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The Tenth Edition

Dear Forumites,

This is the tenth edition (February edition) of EPIC! Magazine. This edition comes on the eve of the first budget for the third decade of 21st century. The showcase article provides a comprehensive coverage for this year's budget. We have provided a detailed analysis of various initiatives from the budget. Aggregating the various view points from our 9PM and 7PM initiatives, this edition contains interesting analysis and trends regarding the recommendation by the 15th finance commission on India's municipalities, need for water governance in India, the new IT rules for OTT platforms, the rationale of digital services tax and its associated issues etc. The Factly section contains all the relevant information/facts of current affairs required for the preliminary examination 2021.

The two-part format of EPIC! i.e. the Mains Magazine and the Factly, provides a segregated yet complete coverage of current affairs for civil services preparations.

Our community and student engagement are the source of inspiration in our relentless pursuit of simplifying civil services preparations. You can contribute to the topic list/provide your feedback by writing to us at feedback@forumias.academy.

TABLE OF CONTENT

TABLE OF CONTENT **3**

SHOWCASE ARTICLE | BUDGET 2021-22 .... **6**

GENERAL STUDIES - I **21**

Floods of Fury 21

Reforming Land Titling 25

Reproductive rights-Analysing MTP Act 28

GENERAL STUDIES - II **33**

Subverting Second Chamber 33

Anti-defection law and Ambiguities 38

Moving to a New City 42

Water Governance 46

New IT Rules for Social Media and OTT platforms 52

Digital Services tax 56

From the Budget-National Rail Plan 59

Road accidents in India 61

India-Myanmar-Changing Realities 65

GENERAL STUDIES - III **70**

Tapping the Blue Economy 70

Are the bad banks good enough? 74

Indian Investments and BITs 78

Geospatial Guidelines 82

Hydrogen as an alternative fuel 85

DNA Technology Bill-Is India ready ? 88

Disinformation in cyberspace 91

Disengagement on the border 96

APPENDIX - I | FACTLY ARTICLES **99**

POLITY **99**

No postal ballots for NRIs this time: ECI 99

NITI Aayog's "Governing Council" reconstituted. 100

law on draping National Flag over body of a deceased 101

16th Census of India likely to postpone to 2022 101

"3 Language Policy" is not applicable to the Central govt. offices 102

Pointly for Polity 103

INTERNATIONAL RELATIONS **103**

India and Pakistan agrees to observe "2003 Ceasefire agreement" 103

India hosts meeting of "BRICS finance and central bank Meeting" 2021 103

What is "Extinction Rebellion"? 104
Indian IT workers to benefit from "U.S. immigration Act" 104
"Comprehensive Economic Cooperation and Partnership Agreement (CECPA)" between India and Mauritius 105
US decides to rejoin "UN Human Rights Council (UNHRC)" 106
World Economic Forum launches "EDISON Alliance" 106
Pointly for International Relations 107

ECONOMY 107

"PLI Scheme for pharmaceuticals and IT hardware" Approved 107
Delhi HC stays Future-Reliance deal 108
"Reform-based and result-linked scheme" to revive discoms 109

POLICY 110

INCOIS to go for bathymetric study of Andaman and Lakshadweep 110
"Swachh Iconic Places"-12 sites to be transformed into 'Swachh Tourist Destinations' 111
Ministry of Housing and Urban Affairs launches "City Innovation Exchange (CiX)" 111
"National Urban Digital Mission (NUDM)" and other governance initiatives 112
"IIT Council" sets up panels for more autonomy 113
Prime Minister launches "Mahabahu-Brahmaputra Programme" in Assam 114
Hyderabad recognised as a 'Tree City of the World' 114
Govt announces "Nurturing Neighbourhoods Challenge" 115
Ministry of Housing and Urban Affairs launches Pilot "Pey Jal Survekshan" 116
Self-regulatory toolkit by OTTs for implementation of Self Regulation Codes, 2020 116
State Reform Action Plan (SRAP), 2019 117
What is "One District One Product Scheme"? 118
Mega Investment Textiles Parks (MITRA) scheme for textile sector 119
"Vehicle Scrappage Policy" to phase out old and unfit vehicles 119
NITI Aayog's "Megacity plan for Little Andaman" 120
Pointly for Policy 120

ENVIRONMENT 121

State of Environment Report, 2021 121
Why Cherrapunji is receiving low rainfall? 123
Elephants died of Haemorrhagic Septicaemia(HS) in Karlapat Wildlife Sanctuary 123
TIFAC launches SAKSHAM Portal and Seaweed Mission 124
The "fishing cat" in India is under threat 125
"Global Climate Litigation Report 2020" released by UNEP 126
What is "Garbage to Power Plant"? 127
Pointly for Environment 127

SOCIAL 129

Inscription of Vijayanagara king Krishnadevaraya death discovered 129

What is "Pagri Sambhal Movement"? 129
President addressed "Guru Ravidas" Jayanti.... 130
"Maharaja Suheldev" Memorial and "Chittaura Lake" development work inaugurated.... 131
What is the "Char Dham Project"? 131
"Tholpavakoothu" the shadow leather puppetry to be Performed using Robots 132
"Tileswari Barua" - possibly the youngest martyr of India got recognised by PM....132
National Tribal Festival “Aadi Mahotsav” 133
Pointly for Social 133
SCIENCE AND TECHNOLOGY 134
ISRO, MapmyIndia to develop India's "indigenous mapping portal" 134
What is "Sandes" platform? 135
Scientists map detailed "genome of malaria vector mosquito"....135
"Square Kilometre Array" (SKA) Project 136
Pointly for Science and Technology....136
INTERNAL SECURITY 137
Indian Navy's combat-readiness exercise "Tropex-21" 137
"INS Viraat" - SC ordered a status quo on dismantling 138
Pointly for Internal Security 139
MISCELLANEOUS 139
Defence Minister launches "E-Chhawani portal"....139
PM to inaugurate "World Sustainable Development Summit 2021" 140
Pointly for Miscellaneous 140

Finance Minister Smt. Nirmala Sitharaman presented the first Union Budget of the third decade of the 21st century. It is the first budget of this new decade and also a digital one in the backdrop of the unprecedented COVID-19 crisis.

Aim of the budget

The Finance Minister said that the Union Budget aims:

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

Theme of the budget

The Union Budget has been structured on the overall focus of "Ease of Living." This has been sought to be achieved by focussing on three prominent themes:

- **Aspirational India** in which all sections of the society seek better standards of living, with access to health, education and better jobs. The three components of Aspirational India are-
    - Agriculture, Irrigation and Rural Development
    - Wellness, Water and Sanitation and
    - Education and Skills
- **Economic development for all**, indicated in the Prime Minister's exhortation of "SabkaSaath, SabkaVikas, SabkaVishwas".
- **Caring Society** that is both humane and compassionate, where Antyodaya is an article of faith.

The three broad themes are held together by:

- Corruption free - policy-driven good governance
- Clean and sound financial sector.

The Budget Proposals

The Budget proposals for 2021-22 rest on 6 pillars:

1. Health and Wellbeing
2. Physical & Financial Capital, and Infrastructure
3. Inclusive Development for Aspirational India
4. Reinvigorating Human Capital
5. Innovation and R&D
6. Minimum Government and Maximum Governance

HEALTH AND WELL-BEING

- **Investment:** There is a substantial increase of 137% in investment in Health Infrastructure and the Budget outlay for Health and Wellbeing is Rs 2,23,846 crore in BE 2021-22 as against this year's BE of Rs 94,452 crore.
- **PM Atma Nirbhar Swasth Bharat Yojana:** It is a centrally sponsored scheme, that will develop capacities of primary, secondary, and tertiary care health systems, strengthen existing national institutions, and create new institutions, to cater to detection and cure of new and emerging diseases.
- **Vaccines:**
    - Provision of Rs 35,000 crore made for Covid-19 vaccine in BE 2021-22.
    - Pneumococcal Vaccine will be rolled out across the country aimed at averting 50,000 child deaths annually. It is a Made in India product, presently limited to only 5 states.
- **Nutrition:**
    - Mission Poshan 2.0: Government will merge the Supplementary Nutrition Programme and the Poshan Abhiyan to strengthen nutritional content, delivery, outreach, and outcome to launch the Mission Poshan 2.0.
    - Aspirational districts: Government will adopt an intensified strategy to improve nutritional outcomes across 112 Aspirational Districts.
- **Universal Coverage of Water Supply and Swachh Bharat Mission:**
    - **Jal Jeevan Mission (Urban),** will be launched for universal water supply in all 4,378 Urban Local Bodies with 2.86 crores household tap connections, as well as liquid waste management in 500 AMRUT cities. It will be implemented over 5 years.
    - **Urban Swachh Bharat Mission 2.0:** It will be implemented for over 5 years. The main interventions would be:
        - Complete faecal sludge management and waste water treatment,
        - Source segregation of garbage,
        - Reduction in single-use plastic,
        - Reduction in air pollution by effectively managing waste from construction-and-demolition activities,
        - Bio-remediation of all legacy dump sites.

PHYSICAL AND FINANCIAL CAPITAL AND INFRASTRUCTURE

- **Atma Nirbhar Bharat-Production Linked Incentive Scheme:**
    - **Aim of the scheme:** Sustained growth of manufacturing sector in double digits, Integrate the manufacturing companies with global supply chains, Increase the core competencies of the manufacturing companies by leveraging cutting-edge technology.
    - PLI schemes aims to create manufacturing global champions for an Atma Nirbhar Bharat in 13 sectors.
    - This initiative will help bring scale and size in key sectors, create and nurture global champions and provide jobs to our youth.

- **Textiles:** The budget provisions aim at making the textile industry globally competitive, attract large investments, boost employment generation and exports.
- **Provisions:**
    - A scheme of Mega Investment Textiles Parks (MITRA) will be launched in addition to the PLI scheme. This will create world class infrastructure with plug and play facilities to enable creation of global champions in exports.
    - 7 Textile Parks will be established over 3 years.
- **Infrastructure:** National Infrastructure Pipeline (NIP) has now expanded to 7,400 projects. Budget proposes three ways to address increased funding requirements for NIP:
    - By creating the institutional structures: A Development Financial Institution (DFI) of Rs. 20,000 crore to be set up. It would act as a provider, enabler and catalyst for infrastructure financing. Further, Rs. 5 lakh crore lending portfolios are proposed to be created under the proposed DFI in 3 years.

The concept of Development Bank/Development Financial Institution (DFI)

A development bank is a 'bank' established for the purpose of 'financing development'. Development banks are multipurpose financial institutions. They do term lending, investment in securities and other activities. They even promote saving and investment habits in the public.
The first development bank In India incorporated immediately after independence in 1948 under the Industrial Finance Corporation Act as a statutory corporation to pioneer institutional credit to medium and large-scale.

Significance of Development banks

- **Capital formation:** The significance of Development Banks lies in their making available the means to utilize savings generated in the economy, thus helping in capital formation. Capital formation implies the diversion of the productive capacity of the economy to the making of capital goods which increases future productive capacity.
- **Infrastructure needs:** World Economic Forum's Executive Chairman Klaus Schwab said that in order to compete effectively on the international level, India needs to spend 8 hundred billion dollars on its infrastructure in next ten years. Commercial banks in India provide short term capital with the tenure of 5 years. So, development banks could fulfil the needs of infrastructure lending.
- **Joint finance:** Another feature of the development bank's operations is to take up joint financing along with other financial institutions. There may be constraints of financial resources and legal problems (prescribing maximum limits of lending) which may force banks to associate with other institutions for taking up the financing of some projects jointly.
- **Assistance to backward areas:** Institutional finance to projects in backward areas is extended on concessional terms such as lower interest rate, longer moratorium period, extended repayment schedule and relaxed norms in respect of promoters' contribution and debt-equity ratio.

- **Global experience:** China's development banks-the Agricultural Development Bank of China, China Development Bank, and the Export-Import Bank of China-have been at the forefront of financing its industrial prowess.
    - Germany's development bank, KfW, has been spearheading long-term investment in green technologies and for sustainable development efforts requiring long-term capital.
    - **Amendment of InvITs' and REITs' legislations** has been proposed to enable debt financing by Foreign Portfolio Investors .
    - **The share of capital expenditure** in central and state budgets has been proposed to be enhanced by 34.2%.
    - **Asset Monetisation:** A "National Monetization Pipeline" of potential brownfield infrastructure assets will be launched.
        - An Asset Monetization dashboard will also be created for tracking the progress and to provide visibility to investors.
    - **Other asset monetisation measures include:** monetisation of railway infrastructure assets/sports stadiums/dedicated freight corridor assets / airports etc.

SECTORS	PROPOSED MEASURES
Road and highways Infrastructure	• More **economic corridors** are being planned. • **Advanced Traffic management system** in all new 4 and 6-lane highways
Railway Infrastructure	• **National Rail Plan for India (2030):** to create a 'future ready' Railway system by 2030. • **Western Dedicated Freight Corridor (DFC) and Eastern DFC** to be commissioned by June 2022, to bring down the logistic costs. • **Passenger trains:** o Aesthetically designed Vista Dome coach on tourist routes for better travel. o High density network and highly utilized network routes to have an indigenously developed automatic train protection system, eliminating train collision due to human error.
Urban Infrastructure	• **Raising the share of public transport** in urban areas through expansion of metro rail network and augmentation of city bus service. • **Two new technologies i.e., 'MetroLite' and 'MetroNeo'** will be deployed to provide metro rail systems at much lesser cost with the same

	experience, convenience and safety in Tier-2 cities and peripheral areas of Tier-1 cities.
Power Infrastructure	• Launch a revamped reforms-based result-linked power distribution sector scheme. • The scheme will provide assistance to DISCOMS for infrastructure creation including pre-paid smart metering and feeder separation, upgradation of systems, etc., tied to financial improvements.
Ports, Shipping, Waterways	• A scheme to **promote flagging of merchant ships** in India will be launched by providing subsidy support to Indian shipping companies in global tenders floated by Ministries and CPSEs.
Petroleum & Natural Gas	• Extension of **Ujjwala Scheme** to cover 1 crore more beneficiaries, • To add 100 more districts to **the City Gas Distribution network** in next 3 years, • **An independent Gas Transport System Operator** to be set up for facilitation and coordination of booking of common carrier capacity in all-natural gas pipelines on a non-discriminatory open access basis

- **Financial Capital**
  - **Securities Markets Code:** The Finance Minister proposed to consolidate the provisions of SEBI Act, 1992, Depositories Act, 1996, Securities Contracts (Regulation) Act, 1956 and Government Securities Act, 2007 into a rationalized single Securities Markets Code.
  - **Fin-Tech Hub:** The Government would support the development of a world class Fin-Tech hub at the GIFT-IFSC.
  - **Regulated Gold Exchanges:** SEBI to be notified as a regulator and Warehousing Development and Regulatory Authority to be strengthened.
  - **Increasing FDI in Insurance Sector:** Increase the permissible FDI limit from 49% to 74% and allow foreign ownership and control with safeguards.
- **Disinvestment and Strategic Sale:**
  - **Proposals for disinvestment:**
    - A number of transactions namely BPCL, Air India, Shipping Corporation of India, Container Corporation of India, IDBI Bank, BEML, Pawan Hans, NeelachalIspat Nigam limited among others would be completed in 2021-22.
    - Government has proposed to take up the privatization of two Public Sector Banks and one General Insurance company in the year 2021-22.
    - NITI Aayog to work out on the next list of CPSEs to be taken up for strategic disinvestment.

  - **Policy:** A new policy for Strategic Disinvestment has been approved;
  - **Incentivizing states:** Proposal to incentivize states for disinvestment of their Public Sector Companies, using central funds
  - **Monetizing land:** A Special Purpose Vehicle in the form of a company to monetize idle land.
  - **Exit routes:** Introducing a revised mechanism for ensuring timely closure of sick or loss making CPSEs.

Highlights of Disinvestment/Strategic Disinvestment Policy

Objectives

- Minimising the presence of the Central Government and creating new investment space for the private sector in Public Sector Enterprises including financial institutions.
- Post disinvestment, economic growth of Central Public Sector Enterprises (CPSEs)/ financial institutions will be through infusion of private capital, technology and best management practices.
- Disinvestment proceeds to finance various social sector and developmental programmes of the government.

Policy features

- Policy covers existing CPSEs, Public Sector Banks and Public Sector Insurance Companies.
- Various sectors will be classified as strategic and non-strategic sectors.
- The strategic sectors classified are:
  - Atomic energy, Space and Defence
  - Transport and Telecommunications
  - Power, Petroleum, Coal and other minerals
  - Banking, Insurance and financial services
- In strategic sectors, there will be bare minimum presence of the public sector enterprises. The remaining CPSEs in the strategic sector will be privatised or merged or subsidiarized with other CPSEs or closed.
- In non-strategic sectors, CPSEs will be privatised, otherwise shall be closed.

INCLUSIVE DEVELOPMENT FOR ASPIRATIONAL INDIA

- **Agriculture**
  - **SWAMITVA Scheme:** SWAMITVA (Survey of Villages and Mapping with Improvised Technology in Village Areas) Scheme to be extended to cover all states/UTs. It aims to bring transparency in property ownership in villages.
  - **Operation Greens:** 'Operation Green Scheme' will be enlarged to include 22 perishable products. It aims to boost value addition in agriculture and allied products and their exports.
  - **Credit:**
    - Focus on credit flows to animal husbandry, dairy, and fisheries.

    - 33% increase in Rural Infrastructure Development Fund.
    - Micro Irrigation Fund under NABARD to be doubled.
    - Agriculture Infrastructure Funds would be made available to APMCs for augmenting their infrastructure facilities
  - **e-NAM integration:** 1,000 more mandis will be integrated with e-NAM to bring transparency and competitiveness.
- **Fisheries**
  - **Hubs of economic activity:** 5 major fishing harbours: Kochi, Chennai, Visakhapatnam, Paradip, and Petuaghat to be developed as hubs of economic activity.
  - **Seaweed Park:** Multipurpose Seaweed Park to be established in Tamil Nadu to promote seaweed cultivation.
- **Migrant Workers and Labourers**
  - **One Nation One Ration Card plan** to be completed.
  - **Creating a database:** A Portal will be formed to collect information on unorganized labour force, migrant workers especially, to help formulate schemes for them.
  - **The labour codes:** Government proposes to complete the implementation of the 4 labour codes.
    - For the first time globally, social security benefits will extend to gig and platform workers.
    - Minimum wages will apply to all categories of workers, and they will all be covered by the Employees State Insurance Corporation.
    - Women will be allowed to work in all categories and also in the night-shifts with adequate protection.
    - At the same time, compliance burden on employers will be reduced with single registration and licensing, and online returns.
- **Financial Inclusion**
  - **Stand-up India Scheme:**
    - Reduce the margin money requirement from 25% to 15%,
    - Include loans for activities allied to agriculture.

REINVIGORATING HUMAN CAPITAL

- **Education**
  - **School Education:** 15,000 schools will be qualitatively strengthened to include all components of the National Education Policy. 100 new Sainik Schools will be set up in partnership with NGOs/private schools/states.
  - **Higher Education:** Proposal to set up a Higher Education Commission of India, as an umbrella body having 4 separate vehicles for standard-setting, accreditation, regulation, and funding.
  - **Ladakh-specific:** The Government proposed to set up a Central University in Leh for accessible higher education in Ladakh,

- **Skill Development:**
    - **Apprenticeship:** Realign the existing scheme of National Apprenticeship Training Scheme (NATS) for providing post-education apprenticeship, training of graduates and diploma holders in Engineering.
    - **Collaborations:**
        - **With UAE:** Benchmark skill qualifications, assessment, and certification, accompanied by the deployment of certified workforce.
        - **With Japan:** A collaborative Training Inter Training Programme (TITP) to transfer skills, technique and knowledge.
- **Welfare of SCs and STs**
    - **Eklavya schools:** Government has set a target of establishing 750 Eklavya model residential schools in tribal areas.
    - **Scholarships:** Enhanced Central Assistance under the revamped Post Matric Scholarship Scheme for the welfare of Scheduled Castes for 6 years till 2025-2026.

INNOVATION AND R & D

- **National Research Foundation:** Announced with an outlay of Rs. 50,000 crore, over 5 years. It will ensure that the overall research ecosystem of the country is strengthened with focus on identified national-priority thrust areas.
- **National Language Translation Mission (NTLM):** This will enable the wealth of governance-and-policy related knowledge on the Internet being made available in major Indian languages.
- **Deep Ocean Mission:** This Mission will cover deep ocean survey exploration and projects for the conservation of deep sea biodiversity.
- **New Space India Limited (NSIL),** a PSU under the Department of Space will execute the PSLV-CS51 launch, carrying the Amazonia Satellite from Brazil, along with a few smaller Indian satellites.

MINIMUM GOVERNMENT, MAXIMUM GOVERNANCE

- **Reforming tribunals:** Proposal to bring reforms in tribunals for speedy delivery of justice and proposes to take further measures to rationalise the functioning of tribunals.
- **First digital census:** The forthcoming Census to be the first digital census in the history of India.
- **Resolving disputes:** Proposed conciliation mechanism with mandate for quick resolution of contractual disputes with CPSEs.

FISCAL STANCE OF THE BUDGET

- **Fiscal Deficit:** Fiscal deficit in BE 2021-2022 is estimated to be 6.8% of GDP and in Revised Estimate (RE) 2020-21 is pegged at 9.5% of GDP. It is to be funded through Government borrowings, multilateral borrowings, Small Saving Funds and short-term borrowings.

  - Further, amendment to Fiscal Responsibility and Budget Management Act (FRBM Act) proposed to achieve targeted Fiscal Deficit level.
- **Net borrowing of the states:** Net borrowing for the states allowed at 4% of gross state domestic product (GSDP) for the year 2021-2022 as per recommendation of 15th Finance Commission (FC).

PERSPECTIVE: *How has fiscal conservatism affected the budget ?*

The Budget seems to carry over the fiscal conservatism witnessed during 2020-21 owing to the pandemic. It has had the following impacts:

- **Low expenditure growth:** There has been a minimal increase in projected total expenditure of 0.95% in 2021-22. This is primarily due to the erosion of revenue base as a result of tax concessions (For example, reduction in corporate tax rates), a misconceived Goods and Services Tax regime etc.
- **Limited social support measures:** The budget has reduced the fiscal allocation to social support measures for those hit hard by the pandemic. For example, allocation for the MGNREGA programme has been curtailed and the food subsidies are reduced.
- **Insignificant increase in health spending**: While the Budget 2021-22 proposed a huge increase in healthcare spending, it still neglected core issues in the health sector. A 137% increase in the health allocation includes funds for: drinking water, sanitation, nutrition, AYUSH, health research, vaccination, grants assigned by the 15th Finance Commission (FFC), strengthening the National Centre for Disease Control (NCDC).
- **Inadequate infrastructural push**: Besides budgetary funding, disinvestment of equity, strategic sale, and privatisation of the public financial sector, there is much stress on monetizing idle assets like land available with public agencies. This is largely seen as a measure to support private-led infrastructural expansion.

DIRECT TAX PROPOSALS

Budget seeks to further simplify Tax Administration, Litigation Management and ease compliance of Direct Tax Administration. Important provisions include:

Relief to Senior Citizens	Exemption from filing tax returns for senior citizens over 75 years of age and having only pension and interest income.
Reducing Disputes, Simplifying Settlement	• **Time limit for reopening cases** reduced to 3 years from 6 years. • Setting up the **Dispute Resolution Committee** for taxpayers with taxable income up to Rs. 50 lakh and disputed income up to Rs. 10 lakhs. • **National Faceless Income Tax Appellate Tribunal Centre** to be established.

Incentivising Digital Economy	Limit of turnover for tax audit increased to Rs. 10 crores from Rs. 5 crores for entities carrying out 95% transactions digitally.
Attracting Foreign Investment for Infrastructure	**Infrastructure Debt Funds** made eligible to raise funds by issuing Zero Coupon Bonds.
Supporting 'Housing for All'	**Tax holiday** for Affordable Housing projects extended till March 2022. **Tax exemption** allowed for notified **Affordable Rental Housing Projects.**
Tax incentives to IFSC in GIFT City	• **Tax holiday for capital gains** from incomes of aircraft leasing companies. • Tax incentive for relocating foreign funds in the IFSC.
Incentives for Startups	• Eligibility for tax holiday claim for start-ups extended by one more year. • Capital gains exemption for investment in start-ups extended till 31st March, 2022.

INDIRECT TAX PROPOSALS

Indirect proposal focuses on custom duty rationalization as well as rationalization of procedures and easing of compliance. Important provisions include the following:

Custom Duty Rationalization	The rationalization would be undertaken with twin objectives: Promoting domestic manufacturing and helping India get onto the global value chain and export better.
Electronic and Mobile Phone Industry	The objective is to ensure greater domestic value addition. For instance, some exemptions on parts of chargers and sub-parts of mobiles were withdrawn.
Agriculture Products	Agriculture Infrastructure and Development Cess (AIDC) on certain items including petrol, diesel, gold etc. in an attempt to boost agriculture infrastructure.
Rationalization of Procedures and Easing of Compliance	**Turant Customs initiative**, a Faceless, Paperless, and Contactless Customs measures. New procedure for administration of Rules of Origin.

Reduction in Custom Duty	On certain Iron and steel products, Textile products, Gold and Silver, Chemicals etc.

Evaluation of the budget

The evaluation of Budget 2021 can be done on three parameters:

- **Credibility of the budget.**
- **Potential to deliver adequate output.**
- **Ability to raise resources**

Credibility of the budget

- Budget 2021 scores high on credibility. Unlike previous budgets, Budget 2021 has taken into account the real estimates of revenue receipts. Moreover, it has recognized the 'off-balance sheet' expenditures. This has resulted in arriving at real fiscal deficit numbers that are much higher than expected. It is 9.5% of the GDP for FY21 and 6.8% of the GDP for FY22.
- **Disclosing real fiscal deficit has the following significance:**
    - One, realistic revenue budgets will reduce the pressure on tax authorities to engage in tax terrorism.
    - Two, it will allow governments to release its payments and refunds on time.
    - Three, focusing on the 'real' numbers will help in informed decision-making and planning to improve our fiscal balance.

Potential to deliver adequate output

- **Shift towards capital expenditure:** Budget 2021 signals a shift away from the revenue expenditure towards capital expenditure. Capital expenditure in FY22 is budgeted to increase by 26% over FY21 due to increased focus on areas such as infrastructure, roads, and textile parks.
- **Social sector:** The budget also promises to improve health, education and urban infrastructure. For instance, a rise of 137% in health spending.
- **Reform measures:** It includes reform of labor laws, corporate tax rate cuts, and production-linked incentives.

Ability to raise resources

- **Disinvestment:** The Budget focuses to raise resources through disinvestment and asset sales, rather than via additional taxes. It reduces the tax burden on people.
- **DFI:** The Finance Minister also announced the creation of a new Development Financial Institution to facilitate and fund infrastructure investments.
- **Revive financial ecosystem:** There were also efforts to revive our stressed financial services ecosystem. The Finance Minister announced the creation of a government Asset Reconstruction Company, or 'bad bank', to reduce the non-performing assets that are spread throughout the industry.

In this budget, the government has proposed increasing public investment by 34.5% in the upcoming fiscal year. It is a positive step for the economy. Along with it, there are some letdowns as well.

Budget Letdowns

- **A Normal budget for abnormal times:** The budget required non-standard policy responses given the abnormal times for the economy. However, no such major changes were made to the budget. For instance, there is only a 1% increase in the overall expenditure of the government.
- **Associated risk with capital expenditure:** The increase in capital expenditure is expected to be channelized through investment in infrastructure. However, it is linked with 2 types of risks:
    - If there is a delay in the completion of projects, it will lead to more spending.
    - It will not provide instant multiplier effects to lift the demand as the life cycle of these projects is very long.
- **No drastic reforms in agriculture:** There are no drastic reforms for the agriculture sector. For example, no announcements of rationalizing of the Public Distribution System issue prices of food grains. Similarly, the cash transfers under the Pradhan Mantri Kisan Samman Nidhi Scheme (PM-KISAN) have not been increased.
- **Manufacturing growth:** Manufacturing growth would depend totally on private investments. Further, there is a lack of concrete policies towards export promotion. This can undermine the competitiveness of manufacturing exports.
- **Infrastructure provisioning:** Infrastructure provisioning has unaddressed issues such as execution risk and regulatory issues. The introduction of a development finance institution addresses only one issue.
- **Unemployment and Inequality:** There is no proper plan to tackle urban unemployment. The Budget has not mentioned the unemployment and migration crisis due to the pandemic which led to the rise in economic inequality. Further, there is no targeted employment program to alleviate the immediate crisis.
- **Inadequate focus on nutrition:** There is not much increase in allocation towards nutrition schemes, even after the increase of prevalence of malnutrition.
- **No proper mechanisms:** Although the Budget fixed some grand targets, it did not provide the precise mechanisms to achieve those. The target of reducing the fiscal deficit from 9.5% to 6.8% of GDP depends upon hypothetical factors, such as:
    - Total revenue might get some boost from better tax revenue.
    - A renewed hope for better divestment revenues.

PERSPECTIVE: *How far do the budget provisions address the needs of Urban Transport?*

In the recent budget, the Finance Minister announced fund allocation for improving the Urban mass transport system. For instance, A sufficient amount is allocated for the Kochi, Chennai, and

Bengaluru Metro projects. Budget allocation for the Metro projects in the three cities is commendable. However, there are some issues in the budget proposal, such as:

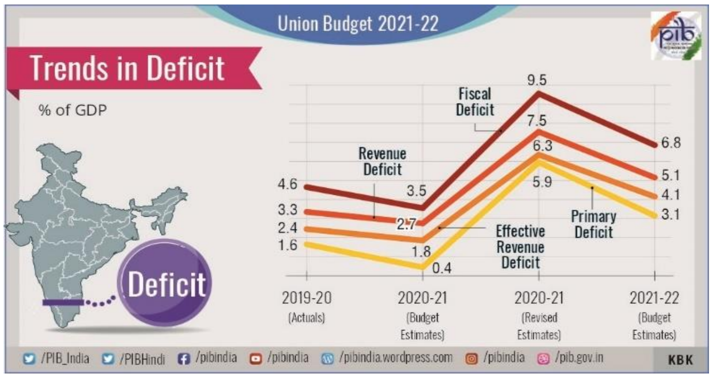
- **Insufficient allocation:** The budget allocation for expanding the bus transport system is (₹18,000 crore) under the PPP model. It may not be adequate for revamping the bus transport.
- **Low bus-population ratio:** India's ratio of buses to population is a low 1.2 (per 1,000 people) compared to 8.6 in Thailand and 6.5 in South Africa. Some states like Karnataka are exceptions with the above national ratio.
- **Politically-sensitive issue:** Private bus services is a politically sensitive matter in some states with government monopolies in bus services.
- **Expensive mode:** Metro and bus services are still expensive compared to the per kilometer cost of a two-wheeler.

Apart from supplying grants for metro rail and bus projects, the urban transport needs structural changes such as:

- **Role of state governments:** State governments control Urban development instead of city administrations. The city administration has failed to operationalize the nodal authorities to regulate transport.
- **Common mobility cards:** Common mobility cards are still in pilot mode. It would help citizens, use bus, train, and feeder networks seamlessly.
- **Urban bodies:** Census 2011 identified no. of Census towns. But Urban local bodies are not yet established here. They lack access to funding, infrastructure, and capacity to meet the needs of large populations. Hence, the recognition of census towns as urban bodies will provide the flow of necessary funds to these growing urban conglomerations.

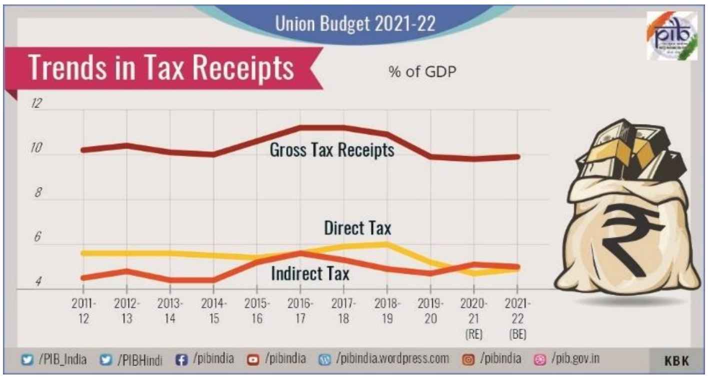
Trends in Budget 2021-22

- Fiscal deficit in BE 2021-2022 is estimated to be 6.8% of GDP and in Revised Estimate (RE) 2020-21 is pegged at 9.5% of GDP - funded through Government borrowings, multilateral borrowings, Small Saving Funds and short-term borrowings.

