons presently belong to the weaker sections of society and thereby to free them from all kinds of social injustice.

MAJOR PORT AUTHORITY BILL, 2020
Why in news?

- The Cabinet has given its nod to Major Ports Authority Bill that will replace a 1963 law governing country's 12 major ports. The proposed law is aimed at enhancing the overall efficiencies of the ports.
- Now 'major ports' will get to determine the tariffs for various port-related services as well as the terms for private developers who team up with them.
- Every port will now be governed by a Port Authority which will have powers to fix reference tariffs for various port services.
- The Bill also proposes the creation of an adjudicatory board at the apex level for review of port authority's decisions.

have the mandate to resolve the disputes between port authorities and the PPP operators.

CHILD IN CONFLICT WITH LAW
Why in news?
- The Supreme Court has made it clear that the police have no right to detain children in conflict with law in a lockup or a jail.
- A juvenile in conflict with law, if apprehended, has to be placed immediately under the care of the special juvenile police unit or a designated child welfare officer.
- The child has to be produced before the Juvenile Justice Board (JJB). Once a child is produced before a JJB, bail is the rule.
- If for some reason bail is not granted, a child cannot be put behind bars. He has to be lodged either in an observation home or in a place of safety.
- The law is meant to protect children and not detain them in jail or keep them in police custody.

23RD NATIONAL CONFERENCE ON E-GOVERNANCE
Why in news?
- The 23rd National Conference on e-Governance, a platform for policy makers, practitioners, industry, academia for actionable strategy in public service delivery, held in Mumbai between 7-8 February 2020.
- The two-day conference was organised jointly by the Department of Administrative Reforms and Public Grievances, Ministry of Electronics and Information Technology, Government of India and Department of Information Technology, Government of Maharashtra.
- The theme of the conference was: India 2020: Digital Transformation.
- The Mumbai Declaration on e-Governance has been unanimously adopted at the session. The Declaration seeks to take forward the roadmap for e-Governance outlined in the Shillong Declaration of 2019.
- Improving public service delivery using digital platforms, especially in health, agriculture, education and land;
- propagation of successful e-governance solutions using emerging technologies such

as Artificial Intelligence, Blockchain and Machine Learning;
- encourage steps so as to improve India's rank in United Nation's E-Governance Development Index;
- supporting greater trust-building in digital services; developing India as a global cloud hub;
- fostering implementation of e-office and reforming public procurement system are some of the objectives of the Declaration.

EASE OF LIVING INDEX AND MUNICIPAL PERFORMANCE INDEX 2019
Why in news?
- Ease of Living Index (EoLI) and Municipal Performance Index (MPI) 2019 have been launched by the Ministry of Housing & Urban Affairs on 7 February 2020 to help assess the progress made in cities through various initiatives and empower them to use evidence to plan, implement & monitor their performance.
- This will help Municipalities in better planning and management, filling the gaps in city administration, and improving the liveability of cities for its citizens.
- For the first time, as part of the Ease of Living Index Assessment, a Citizen Perception Survey was conducted on behalf of the Ministry (which carries 30% of the marks of the Ease of Living Index). This is a very important component of the assessment exercise as it will help in directly capturing perception of citizens with respect to quality of life in their cities.
- This survey, which is being administered both online and offline, has commenced between 1-29 February 2020. The offline version involving face-to-face interviews will commence on the 1st of February and will run parallel to the on-line versions.
- The same is being promoted through bulk SMS push as well as extensive coverage in social media.

SC/ST AMENDMENT ACT, 2018
Why in news?

- The Supreme Court upheld the Scheduled Castes and the Scheduled Tribes (Prevention of Atrocities) Amendment Act of 2018, which nullified its own controversial March 20, 2018 judgment diluting the stringent provisions of the Dalit protection law.
- On 1 October 2019, Supreme Court had recalled the March 20 judgment in a review petition filed by the government. It had said it was wrong on the part of the March 20 judgment to treat all SC/ST community members as "a liar or crook". It was against "basic human dignity". The March 20 judgment had diluted the original 1989 legislation, saying they were using its provisions to file false criminal complaints against innocent persons.
- The 2018 Act had nullified a March 20 judgment of the Supreme Court, which allowed anticipatory bail to those booked for committing atrocities against Scheduled Castes and Scheduled Tribes members. The original 1989 Act bars anticipatory bail.

RESOLUTION AGAINST CAA
Why in news?

- Madhya Pradesh and Puducherry Assemblies passed a resolution against the Citizenship Amendment Act (CAA) 2019, requesting the Centre to revoke it as it violates the ethos of the Constitution.
- According to the resolution, the Act differentiates between illegal immigrants on religious grounds. It's against the secular spirit of the Constitution. This will endanger the secular and tolerant nature of the country.
- Before MP, Kerala, Punjab, West Bengal and Rajasthan have passed a resolution against the amended citizenship law. Chhattisgarh is mulling a similar move in the Budget session of its Assembly.

MGSIPA SIGNS MOU WITH NISG
Why in news?

- Synergizing the strength of Mahatma Gandhi State Institute of Public Administration, Punjab (MGSIPA), in imparting training to the civil servants and that of National Institute of Smart Government (NISG) in leveraging e-Governance solutions to administrative processes, a Memorandum of Understanding (MoU) was signed between the two institutions.
- The MoU facilitates the role NISG can play in the state's digital transformation through sharing of infrastructure, hardware, specialized personnel and proprietary software in training of civil servants and civil executives of other organizations, in utilizing computer and internet-based technologies.
- The signing of MoU is first of its kind initiative between MGSIPA and NISG and is sure to lead to similar joint frameworks for finding innovative solutions in a collaborative manner.
- The agreement will facilitate MGSIPA in knowledge sharing and capacity building on e-Government services across the State of Punjab as well as other states, through its think tank Centre for e-Governance.

DISABLED PERSONS
Why in news?

- The Supreme Court (SC) has granted relief to persons with disabilities by allowing reservation in promotion in all groups for those employed in public sector jobs. It confirmed that 3% reservation should be given to disabled persons both in direct recruitment and in promotions.
- Reservation for disabled is granted under Article 16(1) of the Constitution. The Persons with Disabilities (Equal Opportunities, Protection of Rights and Full Participation) Act, 1995 emphasises that "employment is a key factor in the empowerment and inclusion of people with disabilities".
- Rajeev Kumar Gupta judgment (2016) had held that wherever posts were identified to be suitable for persons with disabilities, 3% reservation must be given. The government had however challenged the judgement, leading to the reference to the larger Bench. The government had referred to the Indira Sawhney case, which had capped reservation at 50% and prohibited reservation in promotions. But Supreme Court countered that the Sawhney

judgment only pertained to the Backward Classes. It has no relevance to the case of persons with disabilities.

'ENEMY PROPERTIES'
Why in news?

- A Group of Ministers (GoM) headed by Union home minister will monitor the disposal of over 9,400 enemy properties, which are likely to fetch about Rs 1 lakh crore to the exchequer.
- Two other high-level committees, one to be headed by Cabinet Secretary and other to be co-chaired by Union home secretary, will also be set up for disposal of immovable enemy properties vested in the Custodian of Enemy Property for India under the Enemy Property Act.
- Enemy properties were those left behind by the people who took citizenship of Pakistan and China.
- An Inter-Ministerial Group will be constituted for the disposal of enemy properties and it will be co-chaired by the union home secretary and the secretary of the department of investment and public asset management.
- A Core Group of Secretaries on Asset Monetisation (CGAM) will be constituted under chairmanship of the cabinet secretary.
- Central government may constitute an alternative mechanism comprising Home Minister, Finance Minister and Minister of Road Transport and Highways.

'GRAM NYAYALAYAS'
Why in news?

- The Supreme Court has directed the states (like Gujarat, Haryana, Telangana, West Bengal, Uttarakhand, Chhattisgarh and Odisha) to issue notifications for establishing Gram Nyayalayas within four weeks. The apex court also asked the high courts to expedite the process of consultation with state governments on this issue.
- Several states have issued notifications for establishing Gram Nyayalayas but all of them were not functioning except in Kerala, Maharashtra and Rajasthan.
- An Act passed by Parliament in 2008 provided for setting up of Gram Nyayalayas

at the grassroots level for providing access to justice to citizens at the doorstep.

Gram Nyayalayas Act, 2008

- It is an Act of Parliament enacted for establishment of Gram Nyayalayas or village courts for speedy access to justice system in the rural areas of India.
- The Act came into force from 2 October 2009. The Act has not been enforced properly because of financial constraints, reluctance of lawyers, police and other government officials.
- As on 03 September 2019, only 208 functional Gram Nyayalayas in the country against a target of 5000 such courts.
- The Gram Nyayalayas are presided over by a Nyayadhikari, who will have the same power, enjoy same salary and benefits of a Judicial Magistrate of First Class. Such Nyayadhikari are to be appointed by the State Government in consultation with the respective High Court.

PMMVY
Why in news?

- Madhya Pradesh has bagged the first position for the implementation of Pradhan Mantri Matru Vandana Yojana (**PMMVY**).
- Indore district has also bagged the first place for better performance of the scheme.
- The main objective of the Matru Vandana Yojana is to provide incentives of five thousand rupees for the loss of wages of working women and to ensure their proper rest and nutrition during pregnancy. The payment of the incentive amount is deposited directly into the bank account.
- In Madhya Pradesh, more than 14 lakh 55 thousand beneficiaries have been registered under the Pradhan Mantri Matra Vandana Yojana. The first installment has been paid to about 13 lakh 40 thousand women, while second installment to around 12 lakh and third installment has been paid to 8 lakh 80 thousand beneficiaries.

INTERNATIONAL JUDICIAL CONFERENCE
Why in news?

- International Judicial Conference held recently in New Delhi.
- The Conference was organized by the Supreme Court of India. Distinguished Judges of the Supreme Court as well as various High Courts, Eminent lawyers and delegates from overseas took part in the Conference.
- The topic of the one-day conference is "Judiciary and The Changing World". Also, the theme of 'Gender Just World' was introduced at the conference.
- They discussed the changes made by GoI to bring gender equality including recruitment of women in military service, changes in the selection process of fighter pilots, the freedom to work at night in the mines, Harmonisation of Environment Protection vis-à-vis Sustainable Development and Protection of Right to Privacy in the Internet Age.
- The need for technology to deliver speedy justice was emphasized. The government has made an effort to connect every court of the country to the e-court Integrated Mission Mode Project.
- So far, 1500 obsolete laws have been abolished in the country. Also, many new laws to strengthen the society have been enacted.
- Centre has established National Judicial Data Grid, in order to make court procedures easier.
- The synergy of artificial intelligence (AI) and human conscience is expected to give further impetus to judicial processes in India.

e-Court

- The E-Courts Project was conceptualised on the basis of "National Policy and Action Plan for Implementation of Information and Communication Technology (ICT) in the Indian Judiciary - 2005" submitted by e-Committee of the Supreme Court of India (set up in 2004).
- The main objectives of the e-Court Project are as follows:
  - ✓ To develop, install & implement decision support systems in courts.
  - ✓ To provide efficient & time-bound citizen centric service delivery.

- ✓ To automate the processes to provide transparency of Information access to its stakeholders.
- ✓ To enhance judicial productivity both qualitatively & quantitatively, to make the justice delivery system affordable, accessible, cost effective & transparent.

OCCUPANCY RIGHTS TO SCHEDULED TRIBES IN LAKSHADWEEP
Why in news?

- The union cabinet approved amendment of the Laccadive, Minicoy and Amindivi Islands Land Revenue and Tenancy Regulation, 1965 to confer occupancy rights to the Scheduled Tribe (ST) population in the union territory.
- Lakshadweep Island mostly comprises ST population and they did not have occupancy rights.
- Decision has been taken to give them occupancy rights. The decision is important from the point of view of the tribal community. It happened as part of good governance initiatives of Prime Minister.
- Lakshadweep is an Archipelago with 12 atolls, five submerged banks and three reefs. There are 17 uninhabited islands in the region.
- According to the SC and ST list (modification order), 1956, the inhabitants born to both parents born in the islands are alone treated as Scheduled Tribes.

ECONOMY
ECONOMIC SURVEY 2019-20
Why in news?

- The Union Minister for Finance & Corporate Affairs presented the Economic Survey 2019-20 in the Parliament.
- The theme is "India's aspiration of #Economy@5trillion with its theme of #WealthCreation".
- The 2019-20 survey has shifted focus to Adam Smith's 'invisible hand' for wealth creation. Historically, Indian economy relied on the invisible hand of the market with the support of the hand of trust. Survey illustrates enormous benefits accruir

enabling the invisible hand of the market. Exponential rise in India's GDP and GDP per capita post-liberalisation coincides with wealth generation.

- The invoking of Arthashastra and Thirukkural to commend accumulation of money is, perhaps, a signal aimed equally at assuaging the business community.
- The latest Survey is the first one having an explicit quote from Margaret Thatcher on the virtues of privatisation and free enterprise.

STATE OF THE ECONOMY

1. **GDP**
- Amidst a weak environment for global manufacturing, trade and demand, the Indian Economy slowed down with GDP growth moderating to 4.8% in first half of 2019-20.
- A sharp decline in real fixed investment induced by a sluggish growth of real consumption has weighed down GDP growth.
- The survey noted that the year 2019 was a difficult year for the global economy with world output growth growing at its slowest pace of 2.9% since the global financial crisis in 2009.
- GDP growth pegged at 6-6.5% in fiscal year starting 1 April 2020, while emphasising risks both on the downside (continued global trade conflicts, crude prices rising from escalating US-Iran tensions, widening fiscal deficits causing bond yields to go up) and upside (the September corporate tax rate cuts beginning to attract manufacturing investments, merger of public sector banks leading to increased financial strength and reduced risk aversion).

2. **Inflation**
- Headline inflation rose from 3.3% in the second half of 2019-20 to 7.4% in December 2019.
- Rise in CPI-core and WPI inflation in December 2019 suggests building of demand pressure.

3. **CAD and fiscal Deficit**
- India's CAD decreased from 2.1% of GDP in 2018-19 to 1.5% of GDP in 2019-20 (April-December). The fiscal deficit for 2019-20 is estimated at 3.3% and the primary deficit for the year is estimated at 0.2% of GDP

(primary deficit is the fiscal deficit excluding the interest payments). As of November 2019, fiscal deficit stood at 114.8% of the budgeted level. The survey noted that fiscal deficit target may have to be relaxed for the current year given the urgent priority of the government to revive growth in the economy.

AGRICULTURE AND ALLIED ACTIVITIES

- Growth of agriculture sector has been fluctuating: it increased from -0.2% in 2014-15 to 6.3% in 2016-17, and then declined to 2.8% in 2019-20. Gross fixed capital formation in agriculture decreased from 17.7% of Gross Value Added (GVA) in 2013-14 to 15.2% of GVA in 2017-18.
- This sector contribution to national income has gradually declined to 16.5% in 2019-20 from 18.2% in 2014-15.
- Doubling farmer's income will require addressing issues such as access to credit, insurance coverage, and investments in agriculture. India has relatively lower farm mechanisation which needs to be addressed.
- India's food management should focus on rationalisation of food subsidy while addressing the challenges of food security, especially of the most vulnerable sections.
- With the implementation of the National Food Security Act from July 2013, the food subsidy bill has increased from 1,13,171.2 crore rupees in 2014-15 to 1,71,127.5 crore rupees in 2018-19.

INDUSTRY AND INFRASTRUCTURE

- The overall industrial sector growth is estimated to be 2.5% in 2019-20 as compared to 6.9% growth in 2018-19. Manufacturing sector is estimated to grow at 2.0% during 2019-20. In 2018-19, share of the Industry sector in GVA was 29.6%.
- Industrial Production registered a growth of 0.6% for 2019-20 compared to 5% during 2018-19.
- Growth of manufacturing sector was 0.9% during 2019-20 (April-November) compared to 4.9% during 2018-19.
- India needs to spend USD 1.4 trillion on infrastructure to achieve a GDP of USD 5 trillion by 2024-25.
- Report of the Task Force on National Infrastructure Pipeline released in

December 2019 has projected total infrastructure investment of Rs. 102 lakh crore during the period FY 2020 to 2025 in India.

Services sector

- Services sector is estimated to grow at 6.9% in 2019-20 as compared to 7.5% in 2018-19. The services sector is estimated to contribute 55.3% to India's GVA in 2019-20. Currently, the services sector accounts for over 50% of the Gross State Value Added in 15 states and UTs. Sub-sectors such as trade, hotels, transport, communication & services related to broadcasting, financial and real estate services saw a deceleration during this period.
- The share of services exports in overall exports of India has been increasing. India's share in the world's commercial services exports was 3.5% in 2018, twice the share in the world's merchandise exports at 1.7%.

Human development and employment

- India's rank in the human development index was 129 in 2018. Expenditure on social services (including health and education) increased by 1.5% of GDP during the 2014-20 period. Out of pocket expenditure as a percentage of total health expenditure declined from 64.2% in 2013-14 to 58.7% in 2016-17.
- The Survey emphasizes on sustainability of food security operations by:
  1. Addressing the burgeoning food subsidy bill.
  2. Revisiting the rates and coverage under National Food Security Act (NFSA).
- The Survey also noted that the gross enrolment ratio at secondary, higher secondary and higher education level need improvement.
- Total formal employment in the economy increased from 8% in 2011-12 to 10% in 2017-18. During the 2011-18 period, 2.62 crore new jobs were created among regular wages/salaried employees. The female participation in the labour workforce declined, especially in rural areas.

Privatization of Education

- The Survey proposes privatization of education at all levels as a policy initiative

to fast-track entrepreneurship and consequently wealth creation.
- It links literacy levels to start-up activity and cites the example of the eastern parts of the country, which have the lowest literacy rate of about 59.6% and also the lowest rate of new firms being set up.

Trust in market

- India's aspiration to become a $5 trillion economy depends critically on strengthening the invisible hand of the market. And this needs to be done with the hand of trust through government intervention by facilitating pro-business policies.
- This includes (i) providing equal opportunities for new entrants, enabling fair competition and ease of doing business, (ii) eliminating policies which unnecessarily undermine markets through government intervention, (iii) enabling trade for job creation, and (iv) scaling up the banking sector to be proportionate to the size of the economy. While pro-business policies need to be promoted, pro-crony policies that favour specific private interests and powerful incumbents need to be done away with.
- The Survey observed that eliminating cases where government intervention is unnecessary will enable competitive markets and thereby spur investments and economic growth. For instance, the emergence of government as the largest procurer of food led to problems such as rising subsidy burden, divergence between demand and supply of cereals and a disincentive towards crop diversification.
- India has jumped from 142 in 2014 to 63 in 2019 in ease of doing business rankings. However, India continues to trail in various parameters such as ease of starting business (rank 136), registering property (rank 154), paying taxes (rank 115), and enforcing contracts (rank 163). These parameters provide a scope for further improvement.

Export

- Export growth remains subdued with external demand weakened by slowdown in global investment, output and heightened

trade tensions, notwithstanding resilient service exports.

- Exports of network products can contribute a quarter of the increase in value-added required for making India a $5 trillion economy by 2025. Network products refer to the products where production occurs across the global value chain operated by multi-national corporations. This can be achieved by integrating 'Assemble in India for the world' in the 'Make in India' initiative. This can create 4 crore well-paid jobs by 2025 and 8 crore jobs by 2030.

Entrepreneurship at grassroots levels

- Entrepreneurship at the district level has a significant impact on wealth creation at the grassroots level. Survey noted that India ranks third in number of new firms created, as per the World Bank.
- New firm creation in services is significantly higher than that in manufacturing, infrastructure or agriculture.
- Survey notes that grassroots entrepreneurship is not just driven by necessity.
- A 10 percent increase in registration of new firms in a district yields a 1.8 % increase in Gross Domestic District Product (GDDP).
- Entrepreneurship at district level has a significant impact on wealth creation at the grassroots.
- Birth of new firms in India is heterogeneous and dispersed across districts and sectors.
- Literacy and education in a district foster local entrepreneurship significantly:
  - o Impact is most pronounced when literacy is above 70 per cent.
  - o New firm formation is the lowest in eastern India with lowest literacy rate (59.6 % as per 2011 Census).
- Physical infrastructure quality in the district influences new firm creation significantly.
- Ease of Doing Business and flexible labour regulation enable new firm creation, especially in the manufacturing sector.

External Debt

- External debt as at end September, 2019 remains low at 20.1% of GDP.

Banking sector

- The country will need much bigger banks to become a USD 5 trillion economy. In

particular, at least eight banks are needed which are large enough to belong to the top 100 banks globally, noting there is now only one bank in the country, the State Bank of India, with 55th rank, in the world's top 100 banks.

- Observing that even though public sector banks are the dominant players in the banking sector, they lag considerably in performance metrics when compared to their peers, the Survey said, pointing out that these entities have destroyed capital deployed by the government over the years.
- The report highlighted that while a large economy needs an efficient banking sector to support its growth, credit growth among PSBs has declined significantly since 2013 and has also been anaemic since 2016. Credit growth for the new private banks, however, remained healthy.
- Commenting that anaemic credit growth has impacted economic growth, the Survey called for enhancing the efficiency of public sector banks as they operate in the same market as the new private sector banks.
- The Economic Survey has suggested the use of a 'health score' index for NBFCs which can help in detecting early signs of impending liquidity risks.

Disinvestment of central public sector enterprises

- An analysis of 11 central public sector enterprises shows that on average, the privatized enterprises perform better post-privatization than their peers in terms of various parameters, such as net worth, net profit, and net profit margin.
- Disinvestments through the strategic sale of CPSEs increase their potential to create wealth. Hence, aggressive disinvestment should be undertaken to bring in high profitability.

THALINOMICS

- The Survey makes an attempt to relate economics to the common person using something that an individual encounters every day - a plate of food i.e a Thali.
- Affordability of Thalis vis-à-vis a day's pay of a worker has improved over time, indicating improved welfare of the common person.

UNION BUDGET 2020-21

Why in news?

- The Union Minister of Finance presented the Budget 2020-21 in the Parliament. The central theme of the Budget- "Ease of living for all citizens" was based on three prominent themes:
  - Aspirational India - better standards of living with access to health, education and better jobs for all sections of the society
  - Economic Development for all - "Sabka Saath, Sabka Vikas, Sabka Vishwas"
  - Caring Society- both humane and compassionate; Antyodaya as an article of faith

- Union Budget Aims:
  - To achieve seamless delivery of services through Digital governance
  - To improve physical quality of life through National Infrastructure Pipeline
  - Risk mitigation through Disaster Resilience
  - Social security through Pension and Insurance penetration.

ECONOMY

- The government proposes to spend Rs 30,42,230 crore in 2020-21, which is 12.7% higher than the revised estimate of 2019-20.
- The receipts (other than net borrowings) are expected to increase by 16.3% to Rs 22,45,893 crore, owing to higher estimated revenue from disinvestments.
- The government has assumed a nominal GDP growth rate of 10% (i.e., real growth plus inflation) in 2020-21. The nominal growth estimate for 2019-20 was 12%.
- Revenue deficit is targeted at 2.7% of GDP, which is higher than the revised estimate of 2.4% in 2019-20. Fiscal deficit is targeted at 3.5% of GDP, lower than the revised estimate of 3.8% in 2019-20.   Note that the government is estimated to breach its budgeted target for fiscal deficit (3.3%) in 2019-20 and the medium term fiscal target of 3% in 2020-21. This does not include off-budget borrowings (0.9% of GDP in 2020-21).
- Among the top 13 ministries with the highest allocations, the highest percentage increase is observed in the Ministry of Communications (129%), followed by the Ministry of Agriculture and Farmers' Welfare (30%) and the Ministry of Home Affairs (20%).

AGRICULTURE

- A budget allocation of Rs. 2.83 lakh crore for 16 action points.
- The action points include measures to provide farmers access to faraway markets by running trains (Kisan Rail) and flights (Krishi Udaan) and providing relief to farmers from water shortage.
- It will also include 'One-Product One-District' for better marketing and export in the Horticulture sector. The scheme is already functional in Uttar Pradesh.
- The focus is also on Jaivik Kheti Portal (online national organic products market), Zero-Budget Natural Farming, PM-KUSUM.
- Agri-credit availability set at Rs. 15 lakh crore for 2020-21.
- Provide 20 lakh farmers to set up standalone solar pumps. Help another 15 lakh farmers to solarise their power grid.

HEALTH AND SANITATION

- An allocation of ₹69,000 crore for the health sector. Rs, 12,300 crore for Swachh Bharat Mission this year.
- Proposal to set up hospitals in Tier-II and Tier-III cities with the private sector using PPP model.
- Expansion of Jan Aushadhi Kendra Scheme to all districts by 2024.
- A task force to be appointed to recommend regarding steps required to lower the Maternal Mortality Rate (MMR) and improving nutrition.

EDUCATION

- ₹99,300 crore for the education sector in 2021 and about ₹3,000 crore for skill development.
- Urban local bodies to provide internship to young engineers for a year.
- Degree-level full fledged online education programmes by institutions ranked in the top 100 in NIRF rankings, especially to benefit underprivileged students.
- A national police university and a national forensic science university is proposed to be setup.
- IND SAT exam for students of Asia and Africa to promote "study in India" programme.

INFRASTRUCTURE

1. Infrastructure Financing

- Rs. 103 lakh crore for National Infrastructure Pipeline projects announced.
- An international bullion exchange to be set up at GIFT City.
- Proceeds from divestment will go only into capital expenditure and not revenue expenditure.

2. Transport

- Budget proposes to provide ₹1.7 lakh crore for transport infrastructure in 2021.
- National Logistics Policy to be released soon.
- Chennai-Bengaluru Expressway to be started.
- Government to monetise 12 lots of national highways by 2024.

3. Railways

- Aims to achieve electrification of 27,000 km of railway lines.
- Plan to have a large solar power capacity for Indian Railways.
- 100 more airports will be developed by 2024 to support UDAN.
- 5 new smart cities in public-private partnership mode.

Culture and Tourism

- Proposal to establish Indian Institute of Heritage and Conservation.
- 5 archaeological sites to be developed as iconic sites:
  - Rakhigarhi (Haryana)
  - Hastinapur (Uttar Pradesh)
  - Shivsagar (Assam)
  - Dholavira (Gujarat)
  - Adichanallur (Tamil Nadu)
- Maritime museum to be set up at Lothal (Gujarat).
- Tribal Museum in Ranchi
- A museum on Numismatics and Trade to be established.

Financial Sector

- Bank deposit insurance cover has been increased from ₹1 lakh to ₹5 lakh per depositor.
- Government plans to amend the Companies Act to decriminalise civil offences.
- Government to sell part of its stake in LIC via public offering.

- Scheme to encourage manufacturing of mobile phones, electronic equipment and semiconductor packaging.
- National Technical Textiles Mission for a period of 4 years.
- NIRVIK Scheme for higher export credit disbursement launched.
- Setting up of an Investment Clearance Cell to provide end to end facilitation.
- Early life funding proposed, including a seed fund to support ideation and development of early stage Start-ups.
- Audit threshold for MSMEs raised to ₹5 crore from ₹1 crore.
- Certain specified categories of Government securities to be opened fully for non - resident investors also.
- Foreign Portfolio Investment (FPI) limit in corporate bonds increased to 15% from 9% of its outstanding stock.
- 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.

Tax

- A new tax regime has been announced. Those who want to be in the old regime with exemptions, can continue.
- Over 70 deductions have been removed.
- Companies will no longer be required to pay Dividend Distribution Tax (DDT).

Digitisation

- Knowledge Translation Clusters for emerging technology sectors.
- Policy to enable the private sector to build Data Centre parks throughout the country.
- Rs.8000 crore proposed over five years for National Mission on Quantum Technologies and Applications.
- Mapping of India's genetic landscape- Two new national level Science Schemes to be initiated to create a comprehensive database.

Governance

- An independent, professional and specialist National Recruitment Agency (NRA) for conducting a computer-based online Common Eligibility Test for recruitment on all non gazetted posts. A test-centre in

every district, particularly in the Aspirational Districts will be set up.

- New National Policy on Official Statistics to promote the use of the latest technologies including AI and 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.

INTELLECTUAL PROPERTY INDEX
Why in news?

