

OFFICERS' Pulse

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Coverage.

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At a Glance & In Depth.

Polity and Social Issues

Economy

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News @ a glance

POLITY and SOCIAL ISSUES

1. SC asks why the delay in setting up rights courts

- Protection of Human Rights Act, 1993 gives the provision for the establishment of human rights courts at **district level**.
- The creation of Human Rights Courts at the district level has a great potential to protect and realize human rights at the grassroots.
- The purpose is to provide speedy trial of offences arising out of violation of human rights.

Provisions:

- **How it will Establish Court?** : According to Section 30 of the Act envisages that a state Government may, with the concurrence of the Chief Justice of the High Court, by notification, specify for each district a Court of Sessions to be a Human Rights Court to try the said offences.
- **Special Public Prosecutor:** Section 31 of the Act provides the State government to specify and appoint a special public prosecutor in that court.

Issues:

- **Vague Definition:** The Act refers to the offences arising out of violations of human rights. But it does not define or explain the meaning of "offences arising out of violations of human rights". It is vague. The Act doesn't give any clear indication or clarification as to what type of offences actually are to be tried by the Human Rights Courts.
- The Problem is who can take cognizance of the offences. What the Act says is in each district, one Sessions Court has to be specified for trying "offences arising out of human rights violation". It is silent about taking of cognizance of the offence.

Why in the news?

- The Supreme Court has asked centre, states and UTs why do they delay in

establishing human rights court and appointment of special public prosecutor.

2. UAPA Bill 'draconian, not based on logic'

The National Investigation Agency (Amendment) Bill, 2019

- The Bill amends the National Investigation Agency (NIA) Act, 2008.
- The Act provides for a **national-level agency** to investigate and prosecute offences listed in a schedule (scheduled offences).
- Further, the Act allows for the creation of Special Courts for the trial of scheduled offences.

What are Scheduled Offences?

- The schedule to the Act specifies a list of offences which are to be investigated and prosecuted by the NIA.
- These include offences under Acts such as the Atomic Energy Act, 1962, and the Unlawful Activities Prevention Act, 1967.
- The Bill seeks to allow the NIA to investigate the following offences, in addition:
 - Human trafficking,
 - Offences related to counterfeit currency or bank notes,
 - Manufacture or sale of prohibited arms,
 - Cyber-terrorism,
 - Offences under the Explosive Substances Act, 1908.

Extension of Jurisdiction of the NIA:

- The Act provides for the creation of the NIA to investigate and prosecute offences specified in the schedule.
- The officers of the NIA have the same powers as other police officers in relation to investigation of such offences, across India.
- The Bill states that in addition, officers of the NIA will have the power to investigate scheduled offences committed outside

India, subject to international treaties and domestic laws of other countries.

- The central government may direct the NIA to investigate such cases, as if the offence has been committed in India. The Special Court in New Delhi will have jurisdiction over these cases.

Special Courts:

- The Act allows the central government to constitute Special Courts for the trial of scheduled offences.
- The Bill amends this to state that the central government may designate Sessions Courts as Special Courts for the trial of scheduled offences.
- The central government is required to consult the Chief Justice of the High Court under which the Sessions Court is functioning, before designating it as a Special Court.
- When more than one Special Court has been designated for any area, the senior-most judge will distribute cases among the courts.
- Further, state governments may also designate Sessions Courts as Special Courts for the trial of scheduled offences.

Why in News?

- NIA Amendment bill 2019 was introduced in Lok Sabha.

3. SC to consider refugee status for illegal migrants

Why in the news?

- The Supreme Court has agreed to examine the question of whether illegal immigrants can even be considered for refugee status.

Who are Rohingyas?

- Rohingya is an ethnic group, from Rakhine Province of Myanmar, who are largely Muslims. They speak a dialect of Bengali as opposed to the commonly spoken Burmese language in Myanmar.
- They have not been granted full citizenship by Myanmar. They are classified as resident foreigners or associate citizens.

What is the issue?

- According to the UNHCR, a refugee is a person living in another country following persecution in his own on the grounds of

"race, religion, nationality, membership of a particular social group or political opinion.

- Lakhs of Rohingyas have been displaced with majority of them seeking refuge in Bangladesh and India. India hosts nearly 40,000 Rohingya refugees. The Rohingyas were been facing execution by Myanmar security forces who thinks Rohingyas are terrorists.
- India **doesn't** has a specific law regarding refugees. India has also **not been** a signatory of the 1951 UN Convention or the 1967 Protocol – both relating to the Status of Refugees and included in the UNHCR statute.
- The above Supreme Court hearing came on a petition of Rohingyas who had moved the Supreme Court against the Centre's proposed plan to deport Rohingyas to the land of their origin which is Myanmar.

4. Coastal regulation zone (crz) notification, 2018

Coastal Regulation Zone (CRZ) Notification, 2018

- The coastal regulation zone, or CRZ refers to regions in the proximity of India's 7000-km long shoreline where buildings, tourism facilities, industrial projects, residential facilities etc are highly regulated.
- In most cases it begins from the high tide line (HTL) to about 500 metres towards the landward side.
- The zone is subdivided into regions, with varying leeway for infrastructure development, depending on population and ecological sensitivity.
- There are 4 different types of zones:
- (CRZ-1): It includes the most ecologically sensitive areas and according to current laws it can't be used for tourism activities and infrastructure development but can be used for defence, strategic and rare public utilities projects.
- (CRZ -II): The area that have already been developed up to the shoreline.
- (CRZ -III): Areas that are relatively undisturbed and those which do not belong to either Category I or II.

- (CRZ-IV): Coastal stretches in the Andaman and Nicobar Islands, Lakshadweep and small islands, except those designated as CRZ I, CRZ II and CRZ III.

The salient features of the draft CRZ Notification, 2018:

- According to the new CRZ, 2018 notification “..nature trails and eco-tourism activities ”may be permitted in CRZ-1 regions provided they conform to state-approved coastal zone management plans.
- The Hazard Line, which was demarcated by the Survey of India (SOI), has been delinked from the CRZ regulatory regime and shall be used only as a tool for Disaster Management and planning of adaptive and mitigation measures.
- The new rules have mandated that for tidal influenced water bodies, CRZ will be between the High Tide Line to 50 metres (or width of the creek, whichever is less), instead of the earlier 100 metres.
- According to the new rules, mangroves in private land will not require a buffer zone.
- The norms also prevent the disposal of plastic into the coastal waters.
- The new rules mandate the compensatory plantation of three times the mangrove area destroyed (unlike the earlier norm which mandated only three times the trees cut) for development works.
- A No Development Zone (NDZ) of 20 meters has been proposed to be stipulated for all Islands close to the mainland coast and for all Backwater Islands in the main land.
- Temporary tourism facilities are also proposed to be permissible in the No Development Zone (NDZ) of the CRZ-III areas.
- The draft makes the National Centre for Sustainable Coastal Management (NCSCM) the final authority to lay down standards for High Tide Line (HTL).
- Only those projects located in CRZ-I (environmentally most critical) and CRZ-IV (water and seabed areas) shall require MoEF clearance. All other projects shall be considered by Coastal Zone Management Authorities (CZMAs) in the states and union territories.

Why in News?

- SC rejects appeal against demolition of flats in Kerala built in violation of 'coastal zone regulations.'

5. No confidence vs Trust vote

What is no-confidence motion?

- Article 75 of the Constitution: The council of ministers shall be collectively responsible to the **Lok Sabha**.
- A no-confidence motion is usually moved by the opposition when it feels that the ruling government does not enjoy a majority in the House any longer.
- **No reason** is required to move such a motion. It can be moved against the entire council of ministers only (and **not against the individual ministers**).
- A no-confidence motion can be moved by any member of the house and can be done only in the Lok Sabha and not in the Rajya Sabha.
- Such a motion is moved under Rule 198 of the Rules of Procedure (the term is not mentioned in the Constitution).
- A member has to give a written notice of the motion before 10 am, which is then read out by the Speaker of the House.
- A minimum of 50 members have to accept the motion and the Speaker would accordingly announce the date for the discussion on the motion.
- The Speaker would have to allot a date 10 days from the day the motion is accepted. A no-confidence motion needs a majority vote to pass the House.
- If individuals or parties abstain from voting, those numbers will be removed from the overall strength of the House and then the majority will be taken into account.
- In case the government fails to prove its majority, then the government has to resign.
- J.B. Kripalani moved the first-ever no-confidence motion in August 1963 against the Nehru government after the India-China war.

What is a trust-vote?

- A confidence motion or a trust vote is a procedure for the government to prove its majority in the House.
- A trust vote can take place by way of a motion of confidence which is moved by

the government or brought by the opposition.

- It is a motion normally **proposed by the Prime Minister or Chief Minister** to test the majority in the Lok Sabha or state assembly respectively.
- Such an exercise normally takes place when a new government is set to be formed. Any party will first have to prove its majority on the floor of the House before taking over.
- A trust vote can also be brought about if a government resigns and another party stakes a claim to form the government.

Who is Chief Whip and what is Whip?

- Every party appoint a member in the house who is called Chief Whip. He is responsible to maintain discipline by party members and unity among the members.
- A whip is the instruction issued by Chief Whip to vote according to the party line in a legislature.
- Violation of the party whip could lead to expulsion under the Anti Defection Act. A whip is of three kinds.
- A one-line whip is non-binding, and merely serves to inform the members of the vote.
- A two-line whip seeks attendance in the legislature during the vote.
- A three-line whip is a clear-cut directive, to be present in the legislature during the vote and cast vote according to the party line.
- In India, under the anti-defection law, a three-line whip can be violated only by more than one-third of a party's strength in the legislature.
- Though the office of whip is not officially recognised in the standing orders, there has been a long tradition to give them a place in the Parliamentary form of government.
- The whip plays a crucial role in ensuring the smooth and efficient conduct of business on the floor of the House.

Why in News?

- It is in the context of ongoing political crisis in Karnataka where CM of Karnataka has decided to conduct a trust vote.

6. Global Multidimensional Poverty Index (MPI)

What is Global MPI Report?

- The Global MPI Report is prepared by the United Nations Development Programme (UNDP) and the Oxford Poverty and Human Development Initiative.
- The report measures multidimensional poverty index (MPI) which can be broken down to show
 - Who is poor: Poverty rate as a percentage of the population and
 - How they are poor: Intensity as the average share of deprivations that poor people experience. The product of these two is MPI.
- The criterion for someone to be declared as deprived as per MPI are as follows : (a) Education (year of schooling, child enrollment), (b) Health (child mortality, nutrition) and (c) Standard of living (electricity, drinking water, sanitation, flooring, cooking fuel, assets).
- A person is multidimensionally poor if she/he is deprived in one third or more (means 33% or more) of the weighted indicators (out of the ten indicators).

Why in the news?

- According to the Global Multidimensional Poverty Index (MPI), India has **lifted 271 million** out of poverty between 2005-06 and 2015-16.
- This has significantly helped in reducing deprivations in many of the ten indicators particularly in assets, cooking fuel, sanitation and nutrition.

What is the background?

- The report has stated that among the selected countries with a significant reduction in MPI value, India has reduced the multidimensional poverty the fastest in absolute terms.
- The report cites that **Jharkhand** which has reduced multidimensional poverty from 74.9% to 46.5% in the ten years since 2005-06 as an example of the poorest region improving the fastest.

What are the major highlights?

- The index says that India was among the countries where poverty reduction in rural areas outpaced that in urban areas which is an indicator of pro-poor development.

- As per Index, 1.3 billion people in the world are still multi dimensionally poor.
- It says that level of inequality and poverty is very high in **Sub-Saharan Africa and South Asia**.
- Further, the index says that **one in every three children** under the age of 10 and every second child below the age of 18 years is still multi dimensionally poor in the world.

7. Protection of Children from Sexual Offences

(POCSO) Act, 2012

- The Act deals with sexual offences against persons below 18 years of age, who are deemed as children.
- The Act for the first time, defines “penetrative sexual assault”, “sexual assault” and “sexual harassment”.
- Speedy trial of offences through appointment of Special Public Prosecutors and designated Special Courts.
- The Act provides for stringent punishments which have been graded as per the gravity of offence.
- The Act deems a sexual assault to be “aggravated” under certain circumstances, such as when the abused child is mentally ill or when the abuse is committed by a person in a position of trust or authority vis-a-vis the child, like a family member, police officer, teacher, or doctor.
- The Act provides for a dedicated ‘Online Complaint System (**e-baalnidaan**)’ to ensure timely/speedy redressal of complaints of various violations and deprivation of child rights.
- The Act also provides for mandatory reporting of sexual offences.
- The police are also required to bring the matter to the attention of the Child Welfare Committee (CWC) within 24 hours of receiving the report.
- It provides for special courts that conduct the trial in-camera and without revealing the identity of the child.
- The Act stipulates that a case of child sexual abuse must be disposed of within one year from the date the offence is reported. The Act provides for the Special Court to determine the amount of

compensation to be paid to a child who has been sexually abused, so that this money can then be used for the child's medical treatment and rehabilitation.

Recent amendments proposed

- Watching, possessing or circulating animations or cartoons that depict a minor engaging in sexually explicit conduct will become an offence.
- The amended law will also apply to pornographic content where adults or young adults pretend to be children.
- It must be noted that neither the Information Technology Act nor the Indian Penal Code define child pornography.
- Cabinet has approved a new definition for child pornography in its amendments to the POCSO Act

8. New labour codes

Why in News?

- Cabinet approves the Code on Occupational Safety, Health and Working Conditions Bill, 2019.

What's in the bill?

- This bill will merge 13 labour laws into one code on occupational safety, health and working conditions that would apply to all establishments with 10 or more workers.
- The Code on industrial safety and welfare is one of the four codes that would subsume 44 labour laws with certain amendments to improve the ease of doing business and attract investment for spurring growth.
- The four codes will deal with:
 - 1.Wages,
 - 2.Social security,
 - 3.Industrial safety and welfare, and
 - 4.Industrial relations.
- While the code will be applicable to all trades, including IT establishments and service sector, where more than 10 workers are employed, it will be applicable to mines and docks that employ even one worker.
- The code makes it mandatory for employers to provide free annual medical check-ups and issue appointment letters to all employees.
- The multiple committees under five labour Acts would be replaced by the

National Occupational Safety and Health Advisory Board.

- The code also framed rules for women workers working night shift.

Economy

1. Budget 2019

What's in the news?

- Finance Minister Nirmala Sitharaman has presented the maiden budget of the newly elected government in the parliament.

Highlights of the budget

Budget proposes higher income tax on rich

- The Union Budget has proposed an increase in the effective tax rate paid by high net-worth individuals (HNIs) by increasing the **surcharge** from 15% to 25% for incomes between Rs 2 crore and Rs 5 crore and to 37% for incomes above Rs 5 crore.

Raise in corporate tax limit

- The Budget has extended the lower rate of 25 % corporate tax to all companies with an annual turnover of up to Rs 400 crore.
- Currently, this rate is only applicable to companies having an annual turnover up to Rs 250 crore. This new announcement will cover 99.3% of all firms in India.
- The Micro, Small and Medium Enterprises (MSME) sector would significantly benefit from the move.