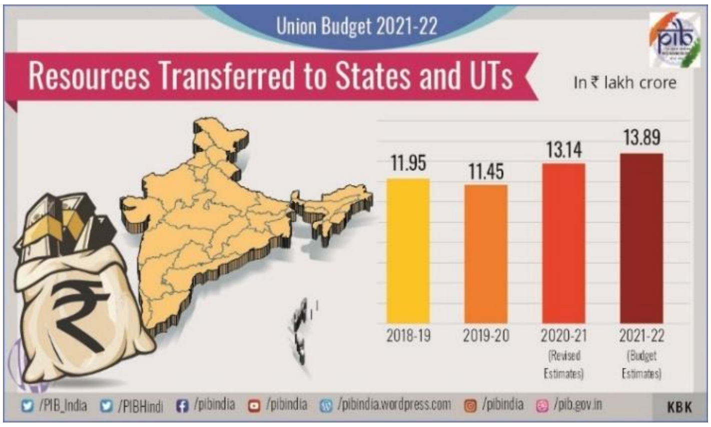


- **Effect of pandemic:**
    - Fiscal deficit declined in 2019-20 but increased sharply due to pandemic to 9.5%.
    - Similarly, revenue deficit and Effective revenue deficit saw rise after pandemic.
- With a steady decline over a period, the fiscal deficit target of 4.5% of GDP will be met by 2025-26 against 15th FC recommendation to reduce the FD to 4% by FY26.

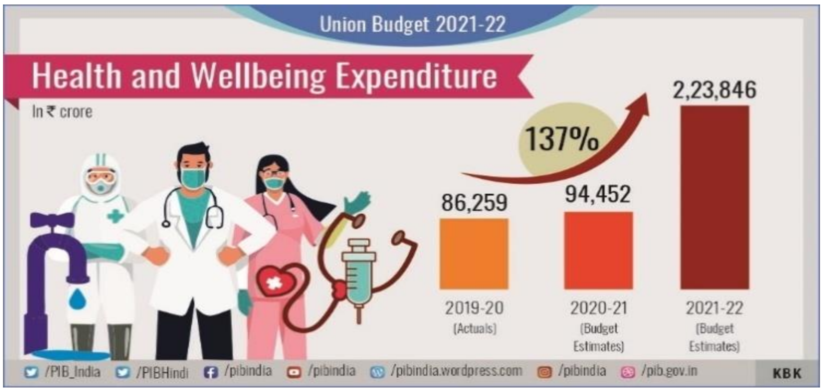
- **Gross Tax receipts:** Gross tax receipts have remained almost same during 2011 to 2015.But steady growth was seen during 2015 to 2017.
- **Direct Tax collection:** Direct tax collection did not grow during 2011 to 2016 but increased in 2018 and further declined.
- **Indirect tax collection:** Indirect tax collection did not show much improvement but sudden growth can be seen after GST implementation which again showing declining trend after 2018-19.

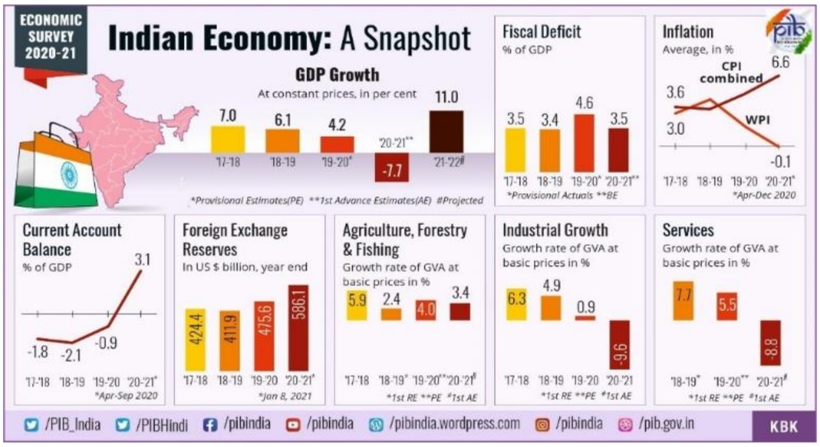


- **Resources transferred** to states has increased consistently between 2018-2021.
- 15th Finance Commission recommendations:
    - Retaining vertical shares of states at 41%.
    - Funds to UTs of Jammu and Kashmir and Ladakh would be provided by Centre.
    - Rs. 1,18,452 crores have been provided as Revenue Deficit Grant to 17 states in 2021-22, as against Rs. 74,340 crores to 14 states in 2020-21.



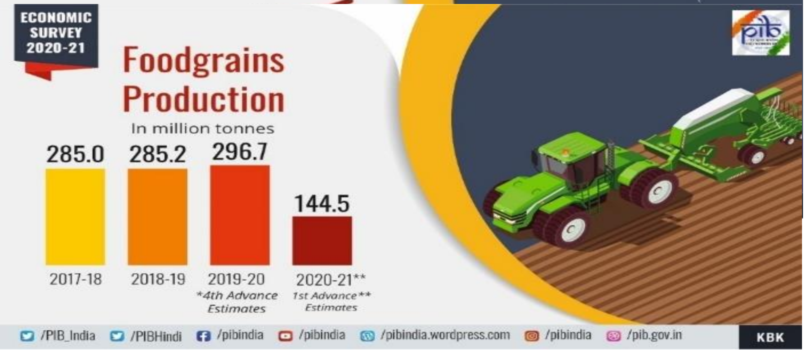
- **Expenditure in health and well being** has seen sudden rise after pandemic i.e; 137%.
- Current Account balance has seen sudden improvement in 2020-21 after being in negative territory from 2017-2019.





- Foreign exchange reserves have improved consistently.
- Industrial growth has seen consistent slowdown between 2017 to 2019-20 and decline sharply in 2020-21.
- Similar trend of slowdown is observed in service sector.
- Agriculture sector has no fix trend, but has shown resilience even during pandemic.
- GDP growth has observed consistent decline and contracted further in 2020-21 due to the pandemic.

ECONOMIC SURVEY 2020-21
Inflation
Average, in percent
6.6



- **CPI-C (combined)** has seen sudden rise after 2018-19, however, WPI has declined steadily since then.
- **Food grain production** has shown slow rise from 2017-18 to 2019-20 but declined sharply in 2020-21.

GENERAL STUDIES - I

Floods of Fury

Syllabus- Important Geophysical Phenomena such as earthquakes, Tsunami, Volcanic activity, cyclone etc., geographical features and their location-changes in critical geographical features (including water-bodies and ice-caps) and in flora and fauna and the effects of such changes.

In News: Recently a glacial burst has occurred in **Nanda Devi glacier** in Uttarakhand's Chamoli district. Many geologists have issued warnings that these types of climate-related disasters are going to increase in future.

More in News

A part of the Nanda Devi glacier broke off and flooded the Rishiganga river in Chamoli district of Uttarakhand. It led to massive floods in the region that damaged many villages in its path. The flood also wiped out two hydroelectric power projects on its way:

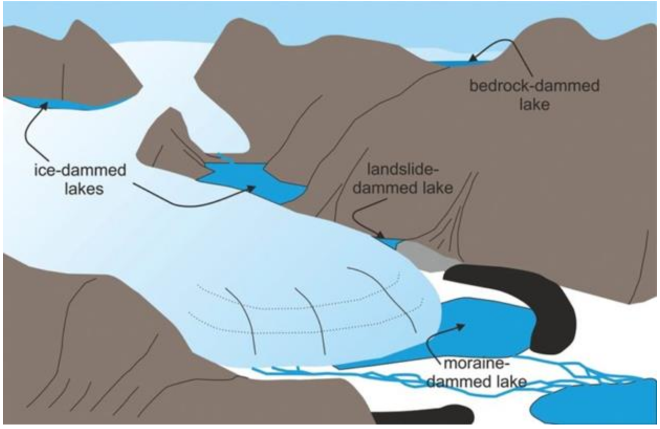
- The Rishiganga hydroelectric power project (13.2 MW)
- The Tapovan hydroelectric power project on the Dhauliganga river (a tributary of the Alakananda).

The scientists call the glacial burst an "extremely rare event". Whether it was a glacial lake burst or an avalanche, is still unknown.

What is Glacial burst?

Retreating glaciers usually result in the formation of lakes at their tips. These lakes are called **proglacial lakes**. These proglacial lakes are often bound by sediments, boulders, and moraines.

If the boundaries of these lakes are breached, then flooding will take place downstream of that glacial lake. This is called a **Glacial Lake Outburst Flood or GLOF.**



The occurrence of GLOF releases a significant amount of water retained in a glacial lake. A large amount of water rushes down to nearby streams and rivers (like the recent glacial burst that flooded the Rishiganga river). This further gather momentum by picking up sediments, rocks, and other materials on the way. Finally GLOF results in large scale flooding downstream.

GLOFs have three major characteristics. They are:

- It results in sudden release of water and sometimes this might be cyclic in nature.
- GLOFs are generally rapid events. They can range from a few hours to days.

Vulnerability of Hindu-Kush Himalayan (HKH) Region to GLOFs

The Hindu Kush Himalayan (HKH) region is known as Asia's water tower. It has the maximum snow cover after the poles. The Hindu Kush Himalayan region sustains more than two billion people directly and indirectly.

- **Numerous Glaciers:** There are numerous glaciers in the HKH region. For example, there are 8,800 glacial lakes in the Himalayas and these are spread across countries. Among these, more than 200 of these have been classified as dangerous. These glacial lakes can trigger the Glacial outburst.
    - The Geological Survey of India has through remote sensing and multispectral data found 13 of 486 glacial lakes in Uttarakhand to be vulnerable.
- **Loosening of soil:** The soil is getting loose in the HKH region. It is due to large human settlements and human activities in the region such as deforestation and large scale agricultural activities. This intensifies the GLOFs, as there is no natural barrier to control the flood.
- **Climate Change:** It is one of the most important reasons for the Glacial Lake Outburst Flood. Global warming and climate change has led to glacial retreat and glacier fragmentation (big glaciers splitting into smaller ones).
    - Hindu Kush Himalaya Assessment Report (2019) had pointed out that one-third of the Hindu Kush Himalaya's glaciers would melt by 2100.
    - Recently, a study done by scientists from GB Pant National Institute of Himalayan Environment and Sustainable Development and the Centre for Earth Sciences at the Indian Institute of Science (IISc) has concluded that the Chaturangi Glacier, a tributary of Gangotri glaciers, is receding.
- **Heat-island effect in HKH region:** The Himalayas are getting warm faster than other mountain ranges. This is due to the increase in the use of reinforced concrete (RCC) in building construction instead of eco -friendly traditional wood and stone masonry. This adds to regional warming and increases the number of glacial lakes or the water level of glacial lakes.
- **Tectonic activity in the region:** The Indian plate is continuously moving towards the north about 2 cm every year. So the Himalayas are rising about 5 mm a year. This makes the Himalayan region geologically active and structurally unstable. Landslides and earthquakes will continue to happen in the region. This can trigger a Glacial outburst.
    - For example, the entire State of Uttarakhand is categorized as Zone IV (High-Risk Zone) and V (Very High-Risk zone) of the earthquake risk map of India.
- **Large-scale human settlement**: Farming, cattle grazing and other anthropogenic activities (leading to deforestation) could destroy the natural barriers that control disasters.

How have the dams increased the vulnerability of the region?

- **The Chopra Committee Report (2014)**: In 2014, an expert committee led by Dr Ravi Chopra, pointed out the irreversible damages caused by such constructions. **The Chopra Committee Report (2014)** had pointed out the following regarding the causes of 2013 floods:
  - Riverbeds were already raised from the disposal of muck at the dam construction sites, and could not contain the sudden increased flow from floodwaters.
  - Dams are not only damaged in floods; they also cause damage in downstream areas, as they increase the destructive capacity of the water that flows downstream of the barrage.
- **Construction activities:** Use of explosives in the construction of dams and other infrastructure has further increased the vulnerability of such areas.
- **Aging of dams:** India is ranked third in the world in terms of building large dams.
  - Of the over 5,200 large dams built so far, about 1,100 large dams have already reached 50 years of age and some are older than 120 years.
  - By 2050, **80%** of the nation's large dams face the prospect of becoming obsolete as they will be 50 years to over 150 years old.
- **Flawed design:** The **designing of dams** had underestimated the rate of siltation and overestimated live storage capacity. This has led to the following issues:
  - High siltation rate: like in Bhakra dam, it is 139.86% higher than originally assumed.
  - Similarly, the actual siltation rate observed for the Hirakud, Maithan, and Ghod dams is higher at 141.67%, 808.64%, and 426.59%, respectively.

NDMA *guidelines to tackle glacial bursts*:

- **Identification:** Potentially dangerous lakes can be identified based on field observations, records of past events, geomorphologic and geotechnical characteristics of the lake/dam and surroundings, and other physical conditions.
- **Risk reduction:** The NDMA guidelines say that risk reduction has to begin with identifying and mapping such lakes, taking structural measures to prevent their sudden breach, and establishing mechanism to save lives and property in times of a breach.
- **Detect changes**: NDMA has recommended **use of Synthetic-Aperture Radar imagery** to automatically detect changes in water bodies, including new lake formations, during the monsoon months. It has said methods and protocols could also be developed to allow remote monitoring of lake bodies from space.
- **Manage lakes structurally:** the NDMA recommends **reducing the volume of water** with methods such as controlled breaching, pumping or siphoning out water, and making a tunnel through the moraine barrier or under an ice dam.
- **Early Warning System:** Improve and upgrade the current Early Warning System keeping in view the validity and benefits of the results that were acquired during its active session

- **Participatory response:** The use of participatory approaches to assess community-level vulnerability, exposure and response capacities to GLOFS are called for, requiring the involvement of and collaboration with social scientists.
- **Joint-knowledge production:** Engaging the local population in joint-knowledge production is considered indispensable for effective community-based disaster risk management.
- **Village Task Force:** The not-for-profit organizations should constitute a village task force and volunteers (Aapda Mitra) in each village of these states. The members of the task force should be made aware of the various aspects of GLOF/LLOF mitigation and post-disaster activities.
- **Mitigation Measures:** Enhancing the mitigation measures by implementing the Risk Reductions Techniques namely: Water lowering by Tunnel/ spillway and Hazard Reduction by Dam Construction.
- **Uniform Codes for Construction Activity:** Developing a broad framework for infrastructure development, construction and excavation in vulnerable zones. There is a need to accept procedures for land use planning in the GLOF prone areas.
- **Capacity Development:** Efforts to develop capacities should focus both on training of professionals and practitioners, and strengthening academic education in relevant disciplines from natural and social sciences.
- **Monitoring and Assessment:** Repeated monitoring using advanced space-borne and terrestrial technology is required for regular re-assessment of lakes across the entire Indian Himalayan Region as conditions continue to rapidly evolve.

Is India prepared?

- A robust early warning system, and a **broad framework for infrastructure development,** construction and excavation in vulnerable zones are in progress.
- In India, there are **no uniform codes for excavation, construction and grading codes** in India. Restricting constructions and development in GLOF/LLOF prone areas is a very efficient means to reduce risks at no cost.
- There are **no widely accepted procedures or regulation** in India for land use planning in the GLOF/LLOF prone areas.
- The number of implemented and **operational GLOF Early Warning System is still very small,** even at the global scale. In the Himalayan region, there are at three reported instances (two in Nepal and one in China) of implementation of sensor- and monitoring-based technical systems for GLOF early warning.

Way Forward

- **Reduce global warming:** A long-term solution will be feasible if all the countries start working towards reducing global warming.
- **Policy to restrict human activities:** India needs to form clear policy guidelines to restrict further human activities like building roads, constructing hotels on banks, etc. Any further human activity without proper guidelines will harm the already fragile landscape.

- **Assessment and strategic planning**: India needs to undertake a cumulative assessment and strategic planning. Geological Survey of India can use satellite images and technology like GIS (geographic information systems) and provide a clear analysis of the HKH region.
- **Capacity building**: Capacity building of the local community will ensure disaster mitigation in the near future.
- **Early warning system:** The government has to be proactive and set up an early warning system in the Himalayas. Like the one set up in coastal areas after the 2004 tsunami.

Reforming Land Titling

Syllabus-developmental issues, urbanization, their problems and their remedies.

In News: Recently the **NITI Aayog** proposed to change the system of implementation of the Conclusive **Land Titling system.** NITI Aayog also framed a **Model Bill on Conclusive Land Titling** for this purpose. But the states are reluctant to implement it.

What is a Conclusive Land Titling system?

- Conclusive Land Titling system is a type of land titling method in which the S**tate** (the government) will **provide a guarantee on land titles**.
- The government will also include provisions for compensation in case of any dispute of land title between two parties. This system of land titling is followed in countries such as Australia, England, Canada, etc.

How it is different from the present one?

- India at present follows the **Presumptive land titling** method.
- In this system, ownership of land is determined by registered sale deeds, property tax receipts, and survey documents. In this system, the buyer is responsible for proving ownership of the land.

The difference between the two methods:

Presumptive Land Titling system	**Conclusive Land Titling system**
In the current system, **ownership is granted based on a record of the property transaction** between the buyer and the seller (registered sales deed). The buyer is not entitled to the previous ownership records of the property. Hence, this system is called a presumptive one	In a conclusive titling system, the government provides **guaranteed titles.** These land records designate actual ownership.
It means the registration of land is actually a registration of transactions, such as sale deeds, records of inheritance, mortgage, and lease. So, anyone can **dispute the transactions with the titleholder**.	The title is granted by the government. So, if there is a dispute, then the claimant has to **settle disputes with the government**, not the titleholder.

If the disputed claimant proves the land as his property, then he will be the new titleholder and the previous title holder will lose his/her ownership.	Further, according to agricultural economist **T. Haque**, the government may provide compensation to claimants in case of disputes. But the titleholder is not in any danger of losing ownership
These are **not the government-guaranteed title to the property**. These are only a record of the transfer of property.	These are the guaranteed title to the property.

Development towards Conclusive Land Titling in India:

- **First Five Year Plan:** The importance of updating land records was emphasized long back in the First Five-year Plan (1951). But the land records saw little improvement.
- **D.C Wadhwa committee:** In 1989, the **D.C Wadhwa committee** (single-member committee) studied the land records and released a report titled "**Guaranteeing Title to Land**". In that, it mentioned the importance of conclusive titles to the people.
- **Digital India Land Record Modernization Programme:** It was launched in India, in 2008 with the objective of digitization of land records. This also **highlighted the importance** of moving away from the current Presumptive land titling to **Conclusive land titling**.
- **Model Land Titling Bill 2011:** In 2011, the government **drafted a Model Land Titling Bill 2011**. The bill required the state governments to move towards Conclusive titling. But only Rajasthan and Maharashtra enacted the law and took a few steps.
- **Conclusive Land Titling:** In 2020, the NITI Aayog released the model **Bill on Conclusive Land Titling.** This was sent to the States and Union Territories for getting their feedback. However, many States failed to send their feedback. Following which the Centre recently warned that the model bill would be concluded.

How the Model Bill aims to implement Conclusive Land Titling in India?

The draft model bill aims to achieve Conclusive land titling in the following ways:

- **Creation of Land authorities**: The Model Bill provides for setting up of Land Authorities in each State. These authorities will be responsible to appoint a **Title Registration Officer** (TRO).
- **Transparent system of land titling:**
    - TRO's will **prepare and publish a draft list of land titles** based on existing records and documents.
    - Based on the draft list, **potential claimants** interested in the property will have to **file their claims or objections** within a fixed time period.
- **Grievance redressal mechanism:** Once disputes are received, the TRO will verify all the relevant documents and refer the case to a **Land Dispute Resolution Officer (LDRO)** for resolution.
    - Once, the disputes are resolved, the Land Authority will publish a **Record of Titles.**

- **Creation of tribunals**: If there are any ambiguities in **Record of Titles** or regarding the decisions of the TRO and the LDRO, it can be challenged before **Land Titling Appellate Tribunals** within 3 years.
    - After, three-years, entries in the **Record of Titles** will be considered conclusive proof of ownership. Further, appeals can only be taken up in High Courts.
    - **Note**: The disputes currently pending in courts cannot be resolved in this way.

What is the significance of shifting towards Conclusive Land Titling?

Shifting from **Presumptive land titling** to C**onclusive Land Titling** has the following advantages.

- **Reduce pendency of cases:** A Conclusive land titling system will significantly **reduce land-related litigation**. A World Bank study from 2007 states that land-related disputes **account for two-thirds of all pending court** cases in the country.
    - This is because, in the current system, people have to maintain the entire chain of transaction records (sale deeds, records of inheritance, mortgage, and lease).
- **Increase the investment in many sectors:** Currently, long pending court cases diminish the prospects for investment in many sectors of the economy. In Conclusive titling, the businesses will be guaranteed and investments will be secured. This can avoid large delays and inefficiency in infrastructure projects.
- **Improve the revenue of the local bodies: Urban local bodies** depend heavily on property taxes. Property tax can be levied properly only if there is clear ownership data available.
- **Security to farmers**. Unclear titles make it difficult to prove land ownership. The land is used as collateral by farmers for accessing formal credit.
- **Reduce flow of black money**: Improper records result in Benami transactions. These transactions are used for the investment of black money in the country.

Challenges associated:

The introduction of a **Conclusive Land Titling system** can be feasible with proper land records. But, there are many challenges associated with the land records in India.

- **Implementation issue:** Land is a State subject in India. The individual States are responsible for the proper implementation of land records.
- **No uniform mechanism:** In the absence of a uniform system, e**xisting land records** are **maintained in different scripts and languages** in different States.
- **Lack of updated data:** Land records are not updated for decades, especially in rural and semi-urban areas. Conclusive land titles can create more problems if the land records are not updated.
    - In India, the **majority of the land records are in the name of the grandparents** of the current owner, with no proof of inheritance.
    - Apart from that, **forgery, cases of fraud, and misconduct** surrounding land ownership are also there in India. This increases the ownership disputes reaching courts and overburden the judicial mechanism.
- **Huge pendency:** If the government wants to introduce conclusive land titling, then it not only needs to solve all the pending cases but also **needs to solve** the cases currently **unreported and unidentified**.

Way forward:

India needs to **move towards proper land records**, then only we can shift towards a **Conclusive Land Titling system.** The government can follow suggestions like,

- **Implementing the recommendation of the Committee on State Agrarian Relation in 2007**: The committee recommended,
    - A comprehensive **village-level survey with community involvement** is required to solve the land-related problems.
    - Providing adequate skill training to the local government employees.
    - Further, it suggested that the government should use technologies such as GIS, GPS, and satellite imagery to update land records.
- **Integrate the cadastral maps**: Comprehensive land maps with textual data of land. This can be performed during the sale, inheritance, purchase, gift, mortgage, and tenancy of a property. This will ensure complete information with relation to land is available and updated.
- **Cooperative federalism:** Apart from that, the government also **needs to amend laws across the Centre and States** to ensure uniformity in land records.

In conclusion, the introduction of a Conclusive Land Titling system is an ambitious step. However, to avoid further complexities the practical difficulties involved in its implementation has to be taken care of.

Reproductive rights-Analysing MTP Act

Syllabus- Role of Women and Women's Organization, Population and Associated Issues

In News: The Medical Termination of Pregnancy (Amendment) Bill 2020 is scheduled to be tabled in Rajya Sabha. The bill aims to strengthen the abortion rights of women from the earlier Medical Termination of Pregnancy Act 1971.

Medical Termination of Pregnancy Act, 1971

The Medical Termination of Pregnancy (MTP) Act, 1971, provides the legal framework for making abortion services available in India.

- **Grounds of abortion:** It provides for grounds of abortion:
    - Where there is a risk that if a child is born, it would suffer from physical and mental abnormalities.
    - Where pregnancy can be a threat to the life of women or would cause grave physical and mental injury to her.
    - Where pregnancy caused due to rape or due to the failure of contraceptive methods.

- **Criteria for approval of abortion:** It provides the criteria for approval of abortion at different stages:

  - In the first 12 weeks, pregnancy can be terminated with the approval of one Registered Medical Practitioner (RMP).
  - Between 12-20 weeks, pregnancy can be terminated with the approval of 2 RMPs.
  - Beyond 20 weeks, termination of pregnancy is allowed only after approval of the court.
- **Abortion for minors:** Written consent from guardians is required for minors to access abortion.
- **Failure of contraceptive methods** can be stated as a reason for seeking abortion by "married women or her husband".

Need for amending the MTP Act,1971

- **A tool for hetero patriarchal population control:** The law is framed not to respect a woman's right over her own body but makes it easier for the state to stake its control over her body.
  - **Ignores the mental state of women:** The courts have refused abortions even after 24 weeks, on the grounds that pregnancy was the outcome of a voluntary act.
- **Foetal abnormalities:** Under the act, termination of pregnancy beyond 20 weeks needs approval of the court. This is problematic since a number of foetal abnormalities are detected after 20 weeks.
- **Denies reproductive rights to unmarried women:** It does not contain provisions for unmarried women seeking abortion in case of contraceptive failure. Thus, it denies reproductive rights to unmarried women.
- **Advancement of science:** After the 20th week, many foetal abnormalities can be detected using techniques like Ultrasonography. As the current law limits the time to 20 weeks, it can cause trouble to the mother as well as children in the near future.
- **Unsafe abortions:** Currently, if a woman wants to terminate the pregnancy beyond 20 weeks, she has to follow legal procedure. The slow judicial process in India forces women to take illegal means to terminate the pregnancy.
  - India Journal of Medical Ethics report in 2015 mentioned unsafe abortions were leading to 10-13% of maternal deaths in India. This makes unsafe abortions as the third-highest cause of maternal death.
- **International practice:** 52 % of global countries including the UK, Ethiopia, Austria, Spain, Italy, France allow termination of pregnancy beyond 20 weeks if there are any foetal abnormalities. 23 countries including Germany, Canada, Vietnam allow termination of pregnancy at any time based on the request of the mother.

MTP Bill, 2020: *Provisions*

- **Extends the upper limit:** The Bill extends the upper limit for permitting abortions from the current 20 weeks to 24 under special circumstances. This is applicable to a "special category of women". Victims of abuse, rape survivors, the differently-abled, and minors fall under this category.

- **Termination up-to 20 weeks:** The ill proposes the requirement of the opinion of one registered medical practitioner (RMP) for termination of pregnancy up to 20 weeks of gestation.
- **Termination between 20-24 weeks:** the Bill provides for two RMPs opinions for termination of pregnancy between 20 and 24 weeks.
- **Medical Board:** The Bill provides for setting up of medical boards in every state and Union territory (UT) by the respective governments. These medical boards will diagnose pregnant women for substantial foetal abnormalities. If any such substantial foetal abnormalities get detected then the termination of pregnancy can be done even after 24 weeks of gestation (no upper limit for the termination of pregnancy in this case).
- **Privacy of women:** The Bill protects the privacy of a woman. No RMP can reveal the name and other particulars of a woman who performs the abortion. However, RMP can reveal the identity to a person authorised by law. The violation of this provision is punishable with imprisonment up to one year, or a fine, or both.

Positive Aspects of the Bill

- **Ensuring privacy:** The 2020 MTP Bill includes a privacy clause, making it a punishable offence for revealing the identity of any woman who is seeking an abortion
- **Cover unmarried women**: It has sought to **change the term 'husband' to 'partner'** so that the marital status of the woman does not hinder her abortion
- **More inclusive:** The Bill raises the foetal gestation period for termination of pregnancy beyond 20 weeks. It also includes provision for a special category of women.
- **In line with SC judgement:** The Bill will strengthen the reproductive rights of women. The Supreme Court in Mrs X v. Union of India, 2017 case has recognised women's right to make reproductive choices and their decision to abort as a dimension of their personal liberty. The court also mentioned abortion primarily fall within the Right to Privacy.
- **Reduce burden on the judiciary:** At present, there are many cases registered in court seeking permission for abortion beyond 20 weeks. Meanwhile, with the establishment of the Medical Board, the burden on the judiciary will reduce.
- **Ensuring dignity and confidentiality of women seeking termination:** Name and other particulars of a woman whose pregnancy has been terminated shall not be revealed except to a person authorized in any law for the time being in force.

Issues with the MTP Bill 2020:

- **Hetero-patriarchal population control will continue:** As per the provisions of the Bill, doctors approval is mandated. One doctor to sign off on termination of pregnancies up to 20 weeks old, and two doctors for pregnancies between 20 and 24 weeks. Thus, the state will still have control over women's agency to decide for herself.
- **Challenges with Medical Boards:**

  - The present healthcare budgetary allocation (1.5% of GDP) makes setting up a board across the country, both financially and practically impossible.
  - Apart from that, even if it is set up, access to the board by pregnant women in remote areas of the state is a matter of concern.
  - No time limit is set for the board to respond to the requests.
  - The board subject women to multiple examinations before allowing her to terminate her pregnancy. This is a violation of rights to privacy and dignity.
  - Medical boards can rely on the facts of the case, but personal beliefs of the board members could impact the medical board's opinion.

- **Excluded factors:** Many factors are excluded in the Bill which may necessitate abortion, such as a personal choice, a sudden change in circumstances due to separation from or death of a partner, and domestic violence.
- **Narrow coverage:** The Bill is confined to women. It denies access to safe abortion to transgender, intersex and gender diverse persons.
- **No autonomy:** objectives of the MTP Bill envisages termination of a pregnancy either
  - in the event of rape,
  - where the pregnancy would result in the physical health of the women being at risk, or
  - where "anguish caused may be presumed to constitute a grave injury to the mental health of the pregnant woman".
  - Such limitations on the medical termination of a pregnancy entirely robs a woman of her autonomy to choose to terminate the pregnancy at her will.

PERSPECTIVE: *Reproductive Rights*

What are reproductive rights?

- These are the rights of individuals to decide whether to reproduce and have reproductive health.
- This may include an individual's right to plan a family, terminate a pregnancy, use contraceptives, gain access to reproductive health services, learn about sex education in public schools, and gain access to reproductive health services.

Legal status of reproductive rights in India

- **Fundamental Rights:** Fundamental rights under the Constitution of India, such as the right to equality and non-discrimination (Articles 14 and 15) and the right to life (Article 21), include the rights to health, dignity, freedom from torture and ill treatment, and privacy.
- **Judicial Recognition:**
  - **Navtej Johar Case,2018:** By decriminalising adultery and homosexuality in the landmark judgment of Navtej Johar,2018 the court has held clearly, that women have a right to sexual autonomy, which is an important facet of their right to personal liberty.

  - **The Puttaswamy judgment:** the court specifically recognised the Constitutional right of women to make reproductive choices, as a part of personal liberty under Article 21 of the Indian Constitution.
  - **Independent Thought v. Union of India, 2017:** In the context of reproductive rights of girls SC held, "the human rights of a girl child are very much alive and kicking whether she is married or not and deserve recognition and acceptance".
  - **Suchita Srivastava and Another v Chandigarh Administration, 2009:** The Supreme Court stated that reproductive autonomy is a dimension of personal liberty as guaranteed under Article 21.
  - **Parmanand Katara v Union of India,1996:** the Supreme Court held that Article 21 obligates the State to preserve life, and doctors at government hospitals are duty bound to extend medical assistance for preserving life.
- **Government policies**:
  - **India's National Population Policy** guarantees women voluntary access to the full range of contraceptive methods.
  - **Schemes such as Janani Suraksha Yojana (JSY) and Pradhan Mantri Matru Vandana Yojana** are aimed at ensuring reproductive health.
- **Global conventions:** India is a signatory to numerous international conventions, such as the Convention on the Elimination of All Forms of Discrimination against Women (CEDAW); the International Covenant on Civil and Political Rights (ICCPR); the International Covenant on Economic, Social and Cultural Rights (ICESCR); and the Convention on the Rights of the Child (CRC), all of which recognize reproductive rights.

Significance of reproductive rights:

- **Human right:** Being able to make decisions about one's own body and lives is a basic human right.
- **Realizing other rights**: Reproductive rights are an important facet of a woman's right to bodily integrity, right to life and equality.
- **Maternal healthcare:** Access to contraception, birth control and safe and hygienic abortion services and timely and well-spaced pregnancies are crucial to reduce maternal mortality rate and ensure maternal and new-born health.
- **Women's economic advancement:** Women's ability to obtain and effectively use contraceptives has a positive impact on their education and workforce participation.

Issues related to reproductive rights in India:

- **Social Stigma:** There exists a social stigma related to abortion and contraception and sex education are taboo topics in India. Unmarried women have limited access to birth control due to such pressures.
- **Patriarchal structure:** It affects women's agency to make free reproductive choices and also leads to women undergoing unsafe abortions and sterilizations to avoid unwanted pregnancies.