- The International IP Index 2020 has been released by the U.S. Chamber of Commerce's Global Innovation Policy Center (GIPC).

Highlights of the Index

- The US, the UK, Sweden, France and Germany are the top five economies.

- This edition of the Index added three new economies, the Dominican Republic, Greece, and Kuwait.

- This years' index ranked 53 countries out of which India ranked at 40th place even as the country has shown improvement in terms of scores when it comes to the protection of IP and copyright issues.

- India was placed at 36th position among 5o counties in 2019.

- India's score increased from 36.04 % (16.22 out of 45) in 2019 to 38.46 % (19.23 out of 50) in 2020, a 24.2% jump in absolute score. However, India's relative score increased by 6.71%.

- Since the release of the 2016 National IPR Policy, the government of India has made a focused effort to support investments in innovation and creativity through increasingly robust IP production and enforcement.

- India has improved the speed of processing for patent and trademark applications, increased awareness of IP rights among Indian innovators and creators, and facilitated the registration and enforcement of those rights.

- In 2019, the Delhi High Court used dynamic injuctions to disable access to copyright-infringing content online, resulting in an increase in India's score on two of the copyright related indicators.

REPORT OF THE 15TH FINANCE COMMISSION FOR FY 2020-21
Why in news?

- The first report, consisting of recommendations for the financial year 2020-21, was tabled in Parliament by the 15th Finance Commission (Chair: Mr N. K. Singh).

- The Finance Commission is a constitutional body formed by the President of India to give suggestions on centre-state financial relations.

Key recommendations

- The share of states in the centre's taxes is recommended to be decreased from 42% during the 2015-20 period to 41% for 2020-21. The 1% decrease is to provide for the newly formed union territories of Jammu and Kashmir, and Ladakh from the resources of the central government.

- In 2020-21, the following grants will be provided to states: (i) revenue deficit grants, (ii) grants to local bodies, and (iii) disaster management grants. The Commission has also proposed a framework for sector-specific and performance-based grants. State-specific grants will be provided in the final report.

- The Commission noted that recommending a credible fiscal and debt trajectory roadmap remains problematic due to uncertainty around the economy. It recommended that both central and state governments should focus on debt consolidation and comply with the fiscal deficit and debt levels as per their respective Fiscal Responsibility and Budget Management (FRBM) Acts.

- The Commission observed that financing capital expenditure through off-budget borrowings detracts from compliance with the FRBM Act. It recommended that both the central and state governments should make full disclosure of extra-budgetary borrowings. The outstanding extra-budgetary liabilities should be clearly identified and eliminated in a time-bound manner.

- The Commission recommended forming an expert group to draft legislation to provide for a statutory framework for sound public financial management system. It observed that an overarching legal fiscal framework is required which will provide for budgeting, accounting, and audit standards to be followed at all levels of government.
- In 2018-19, the tax revenue of state governments and central government together stood at around 17.5% of GDP. The Commission noted that tax revenue is far below the estimated tax capacity of the country. Further, India's tax capacity has largely remained unchanged since the early 1990s. In contrast, tax revenue has been rising in other emerging markets. The Commission recommended: (i) broadening the tax base, (ii) streamlining tax rates, (iii) and increasing capacity and expertise of tax administration in all tiers of the government.
- The Commission highlighted some challenges with the implementation of the Goods and Services Tax (GST). These include: (i) large shortfall in collections as compared to original forecast, (ii) high volatility in collections, (iii) accumulation of large integrated GST credit, (iv) glitches in invoice and input tax matching, and (v) delay in refunds. The Commission observed that the continuing dependence of states on compensation from the central government (21 states out of 29 states in 2018-19) for making up for the shortfall in revenue is a concern. It suggested that the structural implications of GST for low consumption states need to be considered.
- The ToR of the Commission required it to examine whether a separate funding mechanism for defence and internal security should be set up and if so, how it can be operationalised. In this regard, the Commission intends to constitute an expert group comprising representatives of the Ministries of Defence, Home Affairs, and Finance. The Commission noted that the Ministry of Defence proposed following measures for this purpose: (i) setting up of a non-lapsable fund, (ii) levy of a cess, (iii) monetisation of surplus land and other assets, (iv) tax-free defence bonds, and (v) utilising proceeds of disinvestment of defence public sector undertakings. The

expert group is expected to examine these proposals or alternative funding mechanisms.

REVAMPING OF PMFBY
Why in news?
- The Union Cabinet has approved revamping of "Pradhan Mantri Fasal Bima Yojana (PMFBY)" and "Restructured Weather Based Crop Insurance Scheme (RWBCIS)" to address the existing challenges in implementation of Crop Insurance Schemes.
- These changes are proposed to be implemented from Kharif' 2020 Season throughout the country.
    - The move is aimed at increasing the coverage in the north-eastern region enabling farmers to manage their agricultural risk in a better way.
    - It aims to cut the risk in agriculture production and stabilise the farm income.
    - The changes are also expected to enable quick and accurate yield estimation leading to faster claims settlement.
    - The revamp reduces the burden on the Centre and increases the share of States.
    - Making participation voluntary is one way of lifting the security net of farmers.
    - As the scheme is being made voluntary for all farmers to provide financial support and effective risk mitigation tools through crop insurance, especially to 151 highly water-stressed districts, a separate scheme in this regard would also be prepared.
    - With changes to the scheme, it is not yet clear how many farmers would join it. Many would be discouraged to go for insurance given their past bitter experience. Also, the premiums might be a deterrent for several farmers already facing a declining farm income.
    - Simultaneously, Maharashtra has become the first state in the country to integrate its land records with the web portal of the PMFBY. This will help in checking the cases of "over-insurance" — insurance of more land than in possession — as well as insurance of ineligible people.

APIARY ON WHEELS
Why in news?
- The Ministry of Micro, Small and Medium Enterprises has flagged off 'Apiary on Wheels' on.
- '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.

Khadi and Village Industries Commission
- KVIC is a statutory body established under the Khadi and Village Industries Commission Act, 1956.
- It functions under the Ministry of Micro, Small and Medium Enterprises.
- 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.

TILHAN MISSION
Why in news?
- The government announced that it 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.

NATIONAL ORGANIC FOOD FESTIVAL
Why in news?
- Food Processing Industries Minister and Women and Child Development Minister jointly inaugurated National Organic Food Festival in New Delhi. The three-day festival aimed at strengthening organic market and encouraging women entrepreneurs engaged in manufacturing of organic produce. Organic sector in India is increasing at a speed of 17 percent per year and this trend will move ahead much faster as it is positively impacting needs of people from all walks of life.
- Sikkim is the first organic state in the world. All of its farmland is certified organic.
- India has the 9th largest World's Organic Agricultural Land and the largest number of producers.
- Theme: Unleashing India's Organic Market Potential.
- Factors for growth of organic food in India: Increasing disposable incomes, increasing awareness around health and wellness and increasing acceptability.

INDIA'S TALLEST PIER BRIDGE
Why in news?
- The Northeast Frontier Railway Construction Organisation has built India's tallest railway pier bridge — 100 m tall equivalent to a 33-storey building, across river Makru in the Tamenglong district of Manipur.
- The ₹283.5-crore bridge with a span of 555 m is part of the 111-km Jiribam-Tupul-Imphal new broad gauge line. It has 47 tunnels, the longest being 10.28 km.
- The steel girders were pre-fabricated at a workshop in Kolkata, transported in segments and erected at the site by cantilever launching that required meticulous planning and execution.

Northeast Frontier Railways
- It is one of the eighteen railway zones in India. It is responsible for rail operations in the entire Northeast and parts of West Bengal and Bihar.
- It is headquartered in Maligaon, Guwahati in the state of Assam
- In 1881, railway first came to Assam when Assam Railway and Trading Company set up metre gauge track.

INDIA INTERNATIONAL SEAFOOD SHOW (IISS) 2020
Why in news?

- The 22nd edition of IISS was organized from 7-9 February 2020 in Kochi.
- IISS 2020 was organized by the Marine Products Export Development Authority (MPEDA), under Ministry of Commerce and Industry in association with the Seafood Exporters Association of India (SEAI).
- The theme of this year's seafood show was "Blue Revolution- Beyond Production to Value Addition".
- The biennial show returned to Kochi after 12 years and provided a platform for Indian exporters and overseas importers of Indian marine products to interact.
- The 21st edition of IISS was held in Goa in January 2018.

INDIA OVERTAKES AS 5TH LARGEST ECONOMY
Why in news?

- According to the World Population Review (US-based think tank) report, an independent organisation, India is developing into an open-market economy from its previous autarkic policies.
- India's economy is the fifth largest in the world with a GDP of $2.94 trillion, overtaking the UK and France in 2019 to take the fifth spot. The size of UK's economy is $2.83 trillion and that of France is $2.71 trillion.
- In purchasing power parity (PPP) terms, India's GDP is $10.51 trillion, exceeding that of Japan and Germany. Due to India's high population, its GDP per capita is $2,170 (for comparison, the US is $62,794).
- India's real GDP growth is expected to weaken for the third straight year from 7.5 per cent to 5 per cent.
- India's service sector is the fast-growing sector in the world accounting for 60 per cent of the economy and 28 per of employment, the report said, adding that manufacturing and agriculture are two other significant sectors of the economy.

SPICe+
Why in news?

- As part of Government of India's Ease of Doing Business (EODB) initiatives, the Corporate Affairs Ministry (MCA) has come out with the format of the new web form —

SPICe+ — for incorporation of companies. The web form — issued as part of the Centre's Ease of Doing Business initiative — has replaced the existing SPICe form (Simplified Proforma for Incorporating Company Electronically).
- The integrated web form will, among other things, offer 10 services by three Central Government Ministries and Departments (Ministry of Corporate Affairs, Ministry of Labour and Department of Revenue in the Finance Ministry) and one State Government (Maharashtra). The web form will help save many procedures, time and cost for starting a business in India. It became applicable for incorporation of all new companies from 15 February 2020.
- The Ministry has also come up with an AGILE PRO form, part of SPICe+, for GSTIN/ EPFO/ ESIC/ Profession Tax/ Bank Account.

ATAL INNOVATION MISSION
Why in news?

- Atal Innovation Mission, NITI Aayog started a series of innovation demo days where start-ups, Micro, Small and Medium Enterprises (MSMEs), entrepreneurs, corporate partners and sector academics are brought together for a showcase of government-funded innovations with a vision to bring together the stakeholders of the food processing and agriculture sector in India,.
- The first such event was held on the same day in association with Ministry of Food Processing Industries and Ministry of Agriculture & Farmers Welfare at Atal Incubation Centre (AIC)- Entrepreneurship & Management Process International (EMPI) Business school, New Delhi.
- The innovation demo day series initiative aims at promoting commercialisation of technologies funded by the Ministries of Agriculture and Farmers Welfare and Food Processing and Industries. It also aims at connecting innovation with sectors like Indian MSME industry and government funded research industries.

KASHI MAHAKAL EXPRESS
Why in news?

- The Kashi Mahakal Express is the country's third 'corporate' train to be operated by the IRCTC, started is commercial run from Indore.
- Corporate train model is a new model being actively pushed by Indian Railways- to 'outsource' the running of regular passengers trains to its PSU, the Indian Railway Catering and Tourism Corporation (IRCTC).
- In this model, the corporation takes all the decisions of running the service– fare, food, onboard facilities, housekeeping, complaints etc. Indian Railways is free from these encumbrances and gets to earn from IRCTC a pre-decided amount, being the owner of the network.
- The train connects the three Jyotirlingas of Lord Shiva - Omkareshwar (located near Indore), Mahakaleshwar (Ujjain) and Kashi Vishwanath (Varanasi) in the country.

SDG CONCLAVE 2020
Why in news?

- Partnerships, Cooperation and Development of North Eastern States was held from 24-26 February 2020 at Assam Administrative Staff College, Guwahati, Assam. The conclave was a part of NITI Aayog's continuous efforts towards fostering partnerships at the sub-national level.
- The conclave was organized by NITI Aayog in association with North Eastern Council, Assam government, Tata Trusts, United Nations Development Programme (UNDP) and Research and Information System for Developing Countries (RIS).
- The conclave hosted technical sessions that pertain to SDG localization in the northeast, climate adaptive agriculture, economic prosperity, and sustainable livelihoods, health, and nutrition, education and skill development and entrepreneurship, infrastructure development & inequality and exclusion.
- NITI Aayog has the mandate of overseeing the adoption and monitoring of SDGs at the national and sub-national level.

PARADIP PORT
Why in news?

- An inter-ministerial panel has approved a Ministry of Shipping proposal for deepening and optimisation of inner harbour facilities of the Paradip Port Trust.
- The total project cost is estimated at Rs 3,025 crore and the project will be executed in the public-private-partnership (PPP) mode.
- The project will also facilitate import of coking coal for steel sector and other industries.
- Located in Odisha, the deepwater Paradip Port handles various cargo like crude oil, iron ore, thermal coal, coking coal, limestone, manganese and fertilisers among others. The port handled total traffic of 109.27 million metric tonnes (MMT) in 2018-19, as against 102.01 MMT in 2017-18. The proposed deepening and optimisation of the inner harbour facilities will add annual handling capacity of another 25 MMT to the port's overall capacity.

PORT AT VADHAVAN
Why in news?

- The Union Cabinet has given its 'in-principle' approval for setting up a Major Port at Vadhavan near Dahanu in Maharashtra.
- Vadhavan port will be developed on "land lord model".
- A Special Purpose Vehicle (SPV) will be formed with Jawaharlal Nehru Port Trust (JNPT) as the lead partner with equity participation equal to or more than 50% to implement the project.
- The SPV will develop the port infrastructure including reclamation, construction of breakwater, besides establishing connectivity to the hinterland. All the business activities would be undertaken under PPP mode by private developers.
- Total cost of the project is likely to be Rs.65,544 crore.
- The position of JN Port, the biggest container port in India is 28th in the world with a traffic of 5.1 million TEUs (Twenty-Foot Equivalent Units). Even after the completion of 4th terminal at JN Port with a capacity increase upto10 million TEUs by 2023, it will stand as the 17thlargest container port in the world. With the

development of Vadhavan port, India will break into the countries with top 10 container ports in the world.

EASE 3.0
Why in news?
- The Finance Minister has launched Enhanced Access and Service Excellence (EASE 3.0).
- EASE 3.0 aims to provide advanced solutions that will make the public sector banking smart and technology-enabled.
- It will include facilities like Palm Banking for End-to-end digital delivery of financial service, Banking on Go via EASE banking outlets, digitalised branch experience, tech-enabled agriculture lending among others.

PM KISAN MOBILE APP
Why in news?
- On the first anniversary of Pradhan Mantri Kisan Samman Nidhi, Agriculture Minister launched PM KISAN mobile application.
- It is aimed at broadening the reach of the scheme further.
- The application will help farmers to learn about their payment status, their eligibility towards the scheme and other information.
- It will also help the government to reach farmers easily.
- Pradhan Mantri Kisan Samman Nidhi (PM-KISAN) is a Central Sector scheme with 100% funding from Government of India.
- Under the Scheme an income support of Rs.6000/- per year is provided to all farmer families across the country in three equal installments of Rs.2000/- each every four months.
- Definition of family for the Scheme is husband, wife and minor children.
- The entire responsibility of identification of beneficiary farmer families rests with the State / UT Governments.
- The fund is directly transferred to the bank accounts of the beneficiaries.

MASALA BONDS
Why in news?
- Asian Development Bank (ADB) has listed its 10-year masala bonds worth Rs 850 crore on the global debt listing platform of India

INX. The proceeds would be used to support local currency lending and investment in India.
- They are bonds issued outside India by an Indian entity or corporate. These bonds are issued in Indian currency than local currency. Indian corporates usually issue Masala Bonds to raise funds from foreign investors. As it is pegged into Indian currency, if the rupee rates fall, investors bear the risk. The first Masala bond was issued in 2014 by IFC for the infrastructure projects in India.
- Masala bonds are bonds issued outside India but denominated in Indian Rupees, rather than the local currency.
- Masala is an Indian word and it means spices. The term was used by the International Finance Corporation (IFC) to evoke the culture and cuisine of India.

SOCIETY AND HEALTH
TRAFFICKING SURVIVORS
Why in news?
- UNCOMPENSATE VICTIMS report was released by Sanjog (based on the NCRB data) on compensation awarded to survivors of trafficking the country, which highlighted the poor status of compensation awarded during 2011- 2019.
- Sanjog is a technical resource organisation that works to combat trafficking and gender-based violence.
- The government had announced Rs. 1,000 crore funds to be used to combat sexual violence against persons – children or adults after Nirbhaya case in 2012.
- Among the 82 survivors who were awarded compensation, only 77 received the relief amount. The State-wise details of the compensation awarded to the survivors show that 47 persons were awarded relief in Delhi, followed by 17 in Jharkhand, eight in Assam, three in West Bengal, two each in Andhra Pradesh, Karnataka and Meghalaya. In Haryana, one survivor of trafficking was awarded compensation between 2011 and 2019.
- The study also suggests that there remains a lack of information provided to survivors on victim compensation, lack of initiative on the part of legal services authority, low investment on part of legal aid that r

in very few survivors having access to compensation.

JANASEVAKA SCHEME
Why in news?

- The Karnataka government launched the Janasevaka scheme in a few municipal corporation wards to ensure home delivery of various services like ration cards, senior citizen identity and health cards. The scheme will pertain to 53 services involving 11 departments.
- Janasevaka under the Sakala scheme is a programme to avail the benefits of government schemes at the doorstep.
- Sakala aims to ensure in-time delivery of government services to citizens by practising innovative and efficient management systems through capacity building in government and empowering citizens to exercise their right to service.

NATIONAL DEWORMING DAY
Why in news?

- This Day is celebrated every year on 10 February and 10 August that aims to eradicate intestinal worms called Soil Transmitted Helminths (STH), among 1-19 years old children. The objective of the day is to deworm children and adolescents to reduce the prevalence of parasitic worms in the intestine. Washing hands can prevent worm infestation and many other diseases to a larger extent.
- Children and adolescents in the age group of 1-19 years were administered single dose of a safe medicine Albendazole in all states and Union Territories on the occasion.

Intestinal Worms

- Intestinal worms are parasites that live in the human intestines and consume nutrients and vitamins that a child consumes.
- There are three main types of STH that infect people, roundworm (Ascaris lumbricoides), whipworm (Trichuris trichiura) and hookworms (Necator americanus and Ancylostoma duodenale).
- These worms depend on the human body for their food and survival and while being there, they lay thousands of eggs each day.

CLEANING OF DRAINS & SEPTIC TANKS
Why in news?

- The number of people who died while cleaning sewers and septic tanks in the country increased by almost 62% from 68 in 2018 to 110 in 2019, according to the Social Justice and Empowerment (SJE) Ministry.
- Manual scavenging is banned under the Prohibition of Employment as Manual Scavengers and their Rehabilitation Act, 2013.
- The main cause for manual scavenging were insanitary latrines that required to be cleaned by hand.

PORTAL SANTUSHT
Why in news?

- Ministry of Labour and Employment has launched 'Santusht portal' to constantly monitor the implementation of labour laws at the grassroots level.
- 'Santusht' - Implementation Monitoring Cell (IMC) has been constituted in the Office of Minister of State (Independent Charge) for Labour and Employment in January 2020. The objective of 'Santusht' is to promote transparency, accountability, effective delivery of public services and implementation of policies.
- Centralized Public Grievance Redressal and Monitoring System (CPGRAMS) portal is already functional for public grievances.

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. CPGRAMS provides the facility to lodge a grievance 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.

SCHOOL HEALTH PROGRAMME UNDER AYUSHMAN BHARAT
Why in news?

- Ministries of Health & Family Welfare and Human Resource Development jointly launched a School Health Programme under Ayushman Bharat-Health & Wellness Centres that will teach skills ranging from emotional wellbeing, mental health, interpersonal relationships to values and maintaining healthy lifestyle.
- The first phase of implementation will be in all the public upper primary, secondary and senior secondary schools of aspirational districts. Subsequently, remaining districts will be taken up in the second year.
- This initiative will further strengthen the concept of preventive, promotive and positive health, which forms the fundamental cornerstone of the Health & Wellness Centres of Ayushman Bharat scheme.
- This initiative will be effectively linked with other government initiatives such as Fit India movement, Eat Right campaign, Poshan Abhiyaan for an all-round and holistic development model of health for the school children etc.
- NCERT also developed 24-hour curriculum, training materials for training of nodal teachers, facilitators guide were developed in consultation with union health ministry.

ICOSDiTAUS-2020
Why in news?

- ICoSDiTAUS-2020, the two-day International Conference on Standardisation of Diagnosis and Terminologies in Ayurveda, Unani and Siddha Systems of Medicine took place in New Delhi with adopting the "New Delhi Declaration on Collection and Classification of Traditional Medicine (TM) Diagnostic Data".
- The sixteen countries which came together for the cause of Traditional Medicine at this conference are Sri Lanka, Mauritius, Serbia, Curacao, Cuba, Myanmar, Equatorial

Guinea, Qatar, Ghana, Bhutan, Uzbekistan, India, Switzerland, Iran, Jamaica and Japan.
- ICoSDiTAUS-2020 is the biggest ever international event dedicated to standardisation of Diagnosis and Terminologies of Traditional Medicine in terms of the broad level of participation covering virtually all the continents.

New Delhi Declaration

- The New Delhi declaration emphasised the commitment of the countries to Traditional Medicine (TM) as a significant area of health care.
- It also sought for inclusion of traditional systems of medicine like Ayurveda, Unani and Siddha in the International Classification of Diseases(ICD) of WHO which is the standard diagnostic tool for health management across the world.

UGC HIGHER EDUCATION LEADERSHIP DEVELOPMENT PROGRAMME FOR ADMINISTRATORS
Why in news?

- The Union Minister for Human Resource Development launched' Higher Education Leadership Development Programme for Administrator'– a joint initiative of UGC and British Council under the auspices of UK India Education and Research Initiative (UKIERI), which aims to deliver a leadership development programme for middle and senior level administrative functionaries in Indian Universities.
- The main objective of the programme is to train the senior and middle level academic administrators to enable them to bring about systemic changes with renewed approaches, capacity, tools and skill in Universities in India.
- This "Higher Education Leadership Development Programme for Administrators" ensures effectiveness on the part of the administrative functionaries of the Universities.
- The University Grants Commission (UGC) will conduct this programme in collaboration with Advance HE as the training partner with globally recognized institutional expertise and leadership excellence from the UK, which is being enabled by the British Council in Indi

GLOBAL HEALTH SECURITY (GHS) INDEX, 2019
Why in News?

- According to the Global Health Security (GHS) Index, 2019, national health security is "fundamentally weak" around the world. No country is fully prepared for epidemics or pandemics, and every country has important gaps to address.
- The report gains significance in the context of the recent Coronavirus (COVID19) outbreak.

About the Index

- The Global Health Security (GHS) Index, a report from the Nuclear Threat Initiative, the Johns Hopkins Center for Health Security and the Economist Intelligence Unit, was released in October 2019.
- The GHS Index is the first comprehensive assessment and benchmarking of health security and related capabilities across the 195 countries that make up the States Parties to the International Health Regulations (IHR, 2005).
- The IHR, 2005 represents an agreement between 196 countries including all the World Health Organization (WHO) Member States to work together for global health security.
- The GHS Index assesses countries' health security and capabilities across six categories, 34 indicators, and 85 sub-indicators. The six categories are as follow:

1. Prevention: Prevention of the emergence or release of pathogens.
2. Detection and Reporting: Early detection and reporting for epidemics of potential international concern.
3. Rapid Response: Rapid response to and mitigation of the spread of an epidemic.
4. Health System: Sufficient and robust health system to treat the sick and protect health workers.
5. Compliance with International Norms: Commitments to improving national capacity, financing plans to address gaps, and adhering to global norms.
6. Risk Environment: Overall risk environment and country vulnerability to biological threats

Findings

- National health security is fundamentally weak around the world. No country is fully prepared for epidemics or pandemics, and every country has important gaps to address.
- Countries are not prepared for a globally catastrophic biological event.
- There is little evidence that most countries have tested important health security capacities or shown that they would be functional in a crisis.
- Most countries have not allocated funding from national budgets to fill identified preparedness gaps.
- More than half of countries face major political and security risks that could undermine national capability to counter biological threats.
- Most countries lack foundational health systems capacities vital for epidemic and pandemic response.
- Coordination and training are inadequate among veterinary, wildlife, and public health professionals and policymakers.
- Improving country compliance with international health and security norms is essential.

SCIENCE AND TECHNOLOGY
ADITYA-L1
Why in news?

- ISRO is aiming to send the country's first solar mission named as Aditya-L1 by early 2021.
- Aditya-L1, the 400-kg satellite, launch will be one of the most ambitious space missions undertaken by the space agency so far.
- The mission will involve observing the sun from close quarters and obtaining information about its magnetic field and atmosphere.
- Aditya L1 will be ISRO's second space-based astronomy mission after AstroSat, which was launched in September 2015.
- What makes a solar mission challenging is the distance of the Sun from Earth (about 149 million km on average, compared to the only 3.84 lakh km to the Moon) and, more importantly, the super hot temperatures and radiations in the solar atmosphere.

- In Aditya-L1's case, ultra-heat radiations and distance are not expected to cause much of a headache as the satellite will only explore the L1 region between the sun and the Earth which is only 1.5 million kilometres away from the earth.
- However, many instruments to be used in the mission are being manufactured indigenously, presenting as much of a challenge as an opportunity for India's scientific, engineering, and space communities. One such component is the highly polished mirrors which would be mounted on the space-based telescope.
- Some moving instruments are also being used on the mission. The mission will be launched using Polar Satellite Launch Vehicle PSLV in XL configuration.
- With seven payloads, the satellite will continuously face the sun and send round-the-clock imaging of the sun which will aid in study related to the solar emissions, winds and atmosphere.
- The findings of the mission will also be utilised in analysing the overall environment of the system including Earth's. Storms directed at earth from the sun and their intensity might also be gauged with the help of the mission's findings.
- The mission is being led by ISRO in collaboration with the Indian Institute of Astrophysics (IIA), Bengaluru, Inter-University Centre for Astronomy and Astrophysics (IUCAA), Pune, and Indian Institute of Science, Education and Research (IISER), Kolkata.
- With the inclusion of multiple payloads, this project also provides an opportunity to solar scientists from multiple institutions within the country to participate in space based instrumentation and observations.
- Thus, the enhanced Aditya-L1 project will enable a comprehensive understanding of the dynamical processes of the sun and address some of the outstanding problems in solar physics.

SOLAR ORBITOR'S MISSION
Why in news?
- A new collaborative mission between ESA (European Space Agency) and NASA namely Solar Orbiter, to study the Sun has been launched in Florida.

- The spacecraft will use Venus's and the Earth's gravity to swing itself out of the ecliptic plane — the swath of space, roughly aligned with the Sun's equator, where all planets orbit.
- Solar Orbiter is equipped with ten instruments that can capture observations of the sun's corona (which is its atmosphere), the poles, solar disk and its magnetic field (in different wavelengths of light, like ultraviolet, visible light and X-rays).
- Observations of the poles could explain why the sun's magnetic field changes, alternating over an 11-year period. When the magnetic field is active, it produces dark sunspots on the sun's surface.
- The orbiter will take the pictures of sun's north and south pole, which could allow scientists for the first time to observe the concentrated source of solar wind and to survey how its surface changes over time.
- Earlier, in 2018 NASA launched the Parker Solar Probeto find out how the sun churns space weather in our solar system. It is tracing the flow of energy that heats and accelerates the sun's corona and solar wind; determining the structure and dynamics of the plasma and magnetic fields at the sources of the solar wind; and exploring mechanisms that accelerate and transport energetic particles.

Significance
- It will observe the Sun with high spatial resolution telescopes and capture observations in the environment directly surrounding the spacecraft to know how the Sun can affect the space environment throughout the solar system.
- It will help the scientists to understand how our star creates and controls the giant bubble of plasma that surrounds the whole Solar System and influences the planets within it.
- This mission will help NASA to protect its astronauts from the radiation whizzing around the cosmos, which can cause DNA damage and changes in gene expression.
- Scientists will also learn how space weather wreaks havoc on satellites and electronics on and around Earth.
- The mission will also study the magnetic environment around the Sun, which

will provide information about the Sun's 11-year solar cycle and its periodic outpouring of solar storms.