Government eases angel tax norms

- To resolve the '**Angel Tax**' issue, Finance Minister assured that startups and their investors who provide information in their returns will not be subjected to any kind of scrutiny in respect of valuations of share premiums.

1. *(It is a tax on the excess capital raised by an unlisted company through the issue of shares over and above the 'fair market value' of those shares. This excess capital is treated as income and taxed accordingly.)*

2. *(It was problematic for start-ups, since their valuations were higher than the 'fair market valuation' arrived at by the tax officials)*

- To encourage start-ups in the country, the Budget has proposed to start a television programme within the DD bouquet of channels exclusively for start-ups.

Growth capital for public sector banks

- The Finance Minister has allocated additional capital infusion of Rs 70000

crore for Public sector banks in order to boost credit.

Fiscal deficit target revised downwards to 3.3%

- The government has estimated a **fiscal deficit** (*Total Expenditure of the government – Total Receipts except borrowings*) of 3.3% of GDP in the financial year 2019-20.
- The Budget has set a target of Rs 1,05,000 crore for **disinvestment** (*action of an organisation or government, selling an asset or subsidiary*) proceeds for the financial year 2019-20, compared to the Rs 80,000 crore budgeted in the previous year.

Big boost for digital payments

- To push digital payments and to discourage the practice of making business payments in cash, the Budget proposed 2% tax deducted at source on cash withdrawals exceeding Rs 1 crore in a year from a bank account.
- Businesses with an annual turnover of over Rs 50 crore can offer digital modes of payment such as BHIM UPI, UPI-QR Code, Aadhaar Pay and no charges or **Merchant Discount Rate** (*the rate charged to a merchant for payment processing services on debit and credit card transactions*) would be imposed on them or their customers.

RBI can supersede NBFC board

- The government has decided to give more power to the RBI to regulate the non-banking finance companies. The central bank will have the power to supersede the board of NBFCs in the public interest.
- The RBI will also regulate housing finance companies which are under the purview of the National Housing Bank.

GST rates reduced to 5% on electric vehicles

- To make India a global manufacturing hub for electric vehicles, the Budget has proposed to offer additional income tax exemption of Rs 1.5 lakh on the interest paid on loans taken to purchase electric vehicles.

- To bring down the prices, the government has also proposed to lower the rate on electric vehicles from 12% to 5%.

New package in offering to ensure power for all

- Finance Minister also outlined a "One Nation, One Grid" initiative to bring affordable power to all states.
- With 100 per cent electrification target being achieved under the 'Pradhan Mantri Sahaj Bijli Har Ghar Yojana', the government's focus is now to provide consistent electricity at affordable rates.

Interlinking of highways through a grid

- The government has proposed to restructure the National Highways programme to ensure inter-linking of highways through a national level grid.
- The National Highway Grid is expected to connect 12 major ports, 45 out of 53 million-plus cities and 26 State capitals apart from linking tourist destinations and religious places.

2. RBI board finalises 'Utkarsh 2022'

What's in the news?

- The RBI has finalised a three-year roadmap, named Utkarsh 2022 to improve regulation and supervision of the central bank.
- It aims at the central bank's proactive role to avoid any other IL&FS debt default issue in future.

IL&FS default

- In 2018, the loan defaults of the Infrastructure Leasing & Financial Services (IL&FS), a leading NBFC, led to widespread panic over risks in the entire non-banking financial sector.
- The defaults jeopardised investors, banks and mutual funds associated with the sector which created a **liquidity shortage** across the NBFC system.
- (Liquidity shortage refers to a situation where cash flow is absent at a business or other institution, especially if it cannot gather enough cash to meet its payment obligations to lenders)*

3. CSO must rethink informal sector estimates

What's in the news?

- Former Chief Statistician of India Pronab Sen said that the Central Statistics Office (CSO) needs to rethink how it estimates the growth of the informal sector as the current method is no longer accurate.

Current system

- At present, the growth of the informal sector is estimated using the corporate sector data.
- Mr. Sen said that this estimation works only as long as the technologies being used in both sectors are reasonably similar. However, this is no longer the case. Indian corporates have seen greater technology being used and this is not the case for the non-corporate sector.
- He added that the CSO could better estimate the informal sector activity by using the employment data.

About CSO

- The Central Statistics Office, under the Ministry of Statistics and Programme Implementation is responsible for coordination of statistical activities in India, and evolving and maintaining statistical standards.
- Its activities include National Income Accounting, conduct of Annual Survey of Industries, Economic Censuses, compilation of Index of Industrial Production, as well as Consumer Price Indices, Human Development Statistics, Gender Statistics, etc.

4. FDI down over two times to \$820 mn in June

What is Foreign Direct Investment (FDI)?

- It is the investment made by a person or a company in one country into businesses located in another country.
- Generally, FDI takes place when an investor establishes foreign business operations or acquires foreign business assets.

What is Foreign Portfolio Investment (FPI)?

- It is similar to FDI but here, the investor holds only passive financial assets of a foreign company.
- The investor may simply hold equities or securities of foreign-based companies.

Key differences

- FDI involves establishing a direct business interest in a foreign country, while FPI refers to investing in financial assets such as stocks or bonds in a foreign country.
- FDI usually aims to take control of the company in which investment is made whereas FPI aims to reap profits by investing in shares and bonds of the invested entity without taking part in the management of the company.
- FPI can enter the stock market easily and also withdraw from it easily. For this reason FPI is also known as **hot money**, as the investors have the liberty to sell it and take it back. But FDI cannot enter and exit that easily. This difference is what makes nations to prefer FDIs more than FPIs.

Why in News?

- India's outward foreign direct investment (OFDI) by the Indian firms dropped to \$820.36 million in June 2019.
- In May, the Indian firms had invested over \$1.56 billion in their overseas ventures.

5. Global gold demand may fall 2.4%

How import of Gold affects our economy?

- India is one of the world's largest gold importers. Import of gold increases the country's **Current Account Deficit** (CAD), which means the value of goods and services we import exceeds the value of those we export.
- Importing huge amounts of gold using foreign exchange reserves depreciate the value of the rupee. This in turn makes key imports like crude oil more costly.
- Investment in gold does not add much value to the productive capacity of the economy. They are either stored in bank lockers or get exchanged for making jewellery.

Government measures to increase productive use of Gold

- **Gold Monetization Scheme** to bring out the gold lying idle in homes into the Indian Economy which would turn gold into a productive asset. Through this scheme, people can deposit their gold and can earn interest on it.
- **Sovereign Gold Bond scheme** to reduce the demand for physical gold which offers the same benefits as of physical gold. The value of gold bond increases with the market rate of gold.

Why in News?

- The Union Budget has proposed increasing the customs duty on gold and other precious metals from 10% to 12.5%.
- According to the World Gold Council (WGC), the government's decision to increase duties on gold could result in a 2.4% decline in the global demand for the precious metal in 2019.
- The long-term demand in the Indian market could fall by around 1% every year if the duty becomes permanent.

6. IIP dips to 3.1% in May

About IIP

- Index of Industrial Production details out the growth of various sectors in an economy such as mineral mining, electricity and manufacturing.
- It is compiled and published every month by the Central Statistics Office (CSO) of the Ministry of Statistics and Programme Implementation.
- The current base year is 2011-2012.

Why in News?

- Growth in the Index of Industrial Production slowed in May to 3.1% from 4.32% in April.

International Relations

1. India, U.S. teams hold talks on trade ties

What's in the news?

- Commerce Ministry officials met trade officials from the U.S. and discussed ways to improve trade relations between the two countries.

Issues straining India-U.S. relations

GSP status

- The trade dialogue between India and the U.S. has reached a new low after the U.S. announced a withdrawal of India's Generalised System of Preferences (GSP) status in June.
- The GSP is one of the oldest trade preference programmes in the world, under which developed countries offer preferential treatment (such as zero or low duties on imports) to products originating in developing countries.
- India, as a developing country, enjoyed special trade benefits from the GSP programme of U.S. which allowed duty-free entry of Indian goods worth \$5.6 billion into the U.S.

Retaliatory tariffs

- Recently, India imposed tariffs on 29 goods imported from the U.S. in retaliation to Mr. Trump's decision last year to impose higher import tariffs on Indian aluminium and steel.
- The retaliatory tariffs will place a burden of \$220-290 million on the U.S., about the same amount imposed by the U.S. on India in 2018.
- Mr. Trump also consistently pushing India to cut tariffs on Harley Davidson motorcycles to zero to match American duties on Indian motorcycles.

Data localisation

- The U.S. administration also expressed concerns over India's new rules on financial data localisation which is affecting many U.S. companies operating in India.
- In 2018, the RBI directed all payment system operators including Visa, MasterCard, Google and WhatsApp, to ensure that data related to payment

systems operated by them are stored only within India.

CAATSA law

- The Countering America's Adversaries Through Sanctions Act (CAATSA) mandates the U.S. administration to impose sanctions on any country carrying out significant defence and energy trade with sanctioned entities in North Korea, Iran and Russia.
- India and Russia signed a \$5 billion contract for the procurement of S-400 air defense systems during last year's annual bilateral summit. The U.S. had expressed deep concern over the deal and threatened to impose sanctions on India under CAATSA.

2. U.S. will consider '301 probe' on India

What's in the news?

- The U.S. Trade Representative (USTR) has warned that the country will consider a "301 investigation" and other trade measures against India if the trade issues between the two countries are not resolved quickly.

What is the "301 investigation"?

- The "301 investigation" is a probe employed by the U.S. as a precursor to tariffs.
- Section 301 of the U.S. Trade Act (1974) is the principal statutory authority under which the U.S. may impose trade sanctions on foreign countries that either violate trade agreements or engage in other unfair trade practices.
- Recently, the USTR announced a 301 probe against France on a digital services tax.

3. India's role in economic corridor revival

About BCIM Economic Corridor

- The 2800-km Bangladesh, China, India and Myanmar (BCIM) Economic Corridor is a multi-modal transport corridor which aims to connect India (Kolkata) and China

(Kunming) via Bangladesh (Dhaka) and Myanmar (Mandalay).

- The idea was given a shape in the form of BCIM forum in 1999 in the first 'Kunming Initiative', the capital of Chinese Yunnan province.
- Prime Minister Modi and Chinese President Xi Jinping agreed to take forward the BCIM corridor proposal during the Wuhan summit in 2018.

Significance of BCIM Economic Corridor

- It is intended to advance multi-modal connectivity, promote investment and trade and facilitate people-to-people contacts through a combination of road, rail, water and air linkages in the region.
- The multi-modal corridor will be the first expressway between India and China and will pass through Myanmar and Bangladesh.
- The main focus of the corridor is to facilitate trade and connectivity between the underdeveloped and landlocked part of northeastern India and Southwestern China.
- BCIM can also play an effective role in the energy trade and in the development of tourism.
- The region also has substantial water resources that could be employed in generating hydroelectricity to accelerate the industrial sector.

Route of the BCIM Economic Corridor



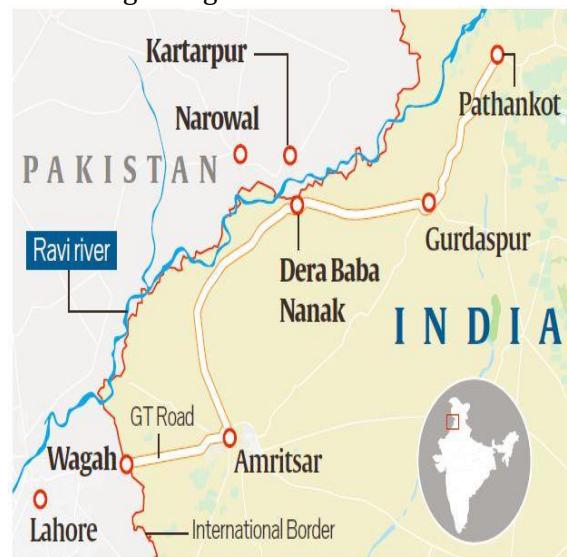
Why in News?

- During her latest visit to China, Bangladesh Prime Minister Sheikh Hasina called India to work together to accelerate the BCIM Economic Corridor.

4. Kartarpur Corridor construction work on track

Kartarpur Sahib corridor

- The corridor will facilitate visa-free travel of Indian Sikh pilgrims to the Gurdwara Darbar Sahib in Kartarpur, Pakistan.
- It is in Kartarpur Sahib that Guru Nanak Dev had spent the last 18 years of his life. The gurdwara is built where Guru Nanak is said to have died.
- In November 2018, Vice President Venkaiah Naidu laid the foundation stone for the construction of the Kartarpur Sahib Road Corridor on the Indian side in Gurdaspur district of Punjab, marking a new beginning in India-Pakistan relations.



Guru Nanak

- Guru Nanak was the founder of Sikhism and became the first Sikh Guru. His spiritual teachings laid the foundation on which Sikhism was formed.
- He advocated the existence of one God and taught his followers that every human being can reach out to God through meditation and other pious practices. Guru Nanak did not support monasticism and asked his followers to lead the life of an honest householder.
- His teachings were immortalized in the form of 974 hymns, which came to be known as 'Guru Granth Sahib,' the holy text of Sikhism. With more than 20 million followers, Sikhism is one of the important religions in India.
- Why in News?

- India has reiterated that construction work for the Kartarpur Corridor project was on track. A passenger terminal building, a four-lane highway and other amenities were being built at a fast pace.
- The facilities on both sides of the international border are expected to be

ready by the time celebrations begin in November in Kartarpur for the 550th birth anniversary of Guru Nanak Dev.

Science & Technology

1. Alternative sources of Energy

The issue with Nuclear energy

- Nuclear power plants in India contribute to around 3% of India's energy and it has not been able to grow as quick as other sources of energy has over decades.

The historical background

- In the 1950s, the Indian physicist Dr. Homi Bhabha gave the country a roadmap for the development of nuclear energy, in what we call today as the 3-stage nuclear programme
- The fundamental idea in that was to slowly develop technologies capable enough for us to move away from Uranium/Plutonium, towards Thorium, an element which is available in India in abundance.

What is the 3-stage nuclear programme?

- The first stage is where a fleet of 'pressurised heavy water reactors', will be created, which uses scarce amount of Uranium to produce some Plutonium. (Uranium would transmute into Plutonium)
- The second stage would be to create 'fast breeder reactors' that would use a mixture of Plutonium and the reprocessed 'spent Uranium from the first stage, to produce energy, more Plutonium and also, convert some of the Thorium into Uranium-233, which can also be used to produce energy.
 - After 3-4 decades of operation, the FBRs would have produced enough Plutonium for use in the 'third stage'.
- The third and the final stage is when specially designed reactors would be created to use U-233 to produce energy and convert more Thorium into Uranium-233
- In this step, it is envisioned to produce as much U-233 is needed, from thorium, endlessly.

Status of the 3-stage programme

- Seventy years down the line, India is still stuck in the first stage.