- **Insensitive treatment of women**: The treatment of women, especially those from marginalised sections, at public health facilities is often inadequate, indifferent, and callous, stripping them of their dignity and agency. This results in women's reluctance to seek treatment at public health facilities, thus impacting access and reach.
- **Accessibility of quality healthcare:** India has only one doctor for roughly 10,200 people in the public sector (National Health Profile, 2017). In places like Arunachal Pradesh, Meghalaya, Mizoram and Sikkim, there is a glaring 100% shortfall in the availability of paediatricians.
- **Distress financing:** High out-of pocket medical expenditure results in distress financing of medical care by selling off personal or ancestral assets like land and livestock, borrowing from predatory moneylenders, etc. For instance, About 17.4% of the women from the lowest quintile in Mumbai slums financed their maternal care expenditure by borrowing money.

Way Forward

- **Changes in the medical board:** The government needs to amend the bill to include a few changes in the Medical Board:
  - The government has to specify a time limit for the board.
  - The government has to consider the majority of opinion of the board members to avoid personal beliefs interfering with the board opinions.
- **New criteria to be added:** The government has to introduce personal choice, a sudden change in circumstances, and domestic violence as a criterion. Apart from that, the bill must include abortion among intersex, transgender, and gender diverse persons.
- **Need of new guidelines:** The government might include a provision of will to terminate the pregnancy at an early stage within 20 weeks without the opinion of RMP. On the other hand, the government also have to release clear guidelines to restrict,
  - Women performing abortions to prefer a male child
  - Women performing abortions due to family pressures etc.

The MTP bill 2020 is a step in the right direction to ensure access to safe and legal abortion. But, it falls a few steps behind in terms of ensuring dignity, autonomy and justice for women. This can be done by including the necessary suggestions under the Act.

GENERAL STUDIES - II

Subverting Second Chamber

Syllabus - Parliament and State Legislatures—Structure, Functioning, Conduct of Business, Powers & Privileges and Issues Arising out of these.

In News: After witnessing a slump in attendance during the pandemic and postponement of several meetings due to lack of quorum, the eight Department- related Standing Committees of Rajya Sabha have shown a marked improvement in their functioning.

Origin of Rajya Sabha

- The origin of the second Chamber dates to the Montague-Chelmsford Report of 1918.
- The Government of India Act, 1919 provided for the creation of a 'Council of State' as a second chamber.
- The Council of State continued to function till India became independent. The Rajya Sabha, its Hindi nomenclature was adopted on 23 August 1954.

Reasons why a bicameral system was envisaged in the Constitution

The scheme of bicameralism, i.e. two houses of the Parliament was extensively debated in the Constituent assembly. The Union Constitution Committee under the Chairmanship of Shri Jawaharlal Nehru advocated for establishment of a bicameral legislature.

The main rationale put forward were as follows:

- **Diversity:** India is a diverse country and a single directly elected House was considered inadequate to meet the challenges before free India.
- **Federalism:** Bicameralism is necessary for federalism and the Upper House will ensure the voice of unrepresented sections of the States.
- **Permanency:** The Upper House, being permanent, is beyond the scope of dissolution is in the interests of the progress of India.
- **Double-check hasty legislations:** It will check hasty, and ill-considered legislation passed by the Lower House.
- **Complement the lower house:** It will give relief to the lower house which is burdened by an ever-increasing volume of legislation.

Constitutional provisions with respect to Rajya sabha:

- The Rajya Sabha and the Lok Sabha together with the **President of India** constitute 'Parliament of India'.
- The strength of the Rajya Sabha has been fixed to a maximum of 250 members. The total number of members in the Rajya Sabha, as presently constituted is 245 including the 12 nominated members.
- Unlike the Lok Sabha, the Rajya Sabha is not dissolved as a body, but one-third of its members retire every two years. The Vice-President of India (who is elected by an electoral college consisting of members of both Houses) is the ex officio Chairman of the Rajya Sabha.

There are some important matters in respect of which the Constitution has placed both Houses of Parliament on an equal footing as may be seen from the following list:

- Equal right with the Lok Sabha in the election and impeachment of the President (Articles 54 and 61).
- Equal right with the Lok Sabha in the election of the Vice-President (Article 66).
- Equal right with the Lok Sabha to make law defining parliamentary privileges and also to punish for contempt (Article 105).

- Equal right with the Lok Sabha to approve the Proclamation of Emergency (issued under Article 352)
- Proclamations regarding failure of the Constitutional machinery in States (issued under Article 356) and even a sole right in certain circumstances; and
- **Equal right with the Lok Sabha to receive reports and papers from various statutory authorities, namely:**
    - Annual Financial Statement [Article 112(1)];
    - Audit Reports from the Comptroller and Auditor General of India [Article 151(1);]
    - Reports of the Union Public Service Commission [Article 323(1)];
    - Report of the Commission to investigate the conditions of the Backward Classes [Article 340(3)].
    - Report of the Special Officer for Linguistic Minorities [Article 350B(2)].

Relevance of Rajya Sabha:

- **A legislative body:** From 1952-1999, 688 Government Bills were introduced in the Rajya Sabha such as Prevention of Corruption, slum Areas (improvement and Clearance), the Bonded Labor System (abolition) Bill etc.
- **A Revising Chamber**: The Rajya Sabha allows detailed debates and discussions on legislations which might have been hastily passed by Lok Sabha. Thus, it ensures an effective system of checks and balances and provides important inputs during discussions.
    - For instance, Rajya Sabha has revised bills such as Income-tax (Amendment) Bill of 1961 and the National Honor Bill, 1971.
    - According **to M. Ananthasayanam Ayyangar,** a second chamber would check hasty legislation and it can make place for genius people “who may not be able to win a popular mandate”.
- **Special Powers of Rajya Sabha**: As a federal Chamber, Rajya Sabha has been assigned certain exclusive powers:
    - Article 249 gives Rajya Sabha the power to initiate a resolution supported by not less than two-thirds of the members present and voting for Parliament to legislate any matter in the State List in the national interest.
    - Article 312 empowers Rajya Sabha to create an All India Service when resolution supported by not less than two-thirds of the members present and voting.
    - To endorse Emergency under Article 352 for a limited period when the Lok Sabha remains dissolved.
- **As a Deliberative Chamber**: Rajya Sabha makes valuable contributions through debates and deliberations.
- **As a Chamber of Continuity:** As Rajya Sabha is a permanent chamber, it facilitates the continuity of public policies within the parliamentary framework.
- **As a scrutinizing chamber**: The Rajya Sabha plays an important role as a scrutinizing chamber by assessing the performance of the executive for ventilating public grievances.

  - For instance, important matters of public interest are raised through the device of question hour.
- **Free from Populist approach:** As Rajya Sabha is an indirectly elected house, the members are not directly responsible to the constituency. Thus, the members need not apply populist approach.
- **Inclusive Chamber:** The electoral composition of and the nature of elections to the Rajya Sabha ensures that diverse voices are well represented making the House an inclusive chamber.
- **Chamber of Accountability**: Rajya Sabha is important to ensure executive accountability. Out of 24 Department-related Parliamentary Standing Committees in the Parliament, 8 are functioning under the direction and control of the Chairman, Rajya Sabha.

Issues associated with Rajya Sabha:

- **Quality of members:** Critics have opined that over the years the quality of members of Rajya Sabha have seen a decline. Its membership is largely dominated by party fund-raisers, losers in elections, crony capitalists, journalists, retired CEOs and civil servants.
- **Frequent disruptions:** Disruptions in the Rajya Sabha sessions have been criticized time and again.
  - Rajya Sabha till 1997 had a productivity of 100% and above and the past 23 years have shown a disturbing trend of rising disruptions.
    - 1998-2004 – Productivity fell to 87%
    - 2005-2014 – Productivity fell to 76%
    - 2015-2019 – Productivity fell to 61%
    - **Question hour:** The Rajya Sabha in 2015-19, used only about 40% of the total time available for question hour.
- **Delaying chamber:** Ensuring executive accountability is an essential feature of good governance. The Rajya Sabha, through instruments such as the Question hour ensures executive accountability. However, the question hour functioned only for 47% during 2014-2018. The time lost indicates a lost opportunity to hold the government accountable for its actions and thus, affects good governance.
- **Bypassing Rajya Sabha:** The Rajya Sabha has no legislative powers with respect to the money bills and budget. For example, several important bills, such as the Aadhar Bill were introduced as a money bill. This has led to a situation when the critics have pointed out the reduced significance of the Rajya Sabha.
- **No equal Representation of states:** The Rajya Sabha should uphold federalism and ensure uniform representation for all states. However, since seats in Rajya Sabha are allotted based on population of the state, the number of representatives varies largely between states. Example: Uttar Pradesh has 31 members while Tripura has only 1.
- **Undermining of Federal character:** for example, the **Representation of People (Amendment) Act, 2003**, parliament has removed the word 'domicile' from Section 3 of Representation of People Act, 1951.This means that a person who does not belong to a

state can contest the Rajya Sabha elections from that state of which they are neither a resident nor a domicile.

- **Low participation of nominated members:** for example, Sachin Tendulkar was appointed in 2012 but the attendance of Sachin Tendulkar is a meagre 24 days.
- **Criminalization:** as per **Association for Democratic Reforms (ADR) 2020**, 229 of the 233 Rajya Sabha seats that represent the States and Union Territories showed that 54 MPs or 24% had declared criminal cases.
    - Out of the 229 MPs, 28 or 12% had declared serious criminal cases.
    - 203 of the 229 MPs or 89% of those analysed had declared assets over ₹1crore.
- **Time to Speak in Rajya Sabha:** the independent or nominated members and MPs from smaller parties get less time to speak in the House. The inadequacy of time to speak for the nominated members restricts the benefits from their special expertise.

Way Forward

- **Number of Sittings:** The number of sittings of Rajya Sabha should be held keeping in view the nature and volume of legislations and time available for discussing issues of public importance. The National Commission to Review the Working of the Constitution (2002) in its report had recommended that the minimum number of days for sittings of the Rajya Sabha should be fixed at 100 days.
- **Rules of Business:** It should be ensured that the present Rules of Business of the House are adequate, and changes should be made if required. Further, self-discipline on the part of the members to ensure compliance with the Rules of the Business for orderly functioning of the House should be resorted to.
- **Ensuring participation:** Norms should be followed for enabling equitable and wider participation of members in the debates.
- **Membership of the house:** It should be ensured that members with the right background and abilities are elected/nominated to the Rajya Sabha to enrich debates are sent to the House. India can learn from the UK where The House of Lords Act, 1999 led to the introduction of the Appointments Commission in 2000. The Commission makes recommendations for the appointment of non-party-political members to the House of Lords.
- **Representation of states:** Allocation of seats in Rajya Sabha should be irrespective of state population like that in USA. The USA has 50 states and the Senate has 100 members- 2 from each state.
- **Infrastructure support:** Adequate infrastructure support should be provided to the members to enable informed contribution to the debates in the House
- **Technology Adoption:** Technology adoption should be promoted for improving the functioning of the members and for more lively conduct of the proceedings of the House.

It is important to reform the Rajya Sabha to make it strong and effective. An effective Upper House will ensure voice to the under-represented and uphold the federal-democratic structure of India.

Anti-defection law and Ambiguities

Syllabus: GSII- Parliament and State Legislatures—Structure, Functioning, Conduct of Business, Powers & Privileges and Issues Arising out of these.

In News: The problems associated with Anti defection law got highlighted again in the Puducherry assembly issue. The law was unable to provide stability to the ruling government which led to the imposition of president rule in the state.

WHAT IS ANTI-DEFECTION LAW?

- The anti-defection law was passed in 1985 through the **52nd Constitutional Amendment Act**.
- It added the **Tenth Schedule** to the Indian Constitution and amended four articles in the Constitution. (It amended **Article 101, 102, 190 and 191** which are related to the vacating of seats and disqualification of MPs and MLAs).
- The main intent of the law was to combat the **evil of political defections'** and the problem of 'aaya ram-gaya ram'.
- The Anti defection law lays down **the process by which legislators may be disqualified** on the grounds of defection by Presiding officer of house.
- The law applies to both **Parliament** and state **legislative assemblies.**
- The Presiding officer of the house decides on the question of the defection.

MAIN FEATURES IN THE TENTH SCHEDULE SUBJECT PROVISIONS DISQUALIFICATION:

- **Members of Political Parties:** A member of a house belonging to a political party becomes disqualified from being a member
    - If he voluntarily gives up the membership of his political party, or
    - Votes, or does not vote in the house, contrary to the direction of his political party.
    - However, if the member has taken prior permission, or is condoned by the party within 15 days from such voting or abstention, the member shall not be disqualified.
- **Independent Member:** An independent member (Member not belonging to any political party) of the house becomes disqualified if he joins a political party after the elections.
- **Nominated member:** A nominated member of the house becomes disqualified if he joins any political party six months after his nomination to the house.

The provisions of the anti-defection law doesn't apply in the following situations:

- **Merger:** A merger of a political party with another takes place when two-thirds of the members of the party have agreed to such a merger. Thus, if a member leaves the party due to the merge, he cannot be disqualified under the anti defection law.

- **Presiding Officer:** A member can give up the membership of a political party after being elected as the presiding officer of the house. He can later rejoin the party after his term as the presiding officer of the house ends. This exception is provided to ensure impartiality in the office of the presiding officer of a house.

DECIDING AUTHORITY

- The presiding officer of the house (Speaker in Lok Sabha, Chairman in Rajya Sabha) is the deciding authority in matters related to disqualifications due to defections.

RULE MAKING POWER

- The presiding officer of the house (Speaker in Lok Sabha, Chairman in Rajya Sabha) has the power to make rules to give effect to the Tenth Schedule. However, it must be placed before the house for 30 days.
- The House can modify or disapprove the rules.

ANTI-DEFECTION LAW: MERITS & DEMERITS

Merits of the Anti-Defection Law

- **Prevents Defection:** It is a tool to prevent defection by providing punitive measures. For instance, disobeying a three-line whip can put the lawmaker's membership of the House at risk.
- **Promotes Government stability**: It increases stability of the Government by ensuring the legislators do not defect to other party.
- **Promotes Party Discipline:** It promotes party discipline as legislators have to stick to party policies and party whip.
- **Reduces Political Corruption:** It is expected to reduce political corruption by preventing horse- trading.
- **Promotes citizen trust in elected legislators:** Voters exercise their preference for a set of policies espoused by contesting candidates of a party. Anti-defection law ensures candidate is loyal to citizens voting for him.
- **Realignment of parties in House:** It promotes realignment of political parties in the House. The law does it through a democratic process by allowing merger of political parties.
- **Reduces expenditure on frequent elections:** The anti-defection law reduces the scope of irregular defections by curbing political defections. Thus, it prevents the non-essential expenditure on frequent elections.
- **Constitutional recognition to political parties:** Political parties play an important role in parliamentary democracy. The anti-defection law gave recognition to the political parties in the Constitution for the first time.

Demerits of Anti –Defection law:

- **Violates freedom of expression:** The Anti defection Law forces the individual legislators to follow party whip. It thus interferes with the individual members freedom of speech and expression by curbing dissent against party policies or party whip.
- **Lowers accountability of elected candidate towards his electorate:** Following party diktat every time, the legislator cannot vote in line with his conscience, judgements and interest of his electorate. It lowers elected representative accountability towards his electorate. Thus, anti-defection law breaks the link b/w the elected legislator and his electors.
- **Weakened Oversight:** The law weakens the legislator's oversight on executive action as they are bound by party whip.
- **Against internal party democracy:** The law removes the need for the govt to build broad consensus for its decisions/ policy making. The ruling party can ensure the support of each of its MP by issuing a whip. Thus, it works against internal party democracy.
    - Secondly, if it needs to get further support to get a majority, it only needs to convince the leader of other parties and not individual MPs.
- **Law fails to restrict defections:** The law was introduced to curb political defection. However, political defection continues to be common even today. Example – Recent defection by 16 MLA's in Karnataka assembly 7 Decision making authority.
- **Role of presiding officer:** The presiding officer of the house is vested with adjudication powers related to the law. This is criticised on two grounds:
    - It may not be impartial due to political bias towards a political party.
    - The presiding officer lacks adequate legal expertise to exercise quasi-judicial powers.
    - Speaker not time bound: The Law does not provide a time limit for presiding officer to take decision regarding disqualifying a member.
- **Individual vs Group Defection:** The law allows group defection by providing exception in the law for merger between political parties. But it doesn't allow individual defections. This distinction is irrational.
- **Discrimination between a nominated and an independent member:** An independent member (Member not belonging to any political party) of the house becomes disqualified if he joins a political party after the elections. But a nominated member of the house becomes disqualified if he joins any political party six months after his nomination to the house. This discrimination between the nominated and the independent member of the house is considered to be irrational.

AMBIGUITIES IN THE LAW

- **Right to freedom of speech and expression vs Tenth Schedule:** The question raised was whether the Tenth Schedule curbed the right to freedom of speech and expression of the individual legislators.
- **Speaker's review of its own decision:** The issue raised was whether the speaker can review its own decision to disqualify a member under the tenth schedule.

- **Lack of complete clarity**: Some provisions in the act lack clarity and can have multiple meanings. For example, the phrase "voluntarily giving up the membership of the party" can be interpreted in many ways and not just a formal resignation from the party.

AMBIGUITY IN THE JUDICIAL INTERPRETATION

- **Kihota Hollohon vs. Zachilhu and Others, 1993: SC** ruled that the provisions do not violate a legislator's right to free speech and expression.
- **Ravi S Naik vs Union of India, 1994:** The Supreme Court said that the conduct of the member can also be amounted to leaving the party.
- **Judicial Review:** Initially, the law made the decision of the Presiding Officer binding and not subject to judicial review. This condition was struck down by the Supreme Court in Kihota Hollohon vs. Zachilhu and Others, 1993 . The Supreme Court said that the Speaker while adjudicating under the Tenth Schedule functions as a tribunal. Therefore, it is subject to judicial review. However, the Supreme Court allowed partial judicial review (i. e, the judicial intervention could take place only after the presiding officer has passed its final order).
- **Dr. Kashinath G Jhalmi v. Speaker, Goa Legislative Assembly, 1993:** SC ruled that the law does not provide for such power.
- **G Viswanathan versus Honorable Speaker, Tamil Nadu State Assembly, 1996:** The Supreme Court ruled that an expelled member was bound by the party's whip even after expulsion. His failure to adhere to it would result in his/her disqualification from the House.

GLOBAL SCENARIO

- **BANGLADESH**: It has a law on defection. Article 70 of the Constitution says that a member has to vacate his seat if he resigns from the party or votes against the direction of his party. The dispute is referred by the Speaker to the Election Commission.
- **SOUTH AFRICA:** Section 47 of the Constitution provides that a member has to vacate his seat if he ceases to be a member of the party that nominated him.
- **UNITED KINGDOM:** There is no law on defection, in particular. However, MPs can lose membership of the party on disobeying the party whip. But they can keep their House seats as Independents.
- **AUSTRALIA, GERMANY:** They have no laws on defection.

Way forward:

- **Dinesh Goswami Committee on electoral reforms (1990):** It recommended that disqualification under the Tenth Schedule should take place only in the following situations :
    - If a member voluntarily gives up the membership of his political party,
    - If a member abstains from voting, or votes contrary to the party whip in a motion of vote of confidence or motion of no confidence.

  - It further added that the **President/ Governor should decide on the disqualification under** the Tenth Schedule on the advice of the Election Commission. Halim Committee on anti-defection law (1998).
  - It also recommended to clearly **define "political party" and "voluntarily giving up membership of a political party "**.
  - It prescribed to place **certain restrictions** (such as-prohibition on joining another party, prohibition on holding office is the government) on the defecting members. Law Commission (170th Report, 1999).
  - Exceptions to the law such as in the case of mergers should be deleted.
  - **Pre-poll electoral alliances should be considered as political parties** under the law.
  - Political parties should issue a limited number of whips for important situations.

- **Election Commission:**
  - The **President/ Governor** should decide on the **disqualification** under the Tenth Schedule on the advice of the Election Commission. Constitution Review Commission (2002).
  - Prohibition of defectors from holding public office for the duration of the remaining term.
  - The vote cast by a defector to remove a government should be considered invalid.

To sum up, the anti-defection law has been unable to control the defections and now it calls for a relook.

Moving to a New City

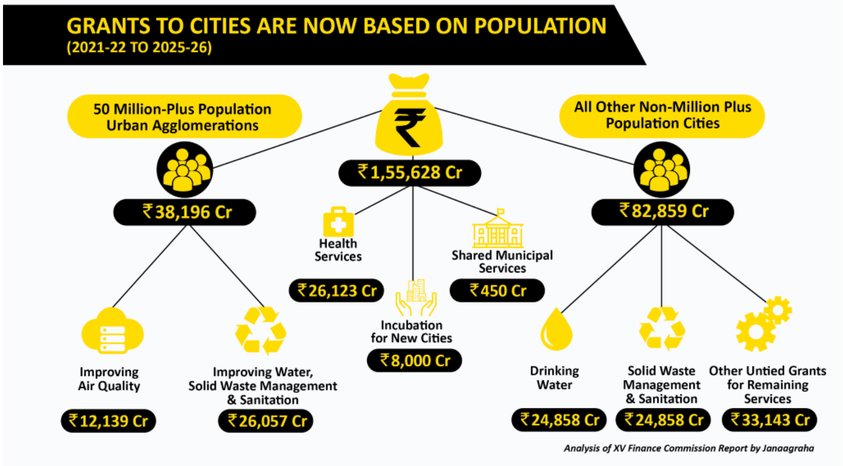
Syllabus- Functions and Responsibilities of the Union and the States, Issues and Challenges Pertaining to the Federal Structure, Devolution of Powers and Finances up to Local Levels and Challenges

In News: The Fifteenth Finance Commission of India (XV FC) in its interim report has advocated financial empowerment of India's municipalities.

More in news:

- So far four Finance Commissions (11th FC to 14th FC) have given their recommendations for local bodies.
- In recent years, the grants recommended by successive Finance Commissions in absolute terms have increased. For example, the combined grants for rural and urban local bodies recommended by the 14th FC were three times the amount recommended by the 13th FC.
- Different Commissions followed distinct criteria while recommending resources for local governments. The only common criteria considered by all of them were population and geographical area.

Recommendations of the 15th Finance Commission regarding Local bodies:


GRANTS TO CITIES ARE NOW BASED ON POPULATION
(2021-22 TO 2025-26)
50 Million-Plus Population Urban Agglomerations
₹1,55,628 Cr
All Other Non-Million Plus Population Cities
₹38,196 Cr
Health Services
Shared Municipal Services
₹82,859 Cr
₹26,123 Cr
₹450 Cr
Incubation for New Cities
₹8,000 Cr
Improving Air Quality
₹12,139 Cr
Improving Water, Solid Waste Management & Sanitation
₹26,057 Cr
Drinking Water
₹24,858 Cr
Solid Waste Management & Sanitation
₹24,858 Cr
Other Untied Grants for Remaining Services
₹33,143 Cr

Analysis of XV Finance Commission Report by Janaagraha

- **Increasing the overall outlay:** The Fifteenth Finance Commission has set aside Rs 29,000 crore for FY 2020-21. It has indicated the intent to raise the share of municipalities in the total grants' of local bodies gradually over the medium term, from the existing 30 % to 40 %.
  - **Substantive increase in funds to cities:** Rs 1.55 lakh crore over a five-year period from FY21-22 to FY25-26, is a 78 percent increase over grants during the 14th FC period
- **Enhance financial accountability:** It has setup two entry conditions for municipality to receive FC grants:
  - Publication of audited annual accounts.
  - Notification of floor rates for property tax.
  - Efforts made to mainstream Metropolitan Governance for the first time since 74th CAA, 1992, comprising 100 percent outcome funding of Rs 38,000 crore for 50 million-plus urban agglomerations (UAs), with an aggregate population of 150 million, tied to performance indicators on air quality, water and sanitation; shared municipal services a fitting complement
- **Outcome-based funding**: It has distinguished between million-plus urban agglomerations (where 44% of the total urban population resides), and other cities.
  - It recommended providing Rs 9,000 crore to million-plus urban agglomerations (excluding Union Territories) with emphasis on air quality, water supply and sanitation.
  - It recommended basic grants to the rest of the cities, with 50 % of the end-use tied to water supply and sanitation.
  - It acknowledged the metropolitan area as a unified theatre of action to solve complex challenges of air quality, water, and sanitation, etc.
- **Effective management of finances:** It has recommended a common digital platform for municipal accounts, a consolidated view of municipal finances and sectoral outlays at the state level.

Need of empowering ULBs

- **Urban Tax Potential:** The Economic Survey (2017-18) has estimated house tax potential at Rs 42,160 crore for rural areas and Rs 23,184 crore for urban areas.
    - It suggested property tax rates of zero for houses with one room, 0.1% for two rooms, 0.2% for three, four and five rooms, and 0.3% for six and above rooms.
- **Constitutional obligations:** As per the 73rd and 74th Constitutional Amendment Act,
    - India's Constitution mandates the appointment of Finance Commissions (FCs) every five years to recommend how central government revenue should be shared with the states.
    - FCs have started recommending a share of revenue as grants to local bodies, rural and urban.
    - The share of urban bodies in devolved funds has risen from 0.78% (11th FC) to 4.3% (in 15th FC).
- **Engines of future development:** Cities are considered to be the engines of future growth. As per the World Bank, 55% of India's population can be considered urban. Thus, decentralization should focus more on municipalities than rural panchayats.
- **Impact of GST:** Introduction of the GST has taken away critical sources of tax revenue such as octroi, local body tax, entry tax and advertisement tax for urban local governments.
- **Increased urbanization:** ULBS are critical in providing delivery of public services
    - Their empowerment is also needed for creation and maintenance of urban infrastructure
    - To strengthen their role in Disaster Management
    - To strengthen their role in mitigation and adaptation to climate change.

Challenges in financial empowerments of ULBs

- **Current status of low finances to the ULBs**
- **Financial Paucity:** The chief sources of income of urban local bodies are the varied types of taxes, most of which is levied by the union and state governments.
    - Further, the taxes collected by the urban bodies are not sufficient to cover the expenses of the services provided.
    - Indian cities revenue is less than 1% of gross domestic product. The net result is that cities do not have adequate financial autonomy.
    - Poor collection of user charges: Poor quality of urban services have led to a lack of willingness to pay on the part of citizens. This has in turn resulted in poor collection of user charges and fees.
    - Improper maintenance of Accounts: CAG reports on local governments have pointed out several lacunae in the preparation of municipal accounts related to lack of budget preparation etc.
- **Political will of state governments:** The state governments had devolved only a limited number of taxes to the urban local bodies. In several states, most local taxes, other than property tax, have been taken over by the state governments over the years.

- **Shortcomings of State Finance Commissions:** The 15th FC has criticised many states for not appointing state finance commissions (SFCs) to devolve powers and revenue to local bodies.
    - Many states have not done so because state-level politicians want to monopolize funds.
- **Inability to borrow from market sources:** Most municipal bodies require the state governments' permission to borrow from market sources. Growth in market financial instruments such as Municipal bonds has largely been inadequate.

Steps taken to financially empower the ULBs

- **Performance based grants:** Successive Finance Commissions have put in conditionalities on the disbursement of grants for improving fiscal position of ULBs.
    - For instance, The 14th Finance Commission stipulated that a detailed procedure for the disbursal of the performance grant to ULBs based on various reforms in areas like accounting, auditing, reporting, etc.
- **Municipal Bonds:** In 2017, NITI Aayog in its Three-year Action Agenda document recommended utilizing the municipal bond market. This would ensure low cost of borrowing which is required for municipality projects which typically have low viability, long gestation period and low to moderate cost recovery.
- **National Municipal Accounts Manual (NMAM):** The Manual comprehensively provides details to all States/UTs in relation to the accounting policies, procedures and guidelines to ensure correct, complete timely recording of municipal transactions produce accurate relevant financial reports.
- **Allocation of funds through Schemes:** Several schemes of the Ministry of Housing and Urban Affairs provide financial support to ULBs for undertaking projects for development of urban infrastructure and services etc. E.g. Atal Mission for Rejuvenation and Urban Transformation (AMRUT), Smart City Mission.
- **Promotion of Municipal Bonds:** In 2015, Securities and Exchange Board of India (SEBI) had released the Issue and Listing of Debt Securities by Municipalities (ILDM) Regulations. Since then seven municipalities have raised nearly Rs 1,400 crore by issuing their debt securities.
    - Municipal bonds are issued when a government body wants to raise funds for projects such as infra-related, roads, airports, railway stations, schools, and so on.
    - They have existed in India since the year 1997 and Bangalore Municipal Corporation was the first urban local body to issue municipal bonds in India.

Way Forward

- **Role of state governments:** State government should take the lead rather than putting the onus on constitutional bodies such as the Finance Commission to drive transformational change in our cities.

- **Modification of the Pooled Fund Banks in the USA:** allowing ULBs to come together and form virtual entities which can then take exposure to financial markets through loans and debt route.
- **Reform Agendas to transform municipalities**
    - **Fiscal decentralization** by strengthening state finance commissions.
    - **Revenue enhancement** through revenue optimization.
    - **Accelerate municipal borrowings** through fiscal responsibility and budget management.
- **Enhanced Devolution by States:** Municipal bodies can be given access to Profession Tax, Local Body Entertainment Tax, motor vehicles tax etc.
- **Unlocking land value:** Land value can be monetized by ULBs using Benefit charges such as impact fees, betterment levy, vacant land tax etc.
- **Special Purpose Vehicles (SPVs) by local communities:** If there is an infrastructure need and the community is willing to pay for it, then the community can form an SPV that can be used to float tenders for the requisite project(s) and route funds.
- **Reform of property taxes:** Based on suggestions of Economic Survey 2017-18, property tax rates can be altered to zero for houses with one room, 0.1% for two rooms, 0.2% for three, four and five rooms, and 0.3% for six and above rooms.
- **Matching grants:** Grants should be matching grants (those linked to local revenue collection), instead of unconditional transfers.
    - For instance, property tax collected by cities can be matched by additional grants from central revenue, resistance from vested interest can be overcome.

Water Governance

Syllabus- Government policies and interventions for development in various sectors and issues arising out of their design and implementation.

In News : In Mission Paani Waterthon, Union transport minister Nitin Gadkari pointed to the Buldhana model of water conservation.

More in news

- The **Interstate River Water Disputes (Amendment) Bill 2019** has been passed by the Lok Sabha to help sates in resolving water disputes.
- The **Jal Shakti Abhiyan** was launched by the Ministry of Jal Shakti in 2019 as a mass movement for water conservation.

Introduction

- **The Global Water Partnership (GWP)** defines **water governance** as “the range of political, social, economic and administrative systems that are in place to regulate development and management of water resources at different levels of society”.
- According to the **UN World Water Report (2006)**, the crisis of water is largely due to the failure of water governance, and for the sustainable development of water resources, water governance should be given due priority.

NEED FOR WATER GOVERNANCE

- **Increasing water stress** - India has **18% of the world's population** but **only 4% of the world's fresh water resources.** Despite significant investment and improvement in the water sector, it is becoming very difficult to manage the ever-increasing demand of water in India.
- **Uneven distribution** - In India, water is not evenly distributed geographically. More than two-thirds of water resources are confined to about one-third of the land area. The **Ganges–Meghna–Brahmaputra** river basin in the east contains 60% of available freshwater.
- **Achieving"Har ghar jal"** - As per 2011 Census, **only 30.8 per cent of the total rural households and 70.6 per cent of the total urban households** get piped water supply.
- **To ensure water-use efficiency** - Provide irrigation to all farms (Har Khet Ko Pani) with improved on-farm water-use efficiency (more crop per drop).
- **To promote circular economy** - Provide water to industries, encourage industries to utilize **recycled/treated water** and ensure zero discharge.
- **To ensure water security** - Creating **additional water storage capacity** to ensure full utilization of the utilizable surface water resources potential of 690 billion cubic metres (bcm).