- The mission will help scientists to make better weather forecasts.
- It also intends to give a better understanding of how stars can affect the space environment throughout the solar system.

COVID-19
Why in news?

- The World Health Organisation (WHO) has named the new coronavirus disease as 'Covid-19'.
- The new name is taken from the words "corona", "virus" and "disease", with 2019 representing the year when it emerged.
- WHO wanted to avoid stigmatizing a country or particular group, so it chose a name that did not refer to a geographical location, an animal, an individual or a group of people.
- Coronavirus is a large family of viruses that are often the source of respiratory infections, including the common cold.
- Most of the viruses are common among animals, but sometimes, an animal-based coronavirus mutates and successfully finds a human host.
- According to scientists, pangolins could be responsible for the spread of the novel coronavirus to humans in China.

COVID-19 Now a Pandemic

- A pandemic is a global outbreak of disease. Pandemics happen when a new virus emerges to infect people and can spread between people sustainably. Because there is little to no pre-existing immunity against the new virus, it spreads worldwide.
- The virus that causes COVID-19 is infecting people and spreading easily from person-to-person.
- This is the first pandemic known to be caused by the emergence of a new coronavirus. In the past century, there have been four pandemics caused by the emergence of novel influenza viruses.

SUTRA-PIC India launched
Why in news?

- The Ministry of Science and Technology has launched the "Scientific Utilization through Research Augmentation-Prime Products from Indigenous Cows" (SUTRA-PIC India).
- SUTRA-PIC India is a programme to research on 'indigenous' cows.
- It was announced during the 2019-20 Union Budget, which aims to develop products as well as improve the genetic quality of indigenous cattle breeds.
- It is led by the Department of Science and Technology (DST) and 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.

Five themes of SUTRA-PIC India

The following themes aim to perform scientific research on 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 cow.

- 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.

SAFER INTERNET DAY
Why in news?

- This year, February 11 was observed as Safer Internet Day (SID). Last year, the Day was marked on February 5.
- SID is an international event taking place in February every year, which aims to increase awareness about emerging online issues, such as cyberbullying, and chooses a topic reflecting current concerns.
- This year, the theme is "Together for a better internet".

- 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.
- SID was first initiated in 2004, and is as part of the EU's 'Better Internet for Kids' policy. The SID initiative is now recognised in around 150 countries worldwide.
- To expand the initiative's reach, Safer Internet Day Committees were introduced in 2009. In India, the New Delhi-based NGO DISC (Developing Internet Safe Community) Foundation is the SID Committee.

NASA'S DISCOVERY PROGRAM INVESTIGATION
Why in news?
NASA announced that it has selected four Discovery Program investigations to develop concept studies for possible new missions.

1. DAVINCI+: 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.
2. IVO: Io Volcano Observer is a proposal to explore Jupiter's moon Io, which is extremely volcanically active.
3. TRIDENT: This aims to explore Neptune's icy moon, Triton.
4. 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.

THIRUMATHIKART
Why in news?
- The National Institute of Technology (NIT), Trichy, Tamilnadu has developed Thirumathikart - a mobile app for SHG (Self Help Group) products.
- The application was developed in coordination with the Union Department of Science and Technology.
- The main objective of the app is to empower women and help them access market opportunities in a seamless manner.
- The platform will also enable Self Help Groups to showcase their products to a wider audience.

Self Help Group
- SHGs are informal associations of 15-20 local people who choose to come together to find ways to improve their living conditions.
- These members make small regular savings contributions over a few months until there is enough capital in the group to begin lending.

HORSE RIDGE
Why in news?
- Intel Labs, in collaboration with QuTech, which is an advanced research centre for quantum computing and quantum internet, has unveiled details about its first cryogenic quantum control chip called 'Horse Ridge'.
- The Horse Ridge chip addresses fundamental challenges in building a quantum system powerful enough to demonstrate quantum practicality: scalability, flexibility and fidelity.
- In developing 'Horse Ridge', Intel has optimised the multiplexing technology that enables the system to scale and reduce errors.
- Horse Ridge can cover a wide frequency range, enabling control of both superconducting qubits (known as transmons) and spin qubits, said the company.

Quantum Internet (QI)
A QI supports many application, which derive their power from the fact that by creating quantum entangled qubits, information can be transmitted between the remote quantum processors. Most applications of a quantum internet require only very modest quantum processors.

Quantum Computing (QC)
Quantum computing is the use of quantum-mechanical phenomena such as superposition and entanglement to perform computation. A quantum computer is used to perform such computation, which can be implemented theoretically or physically.

STUDY ON BATS AND BAT HUNTERS
Why in news?

- The government has ordered an inquiry into a study conducted in Nagaland by researchers from the U.S., China and India on bats and humans carrying antibodies to deadly viruses like Ebola.
- The inquiry comes at a time when people worldwide are grappling with the spread of novel coronavirus (nCoV) from China.
- The study is investigated for how the scientists were allowed to access live samples of bats and bat hunters (humans) without due permission.
- The study came under the scanner as two of the 12 researchers belonged to the Wuhan Institute of Virology's Department of Emerging Infectious Diseases, and it was funded by the United States Department of Defense's Defense Threat Reduction Agency (DTRA). They would have required special permissions as foreign entities.
- Bats are harvested in an annual ritual by a Naga Tribe in Nagaland. The study conducted research on individuals who participated in the ritual.
- The Nagaland study suggests bats in South Asia act as a reservoir host of a diverse range of filoviruses, and filovirus spillover occurs through human exposure to these bats.

'DARKNET'
Why in news?

- The Narcotics Control Bureau (NCB) reported that it has arrested the country's first 'darknet' narcotics operative, who allegedly shipped hundreds of psychotropic drug parcels abroad in the garb of sex stimulation medicines.
- Darknet refers to the deep hidden internet platform that is used for narcotics sale, exchange of pornographic content and other illegal activities by using the secret alleys of the onion router (ToR) to stay away from the surveillance of law enforcement agencies. Owing to its end-to-end encryption, darknet is considered very tough to crack when it comes to investigating criminal activities being rendered over it.

- The NCB was part of a global 'Operation Trance', launched in December 2019, which is a joint intelligence-gathering action on international postal, express mail and courier shipments containing psychotropic drugs that are abused as sedatives and painkillers.

Narcotics Control Bureau

- NCB was constituted by the Government of India in 1986 under the Narcotic Drugs and Psychotropic Substances Act, 1985. It is the apex coordinating agency under the Ministry of Home Affairs.
- Narcotic Drugs and Psychotropic Substances Act, 1985 provides for the penalty of property derived from or used in illegal traffic in narcotic drugs.

BASMATI RICE
Why in news?

- Scientists have mapped the complete genome of two basmati rice varieties, including one that is drought-tolerant and resistant to bacterial disease. The findings, published in the journal Genome Biology, also show that basmati rice is a hybrid of two other rice groups. The researchers focused on two basmati rice varieties: Basmati 334 from Pakistan, known to be drought tolerant and resistant to rice-killing bacterial blight, and Dom Sufid from Iran, an aromatic long-grain rice that is one of the most expensive on the market.
- Most genetic material in basmati comes from japonica —a rice group found in East Asia — followed by the rice group aus found in Bangladesh.

INTERNATIONAL DAY OF WOMEN AND GIRLS IN SCIENCE
Why in news?

- International Day of Women and Girls in Science was celebrated on 11 February 2020.
- The International Day of Women and Girls in Science is implemented by UNESCO and UN Women, in collaboration with intergovernmental agencies and institutions, as well as civil society partners.

- It was established by the United Nations General Assembly on 22 December 2015 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%.
- The problem of entry of women in science is not uniform across disciplines. Interventions geared to popularising subjects such as Engineering or the Physical sciences or Chemistry among female students at the school level in both urban and rural areas might be helpful in changing mind-set.

DECADAL FORECAST SYSTEM
Why in news?

- The Ministry of Earth Sciences (MoES) is planning a 'decadal forecast' system along the lines of the United Kingdom's Met Office to ensure better predictability in the climate time scale announced at the 6th International Conference on Climate Services (ICCS 6), which place in Pune from 11-13 February 2020. It is a new idea with more relevance to the present climate forecasting needs.
- The system would be explored as a research programme by Indian Institute of Tropical Meteorology (IITM), Pune along with the India Meteorological Department (IMD) and other entities.
- The programme will be using a coupled climate model by utilising signals emanating from deep oceans to predict decadal climate changes
- Once the system is established, it would initially function for long-range forecasting at the national level and the model would later be applied to the state or even district-level.

10 EARTH IMAGING SATELLITES
Why in news?

- The country will send up an unusually large number of 10 earth observation (EO) satellites during 2020-21, according to the latest annual report of the Indian Space Research Organisation for 2019-20. Apart from GISAT-1, a new series of high resolution HRSATs as a threesome on a single PSLV launcher will also be launched.
- 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.

SUPERCAM
Why in news?

- NASA will sent a new laser-toting robot namely, SuperCamas one of seven instruments aboard the Mars 2020 rover.
- SuperCam robot is used for studying mineralogy and chemistry from up to about 7 meters away. It might help scientists find signs of fossilized microbial life on Mars.
- It uses remote optical measurements and laser spectroscopy to determine fine-scale mineralogy, chemistry, and atomic and molecular composition of samples encountered on Mars.
- It fires a pulsed laser beam out of the rover's mast to vaporize small portions of rock from a distance, providing information that will be essential to the mission's success. It also includes a microphone so scientists can listen each time the laser hits a target.
- SuperCam looks at rock textures and chemicals to find those that formed or changed in the water on Mars long ago.
- SuperCam looks at different rock and "soil" types to find ones that could preserve signs of past microbial life on Mars- if any ever existed.
- For the benefit of future explorers, SuperCam identifies which elements in the Martian dust may be harmful to humans.

- Scientists can learn about how atmospheric molecules, water ice, and dust absorb or reflect solar radiation. This helps predict Martian weather better.

YARAVIRUS
Why in news?

- In a lake in Brazil, researchers have discovered a virus that they find unusual and intriguing known as Yaravirus, it has a "puzzling origin and phylogeny". The Yaravirus infects amoeba and has genes that have not been described before, something that could challenge how DNA viruses are classified.
- The researchers found the Yaravirus while looking in the lake for giant viruses that infect amoeba. Because of the Yaravirus's small size, it was unlike other viruses that infect amoeba and they named it as a tribute to Yara, the "mother of waters" in the mythological stories of the Tupi-Guarani indigenous tribes.
- The virus does not infect human cells, according to the researchers.
- The virus has been named Yaravirus after 'Yara', a water-queen figure in Brazilian mythology.

STAR BETELGEUSE
Why in news?

- Using the European Space Organisation's (ESO) Very Large Telescope (VLT), astronomers have noticed the unprecedented dimming of Betelgeuse, a red supergiant star (over 20 times bigger than the Sun) in the constellation Orion
- Along with the dimming, the star's shape has been changing as well, as per recent photographs of the star taken using the VISIR instrument on the VLT. Instead of appearing round, the star now appears to be "squashed into an ova".
- Betelgeuse was born as a supermassive star millions of years ago and has been "dramatically" and "mysteriously" dimming for the last six months.
- Betelgeuse ranks 10th, but by the last week of December 2019, its brightness had dimmed so low, that the star was ranked as the 21st brightest, "a remarkable decline — and a historic low."

- The star is at about 36 per cent of its brightness at the moment, a change that is noticeable even to the naked eye.
- VLT is the world's most advanced optical instrument, consisting of four Unit Telescopes with main mirrors of 8.2m diameter and four movable 1.8m diameter Auxiliary Telescopes.

HABITABLE-ZONE PLANET FINDER
Why in news?

- The Habitable-zone Planet Finder (HPF), an astronomical instrument, has confirmed an object initially observed by the Kepler spacecraft is an exoplanet called G 9-40b. An exoplanet or extrasolar planet is a planet outside the Solar System.
- The instrument designed by a Penn State team and recently installed on the 10 m Hobby-Eberly Telescope at McDonald Observatory in Texas provides the highest precision measurements to date of infrared signals from nearby low-mass stars, and astronomers used it to validate the candidate planet by excluding all possibilities of contaminating signals to a very high level of probability.
- The planet, called G 9-40b, is about twice the size of the Earth, but likely closer in size to Neptune, and orbits its low mass host star, an M dwarf star, only 100 light-years from Earth.

ONLINE CHATBOT 'ASKDISHA'
Why in news?

- In order to resolve queries of railway passengers over the internet pertaining to various services offered, Indian Railways had introduced the services of Artificial Intelligence based ASKDISHA chatbot in October 2018.
- The ASKDISHA Chatbot was initially launched in English language but in order to further enhance the customer services rendered and to further strengthen the services of the chatbot, IRCTC has now powered voice enabled ASKDISHA to converse with customers in Hindi language
- IRCTC plans to launch ASKDISHA in more languages along with many other additional features in the near future.

- The chatbot is a special computer programme designed to simulate conversation with users, especially over the internet.

- Aerobic respiration was thought to be prevalent in animals but now it is confirmed that animals can survive with anaerobic respiration.

5G HACKATHON
Why in news?

- The Department of Telecommunications (DoT) has launched '5G Hackathon' in association with government, academia and industry stakeholders.
- The 5G technology provides quantum leap over 4G in terms of speed, peak data rate, latency, spectrum efficiency and connection density.
- The Hackathon will convert innovating ideas into products and solutions in different verticals and develop India specific use cases around 5G.
- The 5G Hackathon is open to developers, students, start-ups, SMEs, academic institutions and registered companies in India and NRIs. Stakeholders can participate as individuals or as a team to present use cases for the 5G network in the Indian context.

HENNEGUYA SALMINICOLA
Why in news?

- An animal called Henneguya Salminicola which does not need oxygen to produce the energy for its survival has been discovered.
- Henneguya Salminicola is a tiny, less than 10-celled parasite which lives in the muscles of salmon fish and does not have a mitochondrial genome.
- Mitochondria is the "powerhouse" of the cell, which captures oxygen to make energy. Its absence indicates that the parasite does not breathe oxygen.
- It is a relative of jellyfish and corals and as it evolved, it gave up breathing and consuming oxygen or became anaerobic to produce energy.
- However, scientists have not clarified how parasite generates energy. It may be drawing it from the surrounding fish cells or it may have a different type of respiration such as oxygen-free breathing, which typically characterizes anaerobic non-animal organisms like fungi, amoebas or ciliate lineages.

GEOGRAPHY AND ENVIRONMENT

CRASPEDOTROPIS GRETATHUNBERGAE
Why in news?

- A group of scientists have recently discovered a new species of land snail in Brunei.
- The new species reside in tropical rainforests and is sensitive to drought and extreme temperatures (which have become more frequent due to climate change).
- Hence as an honour to Swedish Climate Change activist Greta Thunberg, who has been making efforts to raise awareness about climate change, the new snail species was named as Craspedotropis Gretathunbergae.

14 COAL-BASED POWER PLANTS
Why in news?

- The Central Pollution Control Board (CPCB) has sent show-cause notices to 14 thermal power plants for not complying with the deadline to limit sulphur dioxide emissions.
- In order to limit Particulate Matter (PM), sulphur dioxide and nitrous oxide emission from thermal power plants, India has put in place a Phased-approach that directs coal-fired units to put in place measures to limit pollution within December 2022.
- But plants within 300 km radius of Delhi were to comply these measures by 31 December, 2019 because of the poor air quality in the city as well as the surrounding states. Few units have set in place the process for acquiring flue-gas desulphurisation technology (used to remove sulphur dioxide from exhaust flue gases of fossil-fuel power plants).
- CPCB has the power to impose steep fines or shut a unit under the provisions of the Environment Protection Act, 1986.

- As per Centre for Science and Environment (CSE) estimates, these norms can help reduce PM emissions by about 35%, NOx emission by about 70%, and SO2 emissions by more than 85% by 2026-27 against a business-as-usual scenario with no pollution control technologies.

CLIMATE CHANGE IMPACT ON AGRICULTURE
Why in news?

- According to the International Fund for Agricultural Development (IFAD), climate change would push 100 million people into the abyss of poverty by 2030. Close to half of these would be due to climate change's impacts on agriculture.
- Global development and government representatives from across the world made an appeal to urgently spend more on rural development to avoid a catastrophic situation arising out of the climate emergency during IFAD's 43rd Governing Council meeting on 12 February 2020 in Rome.
- In 2018, 90 per cent of 17.2 million people displaced by disasters were due to weather and climate-related events.
- In Africa alone, conflicts have risen by 36 per cent between 2018 and 2019. This has contributed to an increase in hunger and poverty.

WORLD'S LARGEST CAVE FISH SPECIES FOUND IN MEGHALAYA
Why in news?

- The world's largest species of cave fish measuring over 40cm or around one and a half feet in length have been found inside a remote cave in Meghalaya's Jaintia Hills.
- The fish, related to the Golden Mahseer but has no eyes and is white due to lack of melanin pigmentation, was found in a cave located in a remote and densely forested area in Jaintia Hills region of Meghalaya.
- There are 250 known species of fish found under the earth's surface. As they live in a nutrient-limited environment most of these species are small—195 of them have a mean length of 8.5cm. The only two species, which exceed 30cm, are eel-like and have very thin bodies.

- Meghalaya has an elaborate and extensive network of caves.
- The researchers had found a similar fish in 1998 as well, inside a cave located 8km away from the present location
- Many of the fish were found in small pools located deep inside the cave. There was evidence that the caves get flooded during the rainy season.
- Researchers believe the fish is bulky in size due to large and regular food supply, with surface vegetation entering the cave through the entrance shaft on rainy seasons. There appeared to be hundreds of similar fish in the cave.

RO SYSTEMS
Why in news?

- The Union Environment Ministry has published a draft notification that effectively prohibits users from installing membrane-based water purification, mainly reverse osmosis (RO), systems in their homes if the water has been sourced from a supply that meets the Bureau of Indian Standards' (BIS) drinking water norms.

Reverse osmosis (RO) is a scientific principle based on the pressure of liquids to remove contaminants from unpurified water.

- Unpurified water from the source is put into a container and pressure is applied to the water. This pressurised water is forced to flow through a semi-permeable membrane.
- The membrane only allows molecules of a certain size to flow through and to the other side of a membrane which is a catchment area for the purified water.
- The molecules that are trapped and cannot go through the membrane belong to various impurities such as dissolved salts, minerals, particles, colloids, organics and bacteria from the unpurified water.
- To create external pressure, RO relies on a pump and electric motors. It uses "activated carbon" components, such as charcoal and carbon black that can filter out contaminants as well as organic substances such as bacteria.
- It all depends on the filtering material and the number of filters that incoming tap water must pass through.

Problem with RO

- It wastes lot of water in the multiple stages of cleaning more than this system produces and hence, given the challenges that cities and government face in providing potable water, environmentalist groups have convinced the National Green Tribunal to ban the use of RO systems in Delhi.
- Another concern with RO is that it filters out calcium, zinc, magnesium, which are essential salts needed by the body; drinking such water over time could be harmful.
- The average RO system only aims to reduce Total Dissolved Solids, ensure water is odourless and has a pH from 6.5-8.5. The National Institute of Virology (NIV) claimed that most filtration methods did not eliminate Hepatitis E virus. A combination of filtration systems can eliminate most contaminants.
- But opponents of RO systems say this increases costs and reduces the incentive for public-funded water distribution systems to supply clean water to the vast majority of the country who can ill-afford such systems.

COP 13
Why in news?

- India hosted the 13th Conference of Parties (COP) of the Convention on the conservation of migratory species of wild animals (CMS) at Gandhinagar in Gujarat. It took over its Presidency on 17 February 2020. Earlier, the Presidency of the COP was held by the Philippines, which presided over the convention from 2017 till now. Now, India will preside over it till 2023.
- Ahead of the CMS COP-13, the Ministry of Environment, Forest and Climate Change has introduced a draft Visionary Perspective Plan (2020-2030) to conserve ecosystems, habitats, avian diversity and landscapes in the country.
- GIB, Asian Elephant and Bengal Florican have been classified as "endangered migratory species". They were added in the global list for international protection under the UN's Convention on Conservation of Migratory Species.
- As an environmental treaty of the United Nations Environment Programme (UNEP),

CMS provides a global platform for the conservation and sustainable use of migratory animals and their habitats. CMS is also referred to as the Bonn Convention

- CMS is the only convention that deals with taking or harvesting of species from the wild.
- The theme for the CMS COP 13: "Migratory species connect the planet and together we welcome them home."
- CMS COP 13 Logo is inspired by the traditional 'KOLAM' from southern India, which has a profound significance in the context of living in harmony with nature.
- India has been a Party to the CMS since 1983. It has also signed non-legally binding MoU with CMS on the conservation and management of Siberian Cranes (1998), Marine Turtles (2007), Dugongs (2008) and Raptors (2016). COP is the decision-making organ of this convention.

State of India's Bird 2020 report

- The report was released during COP 13, according to which, the numbers of India's national bird, the Indian Peafowl/Peacock, have increased dramatically over the last few decades, while those of vultures and eagles have decreased.
- It covers 867 Indian bird species using a database contributed by at least 15,500 birdwatchers from across the country and has used "citizen science data" to assess distribution and trends.
- It accounted that 50 per cent of other Indian species have declined over this period.
- The report identifies species that are high in conservation concern, and those that are doing relatively well. The analysis indicates that 48 per cent of species have remained stable or are increasing in the long term in the last five years. In all, 101 species have been classified as of high conservation concern.
- 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.
- The species that have shown an increase over the past 25 years include Rosy Starling,

Feral Pigeon, Glossy Ibis, Plain Prinia and Ashy Prinia.

- The four species of bustards in India — the Great Indian Bustard, Macqueen's Bustard, Lesser Florican and Bengal Florican — have all suffered continuous population declines because of historical hunting and widespread habitat loss, compounded with their slow growth and reproduction.
- The largest of them, the Great Indian Bustard (GIB), is classified as Critically Endangered in the IUCN Red List 2019 and has been included in the CMS list in the 13th COP.
- The 12 Western Ghats endemics included in this analysis are almost 75 per cent lower in their abundance index today than before 2000, indicating a steep long-term decline. This is worrying, because these long-term declines are shown even by many common species like Crimson-backed Sunbird and Yellow-browed Bulbul

'TOXIC AIR: THE PRICE OF FOSSIL FUELS'
Why in news?

- 'Toxic Air: The Price of Fossil Fuels' report has been released by Greenpeace.
- According to a report, air pollution from burning fossil fuels is generating economic losses of $8 billion a day.
- For the first time, Greenpeace Southeast Asia and the Centre for Research on Energy and Clean Air (CREA) have quantified the global cost of air pollution from fossil fuels.
- It provides a global assessment of the health impact of air pollution from fossil fuels in 2018.
- The study is limited to the following pollutants: fine particulate matter (PM 2.5), ozone (O3) and nitrogen dioxide (NO2), and only that pollution which is emitted by fossil fuel combustion (coal, oil and gas).
- In India, exposure to fossil fuels also leads to a loss of around 490 million workdays.
- The report links approximately 3,50,000 new cases of child asthma in India to nitrogen dioxide. As a result of this, over 1.28 million more children in India live with asthma, which is linked to fossil fuel pollution.
- PM2.5 is one of the principal pollutants in northern Indian cities including Delhi. The 2

million preterm births globally due to PM2.5 include 9,81,000 preterm births in India.

Key Findings
Impact of Air Pollution on Health

- Exposure to an air pollutant, such as PM2.5, NO2 or ozone, is associated with increased incidence of diseases including Ischaemic Heart Disease (IHD), Chronic Obstructive Pulmonary Disease (COPD), lung cancer, lower respiratory infections, type II diabete, etc.
- Health impacts from air pollution generate economic costs through the cost of treatment, management of health conditions, and from work absences.

Burden of PM2.5

- PM2.5 air pollution leads to the greatest health impact.
- Globally, air pollution is estimated to cause 4.5 million premature deaths each year.
- This includes 3 million deaths attributable globally to PM2.5.
- Pollution from PM2.5 costs 2.5% of the global GDP whereas pollution from O_3 and NO_2 , each costs equivalent to 0.4% of global GDP.

Economic Cost of Air Pollution

- Air pollution from burning fossil fuels costs an estimated 3.3% of global GDP, equivalent to US $8 billion per day and 12,000 premature deaths every day.
- China, the US and India bear the highest economic cost of soaring pollution, at an estimated $900 billion, $600 billion and $150 billion (5.4% of the India's GDP) a year, respectively.

NO ENVIRONMENTAL CLEARANCE
Why in news?

- The Environment Ministry has exempted oil and gas firms, looking to conduct exploratory drilling, from seeking an environmental clearance.
- The order by Ministry amends the Environmental Impact Assessment (EIA) Notification, 2006
- It delists oil and gas exploration activities even if they use techniques like seismic testing and hydraulic fracturing (a.k.a. fracking) from having to assess environmental impacts, incorporate environmental safeguards and surviv

test of public comments on the project and the EIA report.

- The clearance is for both on-shore and offshore drilling explorations and the process is an ecologically-intensive exercise that involves digging multiple wells and conducting seismic surveys offshore.

- World Pangolin Day, celebrated on the third Saturday in February, is an international attempt to raise awareness of pangolins and bring together stakeholders to help protect these unique species from extinction.

INDIAN PANGOLIN
Why in news?

- The Madhya Pradesh forest department has radio-tagged an Indian Pangolin (Manis crassicaudata) for the first time in order to know its ecology and develop an effective conservation plan for it, a statement.
- The measure comes as the world gets ready to observe the ninth 'World Pangolin Day' on 15 February 2020.
- The Indian pangolin, which resembles an ant-eater but dons a thick scaly skin, is hunted for meat and use in traditional Chinese medicine. Researchers say tagging the animal will help understand the habits of the reclusive, nocturnal animal.
- 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.
- The radio-tagging is part of a joint project by the department and non-profit, the Wildlife Conservation Trust (WCT) that also involves the species' monitoring apart from other activities.
- This new initiative will hopefully ensure better survival rates of these released individuals in the wild and thus have a positive impact on the population of this endangered species.

PANGOLINS

- India is home to two species of pangolin. While the Chinese Pangolin (Manis pentadactyla) is found in northeastern India, the Indian Pangolin is distributed in other parts of the countrys as well as Sri Lanka, Bangladesh and Pakistan.
- Both these species are protected and are listed under the Schedule I Part I of the Wild Life (Protection) Act, 1972 and under Appendix I of the Convention on International Trade in Endangered Species (CITES).

PLASTIC PACKAGING POLLUTION
Why in news?

- A new report by the World Wide Fund (WWF) analyses the volume of plastic packaging placed on the market in six rapidly growing Asian economies — China, Indonesia, Malaysia, the Philippines, Thailand and Vietnam. The report was commissioned by German consultancy GVM, which specialises in the packaging market.
- The report finds 93% of the waste of low-income countries is dumped in the environment, compared to 4% in high-income countries. Single-use plastics and packaging for consumer goods, particularly, increase plastic pollution. Globally, 36% of plastic usage is for packaging and over a third of it lands up into the environment.
- Of the six countries analysed in the report, Malaysia's per capita plastic packaging consumption is the highest, at 16.78 kg. It is followed by Thailand (15.52), China (14.08), Vietnam (12.93), Indonesia (12.5) and the Philippines (12.4).
- The report estimates that 60% of marine plastic pollution originates in these countries and 8 million tonnes of plastic enters the oceans every year. It has projected a 300% increase in plastic packaging between 2010 and 2050.

M.P. NATIONAL PARK
Why in news?

- The encroachment of Madhav National Park land continues unchecked even though the land was allotted to make way for a tiger corridor.
- Madhav National Park is situated in Shivpuri District, Madhya Pradesh.
- It is a part of the upper Vindhyan hills. It got the status of a National Park in 1959. The forest is home to tigers, leopards, Ni

and Chinkara (Gazella bennettii) and Chousingha (Tetracerus quadricornis) and Deers (Chital, Sambar and Barking Deer) among others. It is home to Particularly Vulnerable Tribal Groups (PVTG)s like Saharia.

NEW SPECIES OF URBAN LIZARD FOUND IN GUWAHATI
Why in news?