Hurdles in India's Nuclear programme

- Nuclear community in India is apprehensive about handling some of the

components in the Prototype-FBR, thereby leading to such long delays

- The capacity of the 'first stage' reactors are not up to the mark. The government seems to announce the construction of nuclear plants, but there is no set timeline for the completion of those projects.
- In order to bring in foreign-made reactors to India, the government signed the 2005 Indo-US nuclear deal, but a 2010 Indian 'nuclear liability' legislation has scared the foreigners away.
- All these hurdles point to the question whether nuclear energy is worth all the trouble?

Points in favour of nuclear energy

- Clean,
- Cheap
- Can provide electricity 24x7

Are the above-mentioned advantages valid?

- It can be called as clean, assuming that you could take care of the ticklish issue of putting away the highly harmful spent fuel.
- It is certainly not cheap due to the fact that all the new nuclear plants sanctioned will produce electricity at a cost of Rs. 7 a unit (in comparison, the average cost of electricity produced by the existing 22 reactors in the country is around Rs. 2.80 a kWhr)
- Nuclear plants can provide the 'base load' — they give a steady stream of electricity day and night, just like coal or gas plants.
- However, there is a better option available today

Ocean energy

- There are several sources of energy in the oceans:

Bobbing motion of waves

- One is the bobbing motion of the waters, or ocean swells

How does it work?

- you can place a flat surface on the waters, with a mechanical arm attached to it, and it becomes a pump that can be used to drive water or compressed air through a turbine to produce electricity.

Tides

- Another is by tapping into tides, which flow during one part of the day and ebb in another

How does it work?

- One can generate electricity by channelling the tide and place a series of turbines in its path

Ocean currents

- It is similar to a river within the sea

How does it work?

- By keeping turbines on the sea bed at places where there is a current

Wave dash pistons

- Works like a piston to generate electricity

How does it work?

- By getting the waves dash against pistons in, say, a pipe, so as to compress air at the other end. Sea water is dense and heavy, when it moves it can punch hard — and, it never stops moving.

Problems with ocean energy

- It is expensive
- In many cases untested for commercial production
- In some cases, it is not scalable

Way forward

- Initially, ocean energy would need to be incentivized, as solar was.
- Resources allocated for nuclear can be diverted to subsidize ocean energy
- Since, wind and solar now stand on their own legs and those subsidies could now be given to ocean energy

2. Generic drugs

What are generic drugs?

- A generic drug is a medication created to be the same as an already marketed brand-name drug in dosage form, safety, strength, route of administration, quality, performance characteristics, and intended use.
- A generic medicine works in the same way and provides the same clinical benefit as its brand-name version.
- Cost is the main difference between generic and brand name prescription drugs.
- Unlike brand companies, generic manufacturers compete directly on price, resulting in lower prices for consumers.

Why are generic drugs cheaper?

- Generic drugs are only cheaper because the manufacturers have not had the expenses of developing and marketing a new drug.

- When a company brings a new drug onto the market, the firm has already spent substantial money on research, development, marketing and promotion of the drug.
- A patent is granted that gives the company that developed the drug an exclusive right to sell the drug as long as the patent is in effect.
- As the patent nears expiration, manufacturers can apply to the FDA for permission to make and sell generic versions of the drug; and without the start-up costs for development of the drug, other companies can afford to make and sell it more cheaply.

- When multiple companies begin producing and selling a drug, the competition among them can also drive the price down even further.

Are generic drugs poorer in quality?

- There's no truth in the myths that generic drugs are manufactured in poorer-quality facilities or are inferior in quality to brand-name drugs.
- The FDA applies the same standards for all drug manufacturing facilities, and many companies manufacture both brand-name and generic drugs.
- In fact, the FDA estimates that 50% of generic drug production is by brand-name companies.

How come some generic drugs look different than original drugs?

- Sometimes, generic versions of a drug have different colors, flavors, or combinations of inactive ingredients than the original medications.
- Trademark laws in the United States do not allow the generic drugs to look exactly like the brand-name preparation, but the active ingredients must be the same in both preparations, ensuring that both have the same medicinal effects.

Why in news?

- The Central Government is considering amendments to the Drugs and Cosmetic Rules, 1945 to ensure that registered medical practitioners dispense only generic medicines.

Current scenario

- Registered medical practitioners can supply different categories of medicines including vaccines to their patients under the exemption provided, with certain conditions.
- As of now there are no specified types of medicines which can be supplied by doctors to their patients

Current proposal

- It is now proposed that registered medical practitioners shall supply generic medicines only and physicians' samples shall be supplied free of cost.
- However, the Indian Medical Association (IMA) said that it is planning to meet the drug control authorities about the issue later this month.

Problems cited by IMA

- The government also has to ensure easy availability, unclogged supply chain, and strict quality control of generic medicines
- The main concern is to offer the best medicines which are most effective so we should not be forced to prescribe in a particular manner.
- If this amendment goes through, doctors would be violating the law by dispensing branded drugs.

3. Malaria

Malaria Basics

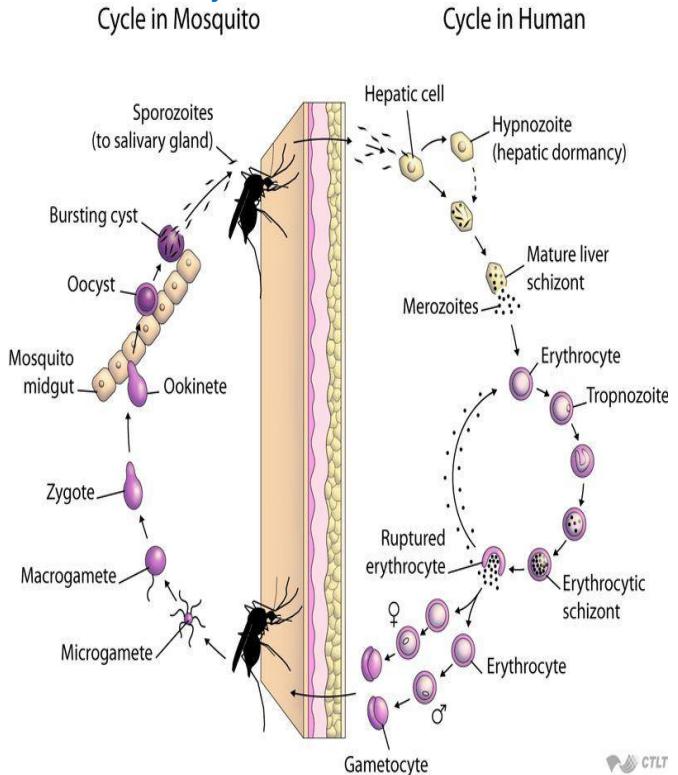
- Causative agent: Plasmodium sp. (Parasitic protozoan)
- Modes of infection and transmission: Through female Anopheles mosquitoes, this has previously taken a blood meal from an infected person.
- Symptoms: Fever, tiredness, vomiting, headaches, seizures, chills etc.
- Diagnosis: Examination of blood films or by antigen-based rapid diagnostic tests (RDT)
- Treatment: Antimalarial medications depending on the type of malaria. (Earlier it was quinine, today we use artimisinins, amodiaquine, lumefantrine, mefloquine or sulfadoxine/pyrimethamine)
- Prevention: Mosquito control, health education, vaccines are under development

- Statistics: Widespread in the tropical and subtropical regions. Estimated 445,000 to 731,000 deaths annually.

Types of Malaria

- P. falciparum
- P. vivax
- P. ovale
- P. malariae
- P. knowlesi

Malaria – Life cycle



India's malaria status

- According to the **World Malaria Report 2017**, in the year 2016, **more than half of the population (698 million) was at risk of malaria**.
- According to the Report, **India accounted for 6% of all malaria cases in the world, 6% of the deaths**, and 51% of the global P. vivax cases.
- The Report estimates the total **cases in India at 1.31 million** (0.94-1.83 million) and **deaths at 23990** (1600-46500)
- **Union Health Ministry and Family Welfare** for first time has **unveiled National Strategic Plan (NSP) for Malaria Elimination** (2017-22).
- It has set **malaria elimination deadline as 2027**, three years ahead of the global deadline.

- The NSP is **based on 2016 National Framework for Malaria Elimination** framed with support of WHO's Global Technical Strategy for Malaria, 2016-2030.
- The NSP is a **year-wise roadmap for malaria elimination** across the country.
- It aims to achieve **universal case detection and treatment services in malaria endemic districts** to ensure **100% diagnosis** of all suspected cases, and **full treatment** of all confirmed cases.
- The **biggest burden** of malaria in India is **borne by the most backward, poor and remote parts of the country**, with >90-95% cases reported from **rural areas** and <5-10% from urban areas.
- **Economically, a loss of Rs. 42 crores** at 1935, based only on the **financial loss** in the community in terms of **lost wages**.

Why in news?

- A small inhibitor that blocks an enzyme (**Rad51**) that plays a crucial role in repairing DNA damage in malaria-causing parasite — *Plasmodium falciparum* — has been identified by researchers from the University of Hyderabad.

Elaboration

- Plenty of DNA double-strand breaks occur naturally in malaria parasites due to errors during replication
- Both strands of the malaria parasite DNA get broken naturally.
- When DNA repair is prevented it can lead to the accumulation of several double-strand breaks causing death of the parasites.
- Moreover, certain anti-malaria drugs such as artemisinin are designed to kill the parasites by causing such breaks in the DNA.
- So, when the inhibitor is used along with such drugs, the effectiveness of the drugs increases drastically in both drug-sensitive and drug-resistant malaria.

Significance of this discovery

- Reducing the concentration of drug used for treating a disease is desirable.
- In the case of drug-sensitive malaria parasites, the effectiveness of artemisinin to kill the parasites increases sharply when used together with the inhibitor.
- In the case of drug-resistant parasites, when the inhibitor is used along with

chloroquine, 6.48-fold less concentration of the drug is sufficient kill 50% of parasites.

- Thus, this finding has improved the effectiveness of the drugs, even in the case of drug-resistant malaria parasites

4. Homeopathy

What is homeopathy?

- Homeopathy, also known as homeopathic medicine, is a medical system that was developed in Germany more than 200 years ago
- It is a medical system based on the belief that the body can cure itself.
- Those who practice it use tiny amounts of natural substances, like plants and minerals.
- They believe these stimulate the healing process.

Idea behind homeopathy

It's based on two unconventional theories:

- "Like cures like"—the notion that a disease can be cured by a substance that produces similar symptoms in healthy people
- "Law of minimum dose"—the notion that the lower the dose of the medication, the greater its effectiveness. Many homeopathic products are so diluted that no molecules of the original substance remain.

Does it work?

- Homeopathy is a controversial topic. A number of its key concepts don't agree with fundamental scientific concepts
- For example, it's not possible to explain in scientific terms how a product containing little or no active ingredient can have any effect
- A 2015 comprehensive assessment of evidence by the Australian government's National Health and Medical Research Council concluded that there is no reliable evidence that homeopathy is effective for any health condition.
- Another research challenge is that homeopathic treatments are highly individualized, and there is no uniform prescribing standard for homeopathic practitioners.
- There are hundreds of different homeopathic remedies, which can be

prescribed in a variety of different dilutions for thousands of symptoms

What Are the Risks?

- In general, most are so watered down that they don't cause any side effects.
- But there are exceptions. Homeopathic medicines can contain a large amount of an active ingredient, like a heavy metal, that can be dangerous
- A 2012 systematic review of case reports and case series concluded that using certain homeopathic products (such as those containing heavy metals like mercury or iron that are not highly diluted) or replacing an effective conventional treatment with an ineffective homeopathic one can cause adverse effects, some of which may be serious
- Liquid homeopathic products may contain alcohol. The FDA allows higher levels of alcohol in these than in conventional drugs.
- Homeopathic practitioners expect some of their patients to experience "homeopathic aggravation" (a temporary worsening of existing symptoms after taking a homeopathic prescription). Researchers have not found much evidence of this reaction in clinical studies

Why in news?

- France will end funding for homeopathic remedies through its state health system from 2021 after the government acknowledged the remedies are no better than a placebo.

Elaboration

- France's National Authority for Health (HAS) concluded at the end of June that there was no benefit to the medicine, saying it had "not scientifically demonstrated sufficient effectiveness to justify a reimbursement".

Situation in other countries

- In Britain, the National Health Service decided in 2017 to stop funding homeopathic care, while public health systems in other EU countries such as Sweden, Belgium or Austria do not support the treatment.

5. Hayabusa 2

Asteroids

- Asteroids are rocky, airless worlds that orbit our Sun, but are too small to be called planets.

- There exist millions of asteroids, many thought to be the shattered remnants of planetesimals, bodies within the young Sun's solar nebula that never grew large enough to become planets.
- Most of this ancient space rubble can be found orbiting the sun between Mars and Jupiter within the main asteroid belt

Classification of Asteroids

- **Main Asteroid Belt:** The majority of the known asteroids located between Mars and Jupiter
- **Trojans:** These asteroids share an orbit with a larger planet, but do not collide with it because they gather around two special places in the orbit (called the L4 and L5 Lagrangian points).
- **Near-Earth Asteroids:** These objects have orbits that pass close by that of Earth.

Asteroid Ryugu

- Ryugu is a near-Earth object and a potentially earth-hazardous asteroid.
- The Japanese Space probe Hayabusa2 had been launched to study the asteroid Ryugu.

About Hayabusa 2

- An asteroid **sample-return mission** operated by the Japanese space agency, JAXA.
- It is in the process of surveying the asteroid for a year and a half
- It will return to Earth in December 2020.
- Hayabusa2 carries **multiple science payloads** for remote sensing, sampling, and four small rovers that will investigate the asteroid surface
- The Hayabusa2 is scheduled to position an '**impactor**' that will explode above the asteroid, shooting a two-kilo copper object to make it blast into a small crater on the surface.
- The probe will then **collect samples** from the artificial crater using an extended arm.
- The collected material could help answer many fundamental **questions about life and the universe**, including whether elements from space helped give rise to **life on earth**.

MASCOT

- **Hayabusa2** has launched the French-German Mobile Asteroid surface scout, (**MASCOT**), towards Ryugu.
- The 10-kg box-shaped MASCOT is loaded with sensors. It can **take images** at multiple wavelengths, **investigate minerals** with a microscope, **gauge surface temperatures** and **measure magnetic fields**.
- It is the **1st** time that a moving, robotic observation device have been successfully landed on an asteroid.

Why in news?

- Japan's Hayabusa2 probe made a "perfect" touchdown on the asteroid recently and has started collecting samples from beneath the surface in an unprecedented mission that could shed light on the origins of the solar system.

Significance of the event

- Scientists are hoping the probe will have collected unidentified materials believed to be "ejecta" from the blast after landing briefly in an area some 20 metres away from the centre of the crater.
- The touchdown is the last major part of Hayabusa2's mission, and when the probe returns to Earth next year to drop off its samples, scientists hope to learn more about the history of the solar system and even the origin of life on Earth.

Legacy

- Hayabusa2 is the successor to JAXA's first asteroid explorer, Hayabusa — Japanese for falcon — that returned with dust samples from a smaller, potato-shaped asteroid in 2010.
- It was hailed as a scientific triumph despite various setbacks during its epic seven-year odyssey.

6. Facial recognition (FR)

What is FR and how does it work?