CHALLENGES IN WATER GOVERNANCE

- **Inter-State dispute and federal issues** – According to Constitution, the "use" of river water belongs to the domain of the states, the regulation of the interstate river water and disputes related to the river water sharing between states is the prerogative of the Centre. Such dichotomous and blurred distinction between the governance mandate of the center and the states has led to multiple disputes between states and conflictual federalism.
- **Lack of credible "water information"** –This is the information about water storage, groundwater, water flows and, in some cases, even rainfall and snowfall levels. According to NITI Ayog data is often not available at the **adequate level of detail**. Also, where data is available, it is often **unreliable** due to the use of outdated collection techniques and methodologies.
- **Over-extraction of ground water** – According to Economic Times 2019, North India is most affected by groundwater's unsustainable extraction, and is guzzling down groundwater at a **rate 70% faster** than estimated earlier, but western and southern India are not far behind.
- **Poor maintenance of water infrastructure** - The water infrastructure continues to perform far below its optimum, as India is not allocating even a fraction of the required annual maintenance **budget of $4 billion** that it needs. It faces grave dam safety issues, as was also evident in the case of **Kerala floods in August 2018**.
- **Focus on big dams not traditional water structures** - Advocacy of big hydropower projects are one of the causes for the water crisis as well as farmer distress in India

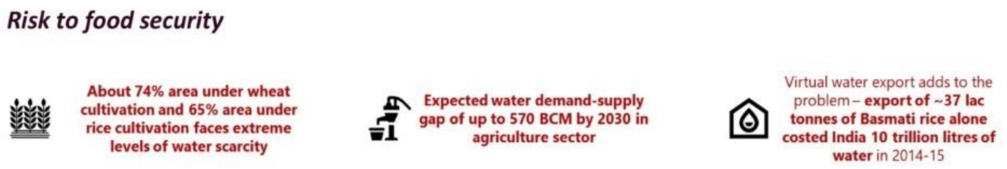
because it has led to complete **neglect of essentials** of water storage, the local water systems, rivers, wetlands, forests, soil moisture, and groundwater aquifers and their sustained effectiveness.

- **Pressure of urbanization** - Unplanned urbanization is cause for **destruction of local water bodies and local tree cover**. Unprecedented growth of cities has led to **concretising** of rivers and **encroaching** on their floodplain. Lack of adequate infrastructure in cities has led to more wastewater and contamination of remaining groundwater resources.
- **Issues with "water institutions"** – Water governance institutions such as Central Water Commission (CWC), Central Ground Water Board, Central Ground Water Authority, State Pollution Control Boards and Central Pollution Control Board, among others show a typical **top-down, bureaucratic, unaccountable, non-trans-parent and non-participatory** mindset.

IMPLICATIONS OF FAILURE OF WATER GOVERNANCE

Social Risks

- **Risk of Food security**



Risk to food security

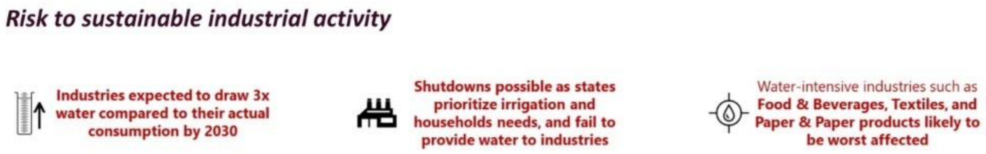
About 74% area under wheat cultivation and 65% area under rice cultivation faces extreme levels of water scarcity

Expected water demand-supply gap of up to 570 BCM by 2030 in agriculture sector

Virtual water export adds to the problem – **export of ~37 lac tonnes of Basmati rice alone costed India 10 trillion litres of water** in 2014-15

  - Achieving food security for India, with its rising population, is going to be a significant challenge, and water scarcity will make the goal tougher to attain.
  - Groundwater resources, which account for 62% of irrigation water, are declining in 52% of the cases and highlight a serious water concern for the agriculture sector.
  - Key reasons for this decline include a lack of well-considered water pricing for agricultural use, energy subsidies that promote over-extraction, and sub-optimal matching of crops with the agro-climatic and water zones in states.

Risk of exceeding the carrying capacity of urban hubs



Risk to sustainable industrial activity

Industries expected to draw 3x water compared to their actual consumption by 2030

Shutdowns possible as states prioritize irrigation and households needs, and fail to provide water to industries

Water-intensive industries such as **Food & Beverages, Textiles, and Paper & Paper products likely to be worst affected**

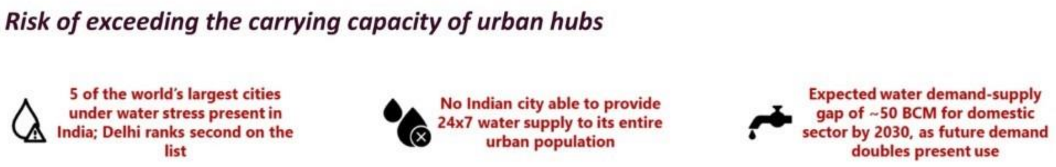
  - Urban hubs are likely to witness severe water shortages in the future, which could risk urban growth in India and reduce quality of life for urban citizens.

  - India's urban population is expected to reach 600 million by 2030, and fulfilling its water needs will be a great challenge.

- **Risk of gender inequality:** Nearly 163 million of India's population of 1.3 billion lack access to clean water close to home. The entire burden of providing water for the family and the field is taking a heavy toll on her physical and mental health leading to increased vulnerability of women.

Economic risks

- **Risk to sustainable industrial activity**



Risk of exceeding the carrying capacity of urban hubs

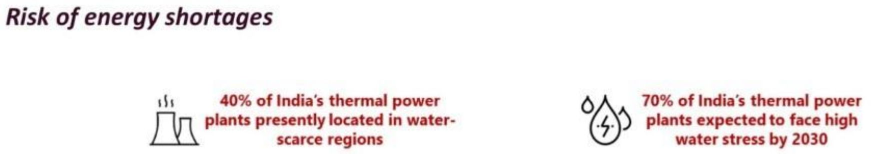
5 of the world's largest cities under water stress present in India; Delhi ranks second on the list

No Indian city able to provide 24x7 water supply to its entire urban population

Expected water demand-supply gap of ~50 BCM for domestic sector by 2030, as future demand doubles present use

  - Estimates suggest that industrial water requirement will quadruple between 2005 and 2030, highlighting the significant rise in demand by the sector over time.
  - As reported in 2016, a steel plant in Vishakhapatnam, Andhra Pradesh was forced to **operate on reduced capacity** due to lower water availability. Furthermore, a staple fibre plant of a major textile company in Nagda, Madhya Pradesh was **shut down for 2 months** in 2015 due to water shortages.

- **Risk of energy shortages**



Risk of energy shortages

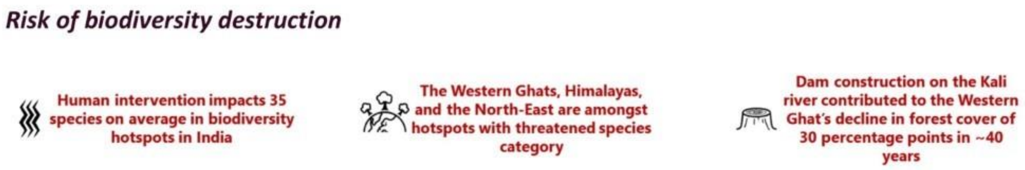
40% of India's thermal power plants presently located in water-scarce regions

70% of India's thermal power plants expected to face high water stress by 2030

  - Thermal power constituted more than **83% of India's total utility power** generation in 2016, and remains a major source of energy for all commercial activities.
  - This critical source of energy will be threatened as freshwater resources decline, since **90% of thermal power plants in India rely on freshwater sources** for cooling, an essential process in thermal energy production.

Environmental risks

- **Risk of biodiversity destruction**



Risk of biodiversity destruction

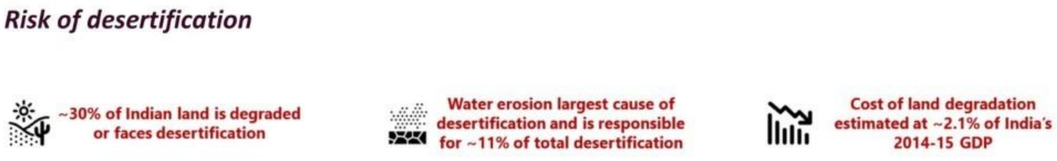
Human intervention impacts 35 species on average in biodiversity hotspots in India

The Western Ghats, Himalayas, and the North-East are amongst hotspots with threatened species category

Dam construction on the Kali river contributed to the Western Ghat's decline in forest cover of 30 percentage points in ~40 years

    - **Building dams** on rivers slows down the water flow, leading to sedimentation and reduction in nutrients carried by the rivers, whereas **linking rivers** can change salinity levels and monsoon patterns.
    - Such changes in **water composition and environmental factors** can seriously harm the local flora and fauna that thrive on these water resources.
    - The impact on biodiversity can manifest in the form of changing migration patterns, decline, and even extinction of species' population, all of which can lead to the destruction of **biodiversity hotspots** in the long run.

- **Risk of desertification**



Risk of desertification

~30% of Indian land is degraded or faces desertification

Water erosion largest cause of desertification and is responsible for ~11% of total desertification

Cost of land degradation estimated at ~2.1% of India's 2014-15 GDP

    - Water management and desertification have a **two-way relationship**.
    - **Extensive groundwater extraction** contributes to loss of vegetation cover, which eventually leads to desertification. **Increasing desertification** and land degradation diminish green cover, which reduces the land's capacity to recharge groundwater and regional water tables.

Steps taken by government

- **Using Reliable data** - The **composite water management index** developed by NITI Aayog is being used as a potent tool to assess and further improve the efficiency of water resources management.
- **Jal Jeevan Mission** - The chief objective of the Mission is t**o provide piped water supply (Har Ghar Jal) to all rural households by 2024.**

Way Forward

- **Recycle of waste water-** Industries should be encouraged to meet a major share of their demand through recycled water. Besides, programmes for **smart water meters and tradable permits** for use of recycled water may be launched.

- **Groundwater management -** The participatory approach to encourage **behavioral changes and community engagement in** ground water management at the gram panchayat level as envisaged in the **Atal Bhujal Yojana** (ABHY) should be adopted and extended to other regions.
- **Breaking water-energy nexus** - The state of Punjab has introduced an innovative programme to break the water-energy nexus, under which farmers are being provided with a fixed electricity quota and receiving INR 4 per kilowatt hour for every unit of electricity saved through direct benefit transfers (DBTs). Further farmers, are allowed to join on voluntary basis.
- **Legislative solution** - Legislations that can attend the longstanding issue of inter-state externalities need to be passed and implemented for better water governance
    - Interstate River Water Disputes Amendment Bill 2019
    - The Dam Safety Bill, 2019
- **Mihir Shah committee** - Implementation of reforms recommended by Mihir Shah committee:
    - CWC and CGWB should be restructured and unified to form a new National Water Commission (NWC).
    - To shift focus from construction to decentralized management and maintenance in order to ensure that the promise of "Har khet ko pani" under Pradhan Mantri Krishi Sinchai Yojana does not go unfulfilled.

CASE STUDIES

- **RAJASTHAN'S MUKHYA MANTRI JAL SWAVLAMBHAN ABHIYAN: It is a multi-stakeholder programme which aims to make villages self-sufficient in water through a participatory water management approach. It focuses on converging various schemes and use of advanced technologies.**
- **JAKHNIVILLAGE, BUNDELKHAND, UTTAR PRADESH:** 5 years ago, Jakhni village of Banda district in the Bundelkhand region was one of the **most water scarce regions** of India. The area was witnessing heavy outgoing **migration in search of water** and better livelihood opportunities. But over the course of 5 years, villagers have drastically changed their water situation by putting rigorous efforts **in water conservation** such as construction of farm ponds, restoration/rejuvenation/restoration of water bodies, collection and utilization of grey water, raising of farm bunds, and intensive plantation of trees. The most **inspiring fact** is that the farmers of Jakhni undertook the entire work end-to-end **without any external funding, machinery, or resources**.
- **Buldhana Pattern of water conservation:** It involves synchronization of national highway construction and water conservation. It was achieved for the first time in Buldhana district of Maharashtra, where by using soil from the water bodies, nallas and rivers roads were constructed. This consequently led to the increase in capacity of water storage across the water-bodies in Buldana district and it came to be known as 'Buldhana Pattern'.

New IT Rules for Social Media and OTT platforms

Syllabus: Government Policies and Interventions for Development in various sectors and Issues arising out of their Design and Implementation.

Context: The government recently announced **the Information Technology (Intermediary Guidelines and Digital Media Ethics Code) Rules, 2021.**

Background:

- The rules were jointly announced by the Minister for Information Technology and the Minister for Information and Broadcasting.
- The rise of social media resulted in enormous controlling power in the hands of big technology companies. Regulation was needed to curb the misuse of power.
- A core framework to determine intermediary liability was ensured by **Section 79 of the Information Technology (IT) Act.** This was supplemented by operational rules and SC's judgment in the **Shreya Singhal V. Union of India case.** However, the intermediaries were kept immune for the content that is transmitted and stored by them. In return, they had to comply with a set of conditions that were set by the government.
- It is this set of conditions that got translated into Information Technology (Intermediary Guidelines and Digital Media Ethics Code) Rules, 2021.

About OTT Platforms

- **OCCPs:** These are online platforms that curate a range of content and present it on a singular platform. Examples of these platforms include Netflix, Amazon Prime, Hotstar, AltBalaji amongst others. They are also known as Online Content Curated Platforms (OCCPs).
- **Difference in OCC and UGC:** The OCC industry is distinguished from others (such as, intermediaries and user generated content (UGC) providers like Youtube, Facebook, Instagram etc.) inter-alia by the following features:
    - A fully curated content catalogue which is licensed or owned by the individual provide.
    - A 'pull' model of consumption where consumers choose the content they wish to watch and access it on device(s), time or place of their choice; and
    - Technology-enabled solutions for content filtering and access controls. Present regulatory framework:
- **Information Technology Act, 2000**: It has provisions relating to content on websites, and information / websites / URLs can be blocked under **Section 69A** of that Act, on matters relating to sovereignty and integrity of India, defence of India, security of the state, friendly relations with foreign states or public order etc.
- **Indian Penal Code, 1860**: It prohibits content against national integration.
- **Protection of Children from Sexual Offences Act 2012**: It prevents child pornography. The Supreme Court (SC) in 2018 observed that the government of India may frame necessary guidelines to eliminate child pornography, rape and gang rape imageries, videos and sites in content hosting platforms and other applications.

Rationale behind the new rules:

- **No specific rules:** India at present doesn't have any specific rules to govern the digital news media and OTT platforms. At present these are governed under Section 79 of the IT Act. But it was not able to effectively control the misuse of data over social media and digital platforms.
- **Non-liability of Intermediary:** Section 69 of the IT Act gives power to the government to issue directions to intercept, decrypt or monitor any information generated, transmitted, received or stored" in any digital equipment.
    - The Intermediaries are required to preserve and retain specified information. Further, they have to obey the directions issued by the government from time to time.
    - Section 79 states that an intermediary (Digital media and OTTs) shall not be liable for any third-party information, data, or communication
- **Increasing User base of companies:** Further, the user base of big companies has expanded rapidly. Currently there are over 53 crore WhatsApp users, over 44.8 Crore YouTube users and 41 Crore Facebook users.
- **Rejection of self-regulatory methods:** The government rejected the Self-regulatory toolkit submitted by 17 OTT Platforms. The government rejected them for reasons like lack of independent third-party monitoring, the tool-kit did not have a well-defined Code of Ethics, etc.
    - This induced the government to come up with new rules under the IT Act, 2000. The IT Rules 2011 got replaced with the new **IT Rules 2021.**
- **Threatening states:** Huge data power give better bargaining power to enforce profit motives over national interests. For example, recently Facebook and google threatened to de-platform Australia.
- **Flawed structure:** In democratic societies, states are the guardians of the public interest. So, curtailing speech or permitting it, is the role of states not big techs. Also, the tech industry itself is deeply flawed.
    - There is lack of sufficient choice of platforms and there are asymmetries in power between companies and users. Big tech is amassing data on the citizens and using this information for its own purposes.
- **Misuse of power:** For instance, twitter's non-compliance to obey orders from a sovereign country like India.
    - Donald trump was de-platformed from Facebook and twitter.

Salient features of IT Rules 2021:

- **New IT Rules related to Social Media:** The new IT rules have been framed to address the Social Media, Digital Media and OTT platforms in a specific manner.
- **Due diligence to be followed by intermediaries:** The rules prescribe due diligence that must be followed by intermediaries, including social media intermediaries. In case, due

diligence is not followed by the intermediary, safe harbour provisions will not apply to them.

- **Removal of unlawful information:** Social media companies are prohibited from hosting or publishing any unlawful information. These information are “in relation to the interest of the sovereignty and integrity of India, public order, friendly relations with foreign countries, etc.
- **Government can take down content:** If such information is hosted or published the government can take down such information within 24 hours. The user will be **given a notice** before his/her content is taken down.
- **Strengthening traceability:** The government can direct messaging platforms to tie the identity of the user with the message transmitted by him/her for strengthening traceability.
- **Monthly compliance report:** The IT rules 2021 call for social media companies to publish a monthly compliance report.
- **Categories of social media**: Social media platforms are classified into two categories
    - **Social media intermediaries** – Platforms that have a limited user base.
    - **Significant social media intermediaries** – These are the platforms with a large user base.
- **Additional measures:** The significant social media intermediaries have to follow few additional measures like:
    - These platforms should **have a physical contact address** in India.
    - **Appointing a Chief Compliance Officer**, **Nodal Contact Person, and a Resident Grievance Officer in India**. All of them should be Indian Residents.
    - Nodal Contact Person will maintain 24×7 coordination with law enforcement agencies.
    - The Resident Grievance Officer must acknowledge the complaint within 24 hours, and resolve it within 15 days of receipt.

New IT Rules related to Digital media and OTT platforms:

- **Code of ethics for OTT:** A Code of Ethics has been prescribed for OTT platforms and digital media entities.
- **Self-classification of content:** The streaming platforms (Like Netflix and Amazon Prime) will have to self-classify content on five age-based categories: U (universal), 7+, 13+, 16+, and A (adult).
- **Age verification system:** They need to have suitable **parental locks** for 13+ content and a robust **age verification system** for accessing adult content.
- **Cable Television Networks Regulation Act:** Publishers of news on digital media will have to observe the norms of journalistic conduct of the Press Council of India and the Programme Code under the Cable Television Networks Regulation Act.
- **Grievance redressal mechanism:** A three-level grievance redressal mechanism has also been established:
    - **Level-I**: **Self-regulation by the publishers**

- **Level-II: Self-regulating body**: This body shall be headed by a retired judge of the Supreme Court or a High Court or independent eminent person.
- **Level-III: Oversight mechanism**: I&B Ministry will formulate an oversight mechanism and establish an inter-departmental committee for hearing grievances. This body will also have **censorship and blocking powers**.

- **Categories of Content that should not be posted:** The rules lay down categories of content that the social media platform should not host. It includes content that
    - Threatens the unity, integrity, defence, security or sovereignty of India, friendly relations with foreign states or public order
    - Causes incitement to the commission of any cognizable offence or
    - **Prevents investigation of any offence** or is insulting any foreign States
    - Content is defamatory, obscene, pornographic, paedophilic, invasive of another's privacy,
    - Related to encouraging money laundering or gambling or is inconsistent with or contrary to the laws of India.

Advantages of the new IT Rules 2021

- **Balance over platforms:** It will ensure that social media platforms have to keep better checks and balances over their platforms. This will ensure the data is not shared unlawfully. This will ensure adherence to the **rule of law.**
- **Enhance accountability:** The new IT rules enhance government regulation over social and digital media. This will enhance accountability and prevent arbitrary actions by digital platforms like the recent one by Twitter.
- **Empowering the citizens:** The new IT rules will lead to the empowerment of citizens. Since there is a mechanism for redressal and timely resolution of their grievances.
- **Disinformation of data can be controlled**: Since there is proper regulatory mechanism, disinformation can be removed easily. This will reduce instances of fake news, violence, the spread of defamatory content and disruption of public order.
- **Prevent arbitrary removal of content:** Giving due notice before removing content will prevent arbitrary removal of content.
- **Print and electronic code of conduct on digital news:** The imposition of print and electronic code of conduct on digital news media would ensure a level playing field for every media.
- **Strengthening India's position:** It will strengthen India's position as a leader in digital policy and technological innovation. For example, China, with its larger digital population, has not been able to provide a fair and open local market for global companies in the digital space due to absence of proper IT Rules and Regulation.

Criticisms of the new IT Rules 2021

- **No public consultation:** The New IT rules were not put for public consultation. Especially those related to regulations of online news portals and video streaming platforms. For example, **IAMAI (Internet and Mobile Association of India) was not consulted** on the proposed OTT guidelines.

- **Threat to user privacy:** The rules allow the government to enforce a traceability mechanism. This simply means a threat to the user's privacy. It will hamper the end-to-end encryption of platforms like WhatsApp.
- **Against Article 19:** As the new rules curtail free speech on digital platforms, there will be a sense of fear among the users.
- **Discretionary powers to the government:** The IT Act don't cover content authors and creators like news media. But rules have included them. This provides discretionary powers to the government.
- **No legislative backing**: The proposed oversight mechanism doesn't have any legislative backing which is generally given to other regulators.
    - For example, the Telecom Regulatory Authority of India Act provides powers to TRAI (Telecom Regulatory Authority of India). Under the rules, the regulation will be done by a body composed of bureaucrats who might perform discretionary censorship thereby **enhancing political control.**

Way Forward

- **Model combining state censorship and self-regulation**: A multistakeholder approach to self-regulation can be adopted, that safeguards the creative freedom of content creators and artists, and protects the interests of consumers in choosing and accessing the content.
- **Establishing global ratings system:** A standard rating system for content and quotas for indigenous content on OTT platforms can be created.
- **Independent mechanism for complaints redressal:** An autonomous organization can be created to look into citizen complaints in relation to content made available by respective OCCPs.
- **Formulating broad guidelines**: The Government can frame guidelines that cover principles laid out in statutes like The Information Technology Act, 2000, Indian Penal Code, 1860, Indecent Representation of Women (Prohibition) Act, 1986, Protection of Children from Sexual Offences Act, 2012, Copyright Act, 1957 etc., to aid OTT platforms in self-regulating its content.

Digital Services tax

Syllabus – GSII- Government policies and interventions for development in various sectors and issues arising out of their design and implementation

In news

In March 2020, India levied **Digital services Tax (DST).**

Introduction

- India's Digital Service Tax imposes a **2 % tax on revenue** generated from a broad range of digital services offered in India, including digital platform services, digital content sales, digital sales of a company's own goods, data-related services, software-as-a-service, and several other categories of digital services.

- India's DST is **applicable–only on "non-residents"** and it exempts Indian Companies.
- **Is Digital Service Tax a new concept in India?**
- India introduced a **6 % equalization levy** in 2016, but the levy was restricted to online advertisement services (commonly known as "digital advertising taxes" or "DATs").
- In 2020, it expanded the scope of the existing equalization levy to a range of digital services that **includes e-commerce platforms**. Any payment made by non-residents in connection with an Indian user will now attract a 2% levy.

Rationale of Digital Service Tax

- **Growing clout of Big technological giants –** The big technological giants such as **Google, Microsoft, Apple, Facebook** own large share of digital economy. The **economic hegemony** is leading to increased clout in politics. This, in turn, is resulting in power tussle with state and manufactured consent in public about social reality.
- **Delayed International Tax Law Negotiation:** The objective to reform international tax law to tax digital companies for their economic activities in a particular jurisdiction was initiated within the **OECD's Base Erosion Profit Shifting program.**
    - But it has resulted in no substantial outcome. So many countries have either proposed or implemented a digital services tax. Example – **GAFA Tax (Google, Apple, Facebook and Amazon) of France**
- **Changing Global Order:** The rise and unprecedented expansion of digital service taxes (DSTs) is a result of the changing global order and relations among nations. Thus, countries which provide large markets for international digital corporations seek a greater **right to tax incomes of such companies** earned in their respective territories.
- **Level playing field**: DST creates a level playing field between online and regular (brick and mortar) businesses.
    - In 2016, **the Akhilesh Ranjan Committee Report** had also suggested to tax the digital companies as they enjoy a sustainable economic presence.
- **Right to tax digital service providers**: If a company has users in India and has an economic connection with India then, India has the right to tax its economic operation. India being a developing country **provides large markets** for digital corporations. So, taxing them is a matter of right.

Issues associated with Digital Services tax:

- **Exempts Indian companies** - The law explicitly exempts Indian companies, while **targeting non-Indian firms**. The result is that **U.S. "non-resident"** providers of digital services are taxed, while Indian providers of the same digital services to the same customers are not.
- **Non-digital companies excluded** - The DST targets digital services, but not similar services provided non-digitally. Because U.S. companies are global leaders in the digital services sector, U.S. companies face an inordinate share of tax burden
    - For example, the 119 companies that USTR has identified as likely liable under the DST, 86 (72%) are U.S. companies.

- **Three aspects of the DST are inconsistent with principles of international taxation**:
    - **Tax uncertainty** - Stakeholders have found the text of the DST to be **unclear and ambiguous**. This creates uncertainty for companies regarding key aspects of the DST, including the scope of taxable services and the universe of firms liable to pay the tax. India has published **no official guidance** to resolve these ambiguities. This amounts to a failure to provide tax certainty, which contravenes a core principle of international taxation.
    - **Extraterritorial reach** - The DST taxes companies with no permanent establishment in India, contravening the international tax principle that companies should not be subject to a **country's corporate tax regime** absent a territorial connection to that country.
    - **Application to revenue** - The DST taxes c**ompanies' revenue rather than their income**. This is inconsistent with the international tax principle that income—not revenue—is the appropriate basis for corporate taxation.
- **USA's objection:** India's DST discriminates against U.S. companies
    - **Tax burden** - USTR's analysis indicates that U.S. companies, in the aggregate, may face tax payments in excess of **US$30 million per year under the DST** because U.S. firms are market leaders in the digital services sector.
    - **Wider scope of services** - India's DST taxes a **broader scope** of services than other digital services taxes adopted around the world. This expands the universe of U.S. companies subject to the DST, and increases the tax burden that U.S. firms face.
    - **Double taxation** - The DST also burdens U.S. companies by subjecting them to double taxation. U.S. companies that pay the DST in India will still be subject to U.S. corporate income tax, creating two layers of taxation.

Other associated issues:

- **Targeted at particular sector** - DST as a **tax targets** digital services only. Economic experts argue that framing a tax policy to **target a particular sector** is unfair and have disastrous consequences for the growth of that sector.
- **Burden on consumer -** Digital service providers **might pass on the tax to consumers** for decreasing their liability and thus burdening the consumers, specially the rural and poor sections.
- **Retaliatory Tariffs -** The USTR investigations pose a threat of retaliatory tariffs and might trigger the trade war between India and the US. Even the slightest retaliatory tariff will affect the **Indian ICT industry's growth and trade** between the two.

UK Model of Digital Service Tax

- The DST applies a 2% tax on **the revenues of specific digital business models** where their revenues are linked the participation of UK users.
- The tax will apply to: search engines; social media platforms; and online market places. That is because the government considers these business models derive significant value from the participation of their users.
- **The DST is not a tax on online sales of goods** –as a result it will only apply to revenues earned from intermediating such sales, not from making the online sale.

- It is also not **a generalized tax on online advertising or** the collection of data. Businesses will only be taxed on the revenues derived from these services to the extent they are performing one of the in-scope business models, which are the provision of a search engine, social media platform or online marketplace.

Conclusion - The U.S. government has to realize the challenges involved in taxing digital service providers and also have to resolve such **issues with amicable dialogue** to make digital giants accountable. More than 24 countries have either adopted or are considering adopting, a DST or a DAT. So, the challenges posed by **taxing digital economy** are not a problem only between India and the US. It is a **global problem** which needs to be resolved by amicable dialogue among all stakeholders.

From the Budget-National Rail Plan

Syllabus- Government Policies and Interventions for Development in various sectors and Issues arising out of their Design and Implementation.

In News: The draft National Rail Plan was recently released by Indian railways. It aims at providing a long term perspective planning for augmenting the railway network with a special focus on enhancing the rail freight share.

Indian Railways: Facts

- **Global Status:** Indian Railways (IR) is the 4th largest railway network in the world.
- **Volume:** In the fiscal year ending March 2019, IR carried 8.4 billion passengers and transported 1.2 billion tonnes of freight.
- **Status of trains:** Indian Railways runs 13,523 passenger trains and 9,146 freight trains daily on its network with passenger trains running at an average speed of 50.6kmph and freight trains at 24kmph.
- **Rolling Stock:** As of March 2019, Indian Railways rolling stock consisted of 2,89,185 freight wagons, 74,003 passenger coaches and 12,147 locomotives.
- **Employees:** Indian Railways had 1.3 million employees making it the world's eighth largest employer.

Objectives of the National Rail Plan

- **Capacity creation:** It aims to create capacity ahead of demand by 2030. It is expected that it would cater to growth in demand right up to 2050.
- **Increase freight share:** It aims to increase the modal share of railways from the current **27% to 45% in freight by 2030.** It would be done as part of a national commitment to reduce carbon emission and to continue to sustain it.
- **Traffic Forecasting:** It intends to forecast growth of traffic in both freight and passenger year on year up to 2030 and on a decadal basis up to 2050.
- **Reduce transit time:** It aims to reduce transit time of freight substantially by increasing the average speed of freight trains from present 22Kmph to 50Kmph.

- **Reduce costs:** Reduce overall cost of rail transportation by nearly 30% and pass on the benefits to the customers.

Challenges faced in freight transport

- **State of freight transport:** Despite its extensive reach and scale, the share of railways in the total surface freight carried has declined from 86.2% to 35.5% between 1950-51 and 2011-12.
- **Freight fares:** Currently, freight fares in railways are kept high to cross-subsidize the passenger segment.
- **Congested routes:** A rail route is considered congested if capacity utilization increases beyond 80%. In particular, routes by which coal and iron ore are transported often operate at 100% capacity.
- **Scarce resources:** Rakesh Mohan Committee observed that Indian Railways over the past decade (1991-2002) had fallen into a vicious cycle of under investment, mis-allocation of scarce resources, increasing indebtedness, poor customer service and rapidly deteriorating economics.
- **Issue of Land Acquisition:** The railways have to acquire large areas of private land that are already developed as per the route alignment. This makes the construction of the freight corridors difficult.
    - The ministry is also required to pay market price for any land acquisition, further compounding the financial problem.
- **Concern over technology:** There has been divergence over the technology to be used for freight transport in a number of projects.
    - **For example,** while the railways want to run double-stacked containers in the Delhi-Mumbai corridor on diesel locomotives, Japanese International Cooperation Agency (JICA), which has financed the project, has suggested electric ones, saying it is more environmentally-friendly.
- **Issues with the Dedicated Freight Corridor Project:**
    - **Double stack vs single stack:** The DFC project has adopted different technical standards for Western DFC and Eastern DFC. WDFC would have moving dimensions made for double stacked containers and moving dimensions for EDFC are being made for single stack container operations. This makes seamless movement of double stack trains from WDFC to EDFC impossible.
    - **Slow progress:** The progress for both Logistics Parks and Delhi Mumbai Industrial Corridor has been very slow which will have an impact on the overall objective of the project.

PERSPECTIVE: ***How does the darft NRP intend to increase the rail freight share?***

Following features of the NRP is expected to increase the rail freight share:

- **Develop railways based on patterns of freight traffic:** The NRP plans to increase the share of freight transport (at present at 30 %) by the following ways:

  - Shifting freight mix (from bulk commodities such as coal, iron ore, food grains and fertilizers) towards container traffic.
  - Increasing operating speed and reducing tariff. This will help increase the share of freight to 45 %.
- **Increase capital expenditure(capex):** The NRP proposes to invest Rs 16.74 trillion between 2022 and 2031 on track and terminal infrastructure. (60-66 % of total capex to be reserved for expanding the rail network).
- **Improving "modal share" of railways:** The NRP focuses on achieving this by:
  - **Giving impetus to dedicated freight corridors:** Already two such corridors are under implementation, and 3 more are to be developed in the National Infrastructure Pipeline (NIP).
  - **Focus on high-speed rail projects:** This will be implemented under the National Infrastructure Plan.

Focus on extra-budgetary resources for funding: Since the budgetary allocation and retained earnings may not be enough, the NRP intends to raise resources by mobilizing private capital and giving due importance to financial viability of the projects.

Way Forward

- New and modern technologies and practices need to be adopted. For example, in order to leverage the full efficiency of the **Dedicated Freight Corridor(DFC),** a locomotive that can take advantage of the increased axle loading capability. This could be accompanied with increasing.
- Clear policies which can integrate and fasten up the process of land acquisition need to be developed.

Road accidents in India

Syllabus - Welfare Schemes for Vulnerable Sections of the population by the Centre and States and the Performance of these Schemes; Mechanisms, Laws, Institutions and Bodies constituted for the Protection and Betterment of these Vulnerable Sections.