- Guwahati, the largest city in the Northeast, has yielded a new species of Urban lizard – the urban bent-toed gecko.
- The new species of lizard, zoologically named Cyrtodactylus urbanus, is markedly different in molecular structure, blotch and colour from the Cyrtodactylus guwahatiensis, or the Guwahati bent-toed gecko, that was discovered two years ago.
- It was also the 12th recorded gecko from the Northeast.
- All bent-toed geckos in Northeast India were thought to be a single species, the Cyrtodactylus khasiensis found primarily in the Khasi Hills of Meghalaya.
- Though the urban bent-toed gecko falls within the khasiensis group, it differs from other members of this group in mitochondrial sequence data as well as aspects of morphology.

SWACHH BHARAT MISSION (GRAMEEN) PHASE-II
Why in news?

- The Union Cabinet has approved the Phase II of the Swachh Bharat Mission (Grameen) [SBM (G)] till 2024-25.
- Objective: SBM (G) will focus on Open Defecation Free Plus (ODF Plus), which includes ODF sustainability and Solid and Liquid Waste Management (SLWM). The program will also work towards ensuring that no one is left behind and everyone uses a toilet.
  - The ODF Plus programme will converge with MGNREGA, especially for grey water management, and will complement the newly launched Jal Jeevan Mission.
  - The programme will also work towards ensuring that no one is left behind and everyone uses a toilet.

- Different verticals of financing: SBM (G) Phase-II will also be implemented from 2020-21 to 2024-25 in a mission mode with a total outlay of Rs. 1,40,881 crores. Of this Rs.52,497 crore will be allocated from the budget of Department of Drinking Water and Sanitation while the remaining amount will be dovetailed from the funds being released under 15th Finance Commission, MGNREGS and revenue generation models particularly for solid and liquid waste management.
- Fund sharing pattern: The programme will be implemented by the States/UTs as per the operational guidelines. 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 100:0 for other Union Territories, for all the components.

INTERNATIONAL RELATIONS

NORTHERN EUROPEAN ENCLOSURE DAM (NEED)
Why in news?

- The scientists have proposed the construction of two dams of a combined length of 637 km — the first between northern Scotland and western Norway, measuring 476 km and with an average depth of 121 m and maximum depth of 321 m; the second between France and southwestern England, of length 161 km, and average depth of 85 m and maximum depth of 102 m. In other words, they have proposed the construction of the NEED enclosing all of the North Sea to protect Northern European countries from Sea-level Rise (SLR).
- The dams will hence separate the North and Baltic Seas from the Atlantic Ocean to protect Northern European countries against SLR.

MALDIVES-INDIA
Why in news?

- Mr. Sheikh Imran Abdulla, the Home Minister of Maldives, met Indian counterpart. Both the ministers discussed issues of mutual interest in the area of security and law enforcement cooperation.
- The Directorate of Enforcement will assist Maldives in setting up a probe agency like itself and guide the island nation on raising a Prevention of Money Laundering Act, 2002 (PMLA) infrastructure.
- Both welcomed the expansion of bilateral cooperation between India and Maldives in diverse fields including policing and law enforcement, counter-terrorism, counter-radicalization, organized crime, drug trafficking and capacity building.

INDIA-SOUTH KOREA
Why in news?

- Indian Defence Minister held a bilateral meeting with Minister of National Defence of Republic of Korea (RoK) in New Delhi; During the meeting, both Ministers held discussions on enhancing the bilateral security cooperation and collaboration in defence industry and research & development.
- A roadmap for Defence Industries Cooperation between India and RoK was also exchanged after the meeting. The roadmap lists a number of possible areas of cooperation, including research and development. It also promotes investment in Defence Industrial Corridors in Uttar Pradesh and Tamil Nadu.
- The two Ministers also exchanged views on regional security situation.

BHUTAN-INDIA
Why in news?

- Bhutan government passed 'Tourism Levy and Exemption Bill of Bhutan', 2020 in their National Assembly. According to this bill, decades of free entry to Indian tourists visiting Bhutan have been ended.
- The government in Thimphu has decided to levy a daily ₹1,200 ($17) fee for "regional tourists" from India, the Maldives and Bangladesh, beginning July 2020.
- The fee, called a Sustainable Development Fee (SDF), is meant to help the government deal with burgeoning numbers in tourist

traffic, which it is seeking to regulate through a new tourism policy.

MALDIVES REJOINS COMMONWEALTH
Why in news?

- The Maldives re-joined the Commonwealth as its 54th member, more than three years after the Indian Ocean island nation quit the association amid mounting criticism of its human rights record then.
- In 2016, the Maldives pulled out of the Commonwealth terming "unjust" the grouping's decision to penalise the country over former President Mohamed Nasheed's controversial ouster in 2012.

INDIA-RUSSIA
Why in news?

- The fifth India-Russia Military Industrial Conference was held on the sidelines of the Def Expo 2020 (5to 9 February 2020) in Lucknow.
- 14 MoUs were signed between Indian and Russian companies during this conference under the Make in India initiative for setting up joint ventures to develop a range of defence equipment.
- The MoUs were related to the production of different defence equipment such as parts of the tanks such as the T-72, T-90, radar systems, Anti Submarine Weapon (ASW) Rocket launchers and 3D modelling.
- The MoUs come under the Intergovernmental Agreement (IGA) on joint manufacturing of spares in India signed in 2018 for mutual cooperation related to Russian origin arms and defence equipment.
- The MoUs majorly focuses on:
  1. The development, production and manufacture of small spacecraft for remote sensing.
  2. Establishment of a joint venture in India for the production of various subsystems of air defence missile systems like Tunguska, Kavadrat, etc as well as the Shilka self-propelled air defence gun system.
  3. Refurbishment and life extension of the missiles.

INDIA-PORTUGAL
Why in news?

- The Portuguese President Marcelo Rebelo de Sousa visited India from 13th-16th February, 2020. India and Portugal signed 7 agreements to boost cooperation in a range of areas. The pacts provide for cooperation in areas of investment, transport, ports, culture and industrial and intellectual property rights.
- One of the agreements included cooperation in setting up a national maritime museum heritage complex in Lothal, Gujarat. Portugal also extended its support for the commemoration of Mahatma Gandhi's 150th birth anniversary. It has been decided to hold the next session of the India-Portugal Joint Economic Committee in India soon to review the gamut of the bilateral trade and economic relations. Portugal could also join the International Solar Alliance in the near future.
- In June 2017 also, 11 agreements were signed covering a large number of areas including space, avoidance of double taxation, nano-technology, biotechnology and higher education.

INDIA-ICELAND
Why in news?

- The Union Cabinet gave its approval for the Memorandum of Understanding (MoU) between India and Iceland in the field of sustainable fisheries development.
- The MoU will strengthen the existing friendly relations between India and Iceland and will enhance consultation and cooperation on fisheries, including consultation on bilateral issues.
- As per the pact, there is a provision for facilities for exchange of scientists and technical experts and their proper placement, especially in areas of estimating total allowable catches in offshore and deep sea areas.
- There is also a provision for training fisheries professionals from key institutions in various management aspects.

INDIA – RUSSIA
Why in news?

- The first-ever Term Contract between Indian Oil Corp (IOCL) and Rosneft was signed for importing 2 Million Metric Tonnes of Urals grade crude oil during the year 2020 to India.
- The crude oil, being sourced under the contract, will be loaded in Suezmax vessels at Novorossiysk port of Russia and will come to India, bypassing Straits of Hormuz.
- This is the first ever annual oil purchase deal between India and Russia.
- Sourcing of Russian crude oil through long term contracts is a part of India's strategy for diversifying the country's crude oil supplies from non-OPEC countries, and a part of the five-year roadmap for bilateral cooperation in the hydrocarbons sector that was signed during PM Modi's visit to Vladivostok in September 2018.
- The addition of Russia as a new source for crude oil imports by India's largest refiner will go a long way in mitigating the risks arising out of geo-political disruptions.

SRI LANKA-INDIA
Why in news?

- Sri Lankan Prime Minister Mahinda Rajapaksa arrived in India.
- This trip highlighted some areas for collaboration between the two sides; it also left broader questions lingering about the future direction of ties.
- In line with the "Neighborhood First" approach and the "Sagar" doctrine, India attaches "a special priority" to its relations with Sri Lanka, which is the welcome step.
- During this meeting, India expressed confidence in Sri Lanka to carry forward the process of reconciliation of Tamils in Sri Lanka. It has also requested to fulfil the aspirations of the Tamils for equality, justice, peace and respect in Sri Lanka.
- Both the countries agreed to provide close cooperation for peace and prosperity in the Indian Ocean Region and even in the Indo-Pacific region.
- Both also discussed countering 'debt traps' experienced by Sri Lanka.
- Both countries aimed to strengthen the contacts and cooperation between the counter-terrorism agencies of the two countries.

- Sri Lanka has also requested to provide assistance for deep-sea fishing techniques which will help to create employment opportunities to people.
- It has also proposed to set up a Joint Marine Resources Management Authority between two countries, which is expected to find a lasting solution to the Palk Bay fisheries conflict.
- It has also requested India to build more houses in the north and east.
- He also went to the Kashi Vishwanath Temple in Varanasi, the Maha Bodhi temple in Bodh Gaya and Tirupati (Andhra Pradesh).

'LUCKNOW DECLARATION'
Why in news?
- The first India-Africa Defence Ministers' Conclave held in Lucknow on 6 February 2020, coinciding with DefExpo-2020 (5 to 9 February, 2020), adopted the Lucknow Declaration.
- Indian Defence Minister and his counterparts from 12 African countries were present at the conclave, along with representatives of 38 other African countries.

Terrorism
- Terrorism is a major threat in the region, condemned by both signatories in the strongest terms and acknowledged that it constitutes a major threat to peace and security in the region.
- Both urged all countries to take resolute action in rooting out terrorism in all its forms and manifestations, terrorist safe havens and infrastructure, disrupting terrorist networks and eliminating financing channels and halting cross-border movement of terrorists.
- They emphasized the need for stronger international partnership in countering terrorism and violent extremism, including through increased sharing of information and intelligence".
- It also urges the international community to envisage the adoption of the Comprehensive Convention on International Terrorism in the United Nations General Assembly (UNGA) and to strengthen the UN Counter-Terrorism

mechanisms and to ensure strict compliance with the UN Security Council sanctions regime on terrorism.

Indo Pacific and SAGAR
- The declaration also stated that all member countries "encourage enhanced cooperation between India and Africa on the evolving concept of Indo-Pacific and welcome the AU (African Union) vision for peace and security in Africa that coincides with India's vision of SAGAR (Security and Growth for all in the Region)".

Peace and Security
- All the signatories committed to continue their collaboration in the fields of peace and security including conflict prevention, resolution, management and peacebuilding.
- It also aims to enhance the role of women in peacekeeping.

INDIA AND NORWAY
Why in news?
- India and Norway agreed to jointly tackle concerns related to oceans, environment and climate matters at the 13th Conference of Parties (COP) of the Convention on the Conservation of Migratory Species of Wild Animals (CMS), from 17to 22 February 2020 at Gandhinagar in Gujarat.

India – Norway Joint Statement
- Stressed that they will do their share to ensure that the 2020s will be a decade of rapid action on climate and environment.
- To continue and strengthen the mutually beneficial cooperation on environment and climate between the two countries, including on ocean affairs.
- Actions that target climate change and air pollution at the same time pose a win-win situation. The two sides recognized that such actions should be stepped up, and agreed to work together to raise this agenda.
- Recognized that the Kigali Amendment to the Montreal Protocol for phasing down use of Hydrofluorocarbons (HFCs) could prevent up to 0.40C of warming by end of the century, Further, noting that universal ratification of Kigali Amendment to the

Montreal Protocol shall allow realization of its full potential.

- Noted the results of the projects supported by Norway on issues / aspects related with phase down of HFCs. It was agreed to continue such projects for facilitating a smooth transition towards energy efficient solutions and technologies while phasing down HFCs.
- If managed properly, the ocean holds the key to meeting many of the Sustainable Development Goals. Integrated ocean management is central to achieving a sustainable blue economy. In 2019 Prime Minister Modi and Prime Minister Solberg welcomed the signing of the MoU on India-Norway Ocean Dialogue and the establishment of the Joint Task Force on Blue Economy for Sustainable Development. The two Ministers were pleased with the progress that has been made under this MoU, including the establishment of the Marine Pollution Initiative. They were particularly satisfied that Norway and India will sign a Letter of Intent on integrated ocean management including sustainable Blue Economy initiatives.
- Noted the importance of delivering concrete, scalable solutions for ocean health and wealth at the UN Ocean Conference in Lisbon on June 2020.
- Noted the importance of sustainable management of chemicals and waste and welcomed the cooperation between India and Norway on the implementation of the Stockholm Convention on Persistent Organic Pollutants and on the minimisation of discharge of marine litter.
- Emphasized a shared understanding of the global and urgent nature of marine plastic litter and microplastics and underlined that this issue cannot be solved by any one country alone. They are committed to supporting global action to address plastic pollution and exploring the feasibility of establishing a new global agreement on plastic pollution.
- Agreed to support and work together with other political leaders to prompt a global and effective response to curb the direct and indirect drivers of biodiversity loss. They agreed to work together to deliver an ambitious, strong, practical and effective

global biodiversity framework at COP15 of CBD to be held in Kunming, China, in 2020.

- Further discussed the conservation of migratory species of wild animals. The Ministers recognized the importance of integrating ecological connectivity into the post-2020 global biodiversity framework.
- Stressed that international supply chains and finance must de-invest from deforestation and destruction of nature and invest in companies and projects that improve smallholder livelihoods while promoting sustainable production and consumption. They agreed to continue the discussion on forests and deforestation free supply chains.
- Stressed that the fifth United Nations Environment Assembly of the United Nations Environment Programme offers a good opportunity to call for greater international action on several environmental issues, in particular strengthening action for nature to achieve the Sustainable Development Goals.
- Norway and India will explore areas of cooperation in forestry and linking the same with climate change.

G20 MEETING
Why in news?

- G20 meeting held in Riyadh (Saudi Arabia) under the presidency of Saudi Arabia. Ministers and central bankers from the world's largest economies participated in the meeting.
- Theme "Realizing Opportunities of the 21st Century for All".
- Saudi Arabia is the first Arab nation to hold the G20 presidency

Outcomes

- The global economic growth remains slow and downside risks due to the geopolitical and remaining trade tensions, and policy uncertainty.
- Though the economic growth is expected to increase in 2020 and 2021 due to loose monetary policy and an easing of trade tensions.
- IMF projects a "V-shaped, rapid recovery" for the global economy, but it warns about the uncertainty around the spread of the coronavirus (COVID 19).

- In meeting ways to achieve consensus on a global taxation system for the digital era by the end of 2020 discussed. It aims to allow governments to tax digital companies where they do business, rather than where they are registered for tax purposes

INDIA AND AUSTRALIA
Why in news?

- The 16th Session of the Joint Ministerial Commission (JMC) between India and Australia was convened in New Delhi. The Session was co-chaired by Minister of Railways and Commerce & Industry, Government of India and Minister for Trade, Tourism and Investment, Government of Australia.
- The session was attended by officials from Departments of Commerce, Revenue, Agriculture, Fisheries, Department of Promotion of Industry & Internal Trade (DPIIT) and Ministry of External Affairs on the Indian side. The delegation from Australia included officials from the Department of Foreign Affairs and Trade, Austrade, Export Finance Australia and Australian High Commission.

About

- The two sides acknowledged the considerable growth in the India-Australia economic relationship in strategic, trade and people-to-people links since the last Joint Ministerial Commission in June 2018.
- Both sides welcomed efforts to elevate the bilateral economic relationship. They agreed to consider reviving the negotiations on the bilateral Comprehensive Economic Cooperation Agreement (CECA). They also agreed to take forward the issue of harmonising standards and regulatory barriers for products of interest to both sides, in parallel.
- On two-way investment, both sides noted the visits by three delegations of Australian superannuation funds over the previous year. They agreed to continue to work together to foster awareness of the opportunities in India among Australian investors.
- Both sides reflected on the important role the private sector played in building the bilateral economic relationship. India

welcomed the Australia-India Business Exchange program, including the delegation of over 100 Australian businesses accompanying Minister Birmingham to India. The business delegation is exploring opportunities in education, food and health and beauty, resources, and infrastructure.
- India raised the issue of taxing of off-shore income of Indian firms through the use of India-Australia Double Tax Avoidance Agreement (DTAA) and sought early resolution of the issue. Both sides agreed to intensify discussions.

INTERNAL SECURITY

INDRADHANUSH EXERCISE
Why in news?

- The Indian Airforce and the British Royal Airforce has recently conducted the 5th edition of exercise Indradhanush at Hindon (UP).
- Theme: Base Defence and Force Protection
- Highlights: To counter the terror threats to military establishments.
- The Airforces of both countries had conducted special missions such as base defence, airfield seizure and anti-terror operations inbuilt up urban zones.
- The 4th edition of this exercise took place in UK in 2018.

SUBMARINE KARANJ
Why in news?

- The third Scorpene submarine, Karanj, will be delivered to the Indian Navy by December 2020 and all six submarine deliveries would be completed by 2022. The six submarines are INS Kalvari, INS Khanderi, INS Karanj, INS Vela, INS Vagir and INS Vagsheer.
- The Scorpene submarine has the ability to be equipped with an AIP system. The first AIP will be equipped during the first refit of the first Scorpene.
- INS Karanj is a part of Project-75 and was launched in January 2018. It is currently in advanced stages of sea trials. The submarine has been designed by French naval defence and energy group and manufactured by Mazagon Dock Lim

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Indian shipyard in Mumbai. It is the third submarine of the first batch of six Kalvari-class submarines for the Indian Navy.
- Project-75 is a programme by the Indian Navy that entails building six Scorpene-Class attack submarines.

INTEGRATED AIR DEFENCE WEAPON SYSTEM
Why in news?
- The US has approved the sale of an Integrated Air Defence Weapon System to India for an estimated cost of $1.9 billion to modernise its armed forces and to expand its existing air defence architecture to counter threats posed by air attacks.
- The proposed sale comes amidst the massive military modernisation by China which is also flexing it's military muscles in the strategic Indo-Pacific region.
- The proposed sale IADWS will contribute to India's military goal to update its capability while further enhancing greater interoperability between India, the US, and other allies.
- The IADWS package that has been approved includes a range of sensors, weapons systems, and support equipment.
- Over the last decade, the United States has emerged as a major defense supplier to India. India, meanwhile, is the world's largest importer of defense equipment, accounting for some 12 percent of global defense imports, according to the Stockholm International Peace Research Institute's 2018 yearbook.

SAMPRITI-IX
Why in news?
- The ninth edition of joint military training exercise between India-Bangladesh, SAMPRITI-IX was culminated at Umroi in Shillong . It was attended by senior commanders.
- The exercise was aimed at strengthening the military relations between the two countries, which allowed the two armies to understand each other's tactical drills and operating techniques.
- The exercise provided an ideal platform for the personnel of the two countries to share their experiences on counter insurgency, counter terrorism operations and providing

aid to civil authorities for disaster management especially in jungle and semi-urban terrain.
- Besides promoting understanding and interoperability between the two armies, it further helped in strengthening ties between India and Bangladesh.

15TH FINANCE COMMISSION
Why in news?
- The Fifteenth Finance Commission has constituted a five member group on Defence and Internal Security.
- The chairman of the commission N.K. Singh will head the group. Home Secretary and Defence Secretary will be the members of the group among others.
- The panel will examine whether a separate mechanism for funding of defence and internal
security ought to be set up, and if so, how such a mechanism could be operationalised.

AJEYA WARRIOR
Why in news?
- Indian and British armed forces conducted their joint fifth edition 'Ajeya Warrior' exercises between 13-26 February 2020 in the Salisbury Plain of central southern England to train troops in counter insurgency and counter terrorist operations.
- It aims to conduct army level joint training with emphasis on counter terrorism operations. The exercise is conducted alternatively in the United Kingdom and India.
- Konkan (Navy) and Indradhanush (Air Force) are the other joint military exercises between India and UK.

DEFEXPO 2020
Why in news?
- 11th edition of DefExpo, a flagship biennial event of the Ministry of Defence, is being held for the first time in Lucknow between 5-9 February 2020. The main theme of the DefExpo India- 2020 was 'India: The Emerging Defence Manufacturing Hub' and the focus was on 'Digital Transformation of Defence'. There was a major exhibition of heavy artillery guns, both under indu

by the Army and being developed by industry, at the Defexpo.

- "Parth" gun shot locator device, showcased at DefExpo 2020, developed by the Army's College of Military Engineering (CME) jointly with a private firm costs much cheaper than the imported ones.
- The device can locate the exact location of a bullet from a distance of 400m and will help to locate and neutralize terrorist faster.
- Moreover, Indian Army also got upgraded 155mm artillery gun namely Sharang at DefExpo. It also has more explosive capability and hence and more damage potential.

JOINT HYDROGRAPHIC OPERATIONS
Why in news?

- Indian Navy's Sandhayak class Hydrographic Survey Ship, INS Jamuna (J16) arrived Colombo, Sri Lanka on February 6 2020 to carry out Joint Hydrographic Survey off the South West Coast of Sri Lanka.
- Over the two months deployment period, the ship will carry out detailed hydrographic surveys and several shore-based survey activities. It will also impart 'hands on' survey training to Sri Lanka Navy personnel.

INS SHIVAJI
Why in news?

- President awarded the coveted President's Colours to the INS Shivaji, Lonavla.
- The premier institute is a marine training institute for coast guards and navy officers. The award is one of the most prestigious for defence institutes and regiments for its contribution during war and peace time.
- INS Shivaji, Lonavla, commissioned as HMIS (Her Majesty's Indian Ship) Shivaji in 1945, is a premier Cat 'A' training establishment of the Indian Navy. The motto of the establishment is "Karmasu Kaushalam" which translates to imbibing the concept of 'Skill at Work' in all facets of human endeavour.

NAVAL EXERCISE 'MILAN'
Why in news?

- Indian Navy is conducting Milan 2020 in Visakhapatnam, Andhra Pradesh in March 2020 with an enhanced scope of the exercise and increased number of participating countries in the exercise.The theme for Milan is 'Synergy Across the Seas'.
- MILAN provides an excellent opportunity for the participating navies to come together to nurture stronger ties besides fostering co-operation through naval exercises and professional interactions.
- Milan, a multilateral naval exercise hosted by India, made a modest beginning in the Andaman and Nicobar Islands in 1995 with participation of four littoral navies.

ART & CULTURE

RAKHIGARHI
Why in news?

- Union Budget (2020-21) has proposed to develop Rakhigarhi (Hisar district, Haryana) as an iconic site.
- 4 other archaeological sites in Hastinapur (Uttar Pradesh), Shivsagar (Assam), Dholavira (Gujarat) and Adichanallur in (Tamil Nadu) will also be developed as iconic sites with onsite museums.
- Rakhigarhi is one of the largest Harappan sites in the Indian subcontinent.

UNESCO WORLD HERITAGE CITY CERTIFICATE
Why in news?

- Walled-city of Jaipur formally was accorded World Heritage City status. UNESCO Director-General Audrey Azoulaypresented the World Heritage certificate to the city.
- Jaipur is known for its palaces, architecture, forts. The architecture in the city reflected inclusion of Mughal, Persian and Hindu designs.
- UNESCO World Heritage Sites are designated specific locations such as forest areas, mountains, lakes, deserts, monuments, buildings, or cities, etc. These are selected by the World Heritage Sites Committee.

- The city of Ahmedabad, Gujarat was added to the "World Heritage Sites" list in 2017.

JERUSALEM-MUMBAI FESTIVAL
Why in news?

- The first 'Jerusalem-Mumbai Festival' held in the capital of Maharashtra to showcase the special links between the two cities and to promote ties between India and Israel. The two-day festival started promoted artistic cooperation in the diverse fields of culture, such as culinary art, music and dance. Famous Israeli cinema, The Mossad, was screened at the festival in the presence of the movie director Alon Gur Arye.

VELUTHEEYAM
Why in news?

- A tri-metal sculpture of Jesus Christ, Healing Christ, on the central courtyard of the Believers Church Medical College (BCMC) Hospital in Thiruvalla has entered the Universal Records Forum's (URF) book of world records on 4 February 2020.
- A URF team adjudged that the 368-cm tall statue, weighing 2,400 kg, is the 'largest tri-metal Jesus sculpture' in the world.
- The statue is sculpted with an alloy of zinc, copper, and velutheeyam (an alloy of tin and aluminium).

CHINDU YAKSHAGANAM
Why in news?

- It is a traditional dance ballet, which was recently performed in Telangana. It is also known as Chindu Bhagavatam as most of the stories are narrated from 'Bhagavatam'. The art is mainly performed by the Chindu Madiga community,
- The artform is very similar to Yakshaganam, a traditional theatre form particular to Karnataka.
- It combines dance, music, dialogue, costume, make-up, and stage techniques with a unique style and form.

'LUI-NGAI-NI' CELEBRATED AT UKHRUL
Why in news?

- The Naga tribes of Manipur celebrated it's seed sowing festival 'Lui-Ngai-Ni', under the theme "Oneness through Culture", with much fanfare at Tangkhul Naga Long (TNL) ground in Ukhrul.
- The festival heralds the season of seed sowing and marks the start of the year for the Nagas and the festival was declared a state holiday since 1988.
- The festival is celebrated annually on 14–15 February at the start of the spring season.
- It is the second major inter-tribe Naga festival after Hornbill Festival.
- Leaders from other communities of the State, mainly Meitei, Kuki and Zomi also participated in Festival to show mutual solidarity for peaceful co-existence.

MEDARAM JATARA
Why in news?

- Medaram Jatara is also known as Sammakka Saralamma Jatara.
- It is a tribal festival honouring the fight of a mother and daughter, Sammakka and Saralamma, with the reigning rulers against an unjust law.
- It was celebrated in Telangana for 4 days starting from 5 February 2020. The Jatra begins at Medaram in Tadvai Mandal in Warangal district.
- Medaram is a remote place in the Eturnagaram Wildlife Sanctuary, a part of Dandakaranya, the largest surviving forest belt in the region.
- It is held every two years (biannually). It is celebrated during the time the goddesses of the tribals is believed to visit them.

INTERNATIONAL MOTHER LANGUAGE DAY
Why in news?

- 21 February 2020 was observed as International Mother Language Day.
- UNESCO declared International Mother Language Day in 1999, to commemorate a 1952 protest against West Pakistan's imposition of Urdu as the official language of East Pakistan (present-day Bangladesh).
- The resolution to mark 21st February as the International Mother Language Day was suggested by Rafiqul Islam, a Bangladeshi living in Canada. He proposed the sa

to commemorate the 1952 killings in Dhaka during the Bangla Language Movement.
- This Day aims to promote "linguistic and cultural diversity and multilingualism".
- Of the world's 6,000 languages, 43% are estimated as endangered. On the other hand, just 10 languages account for as many as 4.8 billion speakers — over 60% of the world population.
- Globally, English remains the most widely spoken language with 1.13 billion speakers in 2019, followed by Mandarin with 1.17 billion, according to the online database Ethnologue. Hindi is third with 615 million speakers while Bengali is seventh with 265 million.

Languages spoken in India
- In India, Hindi is the most spoken language with over 528 million speakers in 2011, as per the Census.
- Bengali had 97.2 million speakers in 2011, followed by Marathi (83 million), while other languages with over 50 million speakers are Telugu (81 million), Tamil (69 million), Gujarati (55.5 million) and Urdu (50.8 million).
- Percentage trends from 1991 to 2011 underline the growth of the most widely spoken language, Hindi, which was spoken by 39.29% of the Indian population in 1991, and whose share grew to 43.63% in 2011.
- For other languages in India's top 12, the 2011 percentage share has fallen when compared to that in 1991.

Surajkund International Crafts Mela
- President of India inaugurated the 34th Surajkund International Crafts Mela in Surajkund, Haryana on February 1, 2020.
- The Mela is organized by the Surajkund Mela Authority & Haryana Tourism in collaboration with Union Ministries of Tourism, Textiles, Culture and External Affairs. Additionally, rare products from states such as Uttar Pradesh, Odisha, Maharashtra, Rajasthan, Punjab and Telangana as also from countries such as Swaziland, Uzbekistan, Turkey, and many more offer delight to the connoisseur of art and craft. This year, the theme state is Himachal Pradesh.