- The **human face consists of geometric and photometric points** that are called as **nodal points**.
- **On an average**, single human face consists **80 nodal points**.
- **Detection, alignment and recognition** are the **three main aspects** of the face recognition technology.

- **Detection** is used to determine the **location and size of human faces** in digital images.
- In **alignment**, the system **determines** the **head position, size and pose** of the head.
- **Recognition** is used for **classification of detected, aligned and normalised faces** of the recorded identities.
- **Images can be acquired** by digitally scanning the photograph.

Recent announcement

- Unique Identification Authority of India (UIDAI) has announced new measure to make facial recognition mandatory for every authentication that requires Aadhar.
- The facial recognition will come as additional feature along with regular authentication process that includes identification of an individual based on **fingerprints or iris scan**.
- This can be used as the **second layer of the authentication process**.
- In this context, arrives automated facial recognition system

What is Automated Facial Recognition System (AFRS)?

- AFRS works by maintaining a large database with photos and videos of peoples' faces.
- Then, a new image of an unidentified person — often taken from CCTV footage — is compared to the existing database to find a match and identify the person.
- AI is used to match the faces.

Advantages over the current method

- Current facial recognition in India is done manually.
- While fingerprints and iris scans provide far more accurate matching results, automatic facial recognition is an easier solution especially for identification amongst crowds

Are there any automated facial recognition systems in use in India?

- It is a new idea the country has started to experiment with.
- On July 1, the Ministry of Civil Aviation's "DigiYatra" using facial recognition for airport entry was trialled in the Hyderabad airport.
- State governments have also taken their own steps towards facial recognition.

- Telangana police launched their own system in August 2018.

NCRB's proposal on AFRS

- The NCRB, which manages crime data for police, would like to use automated facial recognition to identify criminals, missing people, and unidentified dead bodies, as well as for "crime prevention".
- Its Request for Proposal calls for gathering CCTV footage, as well as photos from newspapers, raids, and sketches.
- The project is aimed at being compatible with other biometrics such as iris and fingerprints.
- It will be a mobile and web application hosted in NCRB's Data Centre in Delhi, but used by all police stations in the country.

Reasoning

- Automated Facial Recognition System can play a very vital role in improving outcomes in the area of Criminal identification and verification by facilitating easy recording, analysis, retrieval and sharing of Information between different organisations

NCRB's grand scheme

- NCRB has proposed integrating this facial recognition system with multiple existing databases. The most prominent is the NCRB-managed Crime and Criminal Tracking Network & Systems (CCTNS). Facial recognition has been proposed in the CCTNS program since its origin
- The idea is that integration of fingerprint database, face recognition software and iris scans will massively boost the police department's crime investigation capabilities. It will also help civilian verification when needed. No one will be able to get away with a fake ID

Background for CCTNS

- In 2009, following the Mumbai terror attacks, CCTNS was envisaged as a countrywide integrated database on crime incidents and suspects, connecting FIR registrations, investigations, and chargesheets of all 15,500 police stations and 6,000 higher offices.
- It also plans to offer citizen services, such as passport verification, crime reporting, online tracking of case progress, grievance reporting against police officers, and more

Progress of CCTNS

- In August 2018, the first phase of connecting the police stations was nearly complete.
- In the second phase, the Home Ministry proposed integrating the database with the fingerprint database of the Central Finger Print Bureau (CFPB).
- NCRB is currently rolling out the National Automated Fingerprint Identification System (NAFIS) and its integration with CCTNS.

Concerns about FR technology

- Cyber experts across the world have cautioned against government abuse of facial recognition technology, as it can be used as tool of control and risks inaccurate results.
- Amid National Crime Records Bureau's controversial step to install an automated facial recognition system, India should take note of the ongoing privacy debate in the US.
- Indian citizens are more vulnerable in the absence of a Data Protection Law

Situation in other countries

- In the US, the FBI and Department of State operate one of the largest facial recognition systems.
- International organisations have also condemned the Chinese government on its use of surveillance cameras and facial recognition to constrict the rights of Uighurs, a mostly Muslim minority

7. Lab grown meat

What is lab-grown meat or cultured meat?

- Cultured meat is meat produced by in vitro cultivation of animal cells, instead of from slaughtered animals. It is a form of cellular agriculture

How does it work?

- Lab-grown meat, also called "in vitro" or "clean" meat, starts with an animal's extracted stem cells.
- These cells are then multiplied into muscle fibers until they form an entire piece of meat
- The process takes about 20,000 fibers per burger patty
- Once grown, the meat is minced, mixed with fat, and dyed.

How does it taste?

- The people who have tried lab-grown meat say it is delicious and would have a hard time telling the difference between real livestock and something lab-grown.

Advantages

- The wasting of water is a major issue in the world, but an even bigger issue is the use of water in the production of meat.
- According to Peta, just to produce 1 pound or about a half a kilo of meat requires more than 2,400 gallons, compared to maybe just 25 gallons of water.
- In a study published in Environmental Science and Technology, the study stated that “it is estimated that lab-grown meat, involves approximately 7–45% lower energy use (only poultry has lower energy use), 78–96% lower GHG emissions, 99% lower land use, and 82–96% lower water use depending on the product compared.”
- According to the research, you could save more water by simply not eating the meat rather than not showering for six months. Lab-grown could help significantly reduce this issue

Problems

- The first challenge startups are working to overcome is the cost. In 2013, Mosameat's burger cost them \$330,000 to produce. Today, it has reduced much, but not good enough.
- People tend not to enjoy the idea of meat grown in a lab, and clean meats might need to run a few vigorous marketing campaigns to convince them otherwise
- Moral objections to the stem cells used — extracted from fetal cow blood — are also a concern.
- Regulatory restrictions might keep this form of clean meat from hitting grocery store shelves for many more years.

Why It's the Future

- Lab-grown meats beat the old-fashioned kind in two areas:

- They're better for your body
- They're better for the environment.
- Clean meats are grown in a sterile environment, meaning that you'll avoid bacteria found in traditional meats.
- The environmental benefits might outweigh your personal benefit, though.
- As the UN's Food and Agriculture Organization notes, animals raised for food make up 14.5 percent of total carbon emissions across the globe.
- According to one study, replacing livestock with lab-grown meats will cut down on the land needed by 99 percent, and the water needed by 90 percent.
- By shifting to lab-grown, we'll save resources that will be increasingly in demand as the world's population continues ticking upwards — by some estimates, demand for meat and seafood will double by 2050

Why in news?

- Lab-grown meat, first introduced six years ago in the form of a \$2,80,000 hamburger, could hit supermarket shelves at \$10 a patty within two years, European start-ups said

Art & Culture

1. Jaipur makes it to UNESCO World Heritage Site list

UNESCO World Heritage Committee (WHC)

- The World Heritage Committee is composed of representatives of 21 States Parties to the World Heritage Convention who meet annually.
- The Convention Concerning the Protection of the World Cultural and Natural Heritage is an international agreement that was adopted by the General Conference of UNESCO in 1972.
- It is based on the premise that certain places on Earth are of **outstanding universal value** and should therefore form part of the common heritage of humankind.
- It basically defines the kind of **natural or cultural sites** which can be considered for inscription on the World Heritage List.
- The Committee is in charge of implementing the Convention. To date, 1,092 sites in 167 countries have been inscribed on the World Heritage List.

Jaipur city

- The walled city of Jaipur in Rajasthan, was founded in 1727 AD under the patronage of Sawai Jai Singh II. It also serves as the capital city of the state of Rajasthan.
- Unlike other cities in the region located in hilly terrain, Jaipur was established on the plain and built according to a **grid plan** interpreted in the light of Vedic architecture.
- Its streets feature rows that intersect in the centre and create large public squares called **chaupars**.
- The city's urban planning shows an exchange of ideas from ancient Hindu and modern Mughal as well as Western cultures.
- Designed to be a commercial capital, the city has maintained its local commercial, artisanal and cooperative traditions to this day.
- The iconic monuments in the city include the Govind Dev temple, City Palace, Jantar Mantar, Hawa Mahal etc.

Why in the news?

- Jaipur (Rajasthan), was declared as UNESCO World Heritage Site at the 43rd session of the UNESCO World Heritage Committee (WHC) which met at Baku, Azerbaijan, from 30th June - 10th July, 2019.
- The city was nominated for its value of being an exemplary development in town planning and architecture that demonstrates an amalgamation and important exchange of ideas in the late medieval period.
- Jaipur has become the second city of the country after Ahmedabad to get the recognition.
- With Jaipur's inclusion as a cultural site, the number of heritage sites across India that are on the UNESCO World Heritage list, has grown to 38, including 30 cultural properties, 7 natural properties and 1 mixed site.

Cultural (30)

- Agra Fort (1983)
- Ajanta Caves (1983)
- Archaeological Site of Nalanda Mahavihara at Nalanda, Bihar (2016)
- Buddhist Monuments at Sanchi (1989)
- Champaner-Pavagadh Archaeological Park (2004)
- Chhatrapati Shivaji Terminus (formerly Victoria Terminus) (2004)
- Churches and Convents of Goa (1986)
- Elephanta Caves (1987)
- Ellora Caves (1983)
- Fatehpur Sikri (1986)
- Great Living Chola Temples (1987,2004)
- Group of Monuments at Hampi (1986)
- Group of Monuments at Mahabalipuram (1984)
- Group of Monuments at Pattadakal (1987)
- Hill Forts of Rajasthan (2013)
- Historic City of Ahmedabad (2017)
- Humayun's Tomb, Delhi (1993)
- Jaipur City, Rajasthan (2019)
- Khajuraho Group of Monuments (1986)
- Mahabodhi Temple Complex at Bodh Gaya (2002)
- Mountain Railways of India (1999,2005,2008)

- Qutb Minar and its Monuments, Delhi (1993)
- Rani-ki-Vav (the Queen's Stepwell) at Patan, Gujarat (2014)
- Red Fort Complex (2007)
- Rock Shelters of Bhimbetka (2003)
- Sun Temple, Konârk (1984)
- Taj Mahal (1983)
- The Architectural Work of Le Corbusier, an Outstanding Contribution to the Modern Movement (2016)
- The Jantar Mantar, Jaipur (2010)
- Victorian Gothic and Art Deco Ensembles of Mumbai (2018)

Natural (7)

- 1.Great Himalayan National Park Conservation Area (2014)
- 2.Kaziranga National Park (1985)
- 3.Keoladeo National Park (1985)
- 4.Manas Wildlife Sanctuary (1985)
- 5.Nanda Devi and Valley of Flowers National Parks (1988,2005)
- 6.Sundarbans National Park (1987)
- 7.Western Ghats (2012)

Mixed (1)

- Khangchendzonga National Park (2016)
- 2. Pothamala menhirs stand guard on the ancient necropolis**



About Menhirs:

- Menhir is a Tall Upright Stone of a kind erected in Prehistoric Times in western Europe.
- It can be found solely as monoliths, or as part of a group of similar stones.
- The Pothamala hills housed hundreds of cobbled stone structures, pointing to the existence of a structured graveyard of a prehistoric civilisation.
- The largest menhir found was 20 ft tall and 6 ft wide with a thickness of 5 ft. They were planted in a Specific Geometrical Pattern on a cluster of hills.

Why in the news?

- The sighting of new menhirs, perhaps the largest-ever recorded in Kerala, on the Pothamala hills in Udumbanchola taluk on the Kerala-Tamil Nadu border, has thrown light on the possible existence of a major prehistoric necropolis there.
- The researchers suggest that there should be a proper research and excavation by archeological survey of India. It is predicted that a civilisation lived here some 4000 years ago. It will be a great reveal if we find a great civilisation in south India.

Environment

1. Honour for 'Plan Bee' that helped save jumbos

Plan Bee

- Plan Bee, an amplifying system imitating the buzz of a swarm of honey bees to **keep wild elephants away** from railway tracks.
- A device was subsequently designed to generate the amplified sound of honey bees audible from 700-800 Meters. The first instrument was installed at a level crossing west of Guwahati, on a track adjoining the Rani Reserve Forest, an elephant habitat.
- NFR now has 46 such devices installed at vulnerable points.

Why in News?

- Plan Bee earned the Northeast Frontier Railway (NFR) the best innovation award in Indian Railways for the 2018-19 fiscal.

2. India's 1st elephant rehabilitation centre

Why in News?

- The Kerala government is working to set up the Country's first Elephant Rehabilitation centre in **Kottoor**, an ecotourism village near the state capital Thiruvananthapuram.
- The centre, expected to have an elephant museum, mahout training centre, super-specialty hospital, a retirement home and crematorium for the animals, will house orphaned, injured and older elephants.
- It is being planned on the lines of the Pinnawala Elephant Orphanage in Sri Lanka.

3. Bengal port records country's highest sea level rise in 50 years

What's in the news?

- Diamond Harbour in West Bengal, of all the major ports in India, located at the mouth of river Hooghly has recorded the maximum sea level increase, according to the latest data.

The rising trend:

- While recent studies reveal that sea level rise in the country has been estimated to be 1.3 mm/year along India's coasts during the last 40-50 years, at Diamond Harbour the rise was almost five times higher at 5.16 mm per year.
- This is followed by:
- Kandla port in Gujarat where the sea level rise was 3.18 (1950 to 2005)
- Haldia in West Bengal, which recorded a sea level rise of at 2.89 mm a year (1972 to 2005) Port Blair, which recorded a sea level rise of 2.20 mm per year (1916-1964)
- Going by the data from the Ministry of Earth Sciences, four ports, Diamond Harbour, Kandla, Haldia, and Port Blair, recorded a higher sea level rise than the global average.
- Chennai and Mumbai recorded a sea level rise far below the global and the national averages at 0.33 mm per year (1916-2005) and 0.74 mm (1878-2005) respectively.
- Studies over Indian region have shown a warming trend of 0.6°C on all India average basis, mainly contributed by maximum temperatures.

What might be the reasons behind the regional differences on sea-level?

- Heat Transportation by ocean currents
- Periodic climatic phenomena such as El Nino

Why sea level rise in Bengal coast is high?

- The sea level rise is higher in West Bengal, particularly in the Sunderbans delta, because of the **deltaic sediment deposition** as a result of the mixing of freshwater and saline water.
- Contours of river deltas are naturally dynamic being shaped by sediment deposition by the vast amounts of soft, fertile silt transported by the rivers constituting them.
- Land accretes by sedimentation but is lost by silt compactification and coastal erosion.
- Sediment transport into the Sundarbans has been severely affected by upstream

damming, especially the Farakka dam in West Bengal built on the Ganga in 1975. Dams trap sediment and greatly reduce downstream transport.

- As a result, subsidence has outpaced accretion on average in the Indian part of the Sundarbans and the Delta is sinking.
- The combined effect of an already high rate of sea-level rise in the Bay of Bengal and land subsidence has been an effective sea-level rise in the Sundarbans.
- In the recent study shown by researchers from the Netherland and U.K, Kolkata was found to be one of the most vulnerable cities prone to flooding.

What are some mitigation systems?