Why in news?

Recently the World Bank released a report about Road safety in India.

More in news

The report titled "Traffic Crash Injuries and Disabilities: The Burden on Indian Society". It measured the number of road accidents happening in India and their various socio-economic impacts.

The reasons for the higher number of road accidents and fatality

Categories: The reasons for road accidents in India can be categorized broadly into four categories.

  - Human error
  - Road environment and design
  - Vehicular condition

  - Post accidental care-related issues.
- **Human Error:** This is one of the biggest factors contributing to accidents on the road. Such as
  - Violating traffic rules like jumping signals, overspeeding, etc.
  - Driving under the influence of alcohol and other drugs,
  - Distractions during driving due to the use of mobile phones
  - Driver Fatigue (Not getting enough rest during long-distance travel)
  - Not using enough safety devices like Helmets and wearing seat belts

  Traffic rules violations: Over speeding and driving on wrong side together accounted for 76% of total accidents along with other violations like drunken driving, red light jumping and use of mobile phones.

  Inadequate surveillance: Hit and run' cases go un-investigated due to absence of surveillance infrastructure; 73% two-wheeler accident victims do not wear helmets and a significant proportion of four wheelers do not wear seatbelts or possess driving license.
- **Road Environment and design:** The reasons for the accident under this category include,
  - **Presence of many black spots:** Black spots are road locations that have a high number of crashes. For example, Sharp corners in a straight road, a hidden junction on the fast road, etc. A survey found out that, these black spots are the prime location for 90% of the road accidents.
  - **Lower enforcement presence in high-risk areas**: Over 50% accidents occurred in open and sparse areas and 73% at uncontrolled junctions. 64% of accidents occurred on straight roads but signboards and warnings are usually found on steep and curved roads.
  - **Skewed road traffic engineering:** Two-wheelers accounted for the highest share in total road accidents. But their safety was neglected during road traffic engineering and planning. This is evident by the lack of separate lanes for two-wheelers and pedestrians.
  - **Low-quality infrastructure, standards, and maintenance:** it leads to issues such as potholes, uneven road surfaces, etc.
  - **Low quality infrastructure, standards and maintenance:** In India, quality of road construction is low and road standards are not enforced by builders, which lead to development of potholes; also, maintenance of roads is a corrective measure than preventive in India.
- **Vehicular condition:** Vehicle condition also plays a critical role in accidents. such as,
  - Overloading of the vehicle can cause tyre burst. It also increases the chances of rolling over of the vehicles.
  - Using old vehicles might lead to more breakdowns and malfunction on roads.

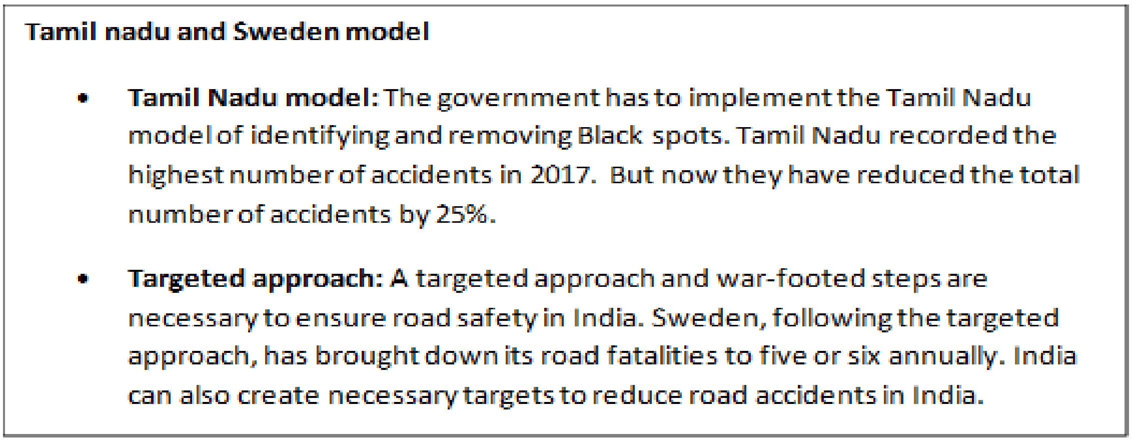
  - **Weak Vehicle Safety Standards** by manufacturers. For example, In 2014, the **Global New Car Assessment Programme (NCAP)** revealed that some of India's top-selling car models have failed the frontal impact crash test.
  - **Vehicular load condition:** Over-loaded vehicles directly and indirectly cause road mishaps. Overloaded vehicle is accident prone as it is difficult to control during an emergency and it also affects quality of roads, which further increase vulnerability of travellers to accidents.
- **Post accidental care-related issues**
  - **Lack of emergency medical services:** the accident victims do not get the first line of medical treatment during the golden hour. Golden Hour refers to the 60-minute time period right after the occurrence of the accident. During which, the chances to prevent death with adequate medical treatment are the highest.
  - **Regional disparity:** In 2017, 65% road fatalities took place in rural areas, suggesting inadequate trauma care facilities in rural areas.
- **Lack of quality driving schools:** Drivers' fault was responsible for 80% killings in road accidents in 2016, underscoring the need for improved enforcement and also for establishment of quality driving schools, driver testing centres and standardized driver license regulations by RTOs.

Socio-Economic Impact of Road accidents in India

- **Decline in Households' income:** Accidents **result in a decline of 75% of the total household income** among low-income groups. Whereas, the decline among high-income groups is only 54%. It underlines poor access to insurance schemes among the less privileged.
  - **More loss to poor families:** The risk of a victim undergoing disability after a crash is 2 times higher among poor families.
- **Rural-urban divide:** The income decline for low-income rural households (56%) is the most severe compared to low-income urban (29.5%) and high-income rural households (39.5%).
- **Gender specific burden:** About 40% of women reported a change in their working patterns post-accident. While around 11% reported taking up extra work to deal with the financial crisis.
- **Impact on Vulnerable Road Users (VRU):** A vulnerable road user (VRU) is anyone who is on or alongside a roadway without the protective hard covering of a metal automobile. The term includes bicycle riders, pedestrians, motorcyclists, people in wheelchairs, police, first responders, roadway workers and other users like a person on a skateboard or scooter.
  - VRUs bear a **disproportionately large burden of road crashes** and account for more than half of all road crash deaths and serious injuries in the country.
  - Also, the income level of an individual has a direct bearing on the mode of transport used.

Government policy initiatives to improve Road Safety:

- **The Brasilia Declaration:** India signed the Brasilia Declaration and committed to a reduction in fatalities in road accidents.
- **Vehicular engineering measures introduced by the government:**
    - **Front and side crash** tests for new car models came into force in 2017
    - The government introduced the **pedestrian protection regulation** for new car models. It came into force in October 2018.
- **Motor vehicles (amendment) act:** The government amended the **Motor Vehicles (Amendment) Act, in 2019**. This is one of the principal Acts used by the government in regulating road safety. The Act provided for
    - Creating a **National Road Safety Board** to advise the government on road and traffic management.
    - **Higher fines for traffic crime**s.
    - **Recalling defective vehicles,** dangerous for the environment and people.
    - Creating a **Solatium Fund for victims** of hit-and-run accidents.
    - Protects Good Samaritans from civil and criminal liability,etc
- **The National Road Safety Policy**: It looks at overall road safety, and outlines initiatives to be taken by the Government at all levels.
- **NRSC:** Constitution of **National Road Safety Council** (NRSC)/ **State Road Safety Councils and District Committees.**
- **Awareness campaign on road safety**: Measures and awareness campaign on road safety like telecasting/broadcasting of T.V. spots/Radio jingles, display of cinema slides, hoardings, organizing Road Safety Week.
- **Rectification of black spots:** High priority has been accorded to identification and rectification of black spots (accident prone spots) on national highways.
- **Targeted safety programmes**: Comprehensive database of traffic accidents to develop targeted safety programmes.
- **Replacement of all the Level Crossing:** In order to ensure safe and smooth flow of traffic, Ministry of Road Transport & Highways has envisaged a plan for replacement of all the Level Crossing on National Highways under a scheme **Setu Bharatam.**
- **Training of drivers**: Setting up of model driving training institutes in States and refresher training to drivers of Heavy Motor Vehicle in the unorganized sector.



Tamil nadu and Sweden model

- **Tamil Nadu model:** The government has to implement the Tamil Nadu model of identifying and removing Black spots. Tamil Nadu recorded the highest number of accidents in 2017. But now they have reduced the total number of accidents by 25%.
- **Targeted approach:** A targeted approach and war-footed steps are necessary to ensure road safety in India. Sweden, following the targeted approach, has brought down its road fatalities to five or six annually. India can also create necessary targets to reduce road accidents in India.

- **National Highway Accident Relief Service Scheme:** Providing cranes and ambulances to various State Governments under the National Highway Accident Relief Service Scheme for development on National Highways.

Way Forward

- **Recommendations of NITI Aayog**: The government has to implement the recommendations suggested in the 3-Year Action Agenda of NITI Aayog**.** The agenda highlighted important reforms such as
  - Standardizing the reporting of accidents
  - Create necessary provisions to ensure that the accident victim will reach hospitals within 10 minutes of the accident. This can be achieved by building emergency health services, providing enough ambulances, etc.
- **Recommendations of the KS Radhakrishnan panel:** The government can implement the important recommendations of the KS Radhakrishnan panel on Road Safety. The important recommendations were,
  - The state governments have to perform a compulsory **Audit on road safety** to ensure adequate safety standards in the design, construction, and maintenance of roads.
  - **Creating awareness among people** on road safety rules, insurance policies, etc.
  - Providing enough compensation to victims on time.
- **Dedicated corridors for vulnerable sections:** The government has to provide attention to vulnerable sections like motorists and pedestrians.
- **Digital ways on road safety:** Vehicle manufacturers at present started using the Internet of Things (IoT) enabled connected cars. They can explore further in identifying digital ways on road safety and providing enough safety equipment in vehicles.

India-Myanmar-Changing Realities

Syllabus - India and its Neighborhood- Relations.

In News: The Myanmar's military has toppled the democratically elected government in a Coup D'état. This Coup D'état will have geopolitical implications for the region and India.

Background:

- **Reaction in the west:** The U. S and the west have reacted strongly. The US threatened Myanmar about sanctions.
- **Geopolitical importance**: Myanmar lies between two powerful states (India and China) competing for power and influence. Thus, Myanmar will always have geopolitical importance.
- **Return of military rule:** Military rule has returned to Myanmar after a coup. Aung San Suu Kyi along with the political leadership has been detained by the Military.
- **India's different reaction:** Similar events took place in Myanmar 30 years ago. However, India's reaction is going to be very different from its stand of 1989-90.

  - Given the high stakes in Myanmar, India needs to craft well-thought-out strategic choices regarding the situation.

Reasons behind the Coup

- **Seats reserved by military:** Myanmar conducted elections democratically in November 2020. Aung San Suu Kyi led Party won 396 out of 476 seats (combined lower and upper houses of Parliament) and won the elections. The military reserves 25% of seats as per their 2008 Constitution.
- **Irregularities in the election:** The military ("Tatmadaw" in Mayanmar) alleged, there was large scale "irregularities" in the general elections. But the United Elections Commission (UEC) of Myanmar said that no such irregularities have occurred during the elections.
- **Staged a coup:** The new parliament fixed February 1 for convening the session and swearing ceremony. To prevent the parliamentary session, the military staged the coup in the early morning of February 1 and detained the political leaders.
- **1 year emergency**: Apart from that, the military also declared a one-year state of Emergency. The military also threatened to revoke the 2008 Constitution, "If one does not follow the law".
- **The military had revoked two previous constitutions in Myanmar:** Now, there is a possibility of revoking the present constitution. In fact, the 2008 Constitution was also the military-drafted one.

Why is India's reaction going to be different this time?

India gave a statement of deep concern over the developments in Myanmar. However, its reaction is going to be different from the past because of the following reasons:

- **Security relationship**: India's security relationship with the Myanmar military has become extremely close. Myanmar military assists India in securing the North East borders from insurgent groups.
  - In a recent visit to Myanmar, Indian counterparts met with both State Councillor Suu Kyi and Gen. Min Aung Hlaing. It signifies the equal importance of both for India.
  - Myanmar's military provided India with coordinated action and intelligence sharing.
- **Damaged image:** The image of Ms. Suu Kyi as a democratic icon and Nobel peace laureate has been damaged. It is the result of her failure in stopping the Army's pogrom against Rohingya. Moreover, she defended the Army's action.
  - The increasing global support for Aung San Suu Kyi will diminish the possibilities for justice to the Rohingyas in the International Court of Justice (ICJ).
  - On the other hand, India cannot actively oppose Myanmar's military. Because Suu Kyi has also supported strong ties with China. It was Myanmar's military that has been more supportive of India.
- **Ongoing projects:** India has initiated numerous infrastructure and development projects with Myanmar. India sees this as the "gateway to the East" and ASEAN

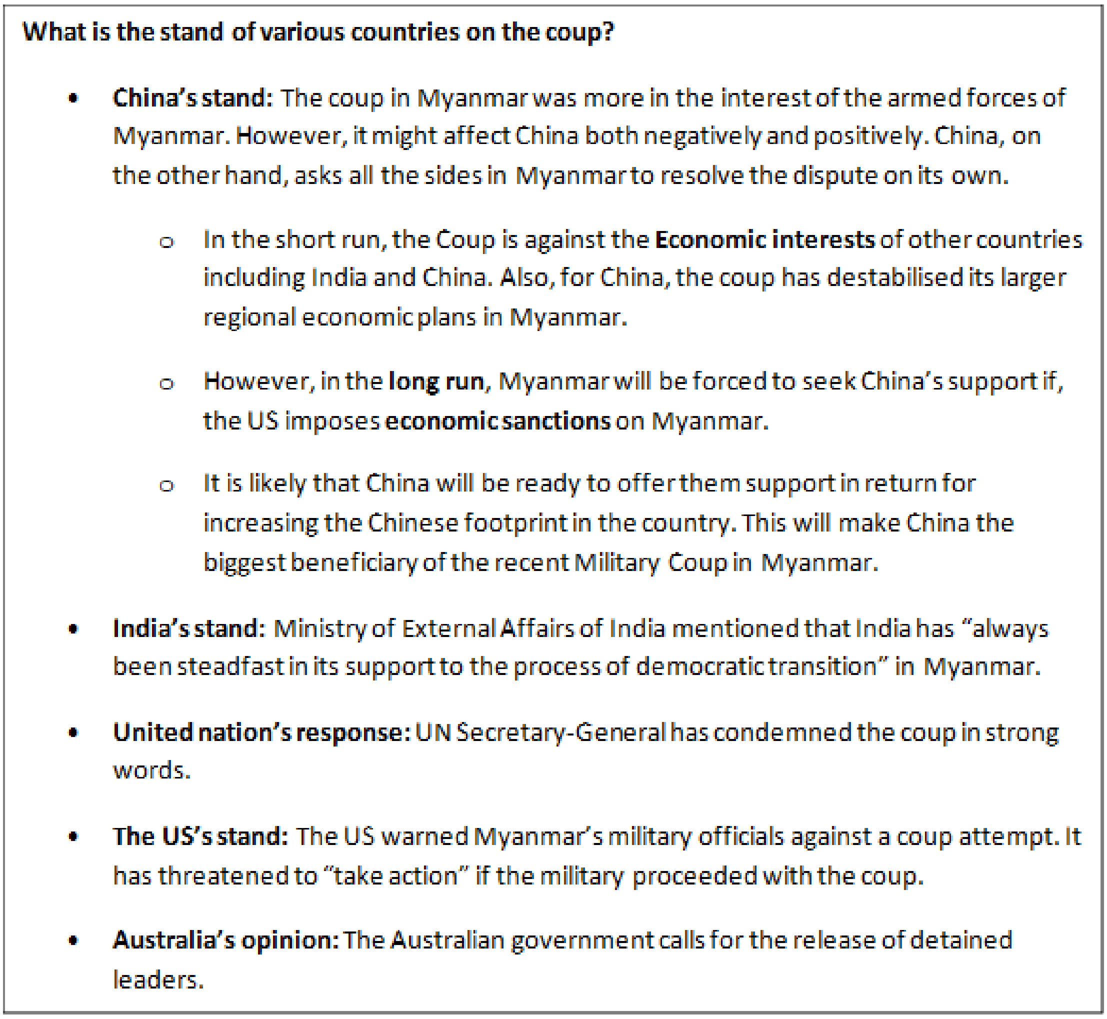
countries. For example, the India Myanmar-Thailand trilateral highway and the Kaladan multi-modal transit transport network.

- **Rohingya issue:** India wants to resolve the issue of Rohingya refugees that fled to Bangladesh and some still live in India. The issue of Rohingya Muslims is equally important.
    - The military rule in Myanmar will offer support for increasing prosecution for Rohingyas. This could potentially lead to a rise of extremism within the community. This will be definitely against India's interests in the longer run.
- **Different scenario:** There was a public uproar for India in 1990, to take a strong stand against Myanmar in the past. This is not the case in the present scenario.
- **Policy based on interests:** Recently, the Ministry of External Affairs has voiced its opinion for upholding the rule of law and the democratic process in Myanmar. However, considering the regional geopolitics India's Myanmar policy will be based on interests rather than norms.
    - If India's national interest is given priority then, India would cooperate with Myanmar's military. However, open support for the Military by India will lead to strong criticism by the West and especially America.

The importance of Myanmar for India

- **Possible Implications of coup on India:** India has stepped up its strategic engagement with Myanmar because of insurgent groups from the Northeast which have set up base in Myanmar. Sittwe in the Rakhine province where India has built a large, deep seaport is at stake.
- **Myanmar's role in tackling insurgency in Northeast**: Myanmar shares a 1643 Km long boundary with India's North Eastern State. Insurgent groups such as ISCN-K, ISCN-IM have operational bases inside Myanmar.
    - The democratically elected government cooperated with India in controlling the insurgent activities especially, the Naga insurgency.
- **Myanmar's role in India's "Neighborhood First" policy and "Act East" Policy:** Myanmar is strategically located between India and Southeast Asian countries. Due to that, Myanmar is important for India's connectivity with other South-East Asian countries.
- **Reduction of illegal migrants coming to India:** During the recent Rohingya issue, 14000 registered and 40000 unregistered refugees came to India. A stable Myanmar can prevent this fleeing of refugees.
- **Myanmar is the gateway to the development of North-Eastern India:** The success of infrastructure, developmental projects in the North-Eastern part of India directly depend on the co-operation with Myanmar. For Example, the Development of **India-Myanmar-Thailand (IMT) trilateral highway, Kaladan Multi-Modal Transit Transport (KMMTT) corridor, etc** rely on Myanmar.
- **Co-operation in the field of Economy:** The bilateral trade among both the countries remained in and around $2 bn. The trade will improve once there is a stable government in place.

- **Co-operation in the field of Infrastructure and Development projects:** In 2013 India provided a 500 million $ LOC (Line of Credit) for the developmental projects in Myanmar. Apart from that **IMT trilateral highway and Kaladan Multi-Modal Transit Transport (KMMTT)** are also under implementation.
    - **India-Myanmar-Thailand (IMT) trilateral highway:** The Highway connects Moreh in the Indian state of Manipur to the Mae Sot in Thailand. This route is interconnected via Mandalay in Myanmar.
    - **Kaladan Multi-Modal Transit Transport (KMMTT) :** The Project is aimed at connecting the eastern Indian seaport of Kolkata with the Sittwe seaport in Myanmar.
        - In Myanmar, it will then link Sittwe seaport to Paletwa in Chin State via the Kaladan riverboat route. Then from Paletwa by road to Mizoram state in Northeast India.
        - **Significance:** The project will reduce the distance from Kolkata to Sittwe by approximately 1328 km. In other words, the project will reduce the need to transport goods through the narrow Siliguri corridor also known as Chicken's Neck.
- **Defence cooperation:** Both the countries conduct a joint military exercise named India – Myanmar Bilateral Military Exercise (IMBEX). Above all, both the armies jointly carried out **Operation Sunrise** twice. Under **Operation Sunrise**, the India-Myanmar armies jointly target the militant groups that operates in the border states.
- **In the field of education and research**: India developed **Myanmar Institute of Information and Technology in Mandalay**. Apart from that, an Advanced Center for Agricultural Research and Education (ACARE) has been set up with the collaboration of ICAR for conducting research on pulses and oilseeds.
- **Other areas of co-operation:** This includes India's **renovation of the 11th Century Ananda Temple in Myanmar** (it was damaged due to earthquake). Apart from that India also provides Humanitarian and Disaster Relief to Myanmar during emergencies.



What is the stand of various countries on the coup?

- **China's stand:** The coup in Myanmar was more in the interest of the armed forces of Myanmar. However, it might affect China both negatively and positively. China, on the other hand, asks all the sides in Myanmar to resolve the dispute on its own.
    - In the short run, the Coup is against the **Economic interests** of other countries including India and China. Also, for China, the coup has destabilised its larger regional economic plans in Myanmar.
    - However, in the **long run**, Myanmar will be forced to seek China's support if, the US imposes **economic sanctions** on Myanmar.
    - It is likely that China will be ready to offer them support in return for increasing the Chinese footprint in the country. This will make China the biggest beneficiary of the recent Military Coup in Myanmar.
- **India's stand:** Ministry of External Affairs of India mentioned that India has "always been steadfast in its support to the process of democratic transition" in Myanmar.
- **United nation's response:** UN Secretary-General has condemned the coup in strong words.
- **The US's stand:** The US warned Myanmar's military officials against a coup attempt. It has threatened to "take action" if the military proceeded with the coup.
- **Australia's opinion:** The Australian government calls for the release of detained leaders.

Major irritants in India-Myanmar relations:

- **Border and economic factors**: The main issue governing Indo-Myanmar relations in present time are North-East and the border, economic factors, the China factor and energy-security.
- **Issues of democracy and elections:** There is a need to understand the role of the military, ethnic minorities, and that of the third force in Myanmar.
- **Drugs and narcotics**: Cross border movement of drugs, Narcotics has been a contentious issue.
- **Insurgency:** Movement of insurgents from Myanmar side of border has created tensions between 2 governments many times.
- **Anti-India riots:** Myanmar has also witnessed anti-India and anti-China riots.
- **Structure of the government**: 25 % of the government in Myanmar is comprised of the army. The structure of the government is a problem.

Way Forward

- **Aid the democratically elected government:** India can aid the democratically elected government if there was a request from Myanmar. Myanmar is India's strategic partner like Nepal, Bangladesh. India can help Myanmar like that of erstwhile Bangladesh in 1971.

- **India has to strengthen the existing cooperation:** India currently has an active co-operation with Myanmar in areas of security, counter-terrorism, trade and investment, energy co-operation. India has to encourage more active co-operation in these fields.
- **India can formalise border trade with Myanmar**: Currently, India's Border trade with Myanmar is at a very low level. By formalising border trade like that of Border Haats in India-Bangladesh and providing enough support, we can improve people to people tie. It will also provide peace in long run.
- **Implementing Kofi Annan advisory commission report:** India can assist Myanmar in the implementation of the Kofi Annan Advisory Commission report on Rohingya Refugee issues. The commission has recommended investing in infrastructure projects.
    - The recent Indian government move in developing the Sittwe port in Myanmar's Rakhine state is one such move.
- **Strategic position for India's ambition**: Myanmar is not only strategically located but also in a strategic position to fulfil India's ambition on developing North-East, connection with South-East Asia, etc. So, it is high time for India to help the Myanmar government to be a stable and democratic one.

GENERAL STUDIES - III

Tapping the Blue Economy

Syllabus -Indian Economy and issues relating to planning, mobilization, of resources, growth, development and employment

In News : The Ministry of Earth Sciences prepared the **draft blue economy policy** framework in line with the Government of India's **Vision of New India by 2030.**

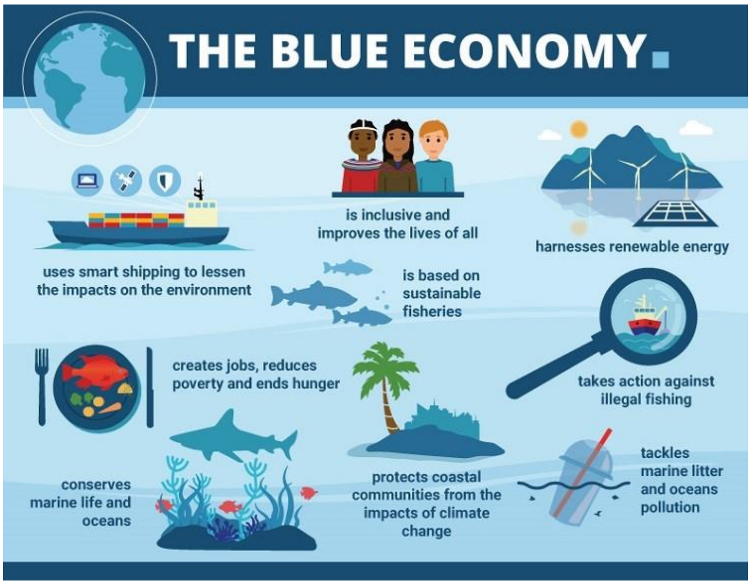
Introduction

- Dr. Gunter Pauli introduced this concept in the book –"**The Blue Economy: 10 years, 100 innovations, 100 million jobs**". Blue Economy is based on the idea to use locally available resources and employ renewable inputs.
- 'Blue Economy' (BE) conceptualizes the oceans as "**shared development spaces**". It is defined by the **World Bank** as the "sustainable use of ocean resources for economic growth, improved livelihood and jobs, and ocean ecosystem health.
- **Goal 14 of Sustainable development goals** of United Nation promotes conservation and sustainable use of the oceans, seas and marine resources.

Importance of Blue Economy

With a coastline of nearly 7.5 thousand kilometers, India has a **unique maritime position**. Nine of its 29 states are coastal, and the nation's geography includes 1,382 islands. There are nearly 199 ports, including **12 major ports** that handle approximately 1,400 million tons of cargo each year. Moreover, India's Exclusive Economic Zone of over 2 million square kilometers has a bounty of living and non-living resources with significant recoverable resources such as crude oil and natural gas. Also, the coastal economy sustains over **4 million fisherfolk and coastal communities.**

Scope for blue economy


THE BLUE ECONOMY
is inclusive and improves the lives of all
harnesses renewable energy
uses smart shipping to lessen the impacts on the environment
is based on sustainable fisheries
creates jobs, reduces poverty and ends hunger
takes action against illegal fishing
conserves marine life and oceans
protects coastal communities from the impacts of climate change
tackles marine litter and oceans pollution

- **Harnessing Oceanic Resources:** Indian Ocean has economic potential in the form of fisheries, aquaculture, ocean energy, sea-bed mining and minerals like **polymetallic nodules** (PMN).
- **Promoting Maritime Regionalism:** Blue economy seeks to promote diplomatic relations and strengthens cultural ties with littoral nations of Indian Ocean. India's SAGAR **(Security and Growth for All in the Region)** reflects the endeavor to reach out to nations in the region.
- **Enhancing coastal communities:** Blue economic development focuses on creating employment opportunities and improving health and living standards in coastal communities of India.
- **Developing Coastal economic zones** - This is in line with the **SAGARMALA Project.** It aims at developing Inland waterways and coastal shipping which will revolutionize existing coastal economic zones.
- **Promoting Sustainability:** Blue economy focuses on fuel-efficient, cheaper and reliable mode of transportation, enhancing coastal biodiversity resilience and promoting ecologically safe industry and tourism.
- **Strategic Importance:** Indo-Pacific region has become the new zone of convergence in international politics. To balance global powers and become net security provider in region, Blue economy will promote India's strategic interest.

Issues in attaining objectives of Blue Economy

- **Unsustainable use –** The marine resources are facing threats, such as **unsustainable** fishing, **destruction** of marine and coastal habitats and landscapes.
- **Security issues –** Sea borne terror like piracy and armed robbery, maritime terrorism, illicit trade in crude oil, arms, drug and human trafficking and smuggling of contraband etc are major challenges in the region.

- **Unplanned and unregulated development – Poor and unregulated construction work** in the narrow coastal interface and sea shore areas has led to the marginalization of poor communities, and loss or degradation of critical habitats and eco-sensitive zones.
- **Marine pollution** -Untreated sewage, agricultural runoff, oil leakages, nuclear contaminants and marine debris such as SINGLE-USE plastics has led to marine pollution. This leads to biomagnifications and bioaccumulation in long run.
- **Climate Change and natural disasters - T**sunamis, cyclones, heavy rainfall, coastal floods are exacerbating in wake of the climate change caused by increased sea temperature, ocean acidification and sea level rise.
- **Lack of theoretical foundation** - Marine economics or blue economics as a stream does not have strong theoretical foundation in India, and it is studied as a sub-section of environment economics. **Lack of research and development expenditure** in this domain has refrained students to master the subject.

Steps taken by Government

- **Sagarmala Project:** It aims at to reducing logistics cost for export-import and domestic trade with infrastructure investment.
    - Development of **Coastal Economic Zones (CEZ)** under Sagarmala would become a microcosm of the blue economy, wherein industries and townships that depend on the sea will contribute to global trade.
- **O-SMART - It** aims at regulated use of oceans, marine resources for sustainable development.
- **Indian Ocean Rim Association:** India has been at forefront in the IORA for promotion of blue economy in Indian Ocean littoral states.
- **Matsaya Sampada Yojana:** It is a flagship scheme for focused and sustainable development of the fisheries sector in the country.
- **Polymetallic Nodules:** India has received the sanction from International Seabed Authority for deep-sea mining in the Central Indian Ocean.
- **Blue Diplomacy:** The **India-Norway Task Force on Blue Economy** for Sustainable Development was launched to develop and follow up joint initiatives between the two countries.
    - For example, as a part of the Joint Initiatives, several projects on **combating Marine Litter** are being implemented

Draft Policy guidelines

The document recognizes the following **seven thematic areas**:

- National accounting framework for the blue economy and ocean governance.
- Coastal marine spatial planning and tourism.
- Marine fisheries, aquaculture, and fish processing.
- Manufacturing, emerging industries, trade, technology, services, and skill development.
- Logistics, infrastructure and shipping, including trans-shipments.

- Coastal and deep-sea mining and offshore energy.
- Security, strategic dimensions, and international engagement.

Recommendations in the draft policy

- **National Maritime Policy** - National Maritime Policy for integration and coordination within and between various stakeholders in central and state governments for more effective management of maritime regions, resources, economy, ecology and security is a necessity
- **Need for Apex and Multitier Planning Body** - To setup a multi-sectorial and well-integrated high level institutional mechanism for policy formulation, implementation and monitoring of various aspects of Blue Economy to ensure greater synergy between sectors and higher budgetary allocations.
- **Creating Natural Marine Resources Database** - It is proposed that a National Marine Resources Database including sea bed resources mapping be developed expeditiously.
- **Development of Transshipment Hub** - A focus on the development of an entire eco-system for trans-shipment hubs, with provision of competitively priced services, bunkering facilities and **standardization of procedures** emanating from customs regulations was recommended. The issue pertaining to taxation also needs harmonization.
- **Exploration Rights for Cobalt** – It recommended that India needs to assume a lead role in exploration of cobalt-rich **Seamount Ferro Manganese Crust (SFMC)** in the Indian Ocean as it is necessary that potential areas be identified and exploration rights are obtained in the Indian Ocean at the earliest.
- **Mission Offshore Wind Energy** - In order to develop viable offshore wind energy projects, it is recommended that various national institutions should be bought on a **common platform** through a Mission Mode project under the Ministry of New & Renewable Energy, Government of India.
- **International Cooperation** - It was felt that India should carefully identify international partners with common interests, proven capabilities and know-how in the Blue Economy for technology sharing, adaptation and transfer which will have long lasting benefits.

Conclusion

With the vast maritime interests, the blue economy occupies a vital potential position in India's economic growth. It could well be the **next multiplier of GDP** and well-being, provided sustainability and socio-economic welfare are kept center-stage. Therefore, India's draft blue economy policy is envisaged as a crucial framework towards unlocking country's potential for **economic growth and welfare.** India can also utilize the potential of Blue bonds which are an innovative ocean financing instrument whereby funds raised are earmarked exclusively for projects deemed ocean-friendly.

Are the bad banks good enough?

Syllabus - Indian Economy and issues relating to planning, mobilization, of resources, growth, development and employment.