- The Mela was initiated in 1987 to promote the pool of skilled artisans, who used indigenous technology, but were suffering due to the cheaper machine-made imitations.
- The fair was upgraded to an international level in 2013.
- England participated for the first time in this mela.

Mains

GENERAL STUDIES I (INDIAN HERITAGE AND CULTURE, HISTORY AND GEOGRAPHY OF THE WORLD AND SOCIETY)

KUMBHABHISHEKAM CEREMONY
Why in news?
- The kumbhabhishekam (consecration) ceremony at the Sri Brihadeeswarar Temple (1,010-year-old) or the Big Temple was held after 23 years. It was held after the Madras High Court had settled an old argument over the ritual purification process on 31 January 2020.
- The Sri Brahadeeswarar Temple (also spelt Brihadisvara, and called Peruvudaiyar Koyil, which translates simply to 'Big Temple') is the most famous of the many temples in Thanjavur.
- The temple, one of the world's largest and grandest, was built between 1003 AD and 1010 AD by the great Chola emperor Raja Raja I (c. 985-1014 AD).
- As per the customs of Hinduism, 'kumbhabhishekam' is done once in 12 years. It is part of traditions of Hinduism that when an addition is made to a temple, 'kumbhabhishekam' is performed.
- The consecration ceremony culminated with the maha poornahuti or the main puja, which begun on 1 February 2020.
- The holy water brought from the Yaga salai — the site of the yajna in the temple compound — was poured on the gold-plated kalasam that tops the 216-foot vimanam over the sanctum sanctorum. The other idols at the temple too, were sanctified with holy water from the yaga salai.

- According to the Hindu Religious and Charitable Endowments (HR&CE) department, the temple had 'kumbhabhishekam' in 1010, 1729, 1843, 1980 and 1997.
- The last kumbhabishegam ceremony in 1997 was marred by a fire at the yaga salai, which triggered a stampede in which more than 40 pilgrims were killed.
- But there is no consensus among the historians regarding the number of such events.
- Another archaeologist asserts that between 17th century and 19th century, there were four 'kumbhabhishekams', which have been mentioned on inscriptions on the 'kalasam' (dome) of the temple's 'vimana' (tower).

Issue

- The ceremony got embroiled in the struggle for supremacy between the Sanskrit and Tamil traditions.
- The court allowed the consecration to be performed in both Tamil and Sanskrit.
- It argued that there is nothing either in the Agamas (canonical texts) or in any other religious script to prohibit the chanting of Tamil mantras in the temples.
- The disagreement is between the Aryan tradition that claims that Sanskrit is the only language to communicate with the Gods and that chanting mantras in Sanskrit is an essential part of the Hindu religious practice and the Dravidian tradition that cites the ancient history of the Bhakti movement in Tamil Nadu, during which devotional Shaivite texts such as Thevaram and Thiruvasagam made Shiva a deity of the common man.

1,500-YEAR-OLD SEALING UNEARTHED
Why in news?

- A team of archaeologists for the first time has unearthed a sealing that dates back nearly 1,500 years and belonged to Prabhavatigupta, the queen of Vakataka king Rudrasena II, who ruled the kingdom from Nagardhan in Ramtek taluka, located about 50 km from Nagpur.
- Elaborate excavations were carried out by researchers from the Department of Archaeology and Museums, government of

Maharashtra, and Deccan College, Pune, during 2015 and 2018.

- Nagardhan is a large village in Nagpur district, about 6 km south of Ramtek taluka headquarters. Archaeological remains were found on a surface spread over a 1 km × 1.5 km area.
- The researchers excavated the site during 2015-2018. A Koteshwar temple dating back to the 15th-16th centuries stands on the banks of a stream.
- The existing village sits on top of the ancient habitation.
- The Nagardhan Fort stands south of present-day Nagardhan village. This was constructed during the Gond Raja period and later renovated and re-used by the Bhosales of Nagpur during the late 18th and 19th centuries.
- The area surrounding the fort is under cultivation and has archaeological remains.

Significance

- Remains from these excavations have offered newer insights into the Vakataka dynasty, which is credited to have created the world-renowned paintings in Ajanta caves.
- These excavations have provided concrete evidence on the life, religious affiliations and trade practices of the dynasty.
- Vakatakas were the Shaivite rulers of Central India who ruled between the third and fifth centuries. They believed to hail from the Vidarbha region.
- There were assumptions that the excavated site of Nagardhan is the same as Nandhivardhan, the capital city of the eastern branch of the Vakatakas.
- It was after archaeological evidence from here that Nagardhan was understood to have served as a capital of the Vakataka kingdom.
- It is the first time clay sealings have been excavated from Nagardhan. The oval-shaped sealing belongs to the period when Prabhavatigupta was the queen of the Vakataka dynasty. It bears her name in the Brahmi script, along with the depiction of a conch. The 6.40-gram sealing, which is 1,500 years old, measures 35.71 mm by 24.20 mm, with a thickness of 9.50mm.
- The presence of the conch is a sign of the Vaishnava affiliation that the Guptas

- The sealing was traced on top of a mega wall that researchers now think could have been part of a royal structure at the capital city of the kingdom.
- So far, no archaeological evidence had emerged about the types of houses or palatial structures of the Vakataka people or rulers.
- These are strong indicators of Vaishnava signatures on the royal seals of the Vakatakas, reiterate that Queen Prabhavatigupta was indeed a powerful woman ruler.
- Since the Vakataka people traded with Iran and beyond through the Mediterranean Sea, scholars suggest that these sealings could have been used as an official royal permission issued from the capital city.
- Besides, these were used on documents that sought mandatory royal permissions.

What else has been excavated from Nagardhan so far?

- Earlier results from the excavations here had traced evidence in the form of ceramics, ear studs of glass, antiquities, bowls and pots, a votive shrine and tank, an iron chisel, a stone depicting a deer, and terracotta bangles.
- Some terracotta objects even depicted images of gods, animals and humans, along with amulets, scotches, wheels, skin rubbers and spindle whorls.
- An intact idol of Lord Ganesha, which had no ornaments adorned, too was found from the site.
- This confirmed that the elephant god was a commonly worshipped deity in those times.
- On the means of living of the Vakataka people, researchers found animal rearing to be one of the main occupations.
- Remains of seven species of domestic animals — cattle, goat, sheep, pig, cat, horse and fowl — were traced in an earlier study by the team.

FUTURE OF EARTH, 2020 REPORT
Why in news?

- Future of Earth, 2020 Report was released by the South Asia Future Earth Regional Office, Divecha Centre for Climate Change, Indian Institute of Science.
- Report has listed five global risks that have the potential to impact and amplify one another in ways that may cascade to create a global systemic crisis:
  1. failure of climate change mitigation and adaptation
  2. extreme weather events
  3. major biodiversity loss and ecosystem collapse
  4. food crises and
  5. water crises
- It was prepared with the aim of reducing carbon footprint and halting global warming below 2 degree Celsius by 2050.

Findings of the report

- The five years from 2014 to 2018 were the warmest recorded over land and ocean since 1880.
- Extreme heatwaves can accelerate global warming by releasing large amounts of stored carbon from affected ecosystems and at the same time intensify water crises and/ or food scarcity.
- The loss of biodiversity also weakens the capacity of natural and agricultural systems to cope with climate extremes, increasing our vulnerability to food crises.
- Strains on food production are expected to increase, as a result of various forces including climate change, biodiversity loss, and a global population on the rise.
- Despite declarations of a climate crisis or climate emergency by the leaders of more than 700 cities, States and governments, the concentration of carbon dioxide in the atmosphere during 2019 reached more than 415 parts per million (ppm).
- Report focuses on nationalist tendencies to clamp down on borders and reject immigrants is on the rise around the world. This has led to a denial of climate change facts or impacts.
- Humans have now significantly altered 75% of our planet's land area about a quarter of species in assessed plant and animal groups are threatened.

- The flow of information in the world is changing. The digital platforms designed to engage with emotion over reason can cause the propagation of fake news and can lead to social harms like erosion of trust in vaccines.

Suggestions

- Reversing the trends of loss of life on the planet will require some new ways of thinking about conservation.
- Negative impact of migration can be avoided with pragmatic planning that anticipates inevitable demographic change, and accommodates human movements with infrastructure and targeted social inclusion programmes.
- The National Education Policy will address the question of environmental health and education at the school level.
- Children in the last four years of secondary education will have a reasonable grounding to be sensitive towards the environment. Without it, no government rules and policies can be helpful.
- Bolstering financial resilience should go hand in hand with increasing the resilience of the communities.
- Humans are now the main driver behind planetary change, thus human systems should be targeted. This means addressing societal systems including populism, finance, and information transmission, alongside the practices and technologies that emit greenhouse gases, from fossil-fuel burning to food production.

GENERAL STUDIES II (GOVERNANCE, CONSTITUTION, POLITY, SOCIAL JUSTICE AND INTERNATIONAL RELATIONS)

WOMEN ARMY OFFICERS ELIGIBLE FOR PERMANENT COMMISSION

Why in news?

- The Supreme Court declared that Short Service Commission (SSC) women officers are eligible for permanent commission and command posts in the Army irrespective of their years of service.

- The judgment was long awaited, as the first PIL was filed in 2003, followed by other suits in 2006 and 2008, and the Delhi High Court gave a judgment in favour of women officers in 2010.
- But the order was never implemented, and was challenged in the Supreme Court by the government.
- Earlier, male SSC officers could opt for permanent commission at the end of 10 years of service, this option was not available to women officers. They were, thus, kept out of any command appointment, and could not qualify for government pension, which starts only after 20 years of service as an officer.

Highlights of the judgement

- The Supreme Court brought women officers in 10 streams of the Army on a par with their male counterparts in all respects, setting aside longstanding objections of the government.
- The Supreme Court rejected arguments against greater role for women officers, saying these violated equality under law (article 14).
- They were being kept out of command posts on the reasoning that the largely rural rank and file will have problems with women as commanding officers. The biological argument was also rejected as disturbing.
- It has also removed the restriction of women officers only being allowed to serve in staff appointments, which is the most significant and far-reaching aspect of the judgment.
- It means that women officers will be eligible to tenant all the command appointm

at par with male officers, which would open avenues for further promotions to higher ranks for them: if women officers had served only in staff, they would not have gone beyond the rank of Colonel.

Significance

- The significance of the SC judgment is two-fold. One, it is a complete endorsement of the equality of women in 21st century India, and against deeply embedded patriarchal mindsets and strong institutional biases. It will have a larger social impact as conservative mores and anti-women norms are being pushed across the country by forces of religious majoritarianism and in the name of "Indian" culture.
- Two, even though the issue was not being directly considered by the bench, it chose to open command appointments to women officers in 10 streams where the Army has agreed they can serve as permanently commissioned officers. It will force real and substantive change in the Army. The Army will be compelled to change its rules not only for promotion to command appointments, it will also have to instill widespread changes in the pathways for the women officers to do training courses and hold appointments which have so far been the sole preserves of men.
- The Indian Airforce, which has the highest proportion of women officers and has already opened all its arms for entry, would witness the maximum impact.
- The implications of the judgment will have to be borne by the human resources management department of the Army, which will need to change policy in order to comply.

ASSISTED REPRODUCTIVE TECHNOLOGY REGULATION BILL

Why in news?

- The Union Cabinet approved the Assisted Reproductive Technology (ART) Regulation Bill for the regulation of clinics involved in providing reproduction assistance services, such as in-vitro fertilisation (IVF), artificial insemination and surrogacy.
- A National Board, which will be constituted once the Bill is passed by Parliament, will lay down a code of conduct and set minimum standards of physical infrastructure, laboratory and diagnostic equipment and expert manpower to be employed by clinics and banks.
- The Bill also provides for National Registry and Registration Authority to maintain a central database and assist the National Board in its functioning.
- It proposes stringent punishment for sex selection, sale of human embryos or gametes, and agencies/rackets/organisations behind such unlawful practices.
- Most significantly, the Bill recommends punishment, even jail time, for violations of the provisions. Those indulging in embryo sale and trafficking can be fined and even put behind bars.
- The bill also intends to make it mandatory to conduct tests to help identify genetic defects within embryos, called pre-genetic implantation testing, for the benefit of the children.

Significance of the Bill

- The need to regulate ART services is mainly to protect the affected women and children from exploitation.
- The Bill will also ensure confidentiality of intending couples and protect the rights of the child.

Way Ahead

- Together, the ART Bill; the Surrogacy Bill; the amendment to the Medical Termination of Pregnancy Act; and the older Pre-Conception and Pre-Natal Diagnostic Techniques Act present a bouquet of legislation that will have a positive impact on the reproductive rights and choices of women in India.

SURROGATE MOTHER NEED NOT BE CLOSE RELATIVE

Why in news?

- 23 member select committee of Rajya Sabha suggested 15 changes to the Surrogacy (Regulation) Bill, 2019. This Bill is yet to be passed by Rajya Sabha.

Suggestions by committee

- Any close relatives or woman who is 'willing' should be act as a surrogate as restricting the surrogate mother to be a 'close relative' potentially limits the availability of surrogate mothers, affecting the genuinely needy persons.
- Deleting the definition of 'infertility' as the inability to conceive after five years of unprotected intercourse on the ground that it was too long a period for a couple to wait for a child. With this provision, needy persons can avail surrogacy any time on the basis of a certificate of medical indication requiring gestational surrogacy.
- Advocated that 'single Indian woman' like a widow or a divorcee in the age group of 35 to 45 years may also be allowed to avail surrogacy.
- Noting that the procedure of surrogacy poses risks of medical complications and health hazards, post-partum (after delivery) and to secure the mother financially and health-wise, the committee sought an increase in the insurance coverage from 16 months to 36 months.
- Allowing persons of Indian origin (PIOs) to avail surrogacy in the country after obtaining a certificate of recommendation from the Surrogacy Boards
- Modification in the definition of altruistic surrogacy so as to cover 'other prescribed expenses' on nutritional food required and maternity-wear etc, vital for the wellbeing and upkeep of the surrogate mother.
- In order to protect the interest of the child born through surrogacy, the committee recommended that the order regarding parentage and custody of child to be issued by a Magistrate shall be the birth affidavit of surrogate child.
- Assisted Reproductive Technologies (Regulation) Bill which is awaiting cabinet approval may be taken up before the Surrogacy (Regulation) Bill since the ART Bill primarily deals with technical, scientific and medical aspects which also apply to storage of embryo, gamete, oocyte etc. as contained in the Surrogacy Bill.
- Other recommendations of the committee relate to enhancing the term of experts on the surrogacy boards from one year as proposed in the Bill to three years and officials of sufficiently higher rank to be the Chairman and Vice-Chairman of appropriate authorities.
- The Committee asked the appropriate authorities of the central and state governments to submit data on number of surrogacy procedures, surrogacy clinics and all related aspects to the National Board on Surrogacy to develop a proper database which helps in monitoring and regulation of surrogacy in the country.

CALL TO RECONSIDER PROPOSAL

Committee's questions for couples

- What was the total cost of the process?
- Were you allowed to choose your surrogate?
- Who put you in touch with the surrogate — agent or hospital?
- Were you allowed to visit the surrogate during the course of the pregnancy?
- Where was the surrogate living during the process?

Surrogacy as a treatment option is necessary in India with about 15% of married couples being infertile. It is essential to have a legislation, which is contemporary and progressive —Dr Samit Sekhar | JOINT PRESIDENT, ALL INDIA SOCIETY FOR THIRD PARTY ASSISTED REPRODUCTION

SOME OF THE ELIGIBILITY CRITERIA FOR COUPLES INTENDING TO COMMISSION SURROGACY

- Must be a close relative of the surrogate mother. But the law does not define the term 'close relative'
- Should be Indian citizens married for five years

PRISON REFORMS
Why in news?

- The Supreme Court (SC) had appointed a three member committee (headed by Justice Amitava Roy (retd.)) in 2018 to recommend the suggestions to improve the condition of prisons, including ways of reducing overcrowding and it has finally submitted its report on 5 February 2020.

Recommendations
For overcrowding

- Speedy trial
- Special fast-track courts should be set up to deal exclusively with petty offences which have been pending for more than five years. Further, accused persons who are charged with petty offences and those granted bail, but who are unable to arrange surety should be released on a Personal Recognizance (PR) Bond.
- There should be at least one lawyer for every 30 prisoners.

- An adjournment should not be granted in cases where witnesses are present and the concept of plea bargaining, in which accused admits guilt for a lesser sentence, should be promoted.

For prisoners

- Every new prisoner should be allowed a free phone call a day to his/her family members to see him/her through his first week in jail.
- Providing effective legal aid to prisoners and taking steps to provide vocational skills and education to prisoners.
- Use of video-conferencing for trial.
- The courts may be asked to use their "discretionary powers" and award sentences like "fine and admonition" if possible instead of sending the offenders to jails.

Filling Vacancies

- The Supreme Court should pass directions asking authorities to start the recruitment process against permanent vacancies within three months and the process should be completed in a year.

For Food

- Modern cooking facilities and canteens to buy essential items.

Status of Indian Prisons

- The management of prisons falls exclusively under the domain of the state government, as per the seventh schedule of the constitution. In every state, the prison administrative machinery works under the chief of prisons who is a senior ranking IPS officer.
- The Prison Department has a perennial average vacancy of 30%-40%. This hinders implementation of Model Prison Manual and various jail reforms.
- From 2016 to 2018, the total prison population in India has increased by 8.2% against an increase of 0.7% in the prison sanctioned capacity. The total population of prisoners in India was 4.68 lakh against total sanctioned strength of 3.83 lakh. But only 1,341 prisons were functional in India as on 30 November, 2018.
- Uttar Pradesh, Madhya Pradesh, Chhattisgarh, Uttarakhand, Sikkim, Meghalaya and Delhi have an occupancy rate of 150%.
- The Prison Statistics India 2016 published by the National Crime Records Bureau (NCRB) in 2019 highlights that at the end of 2016, there were 4,33,033 people in prison; of them 68% were undertrials. This suggests that the high proportion of undertrials in the overall prison population may be the result of unnecessary arrests and ineffective legal aid during remand hearings.

- There is the rise in the number of people held under administrative (or 'prevention') detention laws in Jammu and Kashmir.
- The preparation of food in kitchens is "primitive and arduous". The kitchens are congested and unhygienic and the diet has remained unchanged for years now.

'RESERVATIONS IN PROMOTIONS NOT A FUNDAMENTAL RIGHT'

Why in news?

- Supreme Court ruled that states are not legally bound to provide quotas to Scheduled Castes (SCs) and Scheduled Tribes (STs) in government jobs and held that individuals have no fundamental right to claim reservations in promotions.
- The apex court gave the verdict during a case regarding the validity of a 2012 notification by the Uttarakhand government to fill up vacancies in government jobs without giving reservation to the SC/ST communities. The Uttarakhand High Court had struck down the notification and asked the government to provide representation to the specified categories.
- Through its verdict, the apex court overturned the Uttarakhand HC's order and upheld the state government's decision.

Views of the SC

- There is no doubt the state government is not bound to make reservations. There is no fundamental right which inheres in an individual to claim reservation in promotions. No mandamus can be issued by the court directing state governments to provide reservations.
- Articles 16(4) and 16(4A) of the Constitution give states the power to make such reservations; it is so only "if in the opinion of the state they are not adequately represented in the services of the state".
- It is settled law the state cannot be directed to provide reservations for appointment in public posts. Similarly, state is not bound to make reservation for SCs/STs in matters of promotions. State governments may

exercise their discretion in making such provisions, provided that it collects data showing the lack of representation to these categories in the government employment.

- State will also have to justify its decision to provide reservations if challenged in a court of law. However, the state government also need to collect data when making provisions for reservation and not when the government decides not to provide quotas.

- Even if the under-representation of SC/STs in public services is brought to the notice of the court, no direction can be issued by the court to the state government to provide reservation.

CRIMINALIZATION IN INDIAN POLITICS
Why in news?

- To curb criminalization in Indian Politics, the Supreme Court ordered political parties to publish the entire criminal history of their candidates for Assembly and Lok Sabha elections along with the reasons that provoked them to field suspected criminals over decent people.

- The apex court agreed to examine a proposition made by the Election Commission (EC) to ask political parties to not give ticket to those with criminal antecedents.

Judgements by SC

- According to SC (2018), cleansing politics from criminal elements begins with purifying political parties itself, as they are the central institution of India's democracy. Thus, it has come up with a series of landmark judgments on addressing this issue.

- The Supreme Court in February 2020 ordered political parties to publish the entire criminal history of their candidates for Assembly and Lok Sabha elections along with the reasons that goaded them to field suspected criminals over decent people.

- The information should be published in a local as well as a national newspaper as well as the parties' social media handles. It should mandatorily be published either within 48 hours of the selection of candidates or less than two weeks before the first date for filing of nominations, whichever is earlier.

- The judgment is applicable to parties both at Central and State levels.

- In January 2020, SC also agreed to examine a proposition made by the EC to ask political parties to not give ticket to those with criminal antecedents.

- The Bench also agreed to come up with a joint proposal detailing how it can be ensured that parties did not fall in with criminal politicians. Senior advocate Vikas Singh said 46% of Members of Parliament have criminal records.

- In 2017, it asked the Centre to frame a scheme to appoint special courts to exclusively try cases against politicians, and for political parties to publicise pending criminal cases faced by their candidates in 2018.

- In 2013, in Lily Thomas vs. Union of India, the Supreme Court held that Section 8(4) of The Representation of the People Act, 1951 is unconstitutional which allows MPs and MLAs who are convicted to continue in office till an appeal against such conviction is disposed of.

- The SC in People's Union for Civil Liberties vs. Union of India, 2013 ruled that voters should have the option of "None of the above (NOTA)" on the Electronic Voting Machines (EVMs) to ensure the option for those who don't find any candidate suitable.

Analysis

- The recent verdict of the Supreme Court on criminalisation of politics is welcome but has some practical issues. For instance, the apex court has instructed political parties to put information on their respective websites and local and national newspapers about those candidates who're having criminal antecedents. How many people are capable of accessing websites? Also, both the candidate and the political party are required to publicise the information. Why would they actively publicise anything that goes against their interests?

- The verdict has arrived as a huge disappointment when seen in the context of the need for untainted parliamentarians. Judicial activism saved this country many times when the executive and the legislature were not willing to do their job. History witnessed that the legislature has not moved on this front. This was an activist measure from the judiciary that would have been welcome.

- On the other hand, the order is in line with the principles of natural justice and separation of powers. However, while seeking to

decriminalise politics, one must acknowledge the inherent structural issues like huge public funding in elections that need to be addressed.

MEDICAL EQUIPMENT NOTIFIED AS 'DRUGS'
Why in news?
- The Ministry of Health and Family Welfare notified changes in the Medical Devices Rules, 2017 to regulate medical devices on the same lines as drugs under the Drugs and Cosmetics Act, 1940.
- The Ministry has notified that medical equipment intended for use in human beings or animals would qualify as 'drugs' under Section 3 of the Drugs and Cosmetics Act (D & CA), 1940 from 1st April, 2020.
- The Medical Devices (Amendment) Rules, 2020 were also released. The rules will also come into force from 1 April, 2020.
- The country's highest advisory body on technical issues related to drugs and medical devices, the Drugs Technical Advisory Board (DTAB), had in April 2019 recommended that all medical devices should be notified as drugs under the Drugs and Cosmetics Act.

Notified changes in the rules
- Medical Devices (Amendment) Rules, 2020 are applicable to devices "intended for internal or external use in the diagnosis, treatment, mitigation or prevention of disease or disorder in human beings or animals" (as notified by the ministry) and require online registration of these devices "with the Central Licensing Authority through an identified online portal established by the Central Drugs Standard Control Organisation (CDSCO) for this purpose".
- Such registration is voluntary for a period of 18 months, after which it will be mandatory.
- This would mean that every medical device, either manufactured in India or imported, will have to have quality assurance before they can be sold anywhere in the country.
- The aim is to regulate all medical devices so that they meet certain standards of quality. Besides it will also make medical device companies accountable for quality and safety of their products.

- The development is expected to bring in important changes for the sector over the next few years- one, their prices will be governed (as per the Act), and second, in case of a violation, they could be penalized in a court of law.

Way Ahead
- CDSCO will be the nodal authority to investigate complaints related to the quality and safety aspects of medical devices and can suspend the registration or cancel licences of firms.
- This decision will impact small and marginal players, mainly unorganised, in the low-value high volume segment of the medical devices industry.
- The hi-tech diagnostic imaging sector is dominated by large players and will be the least impacted.
- Though this is positive step, as per the timeline, it will still take a long time before many higher risk devices are regulated.
- Concerns are being raised that the rules are very rigid and any non-conformity can be treated as a criminal offence by any drug inspector under the Act at his discretion.
- There is a difference between medical devices and drugs so it would be a grave mistake to apply the same regulatory framework for both of them. A targeted and different approach is needed to regulate these complex devices.
- New and innovative ideas are needed to regulate this industry in the Indian context especially when the government bodies and the judiciary lack the capacity to handle such difficult and multilayered issues.
- Merely expanding the scope of regulation to all devices is not enough in a moment of growing number of safety disasters involving devices. Hence, there is a pressing need for framing of a new medical devices act.

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## ONLY 7 IN 100 ANGANWADI BENEFICIARIES ARE IN CITIES

Why in news?

- According to the government's response to a Right to Information (RTI) query, for every 100 anganwadi beneficiaries in the country, only 7 are in urban areas that shows poor coverage by the Integrated Child Development Scheme (ICDS) in urban areas. While there were a total of 7.95 crore beneficiaries of the Anganwadi scheme in the country, only 55 lakh were registered at urban anganwadis.

- Anganwadis or day-care centres are set up under the Integrated Child Development Services (ICDS) by the Women and Child Development Ministry to provide a package of six services. The services include supplementary nutrition; pre-school non-formal education; immunisation, nutrition and health education; as well as referral services.

- The aim of the scheme is to reduce infant mortality and child malnutrition. Beneficiaries include children in the age group of six months to six years, and pregnant women and lactating mothers.

- There are as many as 13.79 lakh anganwadis operational across the country, out of which 9.31 lakh centres are linked to the government's web-enabled data entry system called Rapid Reporting System. Of those anganwadis that can be monitored online, 1.09 lakh centres are in urban areas and the remaining 8.22 lakh were in rural areas of the country.

- National Nutrition Survey 2016-18 found that 35% of children under five were stunted and 17% were wasted. It also found that 22% of children in the age group of 5-9 years were stunted and 23% were thin for their age.

- Children in urban areas showed two to three times higher prevalence of obesity as compared to their peers in rural areas.

Way Forward

- NITI Aayog has prepared a draft working paper to strengthen the ICDS programme in urban areas, keeping in mind challenges such as migration, population density and the long commute involved for workers and beneficiaries.

Urban-rural disparity

Urban areas have very few beneficiaries of anganwadi services (7.02%) as compared to rural areas (92.8%)
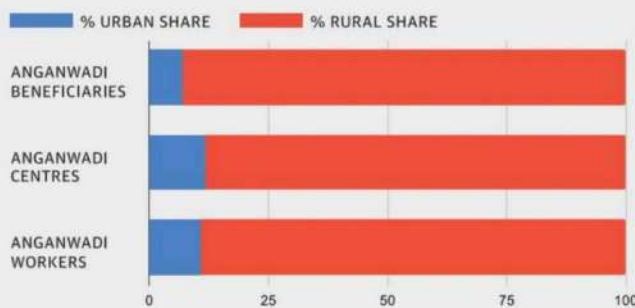
BIMSTEC CONFERENCE ON DRUG TRAFFICKING

Why in news?

- India hosted the first-ever BIMSTEC nations' conference on "combating drug trafficking" in Delhi between 13-14 February 2020, which was inaugurated by Union Home Minister.

- By this, India would act as the harbinger of new avenues within the region that will help bringing other Nations on such similar platforms to find solutions to tackle drug trafficking.

- The Narcotics Control Bureau (NCB), the federal agency for drug law enforcement, organised this two-day conference.