- **Recognition of Severity of Impact:** There is a need for much higher recognition of the unequivocal scientific evidence of impacts on key marine and coastal organisms, ecosystems, and services even under the low emissions scenario.
- **Global Policy Action for Ocean Protection:** There is a need to join up the action across global conventions concerning climate change and environmental protection.
- **Comprehensive Protection and Management:** There is a need to ensure that we rapidly fill gaps in protective regimes, such as protecting the High Seas.
- **Updated Risk Assessments:** A re-evaluation is needed on the risks that

impacts from ocean warming and other stressors pose to humanity, to the viability of the very species and ecosystems involved, and to the provisioning of goods and services we derive from the environment.

- **Reduction in Greenhouse Gases:** By adopting a comprehensive protection plan for achieving rapid and substantial cuts in greenhouse gases. Greenhouse gas mitigation at the global scale appears to be the overarching solution.

4. 300-member all-women voyage to fight ocean plastic

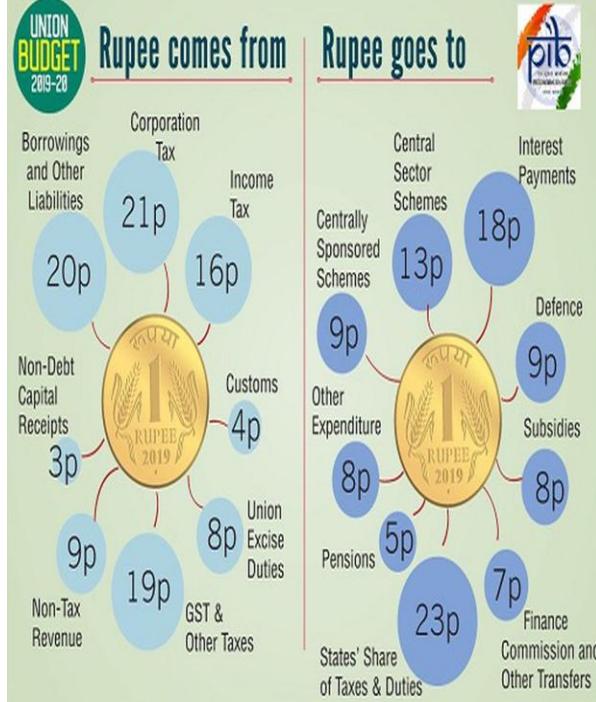
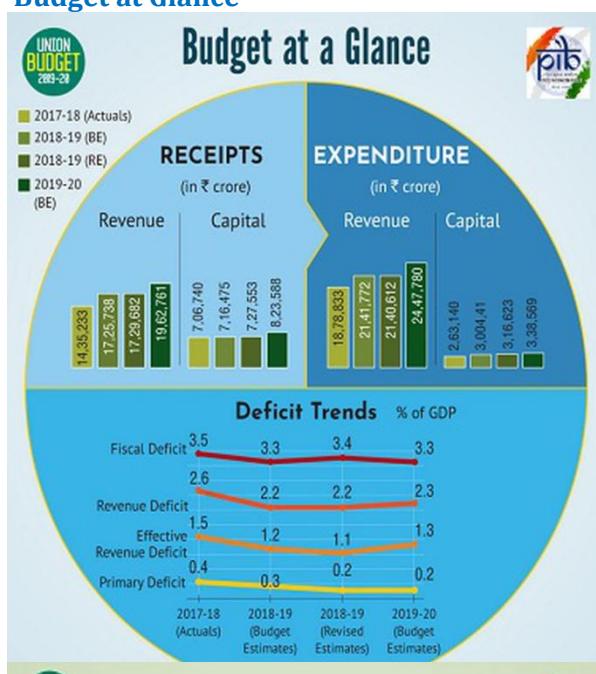
What's in the news?

- eXXpedition, a non-profit organization against ocean pollution have organised an expedition of 300 women member crew to look go around the globe and collect different types of plastics in the ocean.
- This is needed to understand the scope and variety of the ocean plastic pollution. As there isn't much research on this, characteristics and toxicity of this pollution is also not known.
- Hence this crew, which has people from all professions, will travel 38,000 nautical miles. The trip will cover the Arctic, the Galapagos Islands, the South Pacific islands and central ocean areas where plastic accumulates because of circulating currents and collect samples from it.

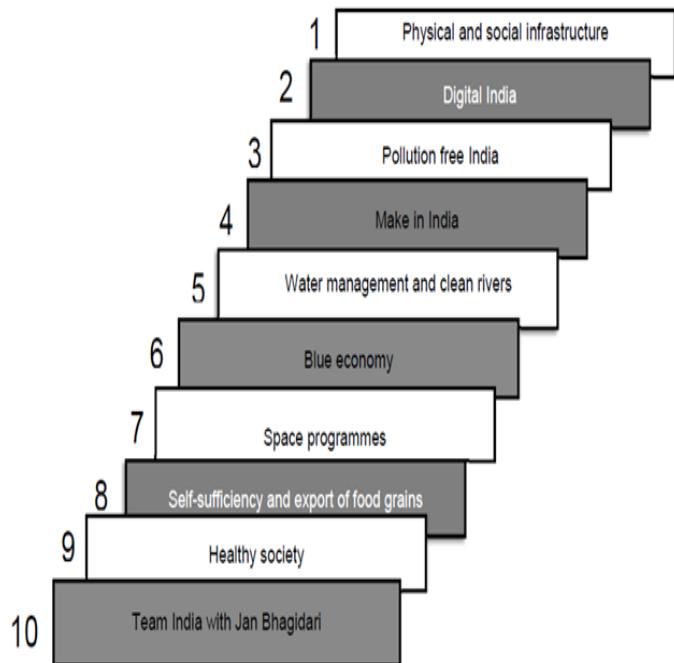
PIB Analysis (Budget)

Key Highlights of Union Budget 2019-20

Budget at Glance



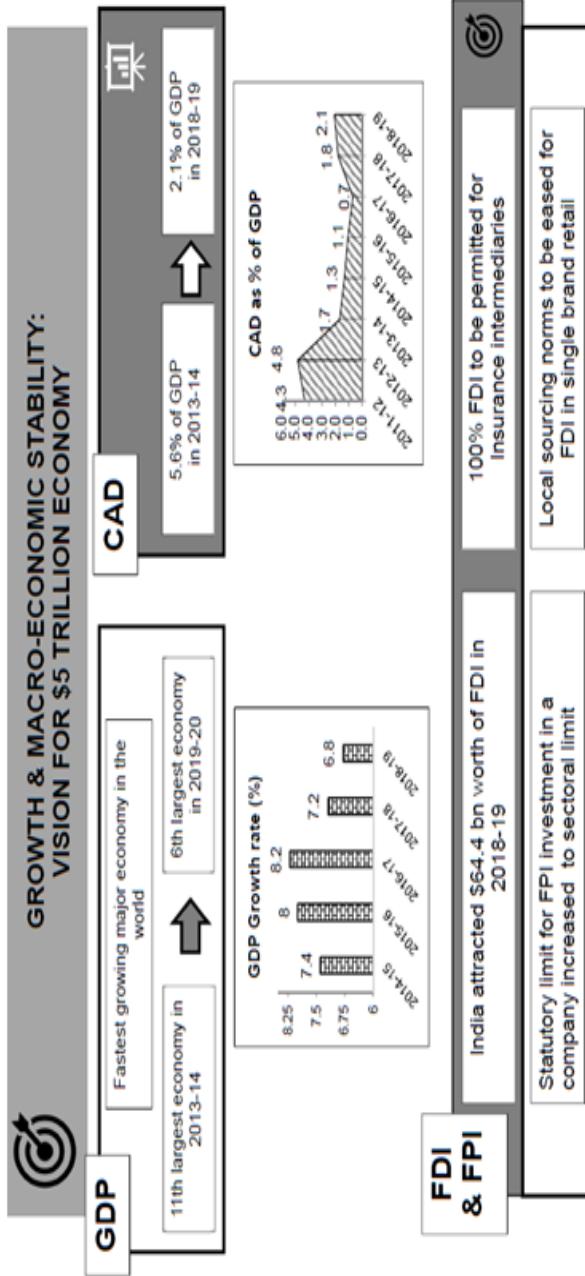
VISION FOR THE NEXT DECADE



- Building Team India with Jan Bhagidari:** Minimum Government Maximum Governance.
- Achieving green Mother Earth and Blue Skies through a **pollution-free India**.
- Making **Digital India** reach every sector of the economy.
- Launching Gaganyaan, Chandrayan, other **Space and Satellite programmes**.
- Building **physical and social infrastructure**.
- Water, **water management**, clean rivers.
- Blue Economy**.
- Self-sufficiency and export of food-grains**, pulses, oilseeds, fruits and vegetables.
- Achieving a **healthy society** via Ayushman Bharat, well-nourished women & children, safety of citizens.
- Emphasis on MSMEs, Start-ups, defence manufacturing, automobiles, electronics, fabs and batteries, and medical devices under **Make in India**.

2) Towards a 5 Trillion Dollar Economy

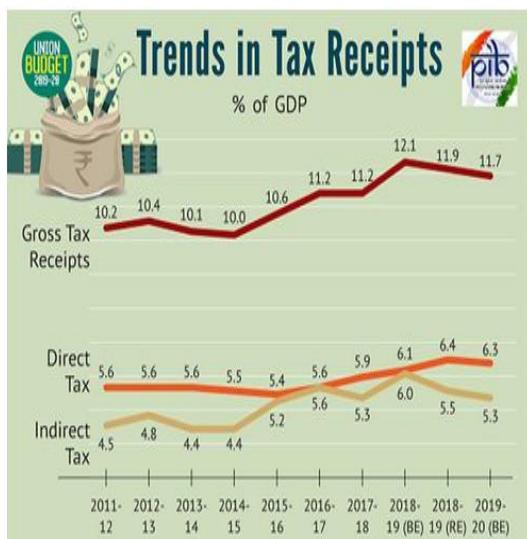
1) 10-point Vision for the decade



- “People’s hearts filled with Aasha (Hope), Vishwas (Trust), Aakansha (Aspirations)”.
- Indian economy to become a 3 trillion dollar economy in the current year.
- Government aspires to make India a 5 trillion dollar economy.
- “India Inc. are India’s job-creators and nation’s wealth-creators”.
- Need for investment in:
- Infrastructure.
- Digital economy.
- Job creation in small and medium firms.
- Initiatives to be proposed for kick-starting the virtuous cycle of investments.

- Common man’s life changed through MUDRA loans for ease of doing business.
- Pradhan Mantri Karam Yogi Maandhan Scheme
- Pension benefits to about three crore retail traders & small shopkeepers with annual turnover less than Rs. 1.5 crore.
- Enrolment to be kept simple, requiring only Aadhaar, bank account and a self-declaration.
- Rs. 350 crore allocated for FY 2019-20 for 2% interest subvention (on fresh or incremental loans) to all GST-registered MSMEs, under the Interest Subvention Scheme for MSMEs.
- Payment platform for MSMEs to be created to enable filing of bills and payment thereof, to eliminate delays in government payments.
- India’s first indigenously developed payment ecosystem for transport, based on National Common Mobility Card (NCMC) standards, launched in March 2019.
- Inter-operable transport card runs on RuPay card and would allow the holders to pay for bus travel, toll taxes, parking charges, retail shopping.
- State road networks to be developed in the second phase of Bharatmala project.
- Navigational capacity of Ganga to be enhanced via multi modal terminals at Sahibganj and Haldia and a navigational lock at Farakka by 2019-20, under Jal Marg Vikas Project.
- Four times increase in the next four years estimated in the cargo volume on Ganga, leading to cheaper freight and passenger movement and reducing the import bill.
- Rs. 50 lakh crore investments needed in Railway Infrastructure during 2018-2030.
- National Highway Programme to be restructured to ensure a National Highway Grid, using a financeable model.
- Power at affordable rates to states ensured under ‘One Nation, One Grid’.

3) Taxation budget



TAX PROPOSALS

- Threshold for applicability of lower corporate tax rate of 25% increased from ₹250 crore to ₹400 crore.
- Enhanced interest deduction up to ₹3.5 lakh for purchase of an affordable house.
- Deposit taking and systematically important non-deposit taking NBFCs can now pay tax in the year they receive interest for certain bad or doubtful debts.
- TDS of 2% on cash withdrawal exceeding ₹1 crore in a year from a bank account to promote less cash economy.
- Effective tax rate for individuals having taxable income above ₹2 crore has been increased.
- No charges or MDR on specified digital mode of payments. These modes are to be compulsorily provided by large businesses.
- Sabka Vishwas Legacy Dispute Resolution Scheme proposed for quick closure of service tax and excise related litigations.

FACELESS E-ASSESSMENT

A scheme of faceless electronic assessment involving no human interface to be launched this year



DIRECT TAX REFORMS PAYING OFF

Increase in tax collection by 78% from ₹6.4 lakh crore in 2013-14 to ₹11.4 lakh crore in 2018-19



ENHANCING EASE OF TAX PAYERS

Aadhaar and PAN to be made Interchangeable



- **Corporate Tax:** The lower rate of 25 % Corporate Tax will be extended to all companies with annual turnover up to Rs. 400 crore. Currently, this rate is only

applicable to companies having annual turnover up to Rs. 250 crore. This will cover 99.3 percent of the companies.

- **PAN – Aadhaar Interchangeability:** The Budget also proposes to make PAN and Aadhaar interchangeable and allow those who do not have PAN to file Income Tax Returns by simply quoting their Aadhaar number and also use it wherever they are required to quote PAN.
- **Pre-filing of Income-tax Returns:** Pre-filled tax returns will be made available to taxpayers which will contain details of salary income, capital gains from securities, bank interests, and dividends etc. and tax deductions.

Encourage Digital Payments:

- To promote digital payments, the Budget also proposes to levy TDS of 2 percent on cash withdrawal exceeding Rs. 1 crore in a year from a bank account.
- The business establishments with annual turnover more than Rs. 50 crore shall offer such low cost digital modes of payment to their customers.
- No Merchant Discount Rate (MDR) shall be imposed on customers as well as merchants.

Faceless e-assessment to eliminate undesirable practices:

- The existing system of scrutiny assessments in the IT Department involves a high level of personal interaction between the taxpayer and the Department, which leads to certain undesirable practices on the part of tax officials.
- To eliminate such instances a scheme of faceless assessment in electronic mode involving no human interface is being launched this year in a phased manner.
- **GST processes are being further simplified:** The threshold exemption limit for a supplier of goods is proposed to be enhanced from Rs. 20 lakhs to an amount exceeding Rs. 40 lakhs.

Sabka Vishwas Legacy Dispute Resolution Scheme:

- The budget proposes this as a dispute resolution-cum-amnesty scheme to allow quick closure of huge pending litigations from pre-GST regime.
- The relief under the scheme varies from 40 percent to 70 percent of the tax dues

for cases other than voluntary disclosure cases, depending on the amount of tax dues involved.

- The effective tax rates for the higher income group individuals having taxable income from Rs. 2 crore to Rs. 5 crore and 5 crore and above is proposed to be increased by around 3 percent and 7 percent respectively.
- It is proposed to give relief in levy of Securities Transaction Tax (STT) by restricting it only to the difference between settlement and strike price in case of exercise of options.