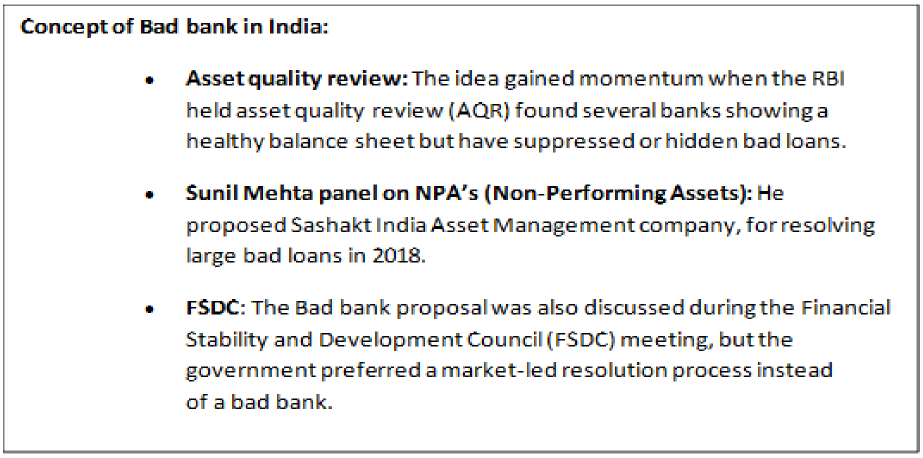
In News: The centre has proposed to set up Bad Banks or Asset Reconstruction Company to acquire bad loans from banks in the union budget 2021.

About the bad bank

- **Bad bank:** It is a structure that moves the **distressed and illiquid assets** of a bank into another entity through regulatory structures such as asset reconstruction companies (ARCs), alternative investment funds (AIFs) and asset management companies (AMCs).
    - A bad bank is an a**sset reconstruction company (ARC),** involved in management and recovery of bad loans or NPAs of other banks.
    - Generally, these Banks are initially funded by the government and gradually, banks and other investors start to co-invest in them.
- **Working:** The proposal envisages setting up an ARC platform to buy these stressed pools from banks and turn them around.

What are the functions of Bad banks?

- **Commercial and Public Sector Banks (PSBs) sell their NPAs to the bad bank:** The bad bank manages the NPAs/bad loans and finally recovers the money over time. The takeover of bad loans is normally below the book value of them. These banks are not involved in activities like lending and taking deposits.
    - For example, consider a steel plant's loan with SBI, turned into an NPA. Bad bank purchases this NPA from the SBI. After that, the bad bank appoints domain experts to manage the assets of the plant with an aim to maximize revenues and cut losses.
    - This is called reconstruction and increases the economic value of the plant. When the bad bank sells this plant, it will recover more money.
- **Global concept:** The first bad bank was created in 1988 by the US-based Mellon Bank. After that, a similar concept has been implemented in other countries including Finland, Sweden, France and Germany.



Concept of Bad bank in India:

- **Asset quality review:** The idea gained momentum when the RBI held asset quality review (AQR) found several banks showing a healthy balance sheet but have suppressed or hidden bad loans.
- **Sunil Mehta panel on NPA's (Non-Performing Assets): He** proposed Sashakt India Asset Management company, for resolving large bad loans in 2018.
- **FSDC**: The Bad bank proposal was also discussed during the Financial Stability and Development Council (FSDC) meeting, but the government preferred a market-led resolution process instead of a bad bank.

Difference between Bad Bank and ARC (Asset Reconstruction Company):

Bad Bank	**Asset Reconstruction Company**
A bad bank is simply a corporate structure that isolates liquidity and high-risk assets held by a bank or a financial organisation, or perhaps a group of such lenders.	ARCs are registered with RBI under Section-3 of the **Securitisation and Reconstruction of Financial Assets and Enforcement of Security Interest Act, 2002.**
Bad Banks if established can take over all types of stressed assets	ARCs will only buy those pools of stressed assets if they see business-viability of those pools.
Currently the Bad banks are at conceptual stage and yet to be materialized	Currently, there are many licensed ARCs in India

Need of a bad bank

- **Lack of expertise:** Banks have difficulty in solving these cases due to lack of expertise, coordination, capital etc. Even the private ARCs have also failed to recover the loans.
- **Fear of spike in bad loans:** The total gross NPAs of banks stands at 9.08% of their total gross advances in 2019. As per Reserve Bank of India (RBI)'s bi annual financial stability report (FSR), banks gross NPA may rise to 13.5 pc by Sep 2021. This creates a necessity of Bad banks.
- **Reviving trade sectors:** The panel led by **KV Kamath**, has said companies in sectors such as wholesale trade, retail trade, textiles and roads are facing stress. So, setting up a bad bank is crucial to revive these sectors.
- **Quicker in restructuring loans:** Bad banks are targeted banking system with domain experts to focus particularly on NPAs Bad banks can be more effective, quicker in restructuring of the loans.
- **The Financial Stability Report:** It points that the gross NPAs of the banking sector are expected to shoot up to 13.5% of advances by September 2021, from 7.5% in September 2020, under the baseline scenario. So, the Bad banks are essential considering the Indian conditions.
- **Bad banks will improve credit mobilization culture in the economy:** By holding the defaulters accountable the Bad Banks will ensure the accountability of borrower to pay the loan at any cost.
- **Bad Banks will improve monetary Policy Transmission:** NPAs were one of the major reasons for the lack of monetary policy transmission (MPT) in India. Even though RBI has reduced policy rates, Banks don't reduce lending rates, to recover the cost of NPAs with them.
    - If bad banks can manage their NPAs, their financial health will improve and facilitate MPT in the economy.
- **Bad Banks can take bold decisions compare to commercial Banks**: In General, the price at which NPAs are sold comes under the preview of CVC, CBI and CAG. Banks were hesitant to reveal and disposal of stressed assets fearing adverse reports by these institutions.

  - A bad bank that can maximize recovery due to **professionalism** and hence will be less hesitant.
- **Prices of stressed assets:** Higher prices for stressed assets can be realized by bad banks.
- **Provisions:** Allow banks to write off the appropriate provisions for the portfolio sold and get the discounted value that the ARC pays for the distressed pool purchase.
  - The stressed assets can alternatively be sold to an AIF, which could turn them around.
- **NPAs without bad bank:**
  - **The interest**: Lenders would have to pitch for the interest of ARCs in the market to gauge their interest in the distressed pool.
  - **Need of more equity:** It will be needed as they have to provide for NPAs in the balance sheets.
  - **Transparency:** This would be a transparent way of telling public investors where their money is going.

Challenges associated with bad banks:

- **Type of loans:** The major challenge associated with the Bad bank's establishment is regarding what kind of loans will be taken over by bad banks, and at what cost?
  - This is aggravated when the commercial banks were reluctant in the past for haircuts. If a PSB accept the NPA sale at lower price to Bad Bank then that loss is incurred by that PSB (I.e., the government)
- **Political influence:** The stake of government in Bad bank is criticised for political influence in decision making. Especially when the majority of the NPAs are associated with the Public Sector Unit.
- **May not improve quality of credit:** The establishment of bad banks may not incentivise banks to focus on the quality of credit provided, monitor loans, and protect against ever-greening of loans.
  - Banks might **perform lending activities** in the mindset that there is a system in place for recovering the loans.
- **Larger systematic issues will not be addressed**: A bad bank does not address the structural weaknesses in public sector banks such as management etc. For these reasons, many economists including the former RBI Governor opposed the establishment of Bad Bank in India.
- **Counter view to bad bank:**
  - **Opaqueness in dealing bad loans:** By forcing the government, in its capacity as the owner of multiple banks, to set up a bad bank and buy distressed assets at "book value".
  - **Precedent for others:** If a bank owner wants to own an ARC, it set precedent for other banks and non-banks to also seek an ARC of their own.
  - **Not a fixed solution:** The system should not let pools of assets be juggled between a bank book and ARC.

  - **Strict regulations:** Most bad loan declarations of late are taking place due to strict regulatory supervision pressures and lenders' balance sheets are being cleaned out.
  - **Need of specialists:** Turnaround specialists with specific sectoral skills are needed for the task of ARCs and not just experts with credit underwriting or collections expertise.

Way forward:

- **Roadmap:** Laying out a clear road map for Bad Bank is crucial. Government can address the issue in the upcoming budget session.
- **Models by RBI deputy governor:** Exploring the models suggested by former RBI Deputy Governor, Viral Acharya. He suggested two types of Bad banks. The possibility of these two models can be explored before setting up of Bad Bank. The models were:
- **Private Asset Management Company (PAMC)**: This model is suitable for stressed sectors where the assets are likely to have an economic value in the short run, with moderate levels of debt forgiveness.
- **National Asset Management Company (NAMC)**: This is for the sectors where the NPA problem is in excess capacity and also of economically unviable assets in the short to medium terms.
  - The government can roll out the Bad Bank for the PAMC to instil public confidence and assess the performance of Bad banks and later can extended to NAMC category.
- **K V Kamath Committee suggestions:** it also suggested to set up a Bad bank to revive sectors such as Trade, Textile, NBFCs, Steel and construction, etc.

The Problem of NPA is huge in India. Without reducing the problem of NPA India cannot become a trillion-dollar economy. The UK Asset Resolution (UKAR), a bad bank has recovered nearly 50 billion pounds of loans in UK. So, the Bad Banks is key to reduce the NPA's, and it is high time for India to follow the path.

Important Concepts

- **NPAs:** A loan whose interest and/or instalment of principal have remained 'overdue '(not paid) for a period of 90 days is considered as NPA.
- **Stressed assets = NPAs + Restructured loans + Written off assets**
- **Restructured asset or loan:** These are assets which got an extended repayment period, reduced interest rate, converting a part of the loan into equity, providing additional financing, or some combination of these measures.
- **Written off assets:** These are assets which the bank or lender doesn't count the money the borrower owes to it. The existing shareholders face a total loss on their investments unless there are buyers in the secondary market who may ascribe some value to these.

Indian Investments and BITs

Syllabus - Effects of Liberalization on the Economy

In News: Recently, Sri Lanka's revoked the east container terminal ECT agreement without any valid reason. However, Indian investors can't oppose this decision under the International law, due to India's withdrawal from Bilateral investment treaties (BITs).

Background:

- Even before Covid-19 pandemic, the GDP already plummeted to 4.5% and macroeconomic indicators were estimated to fall to multi-year and decadal lows.
- Thus, India cannot ill-afford to lose the emergent opportunities to attract foreign direct investments (FDIs) looking to relocate away from China. India also needs to look for alternatives for China to attract FDI's. But its 2016 Model Bilateral Investment Treaty is protectionist in scope.
- **The India-UK BIT:** India signed its first BIT in 1994 with United Kingdom (UK). The India-UK BIT served as the base template for India to negotiate further BITs.
    - The Indian model of BIT, 2003 contained close semblance with the India-UK BIT. From 1994 to 2011, India had signed more than 80 BITs and ratified over 70.
- **Model BIT:** However, India framed a Model BIT in 2016. Since its adoption, India has unilaterally terminated 66-odd BITs between 2016 to 2019. It had sent negative signals to the global investor community on the grounds of being protectionist.
    - This is evident as no country has shown an inclination to re-negotiate based on the Model BIT. Since 2016, India has signed just three treaties, none of which is in force yet.

The Bilateral Investment Treaty (BIT)

- **BIT:** A BIT is an agreement between two countries that sets up "rules of the road" for foreign investment in each other's countries. BITs typically serve to protect investments made by investors on a reciprocal basis, specifying conditions on regulatory oversight of the host state and limiting interference with the rights of foreign investors.
- **Prerequisite condition for BIT**
    1. Feasibility between the nations
    2. A protection against the unlawful expropriation of an investment without adequate compensation,
    3. Fair and Equitable Treatment
    4. Full Protection and security of the investors rights and freedom
    5. Most favoured treatment
    6. The right to repatriate profit and capital.
    7. Time bound manner dispute settlement mechanisms, both between States and between an investor and a State.

Significance

- **Protection to country's foreign investment:** When countries (X and Y) enter into a BIT, both countries agree to provide protections for the other country's foreign investments that they would not otherwise have.
- **Attracting FDI's:** BITs have always played a critical role attracting FDI inflows.
    - **Case Study: India**- BITs have been one the major drivers of FDI inflows into India. A 2016 study suggests that by providing substantive protection and commitment to foreign investors, BITs indeed contributed to rising FDIs in the 2001-2012 period.
- **Right of National Treatment:** A BIT ensures that foreign governments (X) will treat investors from Y the same as domestic companies; this right is known as "national treatment."
- **Most favoured Nation (MFN):** BITs also guarantee that investors from Y are given the same types of preferences that other foreign investors are given in a market (X), also called "most-favoured nation" treatment.
- **Fair and Equitable basis:** Under a BIT, governments also commit to treat each other investors on a "fair and equitable" basis in accordance with international law.
- **Prevents expropriation:** BITs limit foreign governments' (X) ability to take over Y investments in their country. If such an expropriation does happen, BITs ensure governments compensate investors in a fair and timely manner.

What is the need to have an attractive Bilateral Investment Treaty (BIT) during this pandemic?

- **FDI – equity inflows:** FDI-equity inflows to India during 2019-20 were $49.9 billion, substantially lower than the annual flow of remittances of $83 billion in the same period. Therefore, India must overcome the investment hurdle by relooking at the Model BIT in order to boost the fourth driver i.e. investment.
- **Investment as a perspective on welfare state:** BIT will boost 'progressive capitalism' (channelling the power of the market to serve society).
- **To enhance government initiatives;** BIT will push Make in India and Atma Nirbhar Bharat to revitalize the economy.
- **Government Expenditure:** Central government revenues for this year were budgeted at 10% of GDP which will not be achieved. Revenues will likely fall short by two percentage points of GDP. Feasible BIT will help to overcome Fiscal Stress.
- **External Trade:** Even prior to COVID-19 when the global economy was robust, India's trade levels had fallen from 55% of nominal GDP in 2014 to 40% in 2020. Now, with the global economy in tatters, trade is not a viable alternative to offset the loss from consumption.

Salient features of Model Bilateral Investment Treaty (BIT) 2016

- **New Model BIT in 2016:** The penalty awarded by an Investor-State Dispute Settlement (ISDS) tribunal in the White Industries case in 2011, and subsequent ISDS notices served against India in a wide variety of cases involving regulatory measures.

  - For example, imposition of retrospective taxes, cancellation and revocation of spectrum and telecom licences led to a review of the BITs.
- **Enterprise based definition of investment:** The Model BIT has adopted an 'enterprise-based' definition of investment. Under it, investment is treated as the one made by an enterprise incorporated in the host state. The earlier 'asset-based' definition of investment included intellectual property and other assets, which are not considered under the new definition.
- **Exclusion of MFN Treatment:** The exclusion of MFN treatment status (previously provided) is one of the most important feature.
- **Full protection and security (FPS):** FPS means obligations would be related to physical security of investors and their investments.
- **State government as stake holders:** Actions of state governments are included under the Model BIT.
- **Expropriation:** Model BIT prevents nationalization of assets of foreign companies except "for reasons of public purpose" in accordance with the procedure established by law and on payment of adequate compensation.
- **Non-discriminatory treatment:** The Model BIT includes a new clause on non-discriminatory treatment. Under the new clause, investors can avail **non-discriminatory** just compensation in circumstances like armed conflict, natural disasters and in the state of national emergency.
- **Corporate social responsibility:** The Model BIT mandates foreign investors to voluntarily adopt internationally recognized standards of CSR.
- **Conditions for initiating arbitrations at international platforms:** The Model BIT stipulate that the aggrieved investor should **use all local remedies available before** initiating international arbitration. Investor can use outside remedies only five years after resorting to all domestic arrangements.
- **Excludes matters related to taxation:** It was configured in the context of excess legal arbitration against the state.

Issues with the Model Bilateral Investment Treaty (BIT), 2016

- **Narrow down the definition of investment:** Adoption of enterprise-based definition contains vague criteria such as the requirement of enterprises to satisfy 'certain duration' of existence without specifying how much, or, investments having 'significance for development of the party in whose territory the investment is made' without specifying what amounts to 'significant' contribution. It **leaves room for uneven interpretation** by judicial bodies.
- **Clause mandating exhaustion of domestic remedy prior to initiating international arbitration proceedings:** According to the 'Ease of Doing Business 2020' report, India currently ranks 163 out of 190 countries in ease of enforcing contracts, and it takes 1,445 days and 31 per cent of the claim value for dispute resolution. This new clause puts extra burden on the investors.

- **International Thunderbird Gaming Corporation v. Mexico:** It was held that the concept of legitimate expectations relates to a situation where the host state's conduct creates reasonable and justifiable expectations on the part of an investor (or investment) to act in reliance on said conduct, such that a failure to honour those expectations could cause the investor (or investment) to suffer damages.
- **Model BIT has done away with the 'Fair and Equitable Treatment' clause:** Model BIT included a detailed 'Treatment of Investments' clause with a broadly-worded undertaking that neither party shall subject investments to measures that are manifestly abusive, against norms of customary international law and to **un-remedied and egregious violations** of due process.
    - The Model BIT simplistically assumes that a foreign investor shall have complete confidence on domestic judicial interpretations and mechanisms.

India-Sri Lanka Bilateral Investment Treaty:

1. It governs the treatment of foreign investment between two countries on the basis of International Law. **India-Sri Lanka Bilateral Investment Treaty** was signed in 1997.
2. It has a provision of **Investor-State Dispute Settlement (ISDS).** It allows individual foreign investors to sue host states in international tribunals if treaty obligations are violated.
3. It calls for giving **Fair and Equitable Treatment (FET)** to foreign investments in the host state under **Article 3(2)**.
    1) A core component of **FET is the protection of legitimate expectations of investors.**
    2) **In International Thunderbird Gaming Corporation v Mexico Case**, the concept of legitimate expectations got clarified.
4. It is a situation in which the act of the host state creates a reasonable expectation in the mind of the investor to act in line with such expectation. Failure to fulfil such expectations would cause damage to investors.
5. India- Sri Lanka BIT also has a **survival clause under Article 15(2).** It protects investors interest for 15 years if the treaty is unilaterally withdrawn by either party.
6. India withdrew from the treaty in 2017 due to a high number of ISDS cases filed against it. But survival clause **assures protection to Indian and Sri Lanka investors till 2032**.

Why can't Indian investors sue the Sri Lankan Government for revoking 2019 agreement?

1. Although the act of Sri Lanka to withdraw from 2019 agreement is a clear breach of the principle of legitimate expectation. But the Indian investors can't appeal for protection.
2. **Survival clause** gave protection to investments made before India's withdrawal from the treaty in 2017 and not to investments after that. It is due to this **cut-off date t**hat investors of 2019 ECT agreement can't do much regarding Sri Lanka's withdrawal from the agreement.

- **Criticism of BITs:** Many NGOs have spoken against the use of BITs, stating that they are mostly designed to protect the foreign investors and do not take into account obligations and standards to protect the environment, labour rights, social provisions or natural resources.

Way Forward:

- **Effective ISDS provision:** The withdrawal will save it from ISDS (Investor-state dispute settlement) claims but would also hamper the interest of Indian investors abroad.
- **Decision of withdrawal:** Decisions of withdrawal need to be taken with greater caution in a post-Covid world where the probability of taking arbitrary actions by foreign governments is quite high.
- **Liberalization of FDI:** The looming economic recession triggered by the Covid pandemic has made attracting FDI an urgent imperative for improving economic outcomes. Make in India 2.0 and liberalization of FDI are steps in the right direction.
    - But, Government must adopt a more pragmatic and balanced approach in the 2016-Model BIT on the lines of the US-Korea BIT, CPTPP, CETA, MERCOSUR Protocol to name a few.
- **Revision in model:** Regulatory activism will do more harm than good as in retaliation foreign jurisdictions may reduce protection for Indian companies exporting capital goods.
    - As global companies contemplate moving their investments away from China, it is an opportune time to review and revise the Model BIT from the present inward-looking protectionist approach, to a more pragmatic one.

Geospatial Guidelines

Syllabus -Science and Technology- developments and their applications and effects in everyday life

In News: The government released guidelines for acquiring and producing geospatial data

More in News: India – USA - B**asic Exchange and Cooperation Agreement** will help India get real-time access to American geospatial intelligence.

Introduction

- **Geospatial data** is data about objects, events, or phenomena that have a location on the surface of the earth. Geo-spatial data comprises of information of public interest such as roads, localities, rail lines, water bodies, and public amenities.
- The location can be classified as:
    - **Static Location** - the location of a road, an earthquake event, malnutrition among children in an area are examples of static location about various phenomena.
    - **Dynamic location** - Location of a moving vehicle or pedestrian, the spread of an infectious disease comprises of changing geospatial data.

- Geospatial data combines l**ocation information, attribute information** (the characteristics of the object, event, or phenomena concerned), and often also **temporal information** or the time at which the location and attributes exist.
- **Major applications of Geospatial data**

Fraud and Abuse

Detect patterns of fraud and collusion (e.g. claims fraud, credit card fraud)

Retail

Site selection, urban planning, foot traffic analysis

Financial Services

Economic distribution, loan risk analysis, predicting sales at retail investments

Healthcare

Identifying disease epicenters, environmental impact on health, planning care

Disaster Recovery

Flood surveys, earthquake mapping, response planning

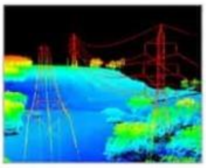
Defense and Intel

Reconnaissance, threat detection, damage assessment

Infrastructure

Transportation planning, agriculture management, housing development

Energy



Climate change analysis, energy asset inspection, oil discovery

Issues with present policy

- **Strict Restrictions -** There are strict restrictions on the collection, storage, use, sale, dissemination of geo-spatial data and mapping for private sector under the current regime.
- **Government's monopoly-** The sector is dominated by the Indian government as well as government-run agencies such as the Survey of India.
- **System of acquiring licenses-** Private companies needed to navigate a system of permissions from different departments of the government leading to red-tapism and delay in projects.
- **Data deficiency-** There is also a huge lack of data in the country which impedes planning for infrastructure, development and businesses which are data-based.
- **High dependence on external forces** - The mapping of the entire country, that too with high accuracy, by the Indian government alone could take decades leading to dependency on foreign nations. Example – Dependence on USA for geospatial information in Kargil war.
- **Absence of a comprehensive policy:** There are a total of 17 national-level policies and rules, dealing with geospatial data, under as many as six ministries/departments. In the long run, it is necessary to revisit these policies and evolve an integrated geodata policy.
- **Complex guidelines on data sharing**: Despite the existence of the National Data Sharing and Accessibility Policy 2012, most geospatial data created in India lies in silos because there is no single platform that can then be used by all departments to collate value-added data.

New guidelines

- **Applicability** - The new guidelines will apply to g**eospatial data, maps, products, solutions and services** offered by government agencies, autonomous bodies, academic and research institutions, private organizations, non-governmental organizations and individuals.
- **Removal of restrictions** - There shall be n**o requirement for prior approval, security clearance, license** or any other restrictions on the collection, generation, preparation, dissemination, storage, publication, updating and/or digitization of geospatial data and maps within the territory of India.
- **Use of data** - Individuals, companies, organizations, and government agencies, shall be free to process the acquired geospatial data, build applications and develop solutions in relation to such data and use such data products, applications, solutions, etc. by way of **selling, distributing, sharing, swapping, disseminating, publishing, deprecating and destructing**.
- **Exception** - There will be a negative list of **sensitive** attributes that would require regulation before anyone can acquire and/or use such attribute data.

Significance of new guidelines

- **Innovation and competition** - **Liberalization** of the mapping industry and **democratization** of existing datasets will **boost domestic innovation** and enable Indian companies to compete in the global mapping ecosystem by leveraging modern geospatial technologies.

  Example – Currently industry is dominated by **Google maps** and indigenous companies have to rely on them.
- **Optimal use of resources** - Locally available and locally relevant Maps and Geospatial Data would also help in improved **planning and management of resources** and better serve the specific needs of the Indian population.
  - Example - Emerging vibrant initiatives such as **Digital India, Smart Cities**, e-Commerce, autonomous drones, delivery, logistics and urban transport require a leap forward in mapping with greater depth, resolution and precision.
- **Atmanirbhar Bharat** - The availability of data and **modern mapping technologie**s to Indian companies is also crucial for achieving India's policy aim of Atmanirbhar Bharat and the vision for a **five trillion-dollar economy**.
- **Impetus to Blue economy** - Fisheries, deep sea mining, and offshore oil and gas make up a large section of India's blue economy. **Blue economy** in India is another **sunrise sector** for development experts where Geospatial Data is expected to play a potentially important role.
- **Disaster Management** - The availability of comprehensive, highly accurate, granular, and constantly updated representation of geospatial data will greatly enhance the preparedness of the country for emergency response in case of **environmental and man-made disasters**.

- **Redundant restrictions** - With the advent of publicly available geospatial services, a lot of Geospatial Data that used to be in restricted zone are freely and commonly available now and some of the policies/guidelines that used to regulate such information have been rendered obsolete and redundant.
- **Trust building with private sector** – The **startups and mapping innovators** will be trusted to **self-certify**, apply good judgment and be relied upon to demonstrate adherence to guidelines.
- **Ease of doing business**- The government expects an increase in **investment** in the geo-spatial sector by companies, and also an increase in **export of data** to foreign companies and countries, which in turn will boost the economy.
- **Boost to public-private partnership** - There can be increase in public-private partnerships with the opening of this sector with data collection companies working with the Indian government on various sectoral projects.

***Conclusion* -** Location information is **an integral part of the modern digital ecosystem** and critical for unlocking economic, social and environmental opportunities for sustainable growth and development of the country. It is critical to the **success of traditional industries** like agriculture as well **modern industry** offering location-based services such as e-Commerce, delivery and logistics and urban transport. **Thus, liberalization will help in becoming self-reliant in long run.**

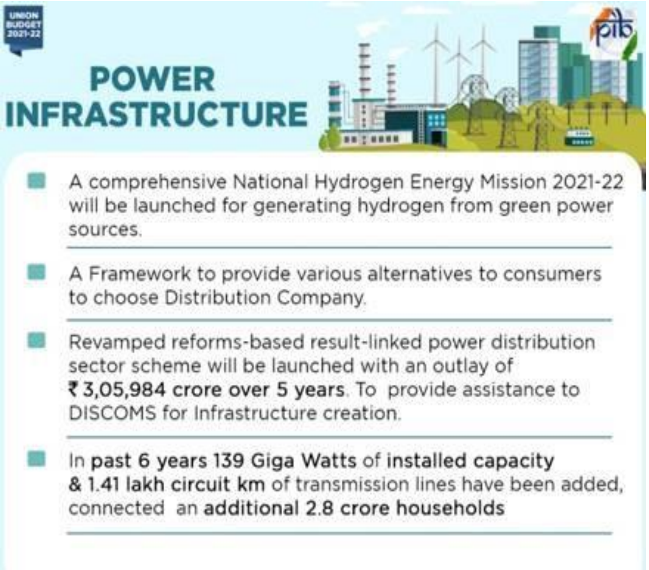
Hydrogen as an alternative fuel

Syllabus -Science and Technology- developments and their applications and effects in everyday life

In News: In Union Budget address, Finance Minister announced that India will launch its **National Hydrogen Energy Mission** (NHEM) in 2021-22.

More in news

- The government has announced an outlay of Rs.10,000 crore for **Phase 2 of the Faster Adoption and Manufacturing of Hybrid and Electric Vehicles**, or FAME 2 Scheme.
- In 2020, NTPC Ltd has invited Global Expression of Interest (EoI) to provide 10 Hydrogen Fuel Cell (FC) based electric buses and an equal number of Hydrogen Fuel Cell based electric cars in Leh and Delhi.


UNION BUDGET 2021-22
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POWER INFRASTRUCTURE

- A comprehensive National Hydrogen Energy Mission 2021-22 will be launched for generating hydrogen from green power sources.
- A Framework to provide various alternatives to consumers to choose Distribution Company.
- Revamped reforms-based result-linked power distribution sector scheme will be launched with an outlay of **₹ 3,05,984 crore over 5 years**. To provide assistance to DISCOMS for Infrastructure creation.
- In **past 6 years 139 Giga Watts** of **installed capacity & 1.41 lakh circuit km** of transmission lines have been added, connected an **additional 2.8 crore households**

Introduction

- Hydrogen is the simplest element. An atom of hydrogen consists of **only one proton and one electron.**
- It is the **most abundant element in the universe**. The sun and other stars are composed largely of hydrogen. Hydrogen is a component of more compounds than any other element. Water is the most abundant compound of hydrogen found on earth.
- Molecular hydrogen is **not available on Earth** in convenient natural reservoirs. Most hydrogen on Earth is **bonded to oxygen in water and to carbon in live or dead and/or fossilized biomass**. It can be created by splitting water into hydrogen and oxygen.
- Once produced, hydrogen generates electrical power in a fuel cell, **emitting only water vapor and warm air**.
- **Hydrogen fuel cell** is basically an energy conversion device that can efficiently capture and use the power of hydrogen.

Processes to Prepare Molecular Hydrogen

- Its preparation could be done by **breaking the chemical bonds** from compounds.
- Common methods include electrolysis, from steam and hydro carbon or carbon, reaction of metals with acids, ionic metal hydrides with water, etc.
- Currently, global hydrogen production is **48% from natural gas, 30% from oil, and 18% from coal; water electrolysis accounts for only 4%**.

Storage of Molecular Hydrogen

- Its storage is important because it has wide range of applications.
- They range from **stationary power, portable power to transportation**, etc.
- Hydrogen can be stored physically as either a gas or a liquid:
    - Storage of hydrogen as a gas typically requires **high-pressure tanks** (350–700 bar tank pressure).
    - Storage of hydrogen as a liquid requires c**ryogenic temperatures** because the boiling point of hydrogen at one atmosphere pressure is −252.8°C.
- Hydrogen can also be stored on the **surfaces of solids (by adsorption) or within solids (by absorption).**

Types of Hydrogen

Features	**Grey Hydrogen**	**Blue Hydrogen**	**Green Hydrogen**
Source	Hydrocarbons like fossil fuels and natural gas	Fossil fuels	Renewable energy like solar and wind energy
By- Products	CO2	CO2 and CO (captured and stored)	Water vapour and water
Efficiency	-	Better than Grey hydrogen	Better then grey and blue hydrogen

Rationale for using hydrogen as alternative fuel

- **Energy Security -** Hydrogen can be produced domestically from resources like **natural gas, coal, solar energy, wind, and biomass**. When used to power highly efficient **fuel cell electric vehicles**, hydrogen helps in conserving petroleum and diversifying transportation energy options.
- **Clean air and healthy public -** Emissions from gasoline and diesel vehicles—such as **nitrogen oxides, hydrocarbons, and particulate matter**—are a major source of **air pollution in India**. Hydrogen-powered fuel cell electric vehicles emit none of these harmful substances—only water (H_2O) and warm air, thus promotes cleaner lifestyle.
    - The **levels of PM 2.5**, the most threatening of particulate matter, worsened in **43 out of 99 cities** whose winter air in two years, 2020 and 2019, was compared by the Centre for Science and Environment (CSE).
- **Oil price rise** – Since **India imports 84% of its domestic demands for crude oil**, therefore Brent crude prices have a direct bearing on domestic fuel prices. This leads to **current account deficit and increased inflation** in economy which hurts consumers most.
- **Issues with traditional batteries** – Hydrogen fuel cell is lighter than **heavy-lithium-ion batteries**, thus they are better for long haul trucks and commercial vehicles. Also, chemicals within the fuel cell, **do not degrade overtime** unlike batteries. This allows for a longer duration of use and the **need to dispose is eliminated**.
- **Atma- Nirbhar bharat** – India is entirely dependent on import of lithium and lithium-ion batteries from **China and lithium triangle of South America (Argentina, Bolivia and Chile)**. Hydrogen fuel cell will help India become self-reliant and cut cost of import.
- **Energy accessibility** – Hydrogen fuel cells can function as a power backup storage for large- and small-scale power grids, moreover, fuel cells can provide electrical power for remote locations and 24*7 power for all.
- **Low cost for space programs** - NASA uses hydrogen fuel to launch the space shuttles. Similarly, India can cut down more on **space programs costs** with use of hydrogen as a fuel.
- **Achieving Intended Nationally Determined Contributions (INDC)** - India has pledged to improve the emissions intensity of its GDP by **33 to 35 per cent by 2030 below 2005 levels under** United Nations Framework Convention on Climate Change **(UNFCCC)** . It has also pledged to increase the share of non-fossil **fuels-based electricity to 40 per cent by 2030**. Hydrogen as an alternative fuel will help in achieving these objectives.