- The conference is the result of the commitment made in this context by Prime Minister during the 4th BIMSTEC summit in Nepal's Kathmandu in 2018.

- In the changing drug-trafficking scenario, Asian countries are increasingly being affected by drug trafficking and BIMSTEC, being the key link between South Asian and South East Asian nations, is one of the most effective platforms to tackle this global threat.

- UN's World Drug Report noted that 5% of the global population between 15-64 years of age is addicted to narcotics and use of illicit drugs.

- In India, in the last 5 years, over 1.89 lakh Narcotics cases have been registered.

Steps taken by India

- Union Government has laid down a well thought out strategy to increase coordination among the agencies of the Centre as well as States and the Home Ministry has established a joint

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coordination committee to increase surveillance over drug trafficking.
- The Ministry has also started an e-portal for digitalisation of drug data that may be utilized by various drug enforcement agencies.
- India follows zero tolerance policy against narcotic drugs and psychotropic substances trade.
- Ministry is about to establish a training centre for NCB officials regarding enforcement of drug laws, at Bhopal.
- To fight this global menace, India has so far signed 26 bilateral agreements, 15 MoUs and 2 security pacts with other countries. India has devised a strategy to increase awareness to dissuade the use of internet and social media in illicit drug trade.
- Further, Government of India has issued notification regarding the registration of B2B companies in order to prevent the online sale of narcotics and illicit drugs

Importance of the conference
- This conference would open new avenues and generate new solutions to combat the menace of drug trafficking in the region.
- Nations of the BIMSTEC are affected by the illicit drug trade, transnational crimes and terrorism can use this conference to devise coordinated strategies in ending the evil from its roots.
- Strengthen 'Neighbourhood First' and 'Act East' policies.
- Cooperation with neighboring countries is the need of the hour. Manipur and Mizoram shares border with Myanmar and many coastal states are also sensitive and may become a gateway for illicit drug trafficking.

WORLDWIDE EDUCATING FOR THE FUTURE INDEX (WEFFI) 2019 REPORT
Why in news?
- Worldwide Educating for the Future (WEFF) 2019 index and report were released by The Economist Intelligence Unit.
- The report and index were commissioned by the Yidan Prize Foundation.
- Countries are ranked based on their abilities to equip students with skill-based education. The rankings are based on three categories Policy environment, Teaching

environment, and Overall socio-economic environment.
- The report analyses education system from the perspective of skill-based education "in areas such as critical thinking, problem-solving, leadership, collaboration, creativity and entrepreneurship, as well as digital and technical skills."
- Finland has been ranked at the top of the index. It was followed by Sweden at second position and New Zealand at third position.
- India has been ranked 35th on the overall index in 2019 with a total score of 53. In 2018, it was ranked at 40th position. India's growth is attributed to the new national education policy introduced and published in 2019. The policy mentions future-oriented skills such as critical thinking, communication and entrepreneurship.
- The bottom three nations in the index were Kenya (48th), Nigeria (49th) and the Democratic Republic of Congo (50th).

Challenges
- Inability of the Indian education system to utilise the opportunity of internationalising the higher education system.
- India should be a preferred destination for higher education. Hence, under its "Study in India" programme, Ind-SAT is proposed to be held in Asian and African countries. It shall be used for benchmarking foreign candidates who receive scholarships for studying in Indian higher education centres
- Decentralised education system: Well-intentioned policy goals relating to future skills development often do not get filtered downward which is a problem in economies like the US and India.

A FUTURE FOR THE WORLD'S CHILDREN
Why in news?
- The report, A Future for the World's Children, was released by a Commission of WHO, UNICEF and The Lancet.
- Report assessed the capacity of 180 countries to ensure that their youngsters can survive and thrive.
- The report noted that under realistic assumptions about possible trajectories towards sustainable greenhouse gas emissions, models predict that global carbon emissions need to be reduce

39·7 giga- tonnes to 22·8 gigatonnes per year by 2030 to maintain even a 66 per cent chance of keeping global warming below 1·5°C.

- It said that the world's survival depended on children being able to flourish, but no country is doing enough to give them a sustainable future.
- Especially, they're under immediate threat from climate change and from commercial marketing, which has grown hugely in the last decade.

Sustainability index and flourishing ranking

- According to a UN-backed report, India ranked 77th on a sustainability index that takes into account per capita carbon emissions and 131st on a flourishing ranking that measures the best chance at survival and well-being for children.
- Norway leads the table for survival, health, education and nutrition rates - followed by South Korea and the Netherlands. Central African Republic, Chad and Somalia come at the bottom.
- However, when taking into account per capita CO_2 emissions, these top countries trail behind, with Norway 156th, the Republic of Korea 166th and the Netherlands 160th.
- Each of the three emits 210 per cent more CO_2 per capita than their 2030 target, the data shows, while the US, Australia, and Saudi Arabia are among the 10 worst emitters. The lowest emitters are Burundi, Chad and Somalia.
- According to the report, the only countries on track to beat CO_2 emission per capita targets by 2030, while also performing fairly - within the top 70 - on child flourishing measures are: Albania, Armenia, Grenada, Jordan, Moldova, Sri Lanka, Tunisia, Uruguay and Vietnam.

Impact of marketing on children

- The report also highlights the distinct threat posed to children from harmful marketing.
- Evidence suggests that children in some countries see as many as 30,000 advertisements on television alone in a single year, while youth exposure to vaping (e-cigarettes) advertisements increased by more than 250 per cent in the US over two years, reaching more than 24 million young people.
- Studies in Australia, Canada, Mexico, New Zealand and the US - among many others - have shown that self-regulation has not hampered commercial ability to advertise to children.
- Children's exposure to commercial marketing of junk food and sugary beverages is associated with purchase of unhealthy foods and overweight and obesity, linking predatory marketing to the alarming rise in childhood obesity, it said.
- The number of obese children and adolescents increased from 11 million in 1975 to 124 million in 2016 - an 11-fold increase, with dire individual and societal costs.

Suggestions

- To protect children, the authors call for a new global movement driven by and for children.
- Specific recommendations include stopping CO_2 emissions with the utmost urgency, to ensure children have a future on this planet; placing children and adolescents at the centre of global efforts to achieve sustainable development.
- New policies and investment in all sectors to work towards child health and rights; incorporating children's voices into policy decisions and tightening national regulation of harmful commercial marketing, supported by a new Optional Protocol to the UN Convention on the Rights of the Child.

US-INDIA
Why in news?

- Donald Trump, the President of USA and First Lady of the US Melania Trump, along with their daughter and son-in-law, visited India for a 36 hours official visit.
- Delhi and Washington held bilateral talks at Hyderabad House, New Delhi, where they had issued a joint statement during which they inked three MoUs, including mental health, safety of medical products and letter of cooperation between Indian Oil Corporation and Exxon. .
- They intended to upgrade their bilateral relationship to a Comprehensive Glo

Strategic Partnership (CGSP), which will include issues such as defence, security cooperation and revitalisation of the Indo-Pacific with quadrilateral dialogue.

Defence
- Under a defence deal of more than USD 3 billion, India will buy US military equipment including 24 MH-6OR Seahawk and AH-64E Apache helicopters.
- Both are looking forward to "early conclusion" of defence cooperation enabling agreements including Basic Exchange and Cooperation Agreement (BECA).
- The US reaffirmed support for India's entry into the Nuclear Suppliers Group "without any delay".

Trade
- The USA has proposed the Free Trade Agreement (FTA) between the two countries, which will include the restoration of benefits of low or zero duty to certain Indian exports under the Generalised System of Preferences (GSP) and market access for each other's agricultural products.
- The Trade Policy Forum will be set up as a joint study group to facilitate smooth framing of FTA.
- While no trade deal was signed, both had agreed to initiate negotiations for a bigger deal.

Infrastructure development
- Both "expressed interest in the concept of the Blue Dot Network, a multi-stakeholder initiative that will bring governments, the private sector, and civil society together to promote high-quality trusted standards for global infrastructure development".

Terrorism
- They added the Haqqani network and Tehrik-e-Taliban in Pakistan (TTP) to the list of terror groups against whom they "called for concerted action".
- Denouncing "any use of terrorist proxies" and strongly condemning cross-border terrorism in all its forms, they called on Pakistan to "ensure that no territory under its control is used to launch terrorist attacks, and to expeditiously bring to justice the perpetrators of such attacks, including 26/11 Mumbai and Pathankot".
- The two sides supported "an Afghan-led and Afghan-owned peace and reconciliation process that results in a sustainable peace; cessation of violence; elimination of terrorist safe havens; and preservation of the gains of the last 18 years".

Kashmir Issue
- The USA president reiterated its offer to mediate on the Kashmir issue during the visit.
- However, India stated that it is a bilateral matter between India and Pakistan and there is no scope for any third-party mediation.

Others
- Both have also agreed on a new mechanism to fight serious problems such as drug trafficking, narco-terrorism and organised crime.
- Besides the energy deal, the two sides signed three pacts in the areas of mental health, safety of medical products.
- Both have decided to come up with a comprehensive agreement on intellectual property rights (IPR).
- Both the countries discussed to develop and evolve the Indo-Pacific region collaboratively.
- U.S. and India stressed to revitalise the quadrilateral initiative consisting of Japan, the U.S., India and Australia.
- Both sides took note of the efforts of the ASEAN region to create a code of conduct in the South China Sea region.

DEVELOPING COUNTRY LIST
Why in news?
- The United States Trade Representative (USTR) removed India from its list of developing countries that are exempt from investigations into whether they harm American industry with unfairly subsidised exports.
- The new lists consist of 36 developing countries and 44 least developed countries.
- The USTR also eliminated Brazil, Indonesia, Hong Kong, South Africa and Argentina from getting special preferences under the methodology for countervailing duty (CVD) investigations, stating that the previo

guidance that dated back to 1998 "is now obsolete".

- The US removed India from the list on account of it being a G-20 member and having a share of 0.5% or more of world trade.
- The preferential treatment with respect to CVDs investigations falls under the US' Generalized System of Preferences (GSP) scheme.
- The move has cast a shadow on India being able to restore preferential benefits under the GSP as part of its trade talks with the US, as only developing countries are eligible for it.
- For purposes of US CVD law, the USTR therefore considers countries with a share of 0.5% or more of world trade to be developed countries. India's share in global exports was 1.67% in 2018. In global imports, it was 2.57%.
- Further, being a part of G20 India can be classified as a developed country despite having a per capita GNI below $12,375.

Impact on India

- India was, until February 10, on the developing country list and therefore eligible for these more relaxed standards. It has now been taken off of that list.
- India no longer in the list of developing countries allows the USA to hold a CVD investigation.
- The CVD laws allow the US to hold an investigation into the trade policies of other countries to determine whether they are harming the US trade.
- If the investigation finds that India's policies allow exporters to sell their products in the US at a lower rate the US can impose a countervailing duty, to make the Indian goods more expensive in the US markets.
- Despite having a minimal impact on India's overall outbound trade with the US, specific exports from India in a diverse set of sectors such as jewellery, leather, pharmaceuticals, chemicals and agricultural products may face higher costs and competition.

US-TALIBAN DEAL
Why in news?

- The US took a significant movement towards fulfilling that pledge when it signed a peace agreement that seeks to end America's longest-ever war.
- The US and Taliban signed the deal in Doha, which is slated to be the first step to usher in an era of peace, stability and progress in Afghanistan after a savage, devastating 40 years of civil war and foreign occupation.
- The deal was signed after a week-long partial truce ended across Afghanistan in which the Taliban, Afghan National Army and US-led international forces refrained from launching attacks against each other as a confidence-building gesture and also to show that the Taliban can rein in their forces.

Analysis

- The peace deal is expected to lay down a timetable for a gradual drawdown of American troops from Afghanistan in exchange for guarantees from the Taliban not to allow trans-national terrorist groups such as Al Qaeda to operate territory under their control.
- A complete withdrawal of US troops, however, will depend on how well the Taliban honour pledges to start talks with the government of President Ashraf Ghani — which they routinely dismissed as a US puppet — and seek a comprehensive intra-Afghan ceasefire and peace deal.
- It is a no-brainer that the exit of US troops from Afghanistan after the peace deal will be glorified by Washington as an incredible foreign policy accomplishment in an election year in the US. However, the deal hinges heavily on how the intra-Afghan talks progresses, a process in which the US has little control.

Pakistan intervention

- Under relentless American diplomatic and financial pressure following President Trump's Afghan strategy announcement in August 2017 and a "reset" in US-Pak relations following Secretary of States' visit to Islamabad in September 2019, Pakistan has delivered the Taliban to the negotiating table and ensured that the talks were

successful. Islamabad has taken all the credit for this achievement.
- Yet, how Pakistan will play its cards in a peace dialogue among the Taliban and the Kabul government will be crucial to determine its fate.

GENERAL STUDIES III (TECHNOLOGY, ECONOMIC DEVELOPMENT, BIO-DIVERSITY, ENVIRONMENT, SECURITY AND DISASTER MANAGEMENT)

REPO RATES UNCHANGED AT 5.15%
Why in news?
- RBI kept repo rates unchanged at 5.15% in its sixth bi-monthly meeting for FY20 held, after cutting it five times in a row by 135 basis points (bps).
- Repo rate is the rate at which RBI lends money to commercial banks and serves as a benchmark for most banks to decide their lending rates. A cut in repo rate is supposed to translate into lower lending rates, but rate transmission has been poor in the past.
- The Monetary Policy Committee (MPC) has decided to keep the policy repo rate unchanged at 5.15% and persevere with the accommodative stance as long as necessary to revive growth, while ensuring that inflation remains within the target.
- The RBI has decided to keep the interest rates unchanged in the wake of a rise in inflation.
- The outlook for the consumer price index-based inflation has been kept at 5.0-5.4% for the first half of 2020-21.
- It opened a window to extend ₹1 lakh crore to the commercial banks at the repo rate, 5.15%.
- Banks have been exempted from maintaining the Cash Reserve Ratio (CRR), which is 4% of the net demand and time liabilities now, for home, auto and MSME loans that are extended from January 31 to July 31, 2020.
- MPC projected a 5 per cent growth in 2019-20.

- The RBI's move to keep policy rate and monetary stance unchanged will help in controlling inflationary expectations and providing support to growth. The sharp rise in the inflation rate has constrained monetary policy rate cut.

Way Ahead
- If growth hasn't revived with a 135-basis point cut in the policy rate, and a tax stimulus amounting to 1.2 per cent of GDP, then the need of the hour is more structural reform.
- With inflation remaining at elevated levels, chances of another rate cut are bleak. The RBI is using unconventional methods like LTRO to bring down interest rates in a bid to boost demand and growth. Further measures are likely to be data dependent.

NATIONAL TECHNICAL TEXTILES MISSION
Why in news?
- The Cabinet Committee on Economic Affairs has given its approval to set up a National Technical Textiles Mission with a total outlay of Rs 1480 Crore, with a view to position the country as a global leader in Technical Textiles. The Mission would have a four year implementation period from FY 2020-21 to 2023-24.

About
- Technical Textiles are futuristic and nice segment of textiles, which are used for various applications ranging from agriculture, roads, railway tracks, sportswear, health on one end to bullet proof jacket, fire proof jackets, high altitude combat gear and space applications on other end of spectrum.

SOIL HEALTH CARDS FOR SUSTAINABLE AGRICULTURE
Why in news?
- Fifth year of the launch of Soil Health Card being observed across the country to create awareness about the benefits of the scheme, a study conducted by the National Productivity Council (NPC) says the application of Soil Health Card recommendations has led to a decline of 8-10% in use of chemical fertilizers and also raised productivity by 5-6%.

- Prime Minister had launched the Soil Health Card (SHC) Scheme on 19 February, 2015 at Suratgarh in Rajasthan.
- The scheme aims at issuing soil health cards to farmers every two years so as to provide a basis to address nutritional deficiencies in soil.
- The scheme ensures additional income to farmers by an increase in yields and it also promotes sustainable farming.
- This has enabled the farmers to understand the soil health parameters and improve its productivity by judicious application of soil nutrients.
- The scheme has been introduced to assist State Governments to issue Soil Health Cards to all farmers in the country.
- It provides information to farmers on the nutrient status of their soil along with recommendations on the appropriate dosage of nutrients to be applied for improving soil health and its fertility
- Under the SHC Phase-I (Years 2015 to 2017) 10.74 crore cards were distributed
- In the Phase II, 11.69 crore SHC have been distributed to farmers in the last two years.
- Ministry of Agriculture and Farmers Welfare issues the SHC.
- A pilot project, 'Development of Model Villages' is also being implemented by the Ministry of Agriculture and Farmers' Welfare in the financial year 2019-20.
- It is to be noted that, this project is different from the Saansad Adarsh Gram Yojana (SAGY) which was launched in October 2014 with the goal of developing the socio-economic and physical infrastructure of villages.

BIMSTEC DISASTER MANAGEMENT EXERCISE -2020
Why in news?
- The 2nd Bay of Bengal Initiative for Multi-Sectoral Technical and Economic Cooperation (BIMSTEC) Disaster Management Exercise was conducted between 11-13 February, 2020 in Bhubaneswar, Odisha.
- The focus of the 2nd edition of Exercise is on heritage structures' protection.
- The aim of the exercise is to test the existing emergency procedures for notification, preparedness and emergency response, during a major natural disaster.

- The countries namely India, Bangladesh, Myanmar, Sri Lanka, Myanmar and Nepal participated while the other two member countries Bhutan and Thailand did not participated in the exercise.
- Participants in the exercise also include other global institutions like United Nations Development Programme (UNDP), International Search and Rescue Advisory Group (INSARAG), International Centre for the Study of the Preservation and Restoration Cultural Property (ICCROM) etc.
- The first edition of the BIMSTEC DMEx was also hosted by India in 2017 with the focus on testing the region's preparedness and resilience towards effective activation of inter-Governmental interaction/dialogue/agreements for immediate deployment of regional resources for disaster response.

Features
- The exercise seeks to provide a platform for member states to evaluate existing capabilities, share best emergency response practices, improve emergency preparedness and strengthen regional response mechanisms, to conduct risk assessment in the context of cultural heritage sites at the time of disasters and to test the multi-stakeholders' coordination in a disaster scenario involving international, national, state, district and local agencies.
- The National Disaster Response Force (NDRF) is building the capacity of its forces to play the role of first responder at heritage sites, which are vulnerable to disasters such as earthquake, floods, cyclones and tsunami across India.
- In the backdrop of recent losses suffered in an earthquake in Nepal (2015), damages to Heritage Sites in Gujarat earthquake (2001), the need was felt to protect the Heritage Sites during disasters and build the capacity of NDRF personnel.

TECHNOLOGY GROUP
Why in news?
- The Union Cabinet has approved the constitution of an empowered "Technology Group"
- This newly constituted Technology Group will consist of 12 members with the Principal Scientific Adviser to Government of India as its Chair.
- **Role of this group**: This Group is mandated 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 R&D organisations; developing an indigenisation road map for selected key technologies; and selection of appropriate R&D programs leading to technology development.

Three pillars of the work of the Technology Group
- Policy Support
- Procurement Support
- Support on Research and Development proposals

Issues in the technology sector
The Constitution of Technology Group is an effort at addressing the following 5 problems in the technology sector:
- Silo-centric approaches to development of technology
- Technology standards either not developed or applied, leading to sub-optimal industrial development
- Dual use technologies not being optimally commercialised
- R&D programs not aligned to efforts at technology development
- Need for mapping of technologies important for applications in society and industry.

The Technology Group intends to ensure
- that India has appropriate policies and strategies for effective, secure and context-sensitive exploitation of the latest technologies for economic growth and sustainable development of Indian Industry, in all sectors;
- to advise the Government on priorities and strategies for research on emerging technologies across sectors;

- to maintain an updated map of technology and technology products available, and being developed, across India;
- to develop indigenization roadmap for selected key technologies;
- to advise the Government on its technology supplier and procurement strategy;
- to encourage all Ministries and Departments as well as State Governments to develop in-house expertise in policy and use aspects of emerging technologies such as data science and artificial intelligence, and to this end develop an approach to training and capacity building
- to formulate policies for sustainability of public sector technology at PSUs/Labs while encouraging cross-sector collaborations and research alliances with Universities and Private Companies; and
- to formulate standards and common vocabulary to apply in vetting of proposals for R&D.

GENOME INDIA PROJECT (GIP)
Why in news?
- The Department of Biotechnology under the Ministry of Science and Technology has cleared Rs 238-crore Genome India Project (GIP).
- Its aim is to ultimately build a grid of the Indian "reference genome", to fully understand the type and nature of diseases and traits that comprise the diverse Indian population.
- GIP is inspired by the Human Genome Project (HGP 1990-2003), an international programme that led to the decoding of the entire human genome.
- This ambitious gene-mapping project will involve 20 leading institutions including the Indian Institute of Science (IISc) in Bengaluru and a few IITs.
- The IISc's Centre for Brain Research, an autonomous institute, will serve as the nodal point of the project.
- The institutions involved will work on different aspects of the project, including providing clinical samples and assisting with research. Some IITs will help with new methods of computation, which are essential referring to new schemes in the Budget.
- The mega project hopes to form a grid after collecting 10,000 samples in the first

from across India, to arrive at a representative Indian genome.

Significance

- GIP provides an opportunity for India to make leap and bounds progress in the fields of biotechnology, agriculture and healthcare.
- This project has been described as the "first scratching of the surface of the vast genetic diversity of India".
- 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.
- Mapping the diversity of India's genetic pool will lay the bedrock of personalised medicine and put it on the global map.
- It will enable new efficiencies in healthcare, medicine and life sciences.
- GIP will help in the development of personalised medicine, anticipating diseases and modulating treatment according to the genome of patients.
- Better understanding of the genetic basis of the susceptibility of plants to pests, insects and other issues hampering productivity can reduce dependence on chemicals in agriculture.
- Global science would also benefit from a mapping project in one of the world's most diverse gene pools.

Challenges

- GIP raises concerns pertaining to medical ethics, political misuse, etc.
- It poses a risk of doctors privately performing gene modification as it aims only to create a database of genetic information.
- Launching the GIP before the passing of Data Privacy Bill could give rise to another set of problems, as the anonymity of the data and questions of its possible use and misuse would need to be addressed.
- The question of heredity and racial purity has obsessed civilisations, and more scientific studies of genes and classifying them could reinforce stereotypes and allow for politics and history to acquire a racial twist.
- In India, a nation divided by identity politics, scientific work in mapping genetic groups may further strengthen the divisions in the

society based on the prevalent notion of race. Studies of genes and classifying them could reinforce stereotypes and allow for politics and history to acquire a racial twist. In India a lot of politics is now on the lines of who are "indigenous" people and who are not.

HACKING ALLEGATIONS ON CHINA
Why in news?

- US had accused four members of the Chinese military for allegedly breaking into the computer networks of the Equifax credit reporting agency and stealing the personal information of tens of millions of people but China has denied involvement in any hacking activities on the next day.
- US accused China of engineering one of the biggest hacks in history targeting consumer data of some 145 million Americans.
- The Equifax episode marks the US's latest clash with China over the country's alleged hacking of American targets. Chinese hackers have also been accused of infiltrating computer networks of steel manufacturers, a health insurer, a hotel chain and the US Office of Personnel Management.
- US has also warned world leaders to keep Chinese telecom giant Huawei out of their 5G cellular networks over concerns that the company's gear could aid Beijing's spying efforts, which Huawei has denied.
- But China defended itself by saying that it is committed to "firmly oppose and combat cyberattacks of any kind," adding that it is a staunch defender of cybersecurity and its institutions "never engage in cybertheft of trade secrets."
- In fact, China turned the accusation back on the U.S., saying past events had shown USA is "engaging in large-scale, organised and indiscriminate cyberstealing, spying and surveillance activities on foreign governments, enterprises and individuals."

Issues Concern

- The intrusion damaged the company's reputation and underscored China's increasingly aggressive and sophisticated intelligence-gathering methods.
- Companies have a lot of data and information on their systems. A cybe

may lead to loss of competitive information (such as patents or original work), loss of employees/customers private data resulting into complete loss of public trust on the integrity of the Equifax.

- This theft not only caused significant financial damage to Equifax, but invaded the privacy of many millions of Americans, and imposed substantial costs and burdens on them as they have had to take measures to protect against identity theft.
- Unauthorized access to the data can lead to serious threats on a country also.

MEDICAL DATA LEAKED

Why in news?

- According to a recent report published by Greenbone Sustainable Resilience, a German cyber security firm, medical details of over 120 million Indian patients have been leaked and made freely available on the Internet.
- The report also places Maharashtra at the top of the States affected by the leak, followed by Karnataka, West Bengal, Telangana, and Gujarat.
- The first report was published in October 2019, in which Greenbone revealed a widespread data leak of a massive number of records, including images of CT scans, X-rays, MRIs and even pictures of the patients.
- 60 days after the first report was put out, the number of data troves bearing the patients' information went up from 6,27,000 to 1.01 million, and that the images of patients' details rose from 105 million to 121 million.
- Greenbone's original report says the leak was facilitated by the fact that the Picture Archiving and Communications Systems (PACS) servers, where these details are stored, are not secure and linked to the public Internet without any protection, making them easily accessible to malicious elements.
- The follow-up report, which was published in November 2019, classified countries in the "good", "bad" and "ugly" categories based on the action taken by their governments after the first report was

made public. India ranks second in the "ugly" category, after the U.S.

Issue of concern

- The leak is worrying because the affected patients can include anyone from the common working man to politicians and celebrities. In image-driven fields like politics or entertainment, knowledge about certain ailments faced by people from these fields could deal a huge blow to their image.
- The other concern is of fake identities being created using the details, which can be misused in any possible number of ways.

SyRI

Why in news?

- In a first anywhere in the world, a court in the Netherlands stopped a digital identification scheme called SyRI (System Risk Indicator) due to data privacy and human rights concerns.
- SyRI was developed by the Dutch Ministry of Social Affairs to weed out those who are most likely to commit fraud and receive government benefits.
- It allowed government agencies to share 17 categories of data about welfare recipients such as taxes, land registries, employment records, and vehicle registrations with a private company, called "The Intelligence Agency".
- This company used an algorithm to analyse data for four cities and calculates risk scores.
- The selective rollout was conducted in low-income and immigrant neighbourhoods, which have a higher number of beneficiaries.
- Elevated risk scores were sent to relevant government arms, which stores these on government databases for a maximum of two years. The government, in that time period, could open an investigation on the targeted person.

Recent judgments by courts

- The Netherlands court held that SyRI was invasive and violative of the privacy guarantees given by European Human Rights Law as well as the EU's General Data Protection Regulation.
- It called it a case of 'Algorithmic Governance'. As the algorithm would link socio-economic parameters like poverty and immigrant statuses with fraud risk.
- Such opaque algorithmic decision-making may put citizens at a disadvantage to challenge the resulting risk scores, consequently threatening democratic features of the country.
- It also ruled that SyRI was violative of principles of transparency and data minimisation. It also held that SyRI was too invasive and violative of the privacy guarantees given by European Human Rights Law as well as the EU's General Data Protection Regulation.
- While the Hague district court found that using this new technology to control fraud was acceptable.

Government's defence

- The Dutch government defended the programme in court and claimed that the new technology prevented abuse and acted as only a starting point for further investigation instead of a final determination.
- The Dutch Ministry of Social Affairs has released a statement stating it will study the ruling, not declaring a complete removal of their system.

Worldwide Implications

- Digital ID systems are being rolled out at a fast pace in places like Kenya, Philippines, Nigeria, Mexico, and more.
- In India, similarly, Supreme Court's Aadhaar judgment set limits on the ID's usage, The Hague Court attempted to balance social interest with personal privacy. However, the Aadhaar judgment was not regarding algorithmic decision-making; it was about data collection.
- India's proposed Personal Data Protection Bill (2019) also contains many loopholes that could be potentially exploited like the USA.

Socio-Economic Issues

SKILL DEVELOPMENT AND HEALTHCARE

- India embarked on its health reform journey a decade ago. A need to address the ever-growing disease burden for a geographically and economically diverse population was recognised in the eleventh and twelfth Five Year Plan.
- The current healthcare profile still showcases signs of significant gaps and deficiencies in skill development, availability of resources, safety concerns of medical staff, and infrastructure.
- Skill Development can be defined as proficiency that is acquired or developed through training or experience. Skill building could also be seen as an instrument to empower the individual and improve his/her social acceptance or value.