4) Foreign Direct Investment (FDI)

- It is being contemplated to permit **100% FDI for insurance intermediaries**.
- Local sourcing norms will be eased for FDI in Single Brand Retail sector.
- It is proposed to merge the NRI-Portfolio Investment Scheme Route with Foreign Portfolio Investment Route with a view to provide NRIs with seamless access to Indian equities.
- The Government will examine suggestions of further opening up of FDI in aviation, media (animation, AVGC) and insurance sectors in consultation with all stakeholders.
- FPIs will be permitted to subscribe to listed debt securities issued by REITs and InvITs.
- Union Budget 2019-20 propose to increase the statutory limit for FPI investment in a company from 24% to sectoral foreign investment limit with option given to the concerned corporates to limit it to a lower threshold, the Minister added.
- It is proposed to rationalize the existing Know Your Customer (KYC) norms for FPIs to make it more investor friendly without compromising the integrity of cross-border capital flows.

5) Foreign Policy

- **Aadhaar Card for NRIs:** The Union Finance Minister proposed to consider issuing Aadhaar Card for Non-Resident Indians with Indian Passports.
- **Indian Development Assistance Scheme (IDEAS):** The IDEAS scheme will be revamped during the current financial

year. Indian Development Assistance Scheme (IDEAS) provides concessional financing for projects and contributes to infrastructure development and capacity building in the recipient developing countries.

- **New Embassies:** In Financial Year 2019-20, Government intends to open four new Embassies and High Commissions abroad in countries where India does not have a Resident Diplomatic Mission.
- **World class tourist destinations:** Government is developing 17 iconic tourism sites into world class tourist destinations. These sites will lead to increase visits of both domestic and international tourists at these destinations.
- She also proposed to launch a Mission that will integrate India's traditional artisans and their creative products with global markets. Wherever necessary patents and geographical indicators, will be obtained for them.

6) Transport and Infrastructure Development Budget

- Comprehensive restructuring of **National Highway Programme** will be carried out to ensure that the National Highway Grid of desirable length and capacity is created using financeable model.
- After completing the Phase-1 of **Bharatmala**, states will be helped to develop State road networks in the Phase-2 of Bharatmala.
- The Central Road and Infrastructure Cess on petrol and diesel has been raised by Rs 1 per litre to give a boost to the development of Infrastructure.
- Under Phase-II of the FAME Scheme, only advanced battery and registered e-vehicles will be incentivized. Phase II of FAME has an outlay of Rs10,000 crore for a period of 3 years, and has commenced from 1st April, 2019.
- The Government has already moved GST council to lower the GST rate on electric vehicles from 12% to 5%.
- To make electric vehicles affordable to consumers, the government will provide additional income tax deduction of Rs 1.5

lakh on the interest paid on loans taken to purchase electric vehicles.

- To further incentivise e-mobility, customs duty is being exempted on certain parts of electric vehicles.
- Under the **Jal Marg Vikas Project**, two multimodal terminals at Sahibganj and Haldia and a navigational lock and Farrakka would be completed this year.

7) Education Budget

- An amount of Rs. 400 crore has been provided for FY 2019-20 to create "**World Class Institutions**" in the field of education which is more than three times the revised estimates for the previous year.
- The Government will also bring in a "**New National Education Policy**" to transform India's higher education system to one of the global best education systems.
- A **National Research Foundation (NRF)** will be setup to fund, coordinate and promote research in the country.
- The '**Study in India**' programme was announced that will focus on bringing foreign students to study in our higher educational institutions.
- A draft legislation for setting up Higher Education Commission of India (HECI) would be presented in the year ahead. This will help to comprehensively reform the regulatory system of higher education to promote greater autonomy and focus on better academic outcomes.
- National Sports Education Board for Development of Sportspersons would be set up under **Khelo India Scheme** to popularize sports at all levels.



8) Jal Jeevan Mission

- To ensure India's water security, Government of India has constituted the **Jal Shakti Mantralaya** by integrating the Ministry of Water Resources, River Development and Ganga Rejuvenation and Ministry of Drinking Water and Sanitation. It ensures HarGharJal (piped water supply) to all rural households by 2024 under the Jal Jeevan Mission.
- Department of Drinking Water and Sanitation under the Jal Shakti Mantralaya is the executing agency.
- This Mission will focus on integrated demand and supply side management of water at the local level, including the creation of local infrastructure for source sustainability like rainwater harvesting, groundwater recharge and management of household wastewater for reuse in agriculture.
- The Mission will converge with other Central and State Government Schemes to achieve its objectives of sustainable water supply management across the country.
- Coverage: Government has identified 1592 Blocks which are critical and over exploited, spread across 256 Districts for the Jal Shakti Abhiyan.
- Funding: Besides using funds available under various Schemes, the Government will also explore the possibility of using

additional funds available under the Compensatory Afforestation Fund Management and Planning Authority (CAMPA) for this purpose.



News in-depth

News on Air

1) Rain Water Harvesting Cell

What is Rain Water Harvesting?

- Rainwater Harvesting is a process involving collection and storage of rainwater (with the help of artificially designed system) that runs off natural or man-made catchment areas e.g. roof top, compounds, rock surface or hill slopes or artificially repaired impervious/semi-pervious land surface.

Why in News?

- Union Housing and Urban Affairs Ministry has released its Guidelines for urban water conservation.
- The guidelines have been issued as part of the first phase of Jal Shakti Abhiyan which began on the 1st of this month and will continue till 15th of September this year.

Key features:

- All Urban Local Bodies across the country have been asked to set up a cell for monitoring of Rain Water Harvesting and revival of at least one water body in their areas.
- The cell should monitor the extent of groundwater extraction and groundwater aquifer recharge. This information should be displayed at prominent locations for public awareness.

2) Iran Breaches Uranium Enrichment Cap

What is Uranium Enrichment?

- Uranium has two isotopes—235 and 238. Uranium 235 powers both nuclear reactors and nuclear bombs, but it is less than 1 % of naturally occurring uranium.
- The concentration of uranium 235 needs to be increased to about 5 % (low-enriched uranium) for nuclear reactor fuel and to about 90 % (highly enriched uranium) for nuclear bombs. This process is called enrichment.

About:

- Iran surpassed the cap and reached 4.5 % enrichment. This was announced by the country's atomic energy organisation spokesman Behrouz Kamalvandi who said that this level of purity completely satisfies the power plant fuel requirements of the country.
- He hinted that Iran might stick to this level of enrichment for the time being, which is well below the more than 90 % level required for a nuclear warhead.
- The UN nuclear watchdog, the International Atomic Energy Agency (IAEA), confirmed that Iran had enriched uranium to a level above the deal's cap.
- The move came more than a year after the United States pulled out of the landmark accord between world powers and Iran, which says it has lost patience with perceived inaction by the remaining European partners.

What is IAEA?

- It is widely known as the world's "Atoms for Peace and Development" organization within the United Nations family.
- It is the world's central intergovernmental forum for scientific and technical co-operation in the nuclear field. It works for the safe, secure and peaceful uses of nuclear science and technology.
- Though established as an autonomous organisation, independently of the United Nations through its own international treaty, the IAEA Statute, the IAEA reports to both the United Nations General Assembly and Security Council

Why in News?

- Iran has breached a uranium enrichment cap set by a 2015 nuclear deal and warned Europe against taking retaliatory measures.

3) Duty on Pakistani Goods

What is Statutory Resolution?

- Statutory Resolution is a resolution in pursuance of a provision in the Constitution or an Act of Parliament.

What was the Resolution?

- Parliament has adopted a statutory resolution for levying 200 % duty on all goods originating in or exported from Pakistan.
- Besides, the resolution related to increasing basic custom duty on lentils, boric acid and diagnostic and laboratory reagents. On lentils, the duty has been increased from 40 % to 50 %, on boric acid it has been increased from 17.5 % to 27.5 % and on diagnostic items from 20 % to 30 %.
- The Lok Sabha and Rajya Sabha approved the amendment in the first schedule of the Custom Tariff Act in this regard.
- India had notified the basic custom duty to 200 % on all goods exported from Pakistan with effect from the 16th of February this year.

Why in News?

- Parliament has adopted a statutory resolution for levying 200 % duty on all goods originating in or exported from Pakistan. The resolution was moved by Minister of State for Finance.

4) Palkhi Procession

What is it?

- Pandharpur Wari or Wari (Vari) is an annual pilgrimage (yatra) to Pandharpur - the seat of the Hindu god Vithoba in Maharashtra, in honour of the deity.
- The tradition is more than 700 to 800 years old.

Journey:

- Palkhis carrying the paduka (foot prints) of various saints - most notably Dnyaneshwar and Tukaram - from the Varkari (Warkari) sect (which venerates Vithoba), are taken from their respective shrines to Pandharpur.
- Dnyaneshwar's palkhi leaves from Alandi, while Tukaram's begins at Dehu; both in Pune district of Maharashtra.

- The journey takes 21 days. The wari culminates at the Vithoba temple on Ashadhi Ekadashi.

- Upon reaching Pandharpur on Ashadi Ekadashi, these devotees take a holy dip in the sacred Chandrabhaga River/Bhima River before proceeding to visit the Vitthal temple.
- This annual March on foot from various locations in Maharashtra to Vithoba temple attracts a total of over a million pilgrims.

Why in News?

- Around 10 lakh pilgrims across Maharashtra have joined Palkhi procession from Alandi and Dehu to Pandharpur. They will cover a distance of around 250 kilometres in 20 days.

5) Aadhaar and Other Laws (Amendment) Bill, 2019

- The bill envisages strengthening of the Aadhaar Act as per the directions of the Supreme Court and recommendations of Justice B.N.Srikrishna(Retd) Amendments to Aadhaar and other laws were necessitated after the Supreme Court's ruling on privacy.
- The bill seeks to amend Aadhaar (Targeted Delivery of Financial and Other Subsidies, Benefits and Services) Act, 2016 and to further amend the Indian Telegraph Act, 1885 and the Prevention of Money Laundering Act, 2002.

The salient features of the amendments:

- No individual will be compelled to provide proof of possession of Aadhaar number or undergo authentication for the purpose of establishing his identity unless it is so provided by a law made by Parliament.
- For the convenience of the general public in the opening of bank accounts, it will allow the use of Aadhaar number for authentication on a voluntary basis as an acceptable KYC document under the Telegraph Act, 1885 and the Prevention of Money Laundering Act, 2002.
- It gives an option to children who are Aadhaar number holders to cancel their Aadhaar number on attaining the age of eighteen years.

- It proposes deletion of section 57 of the Aadhaar Act relating to use of Aadhaar by private entities;
- It prevents denial of services for refusing to, or being unable to, undergo authentication.
- It provides for the establishment of Unique Identification Authority of India Fund.
- It provides for civil penalties, its adjudication, appeal thereof in regard to violations of Aadhaar Act and provisions by entities in the Aadhaar ecosystem.

6) Sah-Beej

Why in News?

- In Madhya Pradesh, along with distribution and marketing of certified and high quality seeds to farmers, the Madhya Pradesh State Cooperative Seed Federation will produce seeds too.

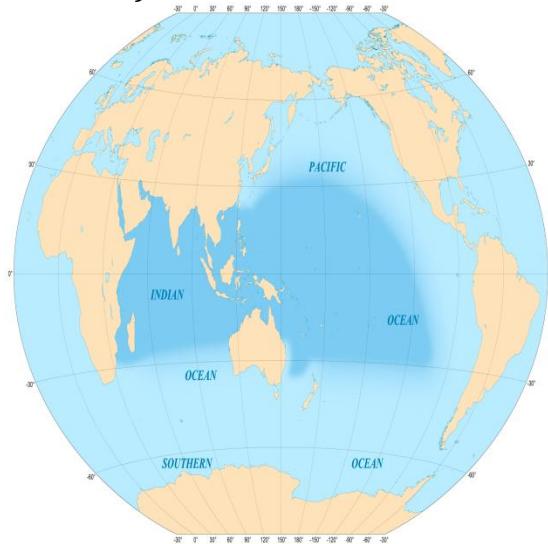
About:

- The brand name of seeds will be 'Sah-Beej'.
- A plan has been made by Madhya Pradesh State Cooperative Seed Federation to produce seeds from the next Rabi season.
- A large number of seed committees present in the state will be linked to the seed federation and these committees will help in the marketing of seeds.

The Hindu Editorial Analysis

1. On Reclaiming the Indo-Pacific narrative.

- GS paper 2 (Bilateral, regional and global groupings and agreements involving India and/or affecting India's interest)



- [ASEAN -The Association of Southeast Asian Nations is a regional intergovernmental organization comprising ten countries in Southeast Asia, which promotes intergovernmental cooperation and facilitates economic, political, security, military, educational, and sociocultural integration among its members and other countries in Asia.]

Context:

- ASEAN has released a vision document on Indo-Pacific region.

Significance:

- Though there were divisions among ASEAN member states in the run-up to the summit, they managed to come up with a non-binding document.
- It underlines in the document the need for an inclusive and “rules-based framework” to “help to generate momentum for building strategic trust and win-win cooperation in the region”.
- An awareness of the emergence of a great power contest around its vicinity pervades the document as it argues that “the rise of material powers, i.e. economic and military, requires avoiding the deepening of mistrust, miscalculation and

patterns of behaviour based on a zero-sum game”.

- Despite individual differences and bilateral engagements ASEAN member states have with the U.S. and China, the regional grouping can now claim to have a common approach as far as the Indo-Pacific region is concerned.
- And, the Thailand's PM suggests revising the framework on ASEAN cooperation at the regional and sub-regional levels and generate tangible and concrete relations among the countries.
- Further, the idea is put under two heads:
Conduct in the China Sea
- U.S. Free and Open Indo-Pacific (FOIP) strategy report focuses on preserving a “free and open Indo-Pacific” in the face of a more “assertive China” — was perhaps the final push that was needed to bring the ASEAN discussions on the subject to a close.
- Also, Japan had already unveiled its Free and Open Indo-Pacific concept in 2016, while Australia released its Foreign Policy White Paper in 2017, detailing its Indo-Pacific vision centred on security, openness and prosperity.
- Again, Prime Minister Narendra Modi articulated India's Indo-Pacific vision at the Shangri-La Dialogue in 2018, with India even setting up an Indo-Pacific wing in the Ministry of External Affairs (MEA) earlier this year.
- For a long time, the ASEAN has been reluctant to frontally engage with the Indo-Pacific discourse as the perception was that it may antagonise China.
- But there was soon a realisation that such an approach might allow others to shape the regional architecture and marginalise the ASEAN itself.
- And, so the final outlook that the ASEAN has come up with effectively seeks to take its own position rather than following any one power's lead.

The framework

- Here, while the ASEAN outlook does not see the Indo-Pacific as one continuous territorial space, it emphasises development and connectivity, underlining the need for maritime cooperation, infrastructure connectivity and broader economic cooperation.
- And, also, the ASEAN is signalling that it would seek to avoid making the region a platform for major power competition. Instead its frame of reference is economic cooperation and dialogue.
- Obviously, India has welcomed the ASEAN's outlook on the Indo-Pacific as it sees "important elements of convergence" with its own approach towards the region.
- Also, India continues to invest in the Indo-Pacific; on the side-lines of the recent G-20 Summit in Osaka, Japan, Mr. Modi held discussions on the Indo-Pacific region with U.S. President Donald Trump and Japan Prime Minister Shinzo Abe with a focus on improving regional connectivity and infrastructure development.
- Altogether, with the ASEAN finally coming to terms with its own role in the Indo-Pacific, the ball is now in the court of other regional stakeholders to work with the regional grouping to shape a balance of power in the region which favours inclusivity, stability and economic prosperity.