Hydrogen-enriched compressed natural gas **(HCNG)**

- HCNG is a hydrogen-enriched compressed natural gas (CNG).
- Now instead of **physically blending hydrogen with CNG**, hydrogen spiked CNG will be produced using a compact reforming process patented by Indian Oil Corporation.
- The most important benefit of HCNG fuel is that it **emits 70 per cent less carbon monoxide, reduces total hydrocarbons emissions by around 15 per cent and increases fuel efficiency by 3-4 per cent.**

Hydrogen Based Fuel Cell Electric Vehicle

- Hydrogen fuel cell cars are powered by an electric motor and are therefore classified as e-cars. The common abbreviation is FCEV, short for "Fuel Cell Electric Vehicle," in contrast to a BEV or **"Battery Electric Vehicle."**
- There is one crucial difference between hydrogen fuel cell cars and other electric vehicles – **hydrogen cars produce the electricity themselves**.
- So, unlike in fully electric or plug-in hybrid vehicles, the vehicle doesn't get its power from a **built-in battery** that can be charged from an external power source.
- Instead, hydrogen cars effectively have their own efficient power plant on board: the fuel cell.

Challenges associated in developing Hydrogen as a fuel

- **High cost of extraction** – The disadvantage of using hydrogen as a fuel is the cost of extracting it. Currently, although hydrogen can be mass produced, it can be costly to do so since it **requires other forms of energy like fossil fuels**.
- **Not emission free** – When other energy sources are used to extract hydrogen, a **small amount of waste** still end up going to the environment. Thus, it is not completely emission free source of energy.
- **Fuel Storage -** Hydrogen's **energy content** by volume is low. This makes storing hydrogen a challenge because it requires **high pressures, low temperatures, or chemical** processes to be stored compactly. Overcoming this challenge is important for light-duty vehicles because they often have limited size and weight capacity for fuel storage.
- **Safety issues** – Hydrogen is highly reactive; thus it is **highly combustible** and poses the **risk of explosion** putting life of passengers at risk.
- **Lack of infrastructure** – Less than **500 hydrogen stations** are available globally to refuel Fuel-celled Electric vehicles.

Conclusion

If hydrogen, in combination with other renewable energies, are implemented into people's daily lives and are proved to be reliable; carbon emissions will reduce dramatically. This can result, in the repair of the ozone layer, cleaner air, the well-being of our planet and ultimately achievement of **sustainable development goals** will be possible.

DNA Technology Bill-Is India ready?

Syllabus -Science and Technology- developments and their applications and effects in everyday life

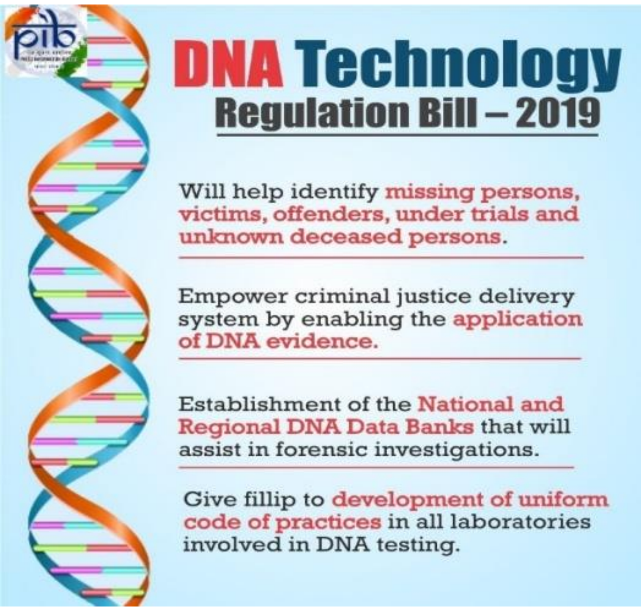
In News : **Parliamentary Standing Committee on Science and Technology,** in a draft report, pointed out that some of the provisions in the bill could be misused in different ways.

Introduction

- DNA stands for **Deoxyribonucleic Acid** which is the fundamental building block of human biological system.
- **Biological substances collected at crime scenes**—such as blood, hair, semen, urine, skin, saliva, sweat and tears—all contain DNA.
- DNA technologies play a vital role in **criminal justice systems** in various regions of the world.DNA technologies provides for collection of information that helps the criminal investigation, and DNA evidence is considered to have great value for **judicial procedures** as it is **more objective.**

Explaining DNA Profiling

- **DNA profiling** or forensic genetics is a technique employed to assist in the **identification of individuals** or samples by their respective DNA profiles. Although ~99.1% of the genome is the same throughout the human population, the remaining 0.9% of human DNA shows variations between individuals. These variable DNA sequences, termed polymorphic markers, can be used to both differentiate and correlate individuals.
- DNA profiles are also often used for forensic civilian identification purposes, in particular for **paternity testing and identification of missing persons** and human remains.



DNA Technology
Regulation Bill – 2019

Will help identify missing persons, victims, offenders, under trials and unknown deceased persons.

Empower criminal justice delivery system by enabling the application of DNA evidence.

Establishment of the National and Regional DNA Data Banks that will assist in forensic investigations.

Give fillip to development of uniform code of practices in all laboratories involved in DNA testing.

- **Conditions given in bill to collect sample:**
    - For arrested persons, if the offence carries a punishment of up to seven years. **Consent** is needed to collect the DNA sample.
    - If the offence carries more than seven years of imprisonment or death, consent is not required.
- Two institutional structures are proposed at the national level –
    - **DNA regulatory board** –The main regulatory authority to frame the rules and guidelines for DNA collection, testing and storage
    - **DNA data bank** – It would be the repository of all DNA samples collected from various people under specified rules.
- **DNA laboratories -** The Bill also has a provision of **mandatory accreditation** from the Board to establish DNA Laboratories in India. The Board may revoke the accreditation for reasons such as failure to undertake DNA testing or the non-compliance of DNA Lab with the conditions attached to the accreditation.
- **Removal of DNA profiles:** The Bill states that the **criteria for entry, retention, or removal of the DNA profile** will be specified by regulations. However, the Bill provides for removal of the DNA profiles of the following persons:

  - of a suspect if a police report is filed or court order given,
  - of an undertrial if a court order is given, and
  - on written request, for persons who are not a suspect, offender or undertrial, from the crime scene or missing persons' index.
- **Offences:** The Bill specifies penalties for various offences, including:
  - for disclosure of DNA information, or
  - using DNA sample without authorization.
  - For instance, disclosure of DNA information will be punishable with imprisonment of up to three years and fine of up to one lakh rupees.

Significance of the Bill

- **Ensures Objectivity in Justice system** - Forensic DNA evidence is capable of enhancing police practices with some **degree of "objectivity"** associated with the scientific authority of DNA technologies.
- **To improve conviction rate** – According to **NCRB data**, there were ~38000 registered rape cases in 201 but conviction rate was only ~19%. The main reason for low conviction is lack of scientific evidence.
- **Overreliance on witnesses** – For ensuring justice, due to lack of forensic information police and judiciary rely on witnesses who can anytime turn **hostile.** This not only delays the case and o**verburden judiciary** with such cases but denies justice to victim also.
- **Identifying missing and dead persons** - According to NCRB, in the years 2016-18, a total of 63,407, 63,349 and 67,134 children were reported to be missing across the country. DNA profiling will help in tracing **vulnerable children**.

Issues associated with the Bill

Parliamentary standing committee on science and technology has flagged following issues in the Bill:

- **Caste or community-based profiling** - The committee pointed out that the DNA profiles can reveal **extremely sensitive information** of an individual such as pedigree, skin colour, behaviour, illness, health status and susceptibility to diseases. This can be misused to specifically target individuals and link a particular caste to criminal activity.
- **Against Right to privacy –** Supreme Court in **Puttaswamy judgement** held that right to privacy is integral part of article 21. In the absence of a statutory framework protecting the right to privacy, this bill will cause irreversible damage to individuals' right to privacy as well as the criminal justice system.
- **Increased surveillance** - The Bill proposes to store DNA profiles of not only convicts but also suspects, undertrials, victims and their relatives for future investigations. There is **no legal or moral justification for a database** with DNA of these categories, given the high potential for misuse.
- **Perfunctory consent** - In the Bill, if a person is arrested for an offence that carries punishment up to seven years, investigation authorities must take the person's written

consent before taking the DNA sample. But this consent, is only "perfunctory" which means magistrate can easily override consent.

- **Store data permanently** - The Bill **permits retention of DNA** found at a crime scene in perpetuity, even if conviction of the offender has been overturned. The committee has urged the government to amend the provisions to ensure that if the person has been found innocent his DNA profile has to be removed immediately from the data bank.
- **Data for civil matters** - The Bill also provides that DNA profiles for civil matters will also be stored in the data banks, but **without a clear and separate index**. This violates the fundamental right to privacy and does not serve any public purpose.
- **Issues in collecting data** - A technical problem raised by DNA profiles is the fact that contamination with DNA from an outside source can occur, both at the time of collection and in the scientific laboratory. **False identifications** are likely to happen when used in **partial profiles due to insufficient quantity** or degradation of DNA.
- **Lack of infrastructure** - DNA testing is currently being done on an extremely limited scale in India, with approximately 30-40 DNA experts in 15-18 laboratories undertaking less than 3,000 cases per year, which represent 2-3% of the total need. For example, in Rajiv Singh v. State of Bihar (2011), the Supreme Court had dismissed improperly analysed DNA evidence.
- **Not a panacea** – The bill is not the only solution to the problems of an inadequate criminal justice system. For example, in **United Kingdom**, the number of crimes solved by DNA evidence had been reducing even though the number of profiles in the system was going up.

Conclusion

The DNA profile should only be used as a means of backing up other types of evidence, and to **safeguard the principle of equal access** to evidence, defense and prosecution. Criminal Justice system needs holistic reforms in police, judiciary as well as the colonial rulebooks providing the procedures and punishments.

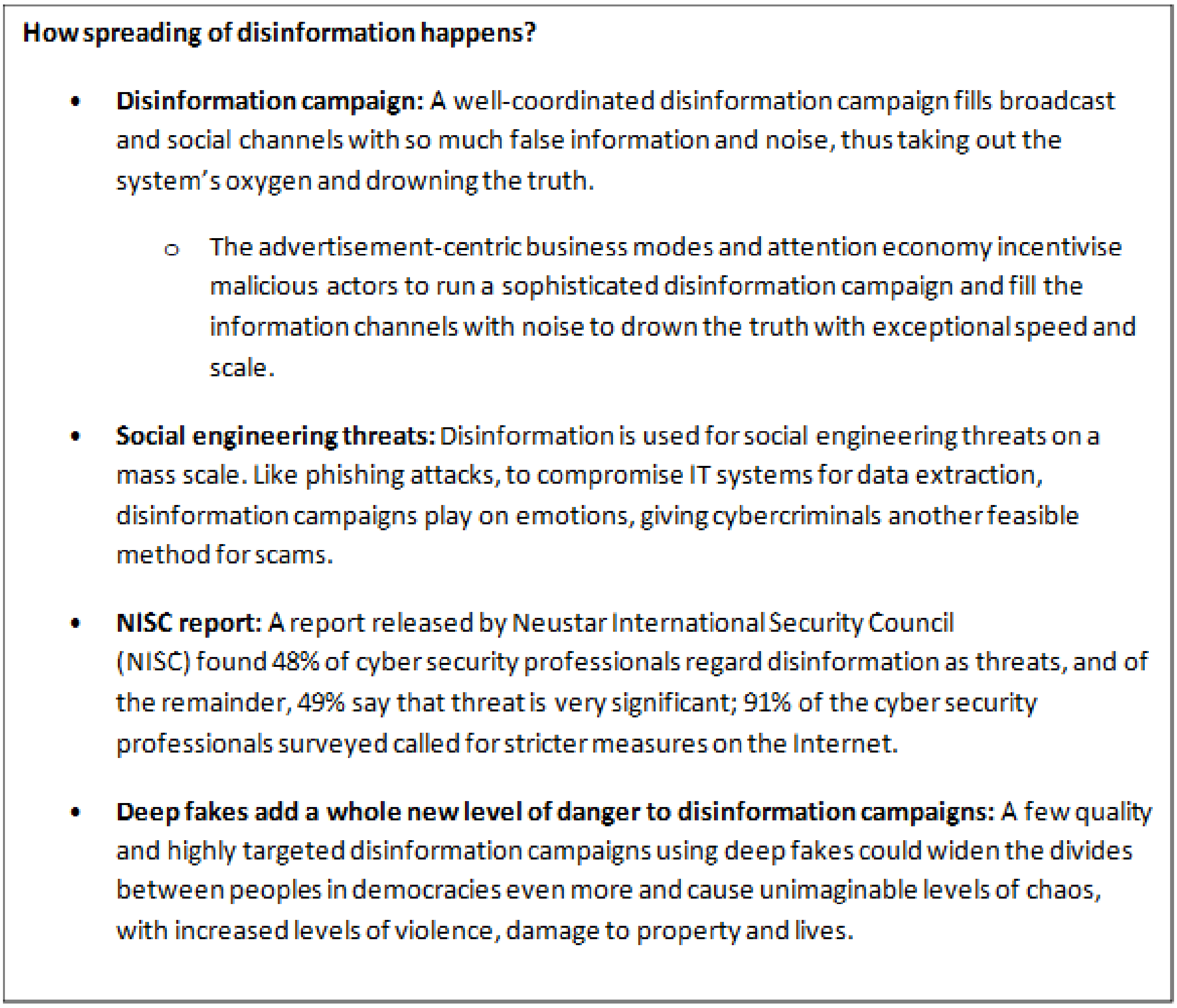
Disinformation in cyberspace

Syllabus – Challenges to internal security through communication networks, role of media and social networking sites in internal security challenges, basics of cybersecurity; money-laundering and its prevention.

In News: Society needs protection from **disinformation.** The best approach to deal with it, is to take advantage of the mechanisms already developed for cyber-security.

What do you mean by disinformation?

Disinformation can be defined as "information that is likely to be perceived as news, which has been deliberately fabricated and is disseminated with the intention to deceive others into believing falsehoods or doubting verifiable facts".



How spreading of disinformation happens?

- **Disinformation campaign:** A well-coordinated disinformation campaign fills broadcast and social channels with so much false information and noise, thus taking out the system's oxygen and drowning the truth.
    - The advertisement-centric business modes and attention economy incentivise malicious actors to run a sophisticated disinformation campaign and fill the information channels with noise to drown the truth with exceptional speed and scale.
- **Social engineering threats:** Disinformation is used for social engineering threats on a mass scale. Like phishing attacks, to compromise IT systems for data extraction, disinformation campaigns play on emotions, giving cybercriminals another feasible method for scams.
- **NISC report:** A report released by Neustar International Security Council (NISC) found 48% of cyber security professionals regard disinformation as threats, and of the remainder, 49% say that threat is very significant; 91% of the cyber security professionals surveyed called for stricter measures on the Internet.
- **Deep fakes add a whole new level of danger to disinformation campaigns:** A few quality and highly targeted disinformation campaigns using deep fakes could widen the divides between peoples in democracies even more and cause unimaginable levels of chaos, with increased levels of violence, damage to property and lives.

What are the dangers due to spread of disinformation?

- **Threat to democracy**: Easy access to large amounts of data, made it possible for political parties to profile individual voters and flood them with news, fake and real, that influence their voting behaviour.
- **Deceiving people:** Spread of disinformation has been used to deceive illiterate people financially. Example- Bitcoin benefits, Chit fund schemes introduced the concept of online fraud through spam emails.
- **Sensational headlines:** Media companies in greed of getting TRPs and more viewership promote sensational news and false headlines. E.g circulation of false videos in Kashmir valley showing shocking attacks on the Army and inhumane repression of the civilians.
- **Lack of trust:** Disinformation has reduced people's belief in social, print and electronic media.
- **Communal environment:** Fake news can be used to create a communal environment. It influences the minds of common people and use social weaknesses to increase intolerance in the country. For example, rumours about child-lifters and cattle thieves led to mob attacks and deaths across India.

Is disinformation a cyber security issue?

Cyber-attacks and disinformation attacks have always been handled individually. But it is time to accept that disinformation is a cyber-security issue due to the following reasons:

- **Targets:** Cyber-attacks are aimed at computer infrastructure, while disinformation exploits inherent cognitive biases and logical fallacies.
- **Tools:** Cyber-attacks are executed using viruses, botnets, and social engineering. Disinformation use manipulated information through deep fakes, and cheap fakes.
- **A form of cognitive hacking:** Cognitive hacking is an attack that seeks to manipulate the perception of people by taking advantage of their psychological vulnerabilities. The purpose of the attack is behavioral **changes,** induced through exposure to disinformation. **Examples** of Cognitive hacking- unfounded concern were induced about **US 2020 presidential election fraud by disinformation**.
- **Similar to a DDoS attack:** The aim of a **Distributed Denial-of-Service (DDoS)** attack is to flood the target websites with more traffic than the server or network can handle. It prevents the completion of legitimate requests and disrupts the services.
    - Similarly, a well-coordinated disinformation campaign floods disinformation to an extent that people start to deny the truth.
    - Disinformation is used as psychological manipulation of people into performing an action on a mass scale.

What are deepfakes? What are the threats due to deepfakes?

Deepfakes are modified images, text, audio, and video or synthetic media, created with the help of Artificial Intelligence. It **generates a fake version** from an original or real audio-visual content by **superimposing** new audio or image on an existing media file.

For example, with the use of AI, the face of a person in an original video can be replaced with the face of another person (Morphing). Now the modified face will mimic the head movements, vocal patterns, and facial expressions of the original one.

Threats due to deepfakes:

- **Disrupting democratic process:** Deep fakes can be used to disrupt the democratic processes like elections in any country.
    - It is believed that Capitol Hill violence was incited by using deep fake media which caused misinformation and disinformation.
- **Spoiling reputations:** Deep Fakes are used to stain the reputations of individuals and spread propaganda against them.
    - According to a deep fake tracking research organization, in the month of October alone, over 100,000 fake nude images of women were circulating online.
    - Real images for that purpose were acquired through social media accounts.
- **Lack of trust in public:** The existence of deep fakes causes that much distrust among the public that any true evidence of a crime can easily be dismissed as fake.

- **Difficult to differentiate:** Media is manipulated with such sharpness that it becomes almost impossible to identify the difference between fake and real media. It can only be identified by using AI tools
- **False information:** These technologies can be used by **terrorist organizations and insurgents** to further their agenda of destabilizing state governments. They can spread f**alse information** about institutions, public policy, and politicians for this purpose.
- **Regulations of Deep fakes:** The existing legal framework of many countries including India **does not criminalize** deep fakes.
    - **In US: As per US law,** Social Media **Companies cannot be held responsible for the posts on their platforms.**
    - **In India:** Some provisions in the Indian Penal Code (IPC) and Information Technology Act, 2000 criminalize a few related cybercrimes. But there is no specific law as of now to deal with deep fakes.

What are the challenges in tackling disinformation in cyberspace?

- **No specific law:** Indian cyber laws have no direct provision governing rumors on social and electronic media. There are statutory and self-regulatory bodies to act against dissemination of misinformation.
- **Tracing origin difficult:** It is difficult due to sheer vastness of the internet (over 35 crore users in India) and social media users (an estimated over 20 crore WhatsApp users alone) which makes tracing the origin almost impossible.
- **Inadequate enforcement:** The enforcement of limited laws are not adequate. Social media operators should take a more responsible role. They need to be made to take more proactive steps and not wait for the law enforcement or judicial references to remove fake content off their platforms or block those senders.
- **Erosion of media ethics:** Media is viewed by many as a non-credible source of news due to alleged complicit and motivated reporting. Thus, many a times the media becomes the source of fake news.
- **Confirmation Bias:** It is a perception that involves advocating information that confirms previously existing beliefs or biases without a fact check. People don't care about finding the 'truth' behind a news item and instead look for evidence to support their preferred narrative.
- **Legal Issues:**
    - **Sections 66E, 67, 67A, and 72 of the IT act** deal with the violation of privacy and publishing or transmitting obscene material in electronic form. But these provisions can also result in penal consequences for the victim, for voluntarily producing such material.
    - **The Information Technology Intermediary Guidelines** (Amendment) Rules, 2018 are insufficient to tackle content manipulation on digital platforms. Guidelines require that intermediate companies take necessary steps for the removal of illegal content.

  - **Past experience: During the 2019 general election of India**, the election commission gave out instructions on the use of social media for election campaigns. Social media companies also agreed to take action to prevent any violations. However, it has been reported that social media platforms like WhatsApp were used for spreading misinformation and propaganda during the election.

Way Forward

- In 2020, the University of Washington and Microsoft arranged a workshop with experts to discuss how to avoid deep fake technology from harmfully affecting the 2020 U.S. presidential election. The workshop concluded with the following suggestions:
  - Deep Fakes must be **included under hateful manipulated media**, propaganda, and disinformation campaigns.
  - **Journalists should be provided with tools** to examine the authenticity of images, video, and audio recordings. For that, they require proper training and resources. **Using cyber security experience:** The cyber-security experience can be used to develop disinformation defence systems to mitigate disinformation risks.
- **Identity protection:** Smart identity protections and education are essential so that users do not fall victim to social engineering attempts.
- **Analysing the tactics of disinformation:** It helps to understand the identities of malicious actors, their activities, and behaviours from the cyber-security domain.
- **Internal and external fact-checking:** If the disinformation still gets by, detection solutions using humans and artificial intelligence, internal and external fact-checking can label or remove the content.
- **Layered Security:** Mechanisms such as **Defence-in-Depth** can be used to mitigate disinformation threats. A series of proactive filters are required to filter out the fake information.
  - Authenticity at the time of login should be the first layer. If the disinformation is still posted, Human and AI can be used for its detection.

Defense in Depth (DiD) is an approach to cyber-security. In it, a set of defensive mechanisms are layered to secure valuable data and information. If one system fails, other steps up immediately to thwart an attack. For example, Firewall is the first layer, antivirus is the 2nd, Regular patching is the 3rd layer.

- **An Information sharing framework:** like ISACs is required to **collect and exchange information** about the identity, content, actions, and behaviours of disinformation actors.
- **Information Sharing and Analysis Center (ISAC)** – An industry-specific organization that collects and shares information on cyber threats to critical infrastructure.
- **Sharing information and open data:** Information sharing will help disinformation countermeasures to scale better and respond quickly.

Disengagement on the border

Syllabus: -Security Challenges and their Management in Border Areas - Linkages of Organized Crime with Terrorism.

In news: India-China disengagement process on the border is ongoing. There is a need for the cost-benefit analysis of this disengagement process.

Background:

Experts are of the view that the Chinese aggression was a response to the rising strategic confidence of India in the region, since 2015. A lesson was to be taught to India and the vulnerable situation during the pandemic, gave Chinese just the right opportunity to execute its move.

- India and China have finally agreed to enter into a disengagement agreement **along Pangong Tso region**. This agreement has been reached after nine months of hostility.
- It was **mutual understanding and changing world** scenarios that helped in this agreement.
- This Chinese encroachment along east of finger 8 along the LAC (Line of Actual Control) led to unprecedented clashes. The most severe was the Galwan valley clash that caused casualties at both ends.
- The current disengagement is limited to two places on the Line of Actual Control (LAC) in Ladakh:
    - One, the north bank of Pangong lake
    - Two, Kailash range to the south of Pangong.
- However, the disengagement in other regions is yet to be taken. The other three sites of contention on the Ladakh border are Depsang, Gogra-Hot Springs, and Demchok.

About the agreement:

- **Systematic and coordinated withdrawal:** It calls for a systematic and coordinated withdrawal along the northern and southern banks of Pangong Tso region.
- **Dismantling the structure:** China has to pull back its troops at Siriraj, east of Finger 8 and dismantle infrastructure created after April 2020.
- **India's return to its post:** India has to return to its Dhan Singh Thapa Post near Finger 3.
- **Temporary moratorium:** A temporary moratorium on patrolling activities has been imposed along the northern bank of Pangong Tso.

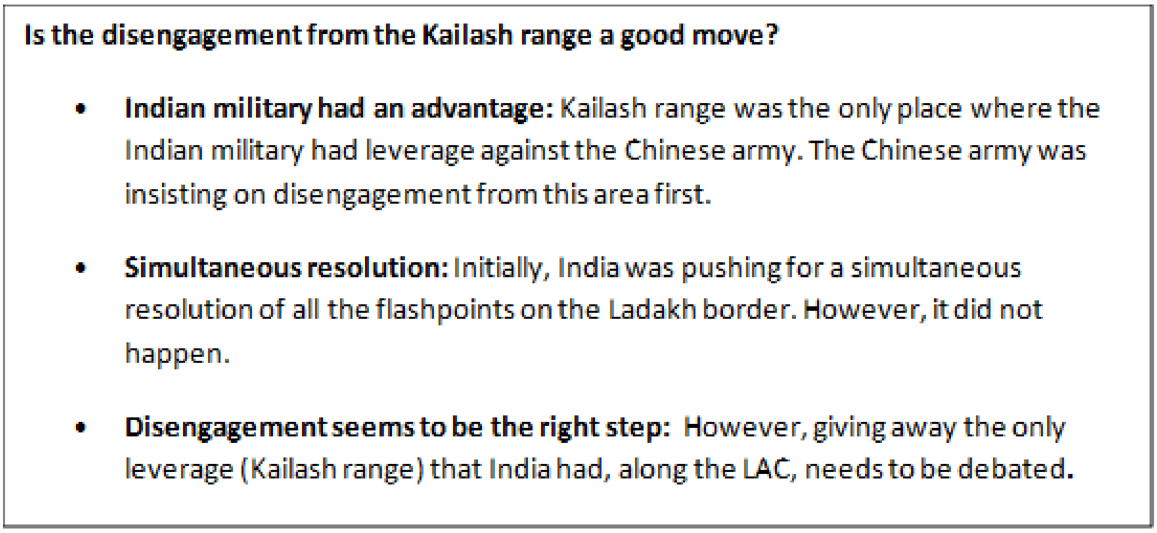
Reasons behind China's altered stance:

- **Prudent diplomacy by India:** Good diplomacy was shown by the Indian government that didn't surrender to Chinese demands.
- **Supremacy of Indian Armed forces:** A strategic advantage was gained by Indian army at Kailash heights in the southern bank which enhanced its bargaining power.

- On the part of India, the sensible diplomacy coupled with strategic advantage obtained at Kailash heights improved its bargaining power. It assured that China sits on the negotiation table and cooperate.
- **Impact on bilateral relations:** China realized that a long stand-off will only hamper bilateral relations and would give little gain.
- **US Indo pacific strategy and QUAD:** The growing closeness of India-US and their greater engagement in the QUAD group, might have pressurized China to alter its stance.
- **Quadrilateral Security Dialogue (Quad)** is an informal group of the US, Japan, India and Australia. The group aims to maintain rules based order in the Indo-Pacific region.
- **Global image:** The new Biden-Harris alliance in the US promised greater stability in the South China Sea. Now, Chinese won't like to further deteriorate its global image. They might be trying to deliver the message of cooperation.
- **Media warfare doctrine:** The discipline showed by India in the economic and trade domain also refrained China from using its media warfare doctrine. It induced China to engage in constant talks.
- **Media Warfare Doctrine**-It is a doctrine that involves action to deny, exploit, corrupt or destroy the enemy's information and its functions.

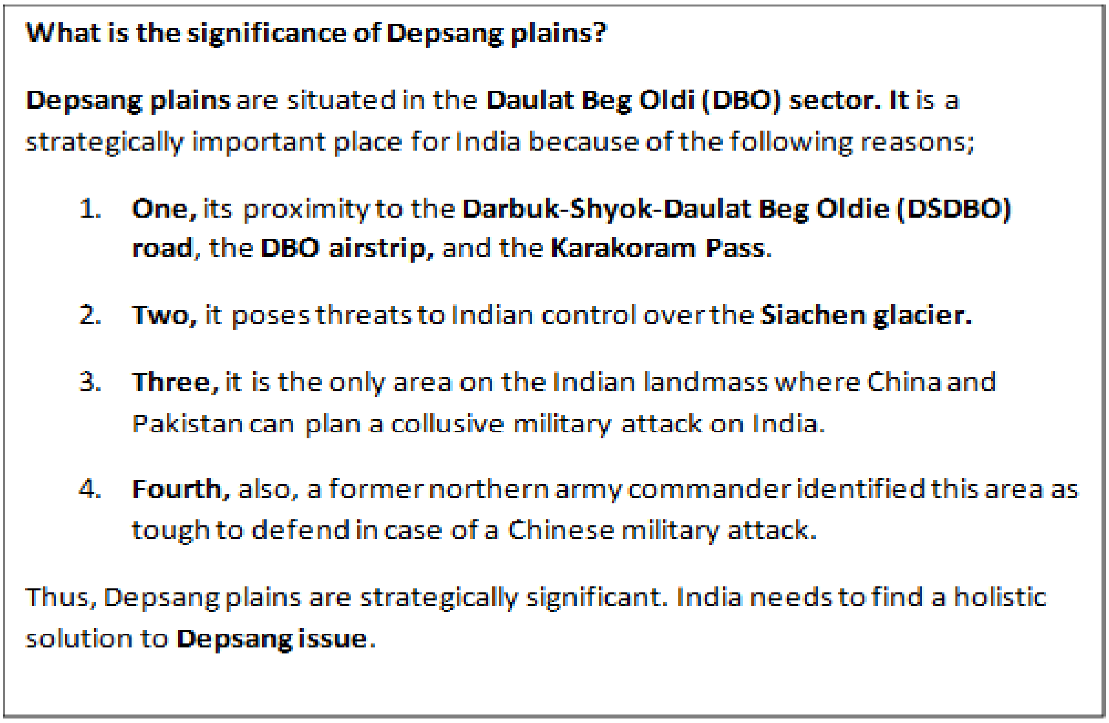
Why the disengagement from the north bank of Pangong Lake was prioritized?

- **Most Chinese transgressions:** Nearly a quarter of all the Chinese transgressions on the LAC between 2014 and 2019 have taken place on the north bank of Pangong Lake.
- **Tourist spot:** The north bank of Pan Gong Lake is a famous tourist spot. For example, the Hindi film 3 idiots were shot here.
- **Political priority:** The decision seems to be a political priority. There are habitations close to the north bank and any Chinese ingression can be easily sighted from here. Any report of Chinese encroachment will bring embarrassment to the center.



Is the disengagement from the Kailash range a good move?

- **Indian military had an advantage:** Kailash range was the only place where the Indian military had leverage against the Chinese army. The Chinese army was insisting on disengagement from this area first.
- **Simultaneous resolution:** Initially, India was pushing for a simultaneous resolution of all the flashpoints on the Ladakh border. However, it did not happen.
- **Disengagement seems to be the right step:** However, giving away the only leverage (Kailash range) that India had, along the LAC, needs to be debated.



What is the significance of Depsang plains?

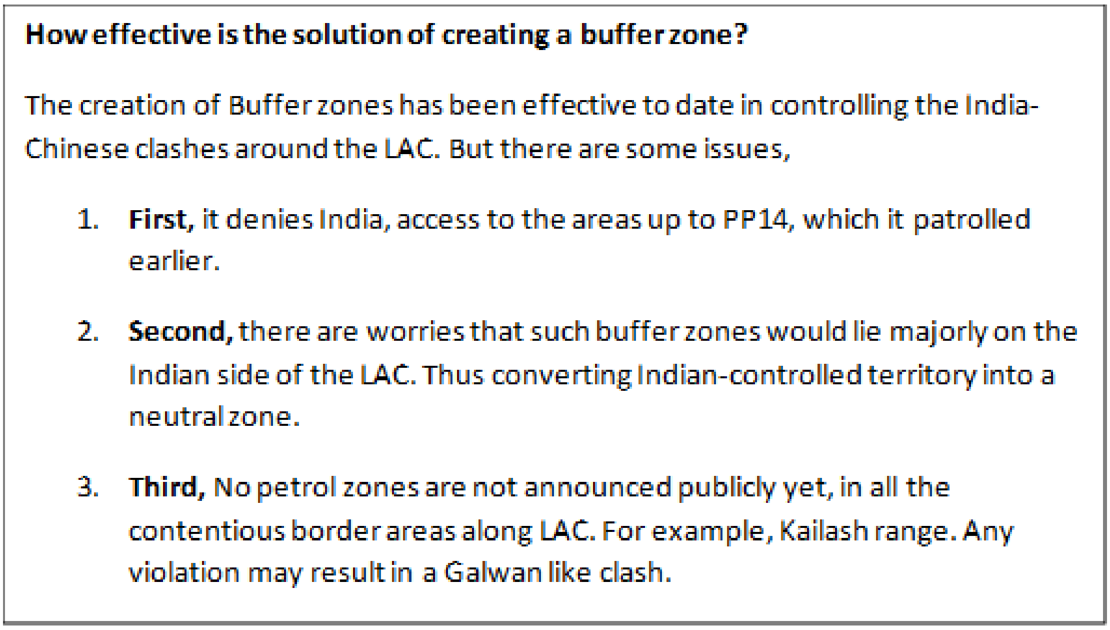
Depsang plains are situated in the **Daulat Beg Oldi (DBO) sector. It** is a strategically important place for India because of the following reasons;

1. **One,** its proximity to the **Darbuk-Shyok-Daulat Beg Oldie (DSDBO) road**, the **DBO airstrip,** and the **Karakoram Pass.**
2. **Two,** it poses threats to Indian control over the **Siachen glacier.**
3. **Three,** it is the only area on the Indian landmass where China and Pakistan can plan a collusive military attack on India.
4. **Fourth,** also, a former northern army commander identified this area as tough to defend in case of a Chinese military attack.