Statics

- As per Labour Bureau Report, 2014, the current size of India's formally skilled workforce is only 2 percent.
- In a report released by NSDC in the year 2015, the health workforce requirements for India were estimated to be around 7.4 million by the year 2022.
- Recently, the National Health Profile 2018 of India reported availability of 5.8 million health workers as on March 31, 2017. This meant a combined density of doctors, nurses, midwives in India is around 30/10,000 people, which is far below the threshold of 44/10,000 required to achieve Sustainable Development.
- The NHP 2017 has recognized the challenges of shortage and inequitable distribution of health workforce, and proposed increasing the availability and augmentation of skilled health human resource as one of the key strategies to advance UHC in the country.
- NITI Aayog's 2018-2022 Strategic Plan for New India@75 has aimed at generation of 1.5 million jobs in the public health sector by 2022-23.

Economics behind Skill Development in Healthcare

- It has been estimated that for every dollar (or Rupee) invested on health, it gives 9 to 10 times economic return.
- India's public health expenditure was 1.2 per cent of the GDP in 2016-17. Therefore, the commitment of increasing government investment for health to 2.5 per cent of the GDP by the year 2025 (NHP 2017), can contribute to a better economic growth.
- The United Nations High-Level Commission on Health Employment and Economic Growth (ComHEEG) highlighted that investment in the health workforce can have a significant paybacks across multiple Sustainable Development Goals, including
  - SDG1 (poverty elimination),
  - SDG3 (good health and well-being),
  - SDG4 (quality education),
  - SDG5 (gender equality)
  - SDG8 (decent work and economic growth)

The return on the investment on health sector skill development is clearly high and desirable. Considering the existing shortage of health workforce and need for skilling, re-skilling and up skilling, urgent mechanisms need to be established by increasing funding to improve availability of skilled health workforce in India.

Measures required

- Online learning system could be utilised to impart skills along with using fixed infrastructure.
- Skills on Wheel type initiatives could be used to address healthcare constraints.
- Establishing a Skill Development University to offer specialized degree programs which will provide advance skills.
- Providing lateral mobility by giving equivalence to vocational students especially at +2 level so they can pursue graduate programs.
- Creating standard curricula and assessment across various agencies offering vocational courses.
- Formal training programs for vocational faculty and trainers so that they understand this pedagogy.

Healthcare Sector Skill Council

- Skill Development in various forms (skilling, re-skilling and up-skilling) is key for any sector, and more so for service predominant sectors such as health.

- The Healthcare Sector Skill Council (HSSC), has been set up as not-for-profit, non-statutory certifying organization under the Ministry of Skill development and Entrepreneurship.
- India has intensified its efforts to increase access to health services through the Ayushman Bharat Programmes with two components: Health and Wellness Centres (HWCs) and Pradhan Mantri Jan Arogya yojana (PM-JAY).
- In the roll out of HWCs, new Mid-level Health Providers (MLHP) & community Health Officers (CHOs) would be required. Thus, 'skill' becomes the key to the success of the programme.

Jobless Youth: 33% of India's skilled youth jobless

- As per the Periodic Labour Force Survey (PLFS) 2017-18, only a small section of the youth reported receiving any vocational training, and a large share of them were either unemployed or out of the labour force.
- Nationally, only 1.8% of the population reported receiving formal vocational/technical training in 2017-18.
- 5.6% reported receiving informal vocational training (such as hereditary, self-learning, and on the job training).
- This means 93% of the population did not receive any vocational/technical training from either formal or informal sources.
- The youth (15-29 years) comprised more than half of the people who received formal vocational/technical training.
- About 42% of the youth (15-29 years) who received formal technical training were not part of the labour force at all (i.e., they were not working or seeking employment opportunities, they reported).
- Among youth who did not receive such training, 62.3% were out of the labour force.

DR.K.SIVAN (CHAIRMAN ISRO, SECRETARY DOS)

- Kailasavadivoo Sivan is an Indian space scientist and the chairperson of the Indian Space Research Organization.
- He has previously served as the Director of the Vikram Sarabhai Space Center and the Liquid Propulsion Systems Centre.

Satellite Instructional Television Experiment (SITE)

- SITE was an experimental satellite communications project launched in India in 1975, designed jointly by NASA and the ISRO.
- The project made available informational television programs to rural India.
- During SITE, TV programmes on subjects such as health, hygiene, family planning and agriculture were beamed through satellite (stationed in 36,000 km high geostationary orbit).

EDUSAT Programme

- GSAT-3, also known as EDUSAT, a communications satellite which was launched in 2004 by the Indian Space Research Organisation.
- EDUSAT is the first Indian satellite built exclusively to serve the educational sector.
- It is mainly intended to meet the demand for an interactive satellite-based distance education system for the country.

DHRUV

- DHRUV, the Pradhan Mantri Innovative Learning Programme, was started to identify and encourage talented children to enrich their skills and knowledge.
- Gifted children will be mentored and nurtured by renowned experts in different areas in centres of excellence across the country, so that they can reach their full potential.
- With children drawn from all over the country, the DHRUV programme reflects the true spirit of Ek Bharat Shrestha Bharat.

Young Scientist Programme (Yuvika) 2020

- ISRO has launched a special programme for School Children called "Young Scientist Programme" "YUva VIgyani KAryakram" from the year 2019.
- The second session of the programme is scheduled to be held during the month of May 2020.
- The Program is primarily aimed at imparting basic knowledge on Space Technology, Space Science and Space Applications to the younger ones with the intent of arousing their interest in the emerging areas of Space activities.
- The program is thus aimed at creating awareness amongst the youngsters who are the future building blocks of our Nation. ISRO has chalked out this programme to "Catch them young".

Samwad with Students

- It was launched by ISRO as part of its enhanced outreach programme. The interaction of scientists with students goes a long way in awakening the curiosity and creativity lying inside the student community.
- Through the SwS initiative, ISRO aims to constantly engage youngsters across India to capture their scientific temperament. The new conversation mission will inspire students cutting across schools and colleges.

THE ECONOMIES OF WATER AND SANITATION

What?

- Since 2014, the Swacch Bharat Mission (SBM) has swept the nation and is regarded today as the largest behavioural change programme in the world.
- The Finance ministry further aligned itself with a goal of Open Defecation free India.
- In a recent meeting in Adis Ababa called "Scaling up sanitation", the nation of Ethiopia, Senegal, Nigeria all marveled at India's astronomical gains in sanitation through SBM.
- The Major bottleneck these countries faced in improving sanitation was the inability of their finance ministries to invest heavily in it.
- In India, a majority of these funds have gone towards incentivising crores of poor and marginalised households to create toilets and also for behavioural change.
- Toilet Board Coalition has estimated that sanitation and services market in India will be worth $60 Billion by 2021, creating jobs and reducing health and environmental costs.
- The SBM has generated growth for many businesses in the Toilet Hardware and accessories.
- Thus it can be stated that investment in sanitation carries a huge advantage for advancement in job creation, healthcare, economic and social gains.

Facts and Data

- Over 10 Crore toilets have been built in Rural India.
- Nearly 55 crore people have stopped defecating in the Open
- It has contributed in bringing the overall Open defecating population by half
- UNICEF has estimated that in India, investment in sanitation brings a return of 400%.
- UNICEF's study also concluded that SMB has created over 75 lakh full-time equivalent jobs.

The Next Steps

- Commemorating the ODF declaration of all states on 2nd October 2019, PM has stated that it is a milestone and not the finish line, and that we must all ensure that people continue to use toilets and that no one is left behind.
- In Budget 2020-21, The FM has announced a 10,000 crore package to rural sanitation and ODF sustainability, bio-degradable waste management, greywater management, plastic waste management in rural areas till 2024.
- The next critical basic step in sanitation in piped water, thus the PM announced the Jal Jeevan Mission with the aim of ensuring piped water supply to all homes by 2024.
- Further, the biggest impetus is the earmarking of 50% of the 90,000 crore allocation by the 15th finance commission to rural local bodies.

INDIA'S QUEST FOR UNIVERSAL HEALTH COVERAGE
What?
In his speech at the UN Universal health Coverage, PM Modi spoke of a new vision for health.

- This new vision for health in India is upon 4 pillars:
  1. Providing affordable healthcare,
  2. Improving the supply of quality health services
  3. Effectively implementing government schemes in mission mode
  4. Preventive health.

- Under the first pillar special emphasis is to be given to immunisation, Ayurveda, yoga

and fitness. It also seeks to ensure vaccine access to rural and remote areas.

- Under the 2nd pillar of affordable healthcare, The Ayushman Bharat scheme has sought to provide health assurance with a cover of 5 Lakh for cashless secondary and tertiary care. In addition to it, 5000 special pharmacies have been set up to provide critical drugs to be given at affordable prices.
- The 3rd pillar focusses on infrastructure development and providing quality medical education. National Medical commission act will help establish a new system of regulating and certification of medical education. It will also reduce the burden of multiple exams on students, bringing down costs of education, simplifying procedures and enhancing a number of seats in medical colleges.
- The 4th pillar ensures the effective implementation of various government schemes, focussing on maternal, neo-natal, reproductive and child health.
- The Government has launched the National Nutrition Mission and Poshan Abhiyan to tackle issues of Anemia and malnutrition in children and Women.
- Also, as a signatory India has vowed action to ensure elimination of Tuberculosis by 2025 and single-use plastic by 2022.

Actions taken by the Government
1. Banning of e-Cigarettes.
2. Swacch Bharat Mission
3. Ayushman Bharat Mission
4. Pradhan Mantri Jan Arogya
5. Health and Wellness centres

Budget's strong will
- There has been an increase in budgetary allocation to healthcare from 62,000 last year to 69,000 for 2020-21.
- India is also one of the youngest countries with 15-65 being the largest age group.
- The Allocation has also strengthened many of the schemes like Universal immunisation programme which has been extended to 12 diseases, including 5 new vaccines.
- There has also been the impetus to deal with Non-Communicable diseases by launching Fit India movement.

- Swacch Bharat and Jal Jeevan have further been strengthened to provide holistic healthcare to all and for all major diseases.
- Under PM Jan Arogya Yojana, more than 20,000 hospitals were empanelled.
- 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.

Challenges and Opportunities

- Awareness and uptake of the schemes by the population has to be increased.
- There is need to empanel more public hospitals.
- The coverage must extend to all vulnerable groups in the country.
- The Fraud and abuse control machinery needs to be further bolstered to avoid any kind of malpractice.

AN ANALYSIS OF EDUCATION SECTOR BUDGET

- The Indian Education sector has been seeing multiple changes, there has been strengthening of schemes like Samagra Sikhsha and on the other hand, there is also focus on quality higher learning through amendments related to IIT, School of Architecture, Central Universities and higher learning.
- This Budget has allocated 99,300 crore for education sector and Rs. 3000 crore for skill development.
- Out of which Rs. 59,845 Crore has been earmarked for School education and the remaining Rs.39,466 crore for higher education.
- The current allocation reflects an increase of 5% from last year. In the last 5 years, the allocation has increased by 44% in 2015.
- 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. Such an initiative will also help us achieve global standards in education and also increase the Gross enrollment rate.

- 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.
- To correct the imbalance due to brain drain, Ind-SAT proposed for Asian and African countries as a part of Study in India program.
- There has also been a salary hike for teachers from the previous allocated Rs.1800 crore in FY20 to Rs.1,900 in FY21.
- There is a focus on teachers training through institutions like National Institute of Open Learning. The government is also striving to revamp the DISHA Portal to ensure teacher training

ACCELERATING HOLISTIC DEVELOPMENT OF THE NORTH-EAST

- Union Budget 2020-21 calls for radical changes initiated in the region.
- With a population of 45 million, 2/3rd of the region is dependent upon agriculture.
- There is also around 13.9 million under the poverty line.
- Budget has proposed to develop 5 archaeological sites in the North and North-East
- The National Gas-Grid is proposed to be expanded from 16,200 KM to 27,000 KM for which allocation of Rs.5559 Crore has been initiated by the cabinet.
- The FM has also proposed the extension of various schemes to the area in line with "Sabka Saath, Sabka Vikas"

THE INDUSTRY PERSPECTIVE

- According to the 16-point agenda for the agricultural sector, viability gap funding for public-private partnership hospitals, and the new education policy is likely to facilitate job creation and skill development
- The government has recognised the contribution of startups to the economy via tax breaks on ESOPs for 5 years, tax rationalisation for startups with 100 crore turnover.
- Measures have been brought for improving the Ease of Doing business like the NIRVIK scheme, removal of dividend distribution tax and simplification of GST regime.
- NBFC's have been enabled to extent invoice financing to MSME's through Trade receivables discounting scheme.
- The extension of Government e-Marketplace as a unified procurement channel will bring more vendors to the platform.
- Smaller NBFC's have now been allowed to approach the Debt recovery tribunals will be beneficial in lowering the NPA issue.
- The key taxation proposals like reduction of individual income tax rates, abolition of dividend distribution tax, tax exemptions on dividends, extension of tax concessions to power generation companies and relaxing tax compliances for MSME's will be very beneficial for boosting the economy.
- The budget has given the themes of aspiration, economic development and caring society.
  - **Aspirational India-** It seeks to improve access to all for living a life with higher standards. Access to water, wellness, sanitation. Rs.2.83 lakh crore has been allocated with 16 action points like Blue-economy, KUSUM, zero budget natural farming and others.
  - **Economic Development-** National Technical textiles mission to be set up with 4 year implementation period till 2024. Early life funding and seed funding proposed for startups.
  - **Caring Society-** 2500 crore allocated for the tourism sector. Five archaeological sites to be developed like Rakhigarhi,

Hastinapur, Shiv Sagar, Dholavira and Adichannalur.
  - Simplified processes for faster claim settlements will be beneficial for both exporters and general insurers.

Some latest Trends

- Budget receipts are expected to increase by 16.3%
- Nominal GDP growth rate of 10%
- Revenue Deficit at 2.7% is estimated to be higher than the target of 2.4%
- Government spending is 12.7% higher than the last budget.

ACTION PLAN FOR PROSPERITY OF FARMERS

- The finance minister in her budget speech presented plans related to agriculture, irrigation and rural development.
- Recently the government enacted a number of reformative acts like the Model Land leasing act, the Model agricultural marketing and livestock contract farming act.
- She also proposed comprehensive measures for 100 water-scarce districts so that water does not limit the productivity of crops.
- A dedicated micro-irrigation fund for increasing the coverage area under "Har Khet ko Pani" has been proposed.
- During 2018-19, the government paid Rs.73,000 Crore in subsidy for different types of chemical fertilizers and city compost.
- KUSUM has been proposed to be extended to over 20 lakh farmers, the scheme will further help 15 lakh, other farmers, to solarise their pumps. The FM also announced a scheme to help farmers set up pumps in their barren lands.
- India has an estimated capacity of 162 million tones of agri-warehousing, cold storage, reefer van facilities, etc. Now the NABARD will undertake an exercise to geo-tag them.
- Further expansion of warehousing facilities by roping in with Food Corporation of India has been proposed.
- Viability gap funding for the creation of such warehouses has also been proposed.
- In the budget 2020-21, the government has also announce the building of a sean

national cold supply chain for perishables by collaborating with Indian Railways.

- A dedicated Kisan Rail will be launched and refrigerated coaches will be added to freight and express trains.
- Ministry of Civil Aviation will launch Krishi Udaan to help improve value realisation in northeast and other remote areas.
- To expand marketing of organic agri-produce, government has proposed the strengthening of Javikkheti portal which is an online organic portal.
- Fish production has been proposed to be raised to 200 lakh tonnes from the current 140 lakh tonnes.
- The government also hopes to raise fishery exports to 1 lakh crore by 2024-25.
- There has also been a proposal to increase artificial insemination for livestock by 30%.
- NABARD refinance scheme will be expanded to cover all beneficiaries of the PM KISAN scheme.

Credits and Allocation
- Rs.6000 crore to be integrated with e-NAM
- Agriculture credit target has been set to 15 lakh crore from last years's 13 lakh crore
- Rs.1.23 lakh crore has been allocated to activities under rural development and Panchayati Raj.

GENDER BUDGETING AND SENIOR CITIZENS
- It is said that there can be no prosperity without gender equality and women empowerment and welfare of senior citizens.
- Since the last 3 decades, women empowerment and gender equality has been in the forefront of government initiatives.
- The goal of an inclusive development is to achieve an inclusive society which is able to accommodate all types of differences.
- Empowerment will be achieved only when women perceive gender empowerment as a meaningful goal worth striving for.
- Empowerment is multi-faceted and a process through which women gain greater control and share in the resources.
- Categorising Women and Children under the theme of "Caring India", the FM announced a Rs.35,600 crore for nutrition-related programmes.

- She also said that 6 lakh anganwadis were equipped with smartphones which upload the nutritional status of over 10 crore households.
- Gross enrollment ratio for women at all levels is now higher than boys. At elementary it is 94.32% compared to 89.29% for boys and secondary level at 81% compared to 78% in boys. At higher secondary level, girls achieved 59.70% compared to 57.54% in boys.
- The budget allocated Rs.30,007 crore to the women and child development and increase of Rs.3000 crore from last year.
- The budget for Poshan Abhiyan has also been increased from 3400 crore to 3700 crore.
- The allocation for one-stop centres has also been increased from 204 crore in 2019 to 385 crore in 2020.
- The allocation of PM Matru Vandana Yojana has been increased to 2500 crore from 2300 crore.

Senior Citizens
- A 9,500 crore package has been proposed for senior citizens and divyangans
- For super senior citizens above 80 years age, income up to 5 lakh has been exempted.

ARTIFICIAL INTELLIGENCE: CHALLENGES AND OPPORTUNITIES FOR INDIA
Artificial intelligence (AI), sometimes called machine intelligence, refers to the simulation of human intelligence in machines that are programmed to think like humans and mimic their actions.

- The AI has the ability to overcome some of the computationally intensive, intellectual and perhaps creative limitations of humans.
- Therefore, it opens up new application domains within manufacturing, law, medicine, healthcare, education, government, agriculture, marketing, sales, finance, operations and supply chain management, public service delivery and cyber security.

OPPORTUNITIES AND APPLICATIONS

Education Sector
- It can automate the expedition of administrative duties for teachers and academic institutions.
- AI can be deployed to improve teacher effectiveness and student engagement by offering capabilities such as intelligent game-based learning environments, tutoring systems and intelligent narrative technologies.
- India has about 50% less teachers per thousand students when compared with developed countries (India 2.4/thousand vs. UK 6.3/thousand). In this scenario, AI can help in providing education in remote areas.

Health
- Artificial intelligence (AI) is being used or trialed for a variety of healthcare and research purposes, including detection of disease, management of chronic conditions, delivery of health services, and drug discovery.
- India has 0.8 per thousand doctor-to-patient ratio (UK – 2.8, Australia – 5, China – Approx. 4).
- In India, doctors spend just 2 minutes per patient, whereas in the US it is close to 20 minutes.

Agriculture
- It helps the farmers to understand the data insights such as temperature, precipitation, wind speed, and solar radiation.
- AI is being used in applications such as automated machine adjustments for weather forecasting and disease or pest identification.
- The per hectare cereal productivity in India is almost half that of China and UK (3000 kg/ha vs. over 6000 kg/ha). There is significant loss of productivity due to pests and diseases.

Using AI to help achieve Sustainable Development Goals
- AI can support the achievement of all the UN Sustainable Development Goals. Further, AI is expected to affect global productivity, equality and inclusion, environmental outcomes and several other areas, both in the short and long term.
- It can also help achieve the "Zero Poverty and Zero Hunger" (SDG 2) by assisting in resource allocation for predicting adverse environmental conditions, diagnose crop diseases and identify pests in timely manner to mitigate the risk of catastrophic agricultural events.
- AI based systems can be used to predict energy and utility demand to help in achieving SDGs such as "Clean water, sanitation" and "Affordable clean energy".

Key Public Policy Challenges of AI
- Ethics
  There are two dimensions of ethics in AI: Privacy & Data Protection, and Human and Environmental Values
- Audit and Transparency
  The technology providers must explain the decision-making process to the user so that the AI system doesn't remain a black box. These AI systems must provide an audit trail of decisions made not only to meet the legal needs but also for us to learn and make improvements over past decisions.
- Legal issues and Accountability
  Once machines are equipped with AI and take autonomous decisions, the question of accountability becomes very hard to answer, more so when the algorithms are unknown to the designer.
- Digital Divide and Data Deficit
  Since the entire AI revolution has data at its foundation, there is a real danger of societies being left behind. Countries and governments having good quality granular data are likely to derive maximum benefit.

Potential
- India has 1.18 billion mobile phone users with 600 million internet users and 374 million smartphone users.
- It has one of the cheapest data rates in the world ($0.24/GB) and an average data speed of 6 MBPS.
- These factors open up huge potential for adoption of AI technology in India.

Challenges

- Lack of explainability
- Lack of contextual awareness and inability to learn
- Job Losses
- Lack of Standardisation
- Challenges on how to ensure AI and human work together successfully
- Lack of trusts
- Lack of competency
- Need for re-skilling and up-skilling workers

EDUCATION AND TECHNOLOGY FOR THE BLIND

Towards the fag end of the 19th century, many efforts were taken for educating common blind. Miss Annie Sharp, an Anglican was instrumental in launching a facility in Amritsar for the blind in the year 1887.

A Chronology of Educational Services for Blind

- 1887 – A facility for the blind was launched in Amritsar
- 1944 – Lt. Col. Sir Clutha Mackenzie played a major role in writing the GoI report on blindness.
- 1947 – A unit for visually impaired was established in the Ministry of Education
- 1951 – India adopted the uniform Braille codes for various Indian languages
- 1952 – First ever Braille printing plant of India was established in Dehradun
- 1954 – Braille appliances manufacturing unit was set up
- 1959 – Govt. set up its first school for blind children in Dehradun
- 1960 – Four regional centers for teachers of blind were set up
- 1974 – India launched the Integrated Education for Disabled Children (IEDC)
- 1981 – Observance of International Year Od Disabled Person
- 1983-92 – The UN Decade for the Disabled
- 2016 – Rights of Persons with Disabilities Act enacted

Education

With holistic schemes like 'Samagra Shiksha' providing education to children with special needs, India has witnessed a sea change in inclusive education. However, the country has to go a long way to achieve parity between the visually impaired and sighted children in the area of quality education.
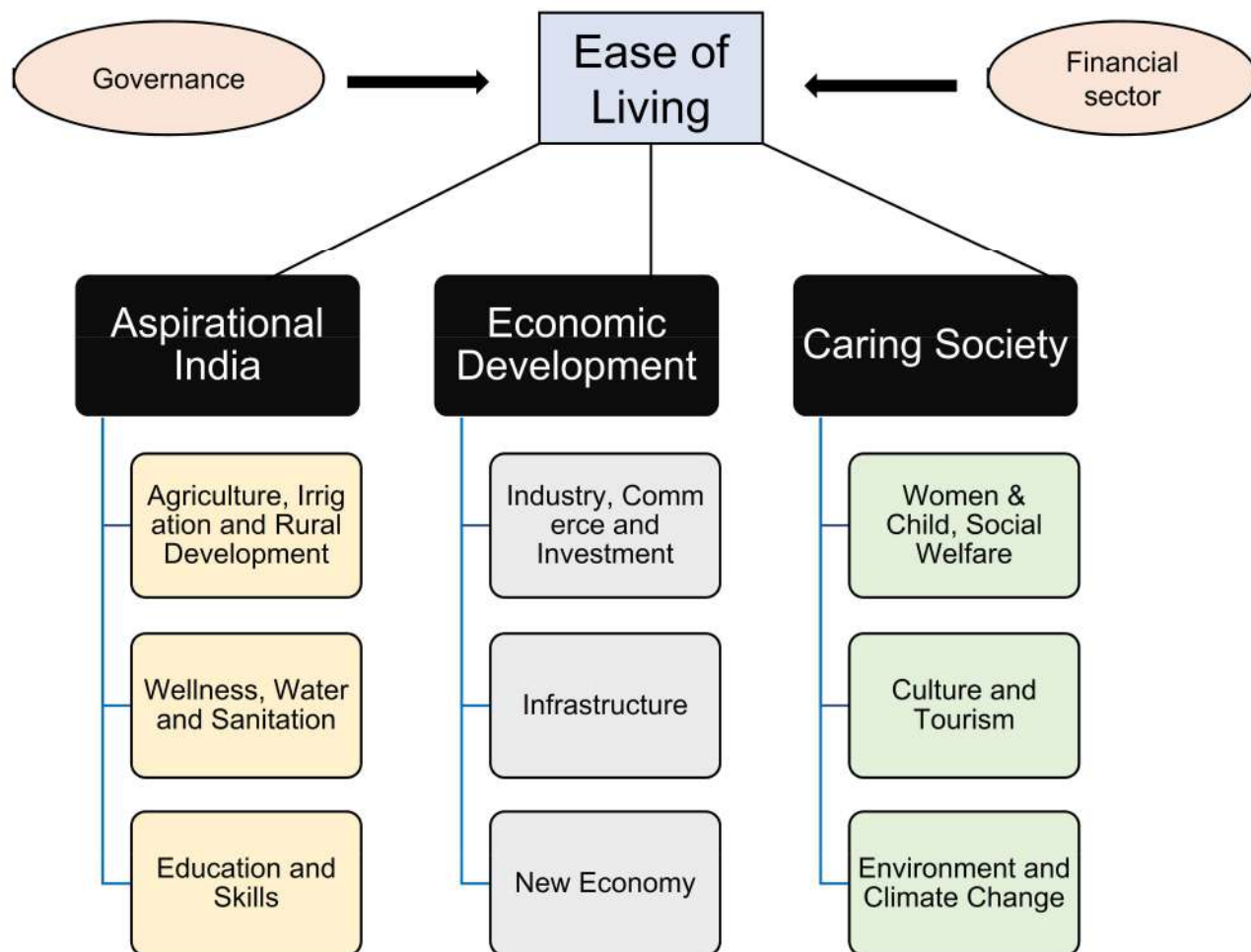
- The Right of Children to Free and Compulsory Education (RTE) Act, 2009, entitles every child of age 6 to 14 years to a right to free and compulsory education in a neighbourhood school till completion of elementary education.
- Section 12(1)(c) of RTE Act provides that all specified category schools and unaided schools shall admit at least 25% children belonging to weaker section.
- The 'Padhe Bharat Badhe Bharat' is a sub-programme of erstwhile Sarva Siksha Abhiyan (SSA) which is continued under the new integrated scheme Samagra Siksha to ensure quality at the foundational years of schooling.
- The Navodaya Vidyalaya Scheme provides for opening of one JNV in each district of the country to bring out the best rural talent.
- The Draft National Education Policy 2019 is presently under consideration. The revision of curriculum, syllabi and textbooks for school education would depend on the finalization and approval of the New Education Policy.
- Department of Higher Education of the Ministry has released a five-year vision plan named
  Education Quality Upgradation and Inclusive Programme (EQUIP).
- SWAYAM 2.0, Deeksharambh and PARAMARSH are some of the major schemes of this department.

Key Indian Educational Reforms and Initiatives

- India's educational system broadly comprises school education (elementary, secondary and higher secondary), higher education (general and professional) and vocational education.
- The Ministry of Human Resource Development (MHRD) is the nodal ministry for the sector. The other bodies involved in regulating and maintaining standards in the sector include NCERT, UGC, AICTE, NCTE and SCERT.
- The Pradhan Mantri Innovative Learning Program (DHRUV) was launched to identify and encourage talented children to enrich their skills and knowledge.