2. On tread with caution

▪ GS paper 2(Governance)

Context:

- As part of its commitment to simplify and consolidate labour rules and laws under four codes the Union Cabinet has cleared the Occupational, Safety, Health and Working Conditions Code, a week after it approved the Code on Wages Bill.

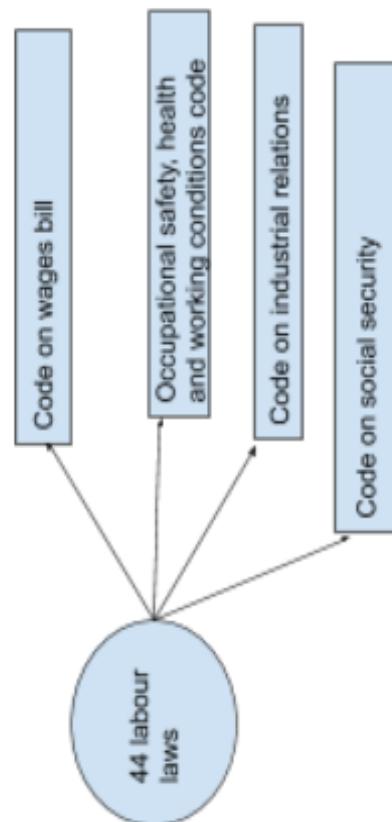
Significance:

- Presently, Our labour laws are rigid and crucial rights of workers does not comes under the laws purview. Thus, it affects the labourers as well as the farms and factories and it discourages investments

in the sector. Hence, the government came up with the initiative.

What is the initiative?

- Consolidation of 44 labour and simplifying those into 4 codes and that is depicted in the figure.



- Code on wages bill seeks to include more workers under the purview of minimum wages and proposes a statutory national minimum wage for different geographic regions, to ensure that States will not fix minimum wages below those set by the Centre.
- The Code on labour safety and working conditions include regular and mandatory medical examinations for workers, issuing of appointment letters, and framing of rules on women working night shifts.
- The Code on Industrial Relations will be scrutinised by labour unions for any changes to worker rights and rules on hiring and dismissal and contract jobs, and the code on social security.

Opinions:

- Here, organised unions have opposed changes proposed in the Industrial Relations code, especially the provision to increase the limit for prior government permission for lay-off, retrenchment and

closure from 100 workers as it is currently, to 300.

- Further, the Economic Survey highlighted the effect of labour reforms in Rajasthan, suggesting that the growth rates of firms employing more than 100 workers increased at a higher rate than the rest of the country after labour reforms.
- Also, the worker organisations claim that the implementation of such stringent labour laws in most States is generally lax. Clearly, a cross-State analysis of labour movement and increase in employment should give a better picture of the impact of these rules.
- And, the simplification and consolidation of labour laws apart, the government must focus on the key issue of job creation. The Periodic Labour Force Survey that was finally made public in late May clearly pointed to the dire situation in job creation in recent years.
- Again, while the proportion of workers in regular employment has increased, unemployment has reached a 45-year high. The worker participation rate has also declined between surveys held in 2011-12 and 2017-18.
- The government's response to this question has either been denial, as was evident after the draft PLFS report was leaked last year, or silence, after it was finally released.
- In such a situation, the government should be better off building a broader consensus on any major rule changes to existing worker rights rather than rushing through them for the sake of simplification. The consolidated code bills should be thoroughly discussed in Parliament and also with labour unions before being enacted.

3. On Going Electric

▪ GS Paper 3

Context:

- Recent budgetary measures will have an immediate impact on pricing of electric vehicles and bring in more models.
- Here, the questions are what are the challenges in mainstreaming electric vehicles in India?
- And, how can we overcome the challenges?

Significance:

- Electric vehicles are the future of India's transportation. It could save billions of dollars as fuel cost will be reducing. Pollution will be reduced. It will help in achieving the targets of Paris Climate change deals. It is a push in achieving certain Sustainable development goals.
- Adoption of Electric vehicles could help the country save \$60 billion in diesel and petrol along with cutting down as much as 1 giga ton of carbon emissions by 2030.

Concerns:

- Its stated vision to leapfrog into an era of electric mobility and domestic vehicle manufacturing, led by public transport and commercial vehicles, is forward-looking. It is also inevitable because poor air quality and noise pollution have sharply affected the quality of life, and pose a serious public health challenge.
- As the NITI Aayog has stated, the goal of shifting to electric vehicles cannot make progress without deadlines, and a market-driven approach sought by some sections of the automotive industry will leave India's capabilities and infrastructure for e-mobility trailing others, notably China.
- With 2030 as the outer limit, the imperative is to fix a realistic time-frame by which scooters, motorcycles, three-wheel carriages and, later, all new vehicles will be battery powered. An additional income tax deduction of Rs. 1.5 lakh is now offered on interest paid on loans to purchase electric vehicles, and the GST Council has been moved to cut the tax on e-vehicles to 5% from 12%.
- Both demands were made by the industry earlier. There is a significant outlay under the second iteration of the Faster Adoption and Manufacturing (of Hybrid and) Electric Vehicles (FAME) plan of Rs. 10,000 crore, to give a fillip to commercial vehicles and to set up charging stations.

Challenges:

- Less coverage on a single battery charge
- Local production of inputs for EVs is at just about 35% of total input production.
- Rate of penetration of electric vehicles is the lowest in India.
- India's limited ability to manufacture cost effective batteries.

- India does not have any known reserves of lithium and cobalt, which makes it dependent on imports of lithium-ion batteries from Japan and China.
- Lack of attention on building charging infrastructure.

Suggestions to improve:

- Should put efforts in developing an entire electric vehicle's ecosystem.
- There is a need to shift the focus from subsidizing vehicles to subsidizing batteries because batteries make up 50% of EV costs.
- Corporates could invest in charging stations as corporate social Responsibility compliances.
- Private investment in battery manufacturing plants and developing low cost production technology is needed.
- Need for a policy roadmap on electric vehicles so that investments can be planned.
- Acquiring lithium fields in Bolivia, Australia, and Chile could become as important as buying oil fields as India needs raw materials to make batteries for electric vehicles.
- Providing waiver of road tax and registration fees, GST refunds and free parking spaces for EVs.

4. On turning down the heat.

- GS Paper 3(GS paper3, Paper2) (Multilateral, global agreements)
- Conservation, environmental pollution and degradation.

Context:

- During the run-up to the Paris climate change meeting in 2015 (COP-21) under the United Nations Framework Convention on Climate Change, each country decided the level and kind of effort it would undertake to solve the global problem of climate change.
- These actions were later referred to as nationally determined contributions (NDCs).
- And, there is enormous potential in mitigating climate change through forest restoration

[Nationally Determined Contributions(NDC) Targets?

- To reduce the emissions intensity of its GDP by 33 to 35 percent by 2030 from 2005 levels.
- To achieve about 40 per cent cumulative electric power installed capacity from non-fossil fuel based energy resources by 2030, with the help of transfer of technology and low cost international finance, including from Green Climate Fund.
- To create an additional carbon sink of 2.5 to 3 billion tonnes of CO₂ equivalent through additional forest and tree cover by 2030.]
- To deal with the heat some suggestions under three heads are given and they are:
- Enhancing green cover.
- Natural forests.
- Restoration type is key.

Enhancing green cover.

- The additional increase in carbon sinks, as recommended in this report, is to be achieved by the following ways:
- Restoring impaired and open forests;
- Afforesting wastelands;
- Agroforestry; through green corridors, plantations along railways, canals, other roads, on railway sidings and rivers; and via urban green spaces.
- Close to three quarters of the increase (72.3 %) will be by restoring forests and afforestation on wastelands, with a modest rise in total green cover.
- The FSI study has three scenarios, representing different levels of increase in forest and tree cover.
- For example, 50%, 60% or 70% of impaired forests could be restored.
- The total increase in the carbon sink in these scenarios could be 1.63, 2.51 or 3.39 billion tonnes of CO₂ equivalent by 2030, at costs varying from about Rs. 1.14 to Rs. 2.46 lakh crore.
- These figures show that the policy has to be at least at a medium level of increase to attain the stated NDC targets.

Natural Forest.

- Locking up the carbon from the atmosphere in trees, ground vegetation and soils is one of the safest ways with which to remove carbon.
- If done correctly, the green cover increase will provide many other benefits: it will improve water quality, store water in

wetlands, prevent soil erosion, protect biodiversity, and potentially provide new jobs.

- The authors estimate that allowing land to be converted into forests naturally will sequester 42 times the carbon compared to land converted to plantation, or six times for land converted to agroforestry.

Restoration type is key.

- Besides, some of the trees selected for the plantations may rely on aquifers whose water becomes more and more precious with greater warming.
- Such forms of green cover, therefore, do not mitigate climate change and also do not improve biodiversity or provide related benefits.
- India, therefore, needs first to ensure that deforestation is curtailed to the maximum extent.
- The area allocated to the restoration of impaired and open forests and wastelands in the FSI report should be focussed entirely on natural forests and agroforestry.

5. On a shot at Economic logic

- GS Paper 2(Bilateral, regional and global agreements)

Context:

- The 12th Extra-Ordinary Summit of the African Union (AU) which concluded on July 8 at Niamey, the capital of the Niger Republic, saw 54 of 55 of its member states signing the African Continental Free Trade Agreement (AfCFTA) for goods and services.

Significance:

- Of the countries involved in the above-mentioned aspect, 27 have already ratified it. Actual cross-border free trade could start by July 2020 with an elimination of customs duties on 90% of the tariff-lines.
- If taken to its logical conclusion, this audacious project would eventually create an African Common Market of 1.2 billion people and a GDP of over \$3.4 billion — the metrics are comparable to India's.
- The ACFTA would be world's largest FTA, and in a world dependent on African markets and commodities, it would have global impact.

- Here, India needs to anticipate the promising impact of the African Continental Free Trade Area.

- Further, the challenges and hope from India's angle is briefed under two heads
- Hurdles and Optimism

Hurdles:

- Here, there are three main reasons to be sceptical about the viability of the AfCFTA.
- First, the African Union (founded as the Organisation of African Unity in 1963) has been largely ineffective in dealing with the continent's myriad problems such as decolonisation, underdevelopment, Islamic terrorism and the Arab Spring. The AU's grand plans, including the Muammar Gaddafi -Africa Unity project, have been spectacular flops. It is, therefore, natural to take the AfCFTA, the AU's most ambitious project so far, with a ladleful of salt.
- Second, serious political, organisational and logistical challenges to the AfCFTA notwithstanding, the national economies in Africa are generally weak with a low manufacturing base. They also lack competitiveness and mutual complementarity. Only a sixth of Africa's current total trade is within the continent.
- Third, the AfCFTA seems to be countercyclical to the ongoing global protectionist trends as seen in the U.S.-China trade conflict, Brexit and the stalemates at the World Trade Organisation and the United Nations Conference on Trade and Development. World trade is likely to grow only by 2.6% in 2019, a quarter of last year's figure. Commodity prices are stagnant and globalisation is often being reversed.

Optimism

- Here, given the strong global headwinds including a cooling Chinese ardour for Africa, greater collective self-reliance through African economic integration makes eminent sense.
- Further, the AfCFTA can build upon the experience of the continent's five regional economic blocks.
- Again, while the AU Commission is not famous for efficient planning, it has prepared an extensive road map towards the AfCFTA with preliminary work on

steps such as incremental tariff reduction, elimination of non-tariff barriers, supply chains and dispute settlement.

- Also, in December 2018, it organised the first Intra-African Trade Fair in Cairo with 1,086 exhibitors signing \$32 billion in business deals. A new breed of African transnational corporations such as Dangote, MTN, Ecobank and Jumia have continental ambitions. Indeed, the logistical and financial networks across the continent are poor and customs formalities are foreboding, but these can be eventually overcome with stronger political will.
- Moreover, vigorous “informal” trade across porous national borders is already a fact of African life. Thus, by adopting the AfCFTA, African leaders are only following the economic logic.

From the Indian angle

- India needs to anticipate the AfCFTA's likely impact on its interests and try to

influence and leverage it to enhance India-African economic ties.

- In principle, African economies becoming more formalised and transparent would be in India's interest. While local manufactured items and services may ultimately compete with Indian exports, Indian firms can co-produce them in Africa.
- Thus, If handled in a proactive manner, the AfCFTA is likely to open new opportunities for Indian stakeholders in fast-moving consumer goods manufacturing, connectivity projects and the creation of a financial backbone. Also, India donated \$15 million to Niger to fund the Niamey AU Summit.
- Altogether, once the AfCFTA is accepted as beneficial game changer, the African elite could perhaps contemplate crossing another Rubicon: an India-African FTA.

RSTV BIG PICTURE

1.On Cashless economy

▪ GS Paper 3(Economy)

Context:

- India's trust towards a cashless economy. In a bid to promote cashless transactions, the government businesses with an annual turnover of over Rs 50 crore can offer low-cost digital modes of payments and no charges or Merchant Discount Rate will be imposed on them or their customers.
- Presenting the Union Budget for 2019-20, Finance Minister Nirmala Sitharaman also said two per cent tax deducted at source will be levied on cash withdrawals exceeding Rs 1 crore in a year from a bank account to discourage the practice of making business payments in cash.
- Finance Minister said the Reserve Bank of India and banks will absorb these costs from the savings that will accrue to them on account of handling less cash as people move to these digital modes of payment.
- Lately, digital transactions using mobile payment firms are on the rise. For instance, Unified Payments Interface transactions have grown to 754 million in June 2019. IMPS and NETC transactions stood at around 171 million and 26 million, respectively.
- The cashless transfer is soon becoming the most preferred option and there are a number of benefits of going cashless. The digital or electronic transaction of the capital by using net banking, credit cards etc. is called cashless transfer. People can easily pay their bills online, shop and schedule transactions and manage all the finances using their laptops or smartphones.

Significance:

- Going cashless not only eases one's life but also helps authenticate and formalize the transactions that are done. This helps to curb corruption and the flow of black money which results in an increase of economic growth.
- The expenditure incurred in printing and transportation of currency notes is reduced. In a nation like India, cashless transactions are not widespread and this is due to the technology gap and the lack of proper education.

- Though these are the matters of concern, the government or the financial institutes need to address them to create a strong cashless economy.