- A National Mission to improve learning outcomes at the elementary level through an Integrated Teacher Training Programme called NISHTHA – National Initiative for School Heads' and Teachers' Holistic Advancement was launched.
- To ensure quality, credibility and timely availability of information from all the schools in the country, the revamped UDISE+ has been launched.
- One of World's largest Integrated Online Junction for – School Education 'Shagun' is an overarching initiative to improve school education system by creating a junction for all online portals and websites relating to various activities of the Department of School Education and Literacy.
- Operation Digital Board aim is to provide by March 2023, two smart classrooms for every Secondary/Senior Secondary schools.
- Digital Infrastructure for Knowledge Sharing (DIKSHA) 2.0 was launched in 2017 for providing digital platform to teachers giving them an opportunity to learn and train themselves and connect with teacher community.
- Five-year vision plan 'Education Quality Upgradation and Inclusion Programme' (EQUIP) aiming at ushering transformation in India's higher education system by implementing strategic interventions in the sector over five years (2019-24).
- SWAYAM 2.0 is initiated with enhanced features and facilities to offer online degree programmes through SWAYAM by top ranking universities.
- Ten institutions in public sector and 10 institutions in private sector have to be declared as IoE. Each IoE will be eligible to receive Rs. 1000 crore during next 5 years.
- Deeksharambh – A guide to Student Induction Programme has been launched.

PROMINENT THEMES OF THE BUDGET

Governance → **Ease of Living** ← Financial sector

Ease of Living

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

Economic Development
- Industry, Commerce and Investment
- Infrastructure
- New Economy

Caring Society
- Women & Child, Social Welfare
- Culture and Tourism
- Environment and Climate Change

GOVERNANCE

STRUCTURAL REFORMS

IBC	GST
• Honourable exit through IBC for companies.	• 20 per cent reduction in turn around time for trucks. • Benefit to MSMEs through enhanced threshold and composition limits. • Savings of about 4 per cent of monthly spending for an average household. • In last 2 years, 60 lakh new taxpayers added and 105 crore e-way bills generated

DIGITAL REVOLUTION

Shift to DBT
- During 2018-19, ₹7 lakh crore transferred through DBT.

Next wave
- Digital Governance.
- Improve physical quality of life through National Infrastructure Pipeline
- Disaster Resilience.
- Social Security through Pension and Insurance penetration.

INCLUSIVE GROWTH

- Governance guided by "Sabka Saath, Sabka Vikas, Sabka Vishwas" with focus on:
    - Preventive Healthcare: Provision of sanitation and water
    - Healthcare: Ayushman Bharat
    - Clean energy: Ujjawala and Solar Power
    - Financial Inclusion, Credit support and Pension
    - Affordable Hosuing
    - Digital penetration

FINANCIAL SECTOR

- Deposit Insurance Coverage to increase from ₹1 lakh to ₹5 Lakh per depositor.
- Eligibility limit for NBFCs for debt recovery under SARFAESI Act proposed to be reduced to asset size of ₹100 crore or loan size of ₹50 Lakh.
- Proposal to sell balance holding of government in IDBI Bank.
- Separation of NPS Trust for government employees from PFRDAI.

- Specified categories of government securities would be opened for non resident investors
- FPI Limit for corporate bonds to be increased to 15 per cent.
- New debt ETF proposed mainly for government securities.

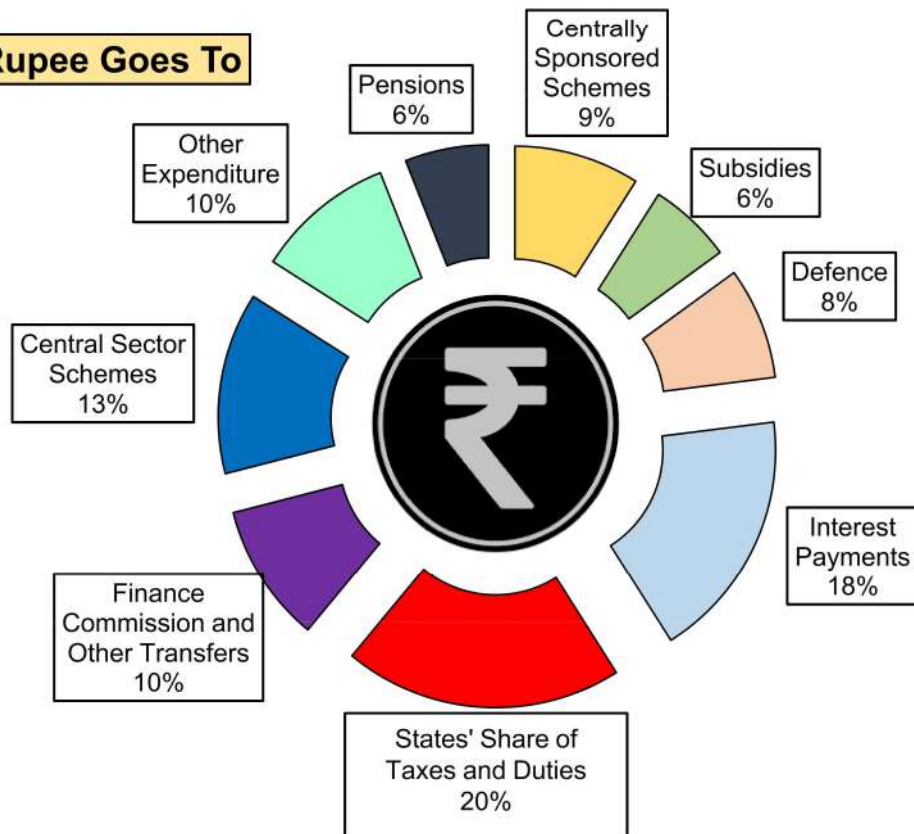India is the 5ᵗʰ largest economy in the world in terms of GDP at current US $ Trillion.
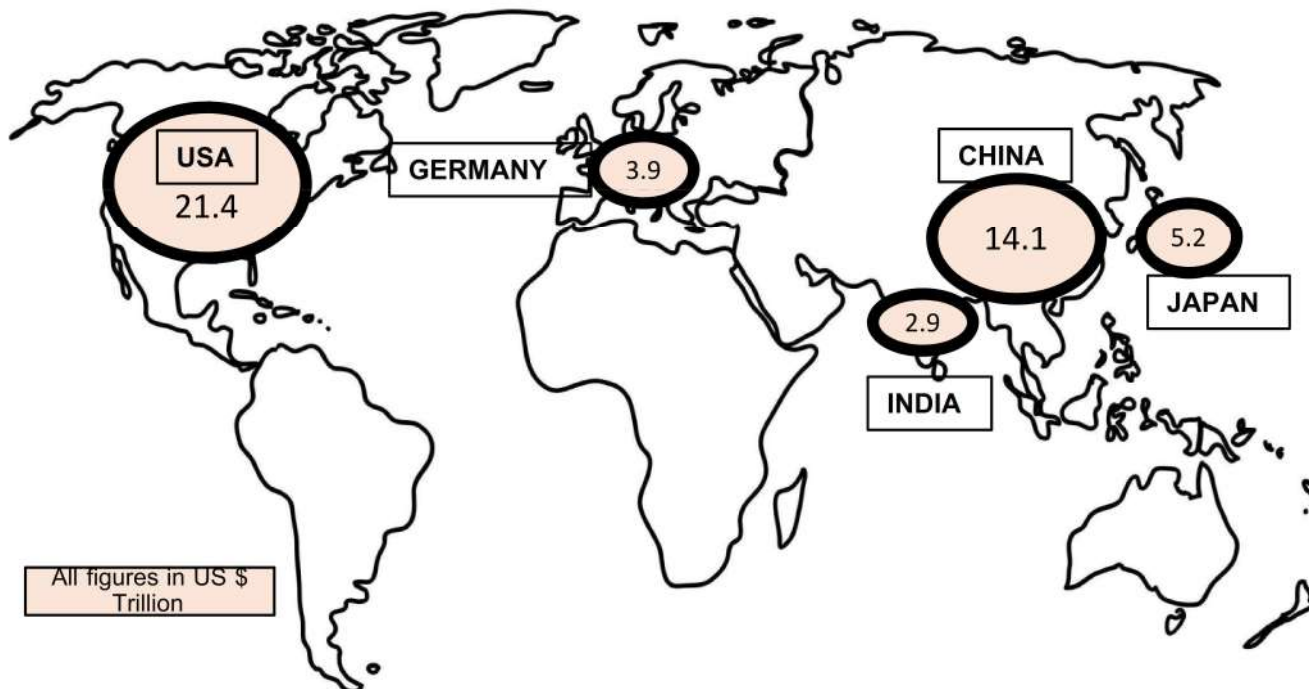
BUDGET AT A GLANCE

Rupee Comes From

Non Debt Capital Receipts
6%

Borrowings and Other Liabilities
20%

Income Tax
17%

Non Tax Revenue
10%

Union Excise Duties
7%

Customs
4%

Corporation Tax
18%

GST
18%

Rupee Goes To

Centrally Sponsored Schemes
9%

Pensions
6%

Other Expenditure
10%

Subsidies
6%

Defence
8%

Central Sector Schemes
13%

Interest Payments
18%

Finance Commission and Other Transfers
10%

States' Share of Taxes and Duties
20%
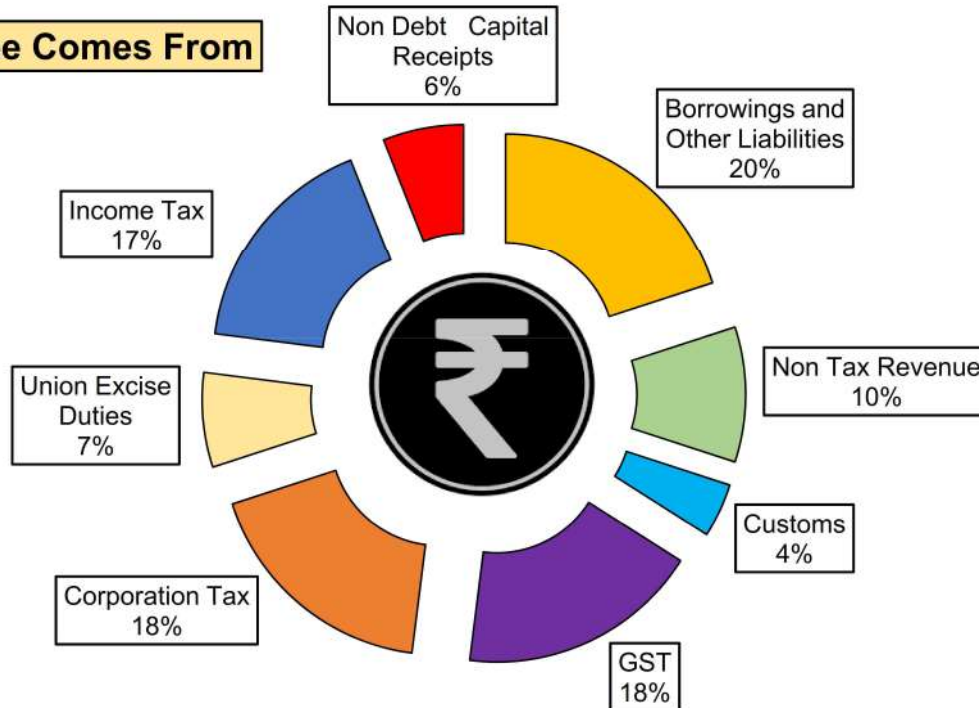
TAX PROPOSALS

- 💰 Concessional corporate tax rate of 15 per cent to new domestic companies in manufacturing and power sector.
- 💰 Tax concession for sovereign wealth fund of foreign governments and other foreign investments.
- 💰 Tax benefits to Start-ups by way of deduction of 100 per cent of their profits are enhanced by increasing turnover limit and period of eligibility.
- 💰 Concessional tax rate for cooperatives proposed.
- 💰 Turnover threshold for audit of MSMEs increased.
- 💰 Extension of time limits pertaining to the tax benefits for affordable housing.
- 💰 Issuance of Unique Registration Number to all charity institutions for easy tax compliance.
- 💰 Health cess to be imposed on imports of medical equipment given these are made significantly in India.

Dividend Distribution Tax removed and classical system of dividend taxation adopted.

Simplified and New Income Tax Regime as an option to the old regime.

Income Bracket (₹ lakh)	Below 5	5-7.5	7.5-10	10-12.5	12.5-15	Above 15
Tax Rate (per cent)	Exempt	10	15	20	25	30

Simplified GST return shall be implemented from 1st April 2020. Refund process to be fully automated.

AGRICULTURE, IRRIGATION AND RURAL DEVELOPMENT

PM KUSUM to cover 20 lakh farmers for stand alone solar pumps and further 15 lakh for grid connected pumps.

- Viability gap funding for creation of efficient warehouses on PPP mode.
- SHGs run Village storage scheme to be launched.
- Integartion of e-NWR with e-NAM.

"Kisan Rail" and "Krishi Udaan" to be launched by Indian Railways and Ministry of Civil Aviation respectively for a seamless national cold supply chain for perishables.

- Fish Production target of 200 lakh tonnes by 2022-23.
- Another 45000 acres of aqua culture to be supported.
- Fishery extention through 3477 Sagar Mitras and 500 fish FPOs.
- Raise fishery exports to ₹1 lakh crore by 2024-25.

- Elimination of FMD and brucellosis in cattle and PPR in sheep and goat by 2025.
- Increasing coverage of artificial insemination to 70 per cent.
- Doubling of milk processing capacity by 2025.
- Agricultural credit target of ₹15 lakh crore for 2020-21.
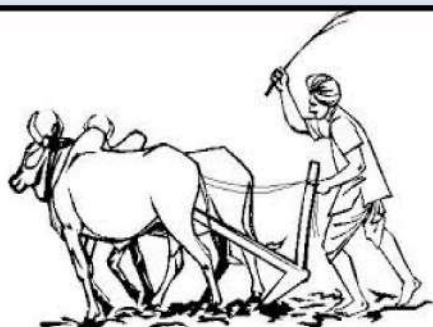
WELLNESS, WATER AND SANITATION

- More than 20,000 empanelled hospitals under PM Jan Arogya Yojana.
- FIT India movement launched to fight NCDs.

Coverage under Nikshay Poshan Yojana (₹ Lakh)

35
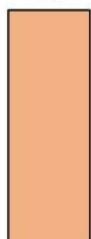
- "TB Harega Desh Jeetega" campaign launched to end TB by 2025.

- Viability gap funding proposed for setting up hospitals in the PPP mode.
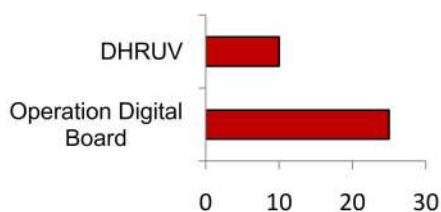- Expansion of Jan Aushadhi Kendra Scheme to all districts by 2024.

- ODF Plus to sustain ODF behaviour.
- Focus on liquid and grey water management along with waste management.

EDUCATION AND SKILLS

- About 150 higher educational institutions will start apprenticeship embedded courses.
- Internship opportunities to fresh engineers by urban local bodies.
- Special bridge courses to improve skill sets of those seeking employment abroad.

Allocation 2020-21 (BE) (₹ crore)

- DHRUV
- Operation Digital Board

(0, 10, 20, 30)

Study in India (crore)

- 2019-20 (RE): 32
- 2020-21 (BE): 65

EQUIP (₹ crore)

1413
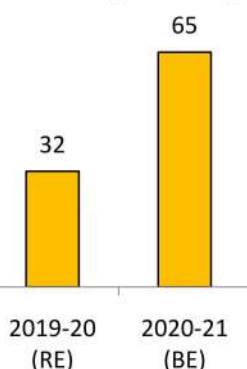
2020-21 (BE)

- Degree level online education programmes for students of deprived sections of the society.
- Ind-SAT to be conducted in Asia and Africa under Study in India programme.

Programme for Apprenticeship Training (₹ crore)

- 2020-21 (BE)
- 2019-20 (RE)

(166, 168, 170, 172, 174, 176)
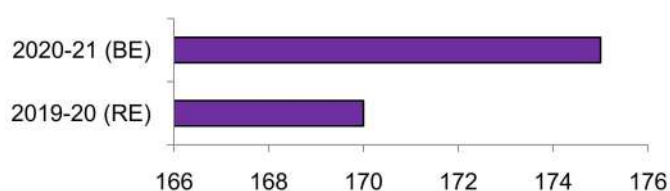
NEW ECONOMY

- Knowledge Translation Clusters for emerging technology sectors
- Scaling up of Technology Clusters harbouring test beds and small scale manufacturing facilities.
- National Mission on Quantum Technologies and applications with an outlay of Rs.8000 crore proposed.
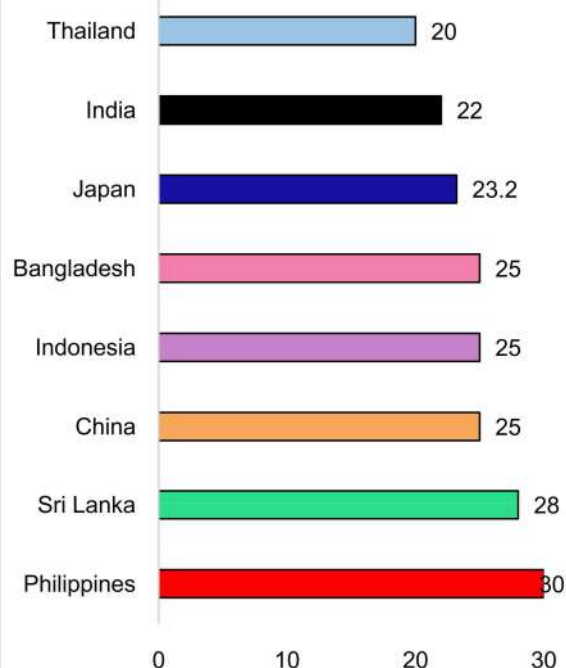
INDUSTRY, COMMERCE AND INVESTMENT

- Scheme to encourage manufacturing of mobile phones, electronic equipment and semi conductor packaging.
- National Technical Textiles Mission for a period of 4 years.

- NIRVIK Scheme for higher export credit disbursement launched.
- Setting up of an Investment Clearance Cell to provide end to end facilitation.

- Extension of invoice financing to MSMEs through TReDs.
- A scheme to provide subordinate debt for entrepreneurs of MSMEs.
- Scheme anchored by EXIM Bank and SIDBI to handhold MSMEs in exports markets.

CORPORATE TAX RATE CUT

Country	Rate
Thailand	20
India	22
Japan	23.2
Bangladesh	25
Indonesia	25
China	25
Sri Lanka	28
Philippines	30

INFRASTRUCTURE

- National Logistics Policy to be launched soon.
- **Roads:** Accelerated development of Highways.
- **Railways:** Four station redevelopment projects
- 150 passenger trains through PPP mode.
- More Tejas type trains for tourist destinations.
- **Port:** Corporatizing at least one major port.
- **Air:** 100 more airports to be developed under UDAAN.

- **Power:** Efforts to replace conventional energy meters by prepaid smart meters.

- **Gas Grid:** Expand National Gas Grid to 27,000 km

- **Infrastructure Financing:** ₹103 lakh crore National infrastructure Pipeline projects announced.
- An international bullion exchange to be set up at GIFT City.

Bharat Net (₹ crore)

Accelerated road development

in km
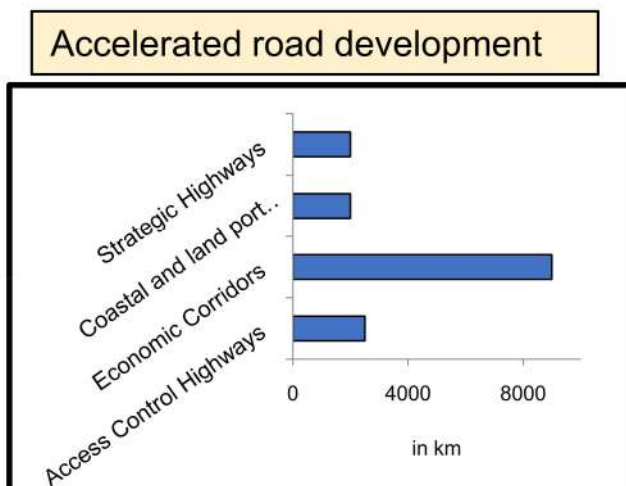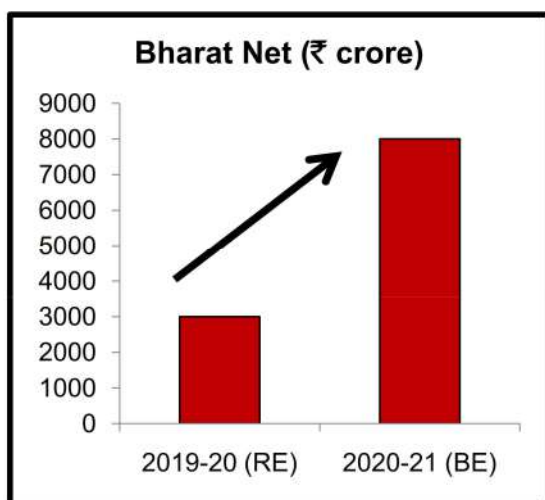
CARING SOCIETY

Women & child, social Welfare

- More than 6 lakh anganwadi workers equipped with smart phones.
- A task force to be appointed to recommend regarding lowering MMR and improving nutrition levels.

Culture and Tourism
- Proposal to establish Indian Institute of Heritage and conservation.
- 5 archaeological sites to be developed as iconic sites.
- A museum on Numismatics and Trade to be established
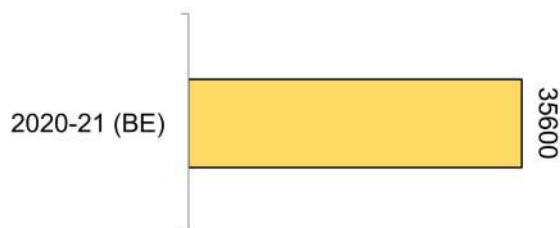- Tribal museum in Ranchi .
- Maritime museum to be set up at Lothal.

Environment and Climate Change
- Coalition for Disaster Resilient Infrastructure launched in September 2019.
- Encouragement to states implementing plans for cleaner air in cities above 1 million.
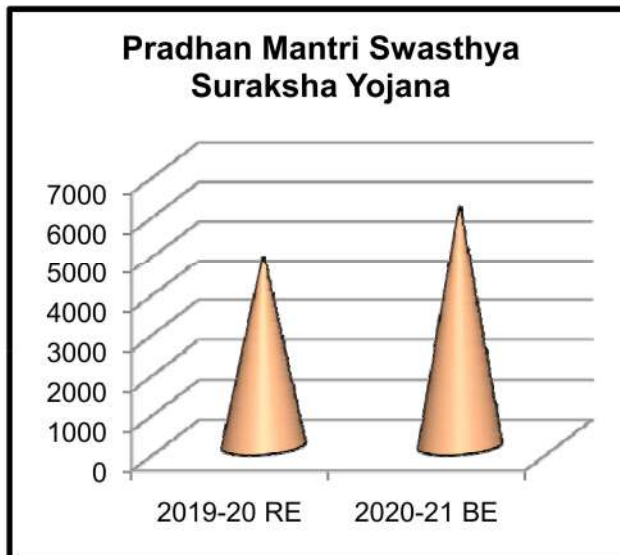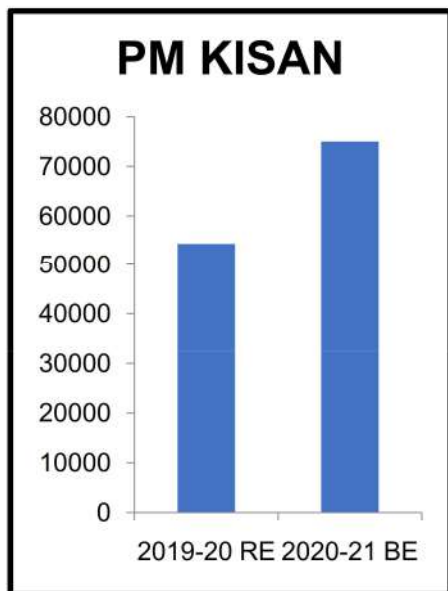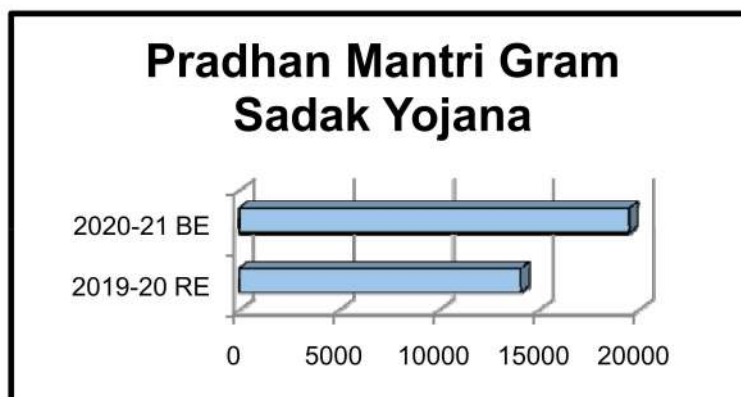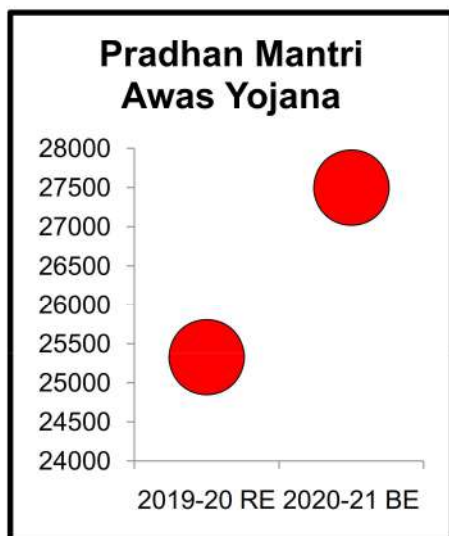
Nutrition related programmes (₹ crore)

2020-21 (BE) — 35600

Tourism promotion (₹ crore)

2500

2020-21 (BE)

BUDGET ALLOCATION TO MAJOR SCHEMES

PM KISAN

Pradhan Mantri Swasthya Suraksha Yojana

In ₹ Crore

DBT LPG

ICDS

Pradhan Mantri Awas Yojana

Pradhan Mantri Gram Sadak Yojana
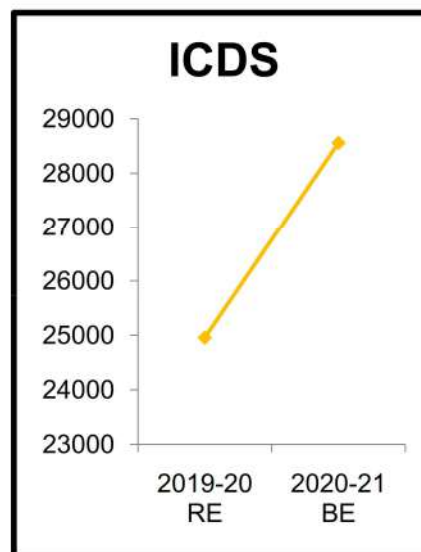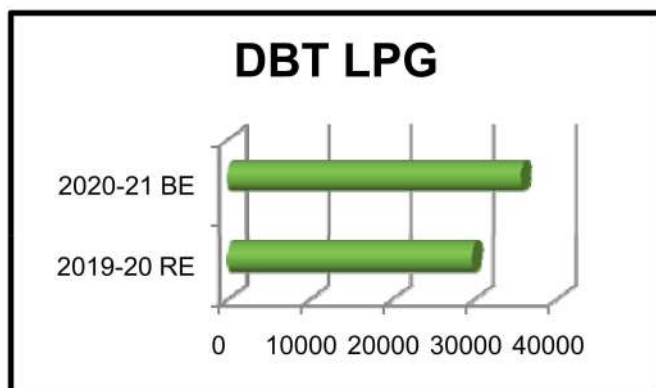
EXPENDITURE OF MAJOR ITEMS

In ₹ Crore

Rs. 50040 — Ministry of Housing and Urban Affairs

Rs. 67112 — Ministry of Health and Family Welfare

Rs. 72216 — Ministry of Railways

Rs. 91823 — Ministry of Road Transport and Highways

Rs. 99312 — Ministry of Human Resource Development

Rs. 122398 — Ministry of Rural Development

Rs. 124535 — Ministry of Consumer Affairs, Food and Public Distribution

Rs. 142762 — Ministry of Agriculture and Farmers' Welfare

Rs. 167250 — Ministry of Home Affairs

Rs. 471378 — Ministry of Defence