Benefits of Cashless Economy

- Saves money and time.
- Companies and governments will get efficient and they can reduce costs as they no longer need the manual accounting work to be done. The costs associated with accounting and handling cash is very high.
- Less cash decreased crimes
- Business and individuals can also avoid other costs as well. Theft often leaves a big hole in one's pocket. The risk of theft will continue until people carry cash and by going cashless the same can be reduced.
- Production costs of coins and paper currency are reduced
- Production of coins and paper currency is indeed an expensive endeavor and the life span of most of the paper currencies is about 6 years. So, by going electronic the cost of production gets reduced.
- Less cash means more data
- The government can use the data coming from the cashless transactions to improve and analyze their policies. By using such data, officials can predict or identify the patterns of activity and use such information for urban planning for sectors like energy management, housing, and transportation.
- More spending helps improved economic growth
- When a nation is taking a step towards a cashless economy, a boost in the economic growth can be expected.

Challenges of getting our economy going cashless.

- **High Cash Dependency:** India has a high cash penetration in almost all of its transactions that happen as B2C(Business to customer) transactions. Total cash flow in the market accounts for 12.04% of the GDP, which is among the highest in developing countries. This goes to show

our dependence on cash is acute and it requires time to tackle it.

- **Lack of Digital Infrastructure:** The first and foremost requirement of a digital economy is the penetration of internet and smartphone. Although a billion mobile subscriptions (not users), only 30% of subscribers use smartphones. With 370 million mobile internet users, over 70% of them are in cities while 70% of Indian population lives in villages.
- **Skepticism in Merchants:** Small time merchants as well as users have high amount of suspicion over plastic money and they need to be educated over the potential benefits of using it. One cannot expect an overnight change in the perception of a majority of Indians over the use of plastic money. Government needs to come out with awareness and incentive schemes to promote digital economy.
- **High Merchant Discount Rate:** These are the percentage deducted from each purchase a merchant makes by the card issuing authority or bank. These are volume dependent and are more economical if the merchant is able to sell a large amount of products, thereby beneficial for big merchants. For smaller merchants, it does not provide enough incentive to make the shift from cash.

Best way forward

- Consumer should be placed at the centre of the debate when cashless economy is discussed
- The companies should take the consumers' confidence and their ease into consideration when they go digital in economic transactions.
- The government also needs to take the necessary steps and make some policy considerations when they are preparing for a cashless economy. The payment systems have to be protected from the cyber-attacks which are the major threat for cashless transactions.
- Also, the government should be able to serve the underbanked as well. Everyone from the society should have access to an electronic system that they can use for such transactions.
- **Nandan Nilekani committee's report and suggestions can also be considered**

- The committee recommends that the Government, being the single largest participant in payments, take the lead on all aspects of digitization of payments.
- RBI to set an interchange rate for transaction between customers and leave the MDR on competitive market pricing which would reduce the transaction cost for customers.
- the regulator should adjust the interchange rate and let the market compete on MDR ultimately growing the acceptance ecosystem rather than inhibiting it, etc.

2. On disinvestment on development

- **GS Paper 3(Economy, infrastructure and industry)**

Context:

- The government will reinitiate the process of divesting its stake in national carrier Air India, even as it increased its disinvestment target in the Union Budget 2019-20 presented by Finance Minister Nirmala Sitharaman.
- The target for disinvestment receipts has increased to Rs 1.05 trillion for FY20, from Rs 90,000 crore in the interim Budget presented in February. Significantly, the finance minister said that the government's stake in non-financial public sector units can go below the majority stake of 51 per cent.
- Instead of holding a direct stake of 51 per cent in PSUs, "government-controlled institutions" can chip in the remaining sum which the government will look to divest.
- This move will enable the government to retain control over such firms. The Finance Minister reiterated that the government will make sure that its control is not diluted after lowering its stake in public sector undertakings (PSUs) to below 51 per cent.
- The government will also continue with the strategic divestment of select Central Public Sector Enterprises (CPSEs).

Significance:

- Government of India sets disinvestment targets in most budgets since 1991. Although the chief aim is to add to the exchequer and bridge the fiscal deficit, disinvestment also allows the government

to offload its burden by bringing private players onboard.

- However, meeting the disinvestment targets has become quite a formidable task.

- **Panel discussion and suggestions**

- The government in January 2018 allowed foreign airlines to buy a stake of up to 49% in Air India with prior government approval before putting the carrier for sale.

- Until then, foreign airlines were allowed as much as 49% in private Indian airlines, but not in Air India. The government however later clarified that "substantial ownership and effective control of Air India will remain with Indian nationals" post any stake sale.

- Here, strategic disinvestment approach is encouraged. For instance, BALCO's disinvestment in the past.

- 51% of the share of government is appreciated.

- Here, the cost of policy implementation of any project which is strategic should be borne by the government. And, here, sometimes competition among stakeholders should be ingrained to improve the performance and quality.

- Mixed strategy can be followed too as in some cases strategic disinvestment will do and in some others, some other minor disinvestments can be encouraged to generate revenue.

- [Disinvestment refers to the action of an organization or the government in selling or liquidating an asset or subsidiary. In simple words, disinvestment is the withdrawal of capital from a country or corporation.]

- [Some of the salient features of disinvestment are:

- • Disinvestment involves sale of only part of equity holdings held by the government to private

- investors.

- • Disinvestment process leads only to dilution of ownership and not transfer of full ownership.

- While privatization refers to the transfer of ownership from government to private investors.

- • Disinvestment is called as 'Partial Privatization'

PROBLEMS OF PUBLIC SECTOR UNDERTAKINGS:

- [The most important criticism levied against public sector undertakings has been in relation to the capital employed, the level of profits has been too low. Even the government has criticized the public sector undertakings on this count. Of the various factors responsible for low profits in the public sector Undertakings, the following are particularly important:-

- • Price policy of public sector undertakings

- • Underutilization of capacity

- • Problem related to planning and construction of projects

- • Problems of labor, personnel and management

- • Lack of autonomy]

- **Best way forward**

- Ailing PSU's should be divested.

- Landed assets should be diverted appropriately and dilution of ownership should be resolved.

- PSU's those do not have a strategic role in the economy should be disposed off through the route of disinvestment.

3. On DNA Technology bill.

- **GS Paper 2 and 3(Governance and Science & Technology)**

Context:

- The DNA Technology Regulation Bill, which seeks to control the use of DNA technology for establishing the identity of a person, was introduced in the Lok Sabha amid questions being raised by opposition parties on its provisions.

- A similar bill was passed in Lok Sabha in January but it could not be cleared in the Rajya Sabha. The bill had then lapsed with the dissolution of the previous Lok Sabha. The proposed law, which has been in the making since at least 2003, is the third attempt by the government to enact a law to regulate the use of DNA technology.

- DNA technology in the country after an earlier version of the Bill had been finalised

in 2015 but could not be introduced in parliament. The congress was against the introduction of the bill, raising privacy and other concerns.

- The Minister for science and technology Dr. Harsh Vardhan, who introduced the Bill however rejected the concerns raised by the opposition saying there is “no serious substance”.

Salient Features of the bill.

- The Bill regulates the use of DNA technology for establishing the identity of persons in respect of matters listed in a Schedule. These include criminal matters (such as offences under the Indian Penal Code, 1860), and civil matters such as parentage disputes, emigration or immigration, and transplantation of human organs.
- The Bill establishes a National DNA Data Bank and Regional DNA Data Banks. Every Data Bank will maintain the following indices: (i) crime scene index, (ii) suspects' or undertrials' index, (iii) offenders' index, (iv) missing persons' index, and (v) unknown deceased persons' index.
- The Bill establishes a DNA Regulatory Board. Every DNA laboratory that analyses a DNA sample to establish the identity of an individual, has to be accredited by the Board.
- Written consent by individuals is required to collect DNA samples from them. Consent is not required for offences with punishment of more than seven years of imprisonment or death.
- The bill provides for the removal of DNA profiles of suspects on filing of a police report or court order, and of undertrials on the basis of a court order. Profiles in the crime scene and missing persons' index will be removed on a written request.

Key Issues and Analysis

- The Schedule lists civil matters where DNA profiling can be used. This includes “issues relating to establishment of individual identity.” DNA testing carried out in medical or research laboratories can be used to identify an individual. It is unclear if the Bill intends to regulate such laboratories.

- The Bill requires consent of the individual when DNA profiling is used in criminal investigations and identifying missing persons. However, consent requirements have not been specified in case of DNA profiling for civil matters.
- DNA laboratories are required to share DNA data with the Data Banks. It is unclear whether DNA profiles for civil matters will also be stored in the Data Banks. Storage of these profiles in the Data Banks may violate the right to privacy.
- DNA laboratories prepare DNA profiles and then share them with DNA Data Banks. The Bill specifies the process by which DNA profiles may be removed from the Data Banks. However, the Bill does not require DNA laboratories to remove DNA profiles. It may be argued that such provisions be included in the Bill and not left to regulations.
- [Deoxyribonucleic Acid (DNA) is a set of instructions found in a cell. These instructions are used for the growth and development of an organism. The DNA of a person is unique, and variation in the sequence of DNA can be used to match individuals and identify them. DNA technology, therefore allows for accurate establishment of an individual's identity.]

Criticism

- **No requirement for DNA laboratories to remove profiles**
- The Bill states that DNA profiles stored in different indices will be removed by the Director of the National DNA Data Bank following a written request, a court order or filing of a police report. Note that DNA profiles are first prepared by laboratories and are then shared with the DNA Data Banks. The Bill does not require DNA laboratories to remove DNA profiles. The criteria for removal of profiles from DNA Data Banks and laboratories have been left to regulations. It may be argued that provisions with regard to removal of DNA profiles by DNA laboratories should be specified in the Bill.

- **No mechanism for grievance redressal for removal of profiles**
- The Bill provides that DNA profiles will be removed by the Director of the National DNA Data Bank. However, the Bill does not provide any mechanism for redressal of grievances in cases where the DNA profile is not removed from the data banks by the Director of the National DNA Data Bank.
- **Written consent for collecting DNA samples on arrest may be inadequate**
- If a person is arrested for an offence that carries punishment up to seven years, investigation authorities must take his written consent before taking his DNA sample. However, the Bill does not include safeguards to ensure that the consent is voluntary. In some other procedures, such as that of obtaining a confession for a crime, the Code of Criminal Procedure, 1973, provides a safeguard that the statement is made to a Magistrate (not the police).
- **Collection of DNA samples from photograph or video is unclear**
- DNA profiles are prepared from DNA samples collected from individuals. The Bill provides a list of sources for collection of samples for DNA profiling. This includes biological substances such as blood samples, hair, and mouth swab. However, the Bill also lists photographs or video recording of body parts as a source for sample collection. It is unclear how a DNA sample can be collected from a photograph or video recording.
- **Comparison of fingerprints and DNA profiling**
- Currently fingerprinting is used for the purpose of establishing the identity of a person charged with a criminal offence. However, the regulations governing the use of fingerprinting and the provisions related to DNA profiling under the Bill are different. For example, fingerprints can be taken for offences with punishment of rigorous imprisonment of at least one year or more, while there is no minimum threshold of offences for collecting DNA samples.

The best way forward

- We need to have a comprehensive route map to build the infrastructure for the use of technology which includes
 1. Skilled personnel
 2. Technology Infrastructure, etc.
- Need to pass the law as soon as possible as we are late already in this regard. And, Nuances of the bill should be taken care of by the evolution of itself in its due course to make it fit to the situations arise.
 1. Altogether, the discussion panel has suggested the passage of the bill as soon as possible as they believe it as a game changer with respect to socioeconomic conditions in India.
 2. However, it should be done with utmost care as the privacy of the individual should not be unwarrantedly curtailed.

4. On Protecting Home buyers

- GS Paper 3(Infrastructure, Industry, etc)
- What is the issue?**
- Insolvency proceedings against Jaypee infrastructure Limited(JIL) were initiated last year after a Supreme Court order. A 270-day deadline for a plan to revive the company passed on May 6, leaving few options apart from liquidation.
- And, this liquidation will expose the life savings of more than 20,000 home buyers, who have admittedly deposited more than Rs 14,000 crores with JIL. So, a petition was filed by homebuyers who invested in projects by Jaypee Infratech Limited.
- According to the petitioners, the IBC law — passed in 2018 — does not guarantee the interests of homebuyers in case a project cannot be revived and has to be liquidated.
- Liquidation of the company will only be in the interest of the banks who will be able to recover the money lent by them to JIL.

What happened?

- The petitioners' claim was in reference to IBC provisions which, while giving them a say in the insolvency proceedings, does not explicitly define them as secured creditors. This means that any money recovered from the asset sales will be divided up among parties such as banks that gave loans for the project.
- So, the Supreme Court has asked for suggestions from the Union of India which could be uniform for all such cases as within

the Insolvency and Bankruptcy Code there is no solution.

- Earlier the homebuyers were protected under the Consumer Protection Act and when this failed the RERA (Real Estate (Regulation and Development)) Act, 2016 was passed.
- And under RERA obligation was on the developers that how the project is to be carried out and how the money is to be used.
- The Act establishes Real Estate Regulatory Authority (RERA) in each state for regulation of the real estate sector and also acts as an adjudicating body for speedy dispute redressal.

Significance:

- When the IBC was enacted it was not with the reference of the homebuyers. But in the implementation of the act directly/indirectly the interests of the buyers got affected. eg: Suppose the builder, developer or the financier for any reason may join hands and siphon off the money and thus the company goes into insolvency, and the homebuyers money is also in it and the IBC had not considered this.
- Right to life under Article 21 of the homebuyers is violated.

Drawbacks

- Homebuyers have always been at the receiving end and it is only the developers and the builders who have always been controlling the business.
- The possession by the builders is postponed. There are around 14 lakh flats which are delayed in Delhi NCR alone.
- This company is affecting around 35000 buyers which means around 35000 families.

Way Forward:

- Buying a good home is essential for every individual and hard earned money of the individual. Therefore, the law should be amended to protect the interests of the homebuyers.
- To Provide incentives to companies which can deliver the projects within the stipulated time.

- In any IBC case the party must be charged for whatever money that can be earned.
- Homebuyers can be treated at par or equal to the employees and full settlement of the amount must be a prerequisite to any of the solution that can be done under the IBC.
- Bankers and homebuyers should come to an agreement vis a vis the builders.
- Banks can take haircut and give more loans to the developer if the need arises.
- The completion of the project is of utmost importance and so a pool can be created to finance the project when the developer fails.
- In the case of new projects which are under RERA, the State Real Estate Regulatory Authority, should come with a plan about how the new projects will be handled and there is no default.
- In the case of stuck projects, a monitoring committee under the direction of the Supreme Court can be formed which has a representative from the developer, financier and the homebuyer and this committee should be given authority on to how the project will go forward.
- eg: As in the case of Ministry of Road and Development which developed a fund to develop the infrastructure.
- {The **Insolvency and Bankruptcy Code, 2016 (IBC)** is the bankruptcy law of India which seeks to consolidate the existing framework by creating a single law for insolvency and bankruptcy. The bankruptcy code is a one stop solution for resolving insolvencies which previously was a long process that did not offer an economically viable arrangement. The code aims to protect the interests of small investors and make the process of doing business less cumbersome.}

- {The **Real Estate (Regulation and Development) Act, 2016** is an Act of the Parliament of India which seeks to protect home-buyers as well as help boost investments in the real estate industry. The Act establishes Real Estate Regulatory Authority (RERA) in each state for regulation of the real estate sector and also acts as an adjudicating body for speedy dispute redressal.}