Thus, Depsang plains are strategically significant. India needs to find a holistic solution to **Depsang issue.**

Suggestions for India

- **Non alignment strategy**: The Centre for Policy Research produced a Non-alignment 2.0 strategy in 2012. It advocates for taking a prompt quid pro quo military operation in Chinese territory in case of escalation.
    - However, this strategy may result in a military confrontation. Considering India's economic crisis, India won't pursue a quid pro quo strategy.
- **Enhance deployment of troops:** India should enhance the deployment of troops along the LAC. It will prevent PLA ingression from Ladakh to Arunachal Pradesh.
- **Responsibility of government:** The government has made a choice to seek restoration of peace and tranquillity on the LAC instead of a reversion to the status quo as of April 2020. Any strategic consequences of that choice should be managed by the government in the future.
- **Terms should be regarded:** The disengagement terms should be respected so that agreement leads to conflict resolution and not a postponement. It was seen in the earlier Doklam and Nathula stand-off, after reaching disengagement.
- **Establish trust:** Trust needs to be established between frontline commanders else there is a possibility of escalation due to new friction, as seen in Galwan valley in July 2020.
- **Lasting peace:** Talks on other areas of friction are on going at Depsang plateau and Kailash heights. The present agreement should be used as a step towards lasting peace.
    - China has an upper hand in the Depsang plateau and India commands an edge over Kailash heights.
- **Mutual respect:** Future engagement must be guided by showing mutual respect towards each other's territorial sovereignty and integrity.



How effective is the solution of creating a buffer zone?

The creation of Buffer zones has been effective to date in controlling the India-Chinese clashes around the LAC. But there are some issues,

1. **First,** it denies India, access to the areas up to PP14, which it patrolled earlier.
2. **Second,** there are worries that such buffer zones would lie majorly on the Indian side of the LAC. Thus converting Indian-controlled territory into a neutral zone.
3. **Third,** No petrol zones are not announced publicly yet, in all the contentious border areas along LAC. For example, Kailash range. Any violation may result in a Galwan like clash.

Way Forward:

- **Re-installing the trust:** The agreement must be implemented in letter and spirit to re-install the lost trust between the countries.
- **Verification and monitoring:** The focus should be on doing robust verification and monitoring in order to ensure its effective implementation.
- **Negotiation on other points:** The success of this disengagement agreement will also open gates for negotiation on other friction points like Hot Springs and Depsang plains.

APPENDIX - I | FACTLY ARTICLES

POLITY

No postal ballots for NRIs this time: ECI

What is the News?

Election Commission of India has said that the Non-Resident Indians (NRIs) will not be able to vote by postal ballots for the upcoming elections in five states.

What is a Postal Ballot?

- It is a facility whereby a voter can cast his/her vote remotely. The user cast the vote by recording preference on the ballot paper and sending it back to the election officer before counting.
- Section 60 of the RP Act,1951 provides for the person to be given a postal ballot facility. However, the Election commission requires consulting with the government.

Who can avail the Postal Ballot facility currently?

- **Members of the armed forces** like the Army, Navy, and Air Force.
- **Members of the armed police force of a state** (serving outside the state)
- **Government employees posted outside India** and their spouses
- **Voters under preventive detention**
- **Special voters** such as the President of India, Vice President, Governors, Cabinet ministers, Speaker of the House, and government officers on poll duty have the option to vote by post. But they have to apply through a prescribed form to avail of this facility.
- **Absentee Voters:** These are voters who are unable to cast their vote due to their service conditions or other conditions. They include voters **a)** employed in essential services **b)** Persons with disabilities and **c)** senior citizens above 80 years of age.

Note: In 2020, the Election Commission has allowed senior citizens above the age of 65 and COVID-19 positive voters to cast their vote by post.

What about Postal Ballot facilities for NRI voters?

- The Election Commission of India (ECI) put forward the proposal of extending postal ballots to overseas electors in 2020.
- The proposal has been referred to the Ministry of External Affairs. The Ministry has said that a wider consultation should be held with different stakeholders before extending this facility.

NITI Aayog's "Governing Council" reconstituted.

What is the News?

The Centre has reconstituted the governing council of the NITI Aayog to include the Union Territory of Ladakh for the first time.

About Niti Aayog:

- National Institution for Transforming India also called NITI Aayog was formed through cabinet resolution in 2015. It had replaced the erstwhile Planning Commission.
- NITI Aayog is the premier policy 'Think Tank' of the Government of India. It provides both directional and policy inputs.

NITI Aayog's Governing Council:

- It is the premier body tasked with a shared vision of national development priorities, sectors and strategies with the active involvement of States.
- The governing council presents a platform to discuss inter-sectoral, inter-departmental and federal issues.
- **Chairperson:** Prime Minister.
- **Full-Time Members:** The full-time members to the council are Chief ministers of all states and of the Union Territories of Jammu and Kashmir, Delhi and Puducherry

- **Special Invitees:** The Lieutenant Governors of Andaman and Nicobar Islands, Ladakh, and the administrators of Chandigarh, Dadra and Nagar Haveli, Daman and Diu and Lakshadweep are the special invitees of the governing council.

law on draping National Flag over body of a deceased

What is the News?

Police in Uttar Pradesh has booked few persons under The Prevention of Insults to National Honour Act, 1971. They had allegedly draped the body of their relative in the national flag after his death.

Prevention of Insults to National Honour Act, 1971:

- This act penalizes the desecration of or insults to the country's national symbols including, the National Flag, the constitution, the National Anthem, and the map of India. It also includes penalties for contempt of the Indian constitution.
- Section 2 of the act specifies punishment for insults to the Indian National Flag and the Constitution of India.
- The law specifies acts of insult to the Indian flag and constitution. Some acts of insult include burning, mutilation, defacing, disfiguring, or showing disrespect to the National Flag.
- It also prohibits using Indian National Flag as a drapery in any form except in State funerals or armed forces or other para-military forces funerals.
- It prescribes punishment of imprisonment for insults for up to 3 years or a fine or both.

About Flag Code of India, 2002

The Flag Code of India contains a set of laws, practices, and conventions for the display of the national flag of India. It also prohibits using the national flag as a drapery except in State/Military/Central Paramilitary Forces funerals.

Use of National Flag as a drapery

- The National Flag of the country can only be used as a drapery if a funeral has been accorded the status of a state funeral.
- State funerals are held if a person passed away belongs to police, armed forces, office of President, Vice-President, Prime Minister, Cabinet Minister, Chief Minister.
- The state government can accord the state funeral status to the person other than the mentioned categories.

16th Census of India likely to postpone to 2022

What is the News?

The Government of India is likely to postpone the 2021 census to 2022, due to the ongoing COVID-19 situation in the country.

First phase of the Census was scheduled to be rolled out on 1st April 2020. Under this phase, House Listing & Housing Census and updating of the National Population Register (NPR) was to be completed.

Key Features of the Upcoming 16th Census of India:

- India's last census or 15th Census of India was carried out in 2011.
- The data collected by the Registrar General and Census Commissioner of India during the Census will be stored electronically.
- The census will be conducted in 18 languages out of the 22 scheduled languages (under the 8th schedule) and English.
- The option of "Other" under the gender category will be changed to "Third Gender".
- The data is proposed to be collected through a mobile app by the enumerators, and they will receive an additional payment as an incentive.

About Census:

- The Census of India counts and collects demographic and socio-economic information on the Indian population. It is the largest such exercise.
- The first non-synchronous census was conducted between 1865 and 1872 in different parts of the country.
- However, the first synchronous census in India was held in 1881. Since then, censuses have been undertaken uninterruptedly once every ten years.
- Since 1949 the census has been conducted by the Registrar General and Census Commissioner of India under the Ministry of Home Affairs, Government of India.

"3 Language Policy" is not applicable to the Central govt. offices

What is the News?

The Union Ministry of Home Affairs has said that the three language policy is not applicable to offices of the Union government.

About the News

- **What was the issue?** A question was filed under the Right to Information (RTI) Act. The questions were raised on the CRPF event in Karnataka for the foundation stone-laying ceremony. The plaques in this ceremony were only in English and Hindi. The questionnaire asked whether the Ministry had noticed that the three language policy was not followed at the programme.
- **What did the Ministry reply?** The Home Ministry has said that the provision of **the bilingual policy is applicable in the offices of the Central government**. It is as per the provision of the Official Language Act,1963 and Official Language Rules,1976.

What is the three language formula?

- The three-language formula first formulated by the Ministry of Education in National Policy on Education, 1968. This formula was implemented in the country except for Tamil Nadu.
- It is commonly understood that the three languages referred to are Hindi, English, and the regional language of the respective States.

- NEP 2020 continued with this policy, but it provided flexibility to the states in its implementation. It means it is not mandatory to adopt Hindi as one of the languages under the formula.

Pointly for Polity

- **Democracy Index 2020:** It has been released by the Economist Intelligence Unit(EIU).The index provides the status of democracy worldwide in 167 countries.It is based on five categories : Civil liberties, Electoral process and pluralism; Functioning of government; Political participation and Political culture.According to 2020 report, India has been classified as a 'flawed democracy'.

INTERNATIONAL RELATIONS

India and Pakistan agrees to observe "2003 Ceasefire agreement"

What is the News?

India and Pakistan have issued a joint statement to strictly observe the 2003 **Ceasefire agreement** along the Line of Control(LoC).

About India-Pakistan 2003 Ceasefire agreement:

- The 2003 ceasefire was a landmark agreement between India and Pakistan.
- The agreement came soon after both the countries had almost gone to war following the 2001 terrorist attack on the Indian Parliament.
- The 2003 ceasefire agreement resulted in 3 years of peace till 2006 on the border.
- The ceasefire facilitated the opening of the routes between India and Pakistan. It paved the way for bus and truck services linking Kashmir regions for the first time in six decades. Moreover, it encouraged cross-LoC contacts, exchanges, travel, and trade.
- The ceasefire also enabled India to complete the construction of a fence near the LoC. This project began a couple of decades earlier but had to suspend due to Pakistan's artillery fire.

India hosts meeting of "BRICS finance and central bank Meeting" 2021

What is the News?

India has virtually hosted the BRICS Finance and the central bank meeting.

BRICS Finance and the central bank Meeting:

- It was the first meeting on the BRICS Financial Cooperation held under India's Chair.
- The meeting was co-chaired by the Secretary, Department of economic affairs, Ministry of finance, and Deputy governor, Reserve Bank of India(RBI).
- Other participants in the meeting included BRICS finance and central bank deputies of Brazil, Russia, China and South Africa.

Issues discussed during the meeting:

- During the meeting, India has discussed issues such as:
    - Global Economic Outlook and Response to COVID-19
    - Social Infrastructure Financing and Use of Digital Technologies
    - **New Development Bank(NDB)** Activities
    - Fintech for SME and Financial Inclusion,
    - BRICS Contingent Reserve Arrangement (CRA).

BRICS chairmanship for 2021:

- India has assumed the chairmanship for BRICS in 2021. It is the year in which BRICS is celebrating its 15th anniversary.
- **Theme**: BRICS@15: Intra-BRICS Cooperation

What is "Extinction Rebellion"?

What is the News?

Delhi Police have named environmental activists Disha Ravi, Nikita Jacob, and Shantanu Muluk, in its report. These activists were volunteers of the "Extinction Rebellion" movement. It seeks to call attention to the climate change emergency.

Extinction Rebellion

- It was launched in the United Kingdom in 2018 as a response to a report by the United Nations **Intergovernmental Panel on Climate Change (IPCC).**
- **Purpose:** The movement describes itself as a decentralized, international, and politically non-partisan movement. It uses non-violent direct action and civil disobedience to persuade governments to act on the Climate and Ecological Emergency.
- **Logo:** The logo of the movement is an 'X' with the top and bottom cross. It resembles an hourglass which stands for a warning that time is running out for many species. The extinction(X) hourglass is placed within a circle that represents the planet Earth.
- **Core Demands:** The group has three core demands: The Government should "Tell the Truth", "Act Now" and "Go Beyond Politics". By that, it confronts the climate and ecological emergency that the world is facing.

Indian IT workers to benefit from "U.S. immigration Act"

What is the News?

The United States(US) administration has introduced the U.S. Citizenship Act of 2021 in Congress. If passed, this act will benefit thousands of Indian IT professionals in America.

Key Provisions of the U.S. Citizenship Act of 2021

- It proposes to eliminate the per-country cap for employment-based green cards.
- It proposes a pathway to citizenship to 11 million undocumented workers.
- Furthermore, it proposes to increase the annual limit of Employment-based green cards limit from 140,000 per year to 170,000 per year.
- It provides work authorization for dependents of H-1B foreign workers.

Beneficiaries of the act:

- The Proposed act would give citizenship to millions of foreign nationals. Undocumented workers and migrants will benefit from this bill.
- Those waiting for a green card for more than 10 years would get the legal permanent residency immediately. It is because they would be exempted from the visa cap.
- Thousands of Indian IT professionals are waiting for green cards. They are likely to be the biggest beneficiaries of the bill.

What is a Green card and H1B Visa?

- **Green Card:** It is an identification card. It gives the status of a permanent resident along with legal rights to work in the USA.
- **H-1B visa**: It is a non-immigrant visa that allows US companies to employ foreign workers on the basis of theoretical or technical expertise. Dependents of H-1B visa holders get H-4 visas.

"Comprehensive Economic Cooperation and Partnership Agreement (CECPA)" between India and Mauritius

What is the News?

Union Cabinet has approved a Comprehensive Economic Cooperation and Partnership Agreement(CECPA) with Mauritius.

What is CECPA?

- It is a kind of free trade pact that aims to provide an institutional mechanism to encourage and improve trade between the two countries.
- Under this agreement, countries cut or eliminate the duties on the products. The countries also liberalize the norms to promote the services trade.

Key Features of India - Mauritius CECPA

- It is a limited agreement that will cover only select sectors. The agreement covers Trade in Goods, Rules of Origin, Trade in Services, Technical Barriers to Trade(TBT). Further, the agreement also covers Sanitary and Phytosanitary(SPS) measures, Dispute Settlement, Movement of Natural Persons, Telecom, Customs Procedures and Cooperation.
- The two countries have also agreed to negotiate an **Automatic Trigger Safeguard Mechanism(ATSM).** They will negotiate on ATSM for a limited number of highly sensitive products within two years of the Signing of the Agreement.

What is Automatic Trigger Safeguard Mechanism(ATSM)?

It is a special safeguards mechanism included in the agreement. This will protect the country from any sudden or dramatic increase in imports. Under this mechanism, If the imports of a product are rising alarmingly, then after reaching a certain **threshold,** India can impose **safeguard duties** on imports from Mauritius automatically. The same provision applies to Mauritius as well against Indian imports.

US decides to rejoin "UN Human Rights Council (UNHRC)"

What is the News?

The US President has decided to rejoin the United Nations Human Rights Council (UNHRC). The moves come after the former US President had withdrawn from the global body three years ago.

Facts:

United Nations Human Rights Council (UNHRC)

- The UNHRC is a United Nations body established in 2006. It replaced the former United Nations Commission on Human Rights.
- **Aim:** To promote and protect human rights around the globe. Apart from that, the UNHRC also investigate alleged human rights violations in countries.
- **Members:** The council has 47 members elected for a 3-year term. 5 Regional groups elect these 47 members.
    - **Five regional groups for membership**: Africa, Asia-Pacific, Latin America and the Caribbean, Western Europe and Eastern Europe.
- **Duration:** The members are elected for a period of three years. Each member can hold office for a maximum of two consecutive terms.
- **Meeting:** The members meet around three times a year to debate human rights issues. In addition to that, the commission also passes non-binding resolutions and recommendations by majority vote.
- **Working**: The UNHRC works closely with the Office of the High Commissioner for Human Rights(OHCHR). The commission also engages in the UN's special procedures.
    - **UN's Special Procedures** of Human Rights Council: These are independent human rights experts. They have the mandate to report and advise on human rights from a thematic or country-specific perspective.
- **Universal Periodic Review(UPR):** The council also carries out the Universal Periodic Review of all UN member states. This allows civil society groups to bring accusations of human rights violations in member states to the attention of the UN.
- **Headquarters**: Geneva, Switzerland.
- **Resolutions:** The UNHRC resolutions are **not legally binding but carry moral significance.**

World Economic Forum launches "EDISON Alliance"

What is the News?

The World Economic Forum has announced the launch of an Essential Digital Infrastructure and Services Network(EDISON) Alliance.

About Essential Digital Infrastructure and Services Network(EDISON) Alliance:

- **Aim**: To work towards ensuring global and equitable access to the digital economy.

- **How will it ensure equitable access to the digital economy?** The alliance will work with governments and industries. It will accelerate digital inclusion and will ensure cross-sectoral collaboration between the technology industry and other critical sectors of the economy.
- **Advisory Board**: An expert group of Champions Leaders board will advise and support the Alliance. The board will be chaired by Verizon's Chairman and CEO Hans Vestberg.
- **Secretariat**: The World Economic Forum (WEF) will serve as the secretariat and platform for the Alliance.

Pointly for International Relations

- **Global AI Action Alliance (GAIA):** It has been launched by the World Economic Forum(WEF).It is a multi-stakeholder collaboration platform designed to accelerate the adoption of inclusive, transparent, and trusted artificial intelligence tools globally and in industry sectors.
- **Artificial Island Project:** It was launched by the Denmark Government.Its primary purpose is to provide large-scale offshore wind power and also to connect and distribute power between Denmark and neighbouring countries.The project will be located about 80 km into the North Sea.
- **Nord Stream 2 Pipeline:** It is a 1,200km-long offshore natural gas pipeline being constructed from Russia to Germany across the Baltic Sea.The pipeline will run along with the already-completed Nord Stream 1 system, and the two together will supply an aggregate of 110 billion cubic metres of gas to Germany per year.
- **2021 Indiaspora Government Leaders List:** It has been released by Indiaspora , a US-based organisation.The list recognizes more than 200 persons of Indian origin. It includes persons, occupied leadership positions in as many as 15 countries. More than 60 of these leaders are holding Cabinet positions.
- **COVAX program**: The COVAX program is led by the vaccine alliance GAVI, the World Health Organisation(WHO) and the Coalition for Epidemic Preparedness Innovations (CEPI).The program aims to ensure rapid, fair and equitable access to COVID-19 vaccines for all the countries around the world.
- **UN Capital Development Fund (UNCDF):** It was established by the United Nations General Assembly (UNGA) in 1966.It aims to provide microfinance access to Least Developed Countries (LDCs). It will unlock the full potential of public and private finance in these countries. **Headquarters:** New York, United States.

ECONOMY

"PLI Scheme for pharmaceuticals and IT hardware" Approved

What is the News?

Union Cabinet has approved the Production Linked Incentive(PLI) Scheme for the pharmaceuticals and IT hardware sectors.

About PLI Scheme for Pharmaceutical Sector:

- **Objective: It will** promote the manufacturing of high-value products in the pharmaceutical sector.
- **Duration:** The duration of the scheme will be for nine years from 2020-21 till 2028-29.

Category of Goods: The scheme shall cover pharmaceutical goods under three categories as mentioned below:

- **Category 1:** Biopharmaceuticals such as complex generic drugs, patented drugs, Gene therapy drugs, phytopharmaceuticals, and orphan drugs.
- **Category 2:** It would cover active pharmaceutical ingredients, key starting materials, and drug intermediaries.
- **Category 3**: Drugs not covered under Category 1 and Category 2.

Significance of the scheme: The scheme will benefit domestic manufacturers. Moreover, it will help to create employment and will make available a wider range of affordable medicines for consumers.

About PLI Scheme for IT hardware sectors:

- **Objective**: It will boost domestic manufacturing and investments in the value chain of IT Hardware.
- **Target Segment:** The target sectors under the scheme includes laptops, tablets, all-in-one PCs and servers.
- **Incentives:** Under the scheme, beneficiaries will be given incentives of 4% to 1% on net incremental sales over the base year(2019-20) for a period of four years.
- **Significance:** The government expects the scheme to reduce India's import dependence for IT hardware in a major way. Currently, 80% of the country's laptop and tablet demand is met through imports.

Delhi HC stays Future-Reliance deal

What is the News?

Delhi High Court has provided interim relief to e-commerce major Amazon. It directed Future Retail Limited (FRL) to maintain the status quo with regard to the transfer of its retail assets to Reliance Retail.

What are the issues in the Future-Reliance deal?

- **What is the Future-Reliance deal?** In 2020, Biyani's Future Group has entered into an agreement with Reliance Retail. Under this deal, Future was to sell its retail, wholesale, logistics and warehousing to Reliance.
- **Why has Amazon objected to the deal?** In 2019, Amazon had acquired a stake in Future Coupons in an agreement. As per Amazon, under this agreement, it has a first right of refusal in any stake sale in future retail.
- **Why did Amazon approach Singapore International Arbitration Centre (SIAC)?** Amazon and Future Group have under their agreement agreed to refer their disputes to SIAC.

Hence, Amazon approached SIAC to appoint an emergency arbitrator to get urgent interim relief.

- **SIAC ruling:** SIAC emergency arbitrator had ruled in Amazon's favour. It put the Future-Reliance deal on hold.

What is the issue now?

- **Enforcement of Ruling:** Currently under Indian law, there is no mechanism for the enforcement of the orders of the Emergency Arbitrator. However, a party can move the Indian High Court under Arbitration & Conciliation Act,1996 to get similar reliefs as granted by the Emergency Arbitrator.
- **What has the Delhi High Court said?** It ruled that the order of the SIAC was enforceable in India in the same manner as an order of this court. This provision is covered under Section 17(2) of the Arbitration and Conciliation Act.

"Reform-based and result-linked scheme" to revive discoms

What is the News?

The Finance Minister proposed a plan to revive discoms. It will include a reform-based and result-linked scheme for electricity distribution companies (discoms).

The Minister also announced a framework to provide electricity consumers, an option to choose from among more than one distribution company. This will end the monopoly of discoms and promote competition in the power sector.

About the Scheme:

- **Duration:** Five Years
- At present, discoms are facing a fund's crunch. Thus, they are not able to purchase power from production companies. Their total outstanding amount is over ₹1.35 lakh crore as of December.
- **Purpose:** The scheme will assist discoms in infrastructure creation and financial improvements. It will include providing prepaid smart metering, feeder separation, and upgrading systems.

UDAY (*Ujjwal DISCOM Assurance Yojana*) *scheme*

- It was launched in 2015 with the aim of revival of the debt-laden discoms.
- Under the scheme, discoms were envisaged to turn around financially within three years from signing agreements.
- **National Research Foundation (NRF):** It is an autonomous body. It has been mentioned in the 2019 Budget speech and New Education Policy (NEP), 2020. The foundation will fund research across four major disciplines –Sciences, Technology; Social Sciences; and Arts and Humanities. It will also develop and build research capacity at universities and colleges through a formal mechanism of mentoring.
- **Single Security Market Code:** Government in Budget 2021-22 has announced the setting up of a Single Security Market Code. The code will consolidate the provisions of SEBI

Act,1992, Depositories Act, 1996, Securities Contracts (Regulation) Act,1956 and Government Securities Act,2007.This move will improve the ease of doing business in the country's financial markets and cut down compliances cost.

- **Portal to collect data on Gig Workers:** It was announced in the Budget 2021-22.The portal will collect relevant information on gig and platform workers along with building, construction, and other such workers.The information collected will help in formulating health, housing, skill, insurance, credit, and food schemes for them.

POLICY

INCOIS to go for bathymetric study of Andaman and Lakshadweep

What is the News?

Indian National Centre for Ocean Information Services (INCOIS) will conduct a bathymetric study of Andaman and Lakshadweep. INCOIS will take the help of the National Remote Sensing Centre (NRSC) for airline mapping of the ocean floor around islands.

What is the need for this study?

- The study is needed in view of the recent tsunamis near the Indonesian coasts. The damage was more due to High tides by underwater landslides compared to the earthquake.
- These landslides caused sudden wave surges leading to much damage without giving sufficient time to alert people.
- By this study, INCOIS will map the landslide vulnerable areas on the ocean floors.

Why has INCOIS planned to take help from NRSC for this study?

- NRSC has already conducted a similar high-resolution topographic Airborne Laser Terrain Mapping (ALTM) for entire coastal areas of the country.

INCOIS:

- **Ministry:** It is an autonomous organization. It was established in 1999 under the Ministry of Earth Sciences (MoES).
- It is a unit of the Earth System Science Organization (ESSO).
- **Mandate:** Its mandate is to provide the best possible ocean information and advisory services to society, industry, government agencies and the scientific community.
- **Location**: Hyderabad, Telangana

Other studies by INCOIS:

- **Tide Gauges for Monitoring of Sea level:** INCOIS has installed tide gauges for better monitoring of the sea level and more accurate prediction of disasters like cyclones. It has already installed 36 tidal gauges in the Bay of Bengal.

- **Flux Buoy:** INCOIS had deployed a Flux Buoy in the Bay of Bengal in 2019. The buoy was deployed into the sea to monitor the temperatures, pressures, salinity, radiation and geochemical changes at various depths.

"Swachh Iconic Places"-12 sites to be transformed into 'Swachh Tourist Destinations'

What is the News?

The Ministry of Jal Shakti has announced 12 iconic sites. Sites will be covered under Phase IV of the Swachh Iconic Places (SIP) Initiative.

Swachh Iconic Places (SIP) Initiative:

- It is an initiative of the Department of Drinking Water and Sanitation (DDWS), Ministry of Jal Shakti under Swachh Bharat Mission (Grameen).
- **Aim:**
    - It aims to improve the sanitation and cleanliness standards at and around the sites. The initiative will ensure a distinctly higher level of Sanitation/Cleanliness at these places, especially on the peripheries and in the approach area.
- **Ministries Involved:** The initiative is being coordinated by the Ministry of Jal Shakti in association with the Ministry of Housing and Urban Affairs (MoHUA), Ministry of Tourism, Ministry of Culture, and the concerned State/UT governments.

Places covered under Phase IV: The 12 sites covered under Phase IV are:

- **Ajanta Caves,** Maharashtra
- **Sanchi Stupa,** Madhya Pradesh
- **Kumbhalgarh Fort,** Rajasthan
- **Jaisalmer Fort**, Rajasthan
- **Ramdevra**, Jaisalmer, Rajasthan
- **Golconda Fort,** Hyderabad, Telangana
- **Sun Temple**, Konark, Odisha
- **Rock Garden,** Chandigarh
- **Dal Lake,** Srinagar, Jammu & Kashmir
- **Banke Bihari Temple**, Mathura, Uttar Pradesh
- **Agra Fort,** Agra, Uttar Pradesh
- **Kalighat Temple,** West Bengal

Ministry of Housing and Urban Affairs launches "City Innovation Exchange (CiX)"

What is the News?

The Ministry of Housing and Urban Affairs launches the City Innovation exchange (CiX) platform.

About City Innovation exchange (CiX) Platform:

- The platform aims to connect cities to innovators. It will help to design innovative solutions for pressing urban challenges.

- The platform is built on the philosophy of 'everyone is an innovator'.
- The Smart Cities Mission will partner and effectively collaborate with Startup India, Atal Innovation Mission, AGNIi, and other initiatives in the Indian Innovation ecosystem.
- Currently, the platform has more than 400 start-ups, 100 smart cities, more than 150 challenges statements, and over 215 solutions.

Significance of the platform:

- The platform brings together Citizens-Organisations -Academic Businesses-Government to co-create solutions for the future of Urban India.
- The platform will help cities in adopting solutions that will enhance the quality of life for their residents. Moreover, it will significantly improve the Ease of Doing Business.
- It will also be a significant addition to the growing innovation ecosystem of India as it focuses on fostering innovative practices in cities.

AGNIi – *Accelerating Growth of New India's Innovations*

- **Nodal Agency:** It is a program of the Office of the Principal Scientific Adviser to the Government of India and a Mission under the Prime Minister's Science, Technology, and Innovation Advisory Council(PM-STIAC).
- **Purpose:** It helps commercialize Indian technological innovations. It supports technology initiatives by connecting owners of innovative and new solutions with the market.
- **Implementation:** It is executed at Invest India, India's National Investment Promotion Agency.

"National Urban Digital Mission (NUDM)" and other governance initiatives

What is the News?

The Ministry of Housing and Urban Affairs has launched the National Urban Digital Mission(NUDM) and several other initiatives for transforming urban governance.

- **National Urban Digital Mission(NUDM):**
    - **Launched by:** It has been launched by the Ministry of Housing and Urban Affairs (MoHUA). In partnership with the Ministry of Electronics and Information Technology (MEITY).
    - **Aim**: To build the shared digital infrastructure that will strengthen the capacity of the urban ecosystem to solve complex problems.
    - **Approach:** The digital infrastructure will be built across three pillars of People, Process and platform. The infrastructure will provide holistic support to cities and towns.
    - **Target:** The NUDM aims to institutionalise a citizen-centric and ecosystem-driven approach to urban governance and service delivery. The NUDM will be completed in 2022 cities by 2022. Further, it will be expanded across all cities and towns in India by 2024.
    - **Significance:**

  - The digital infrastructure will help cities to consolidate and cross-leverage the various digital initiatives of the Ministry of Housing and Urban Affairs.
  - It will also enable the cities and towns to benefit from holistic and diverse forms of support. Such as satisfying the needs and local challenges of the towns and cities.
- **India Urban Data Exchange (IUDX):** It has been developed in partnership between the Smart Cities Mission and the Indian Institute of Science (IISc), Bengaluru. It is designed to address the problem of data silos both within and across cities. It will address the data silos by providing a seamless interface for data providers and data users including Urban local bodies(ULBs). They can share, request and access datasets related to cities, urban governance and urban service delivery seamlessly.
- **SmartCode Platform:** It is a platform that enables all ecosystem stakeholders to contribute to a repository of open-source codes. This repository will be used in providing various solutions and applications for urban governance.

Other Urban Governance Initiatives

- **Climate Centre for Cities(C3):** It has been launched by the Ministry of Housing and Urban Affairs within the National Institute of Urban Affairs. It has been set up to consolidate and institutionalize and mainstream the learnings from experiences in our cities on climate change.
- **City Finance Portal:** It is a single platform to enable sharing and learning of best practices and to help ULBs in accessing market funds.

"IIT Council" sets up panels for more autonomy

What is the News?

The Union Education Minister has chaired the 54th meeting of the IIT Council. The council discussed the implementation of the New Education Policy (NEP) 2020.

About IIT Council:

- **Headed by:** The IIT Council is headed by the Union Education Minister. It also includes the directors of all IITs and the chairman of each IIT's Board of Governors.
- **Purpose:** IIT Council advises on admission standards, duration of courses, degrees, and other academic distinctions. It also lays down policy regarding cadre, methods of recruitment, and conditions of service of employees.

Key Recommendations by IIT Council:

It has set up 4 committees to look into the issue of greater autonomy for the IITs, as recommended by NEP, 2020. Moreover, these committees will look into the issues like reform of the academic Senate, grooming faculty to head the IITs, and innovative funding mechanisms.

- **Reducing staff strength:** It has recommended a reduction in staff strength of IITs, especially non-teaching manpower. It is due to the increasing digitization and outsourcing.
    - Currently, IITs have one faculty member for every 10 students. Whereas, for every 10 faculty, there are 11 staff members.
- **IIT R&D Fair:** The council has suggested arranging an Online IIT Research and Development (R&D) fair. It will showcase the quality research work of IITs to the industry.
- **Mobility of Faculty:** The IITs should develop an Institute Development Plan to improve the mobility of faculty between institution and industry.
- **One IIT – One Thrust Area approach:** IITs were urged to adopt 'One IIT – One Thrust Area' approach based on local needs.

Prime Minister launches "Mahabahu-Brahmaputra Programme" in Assam

What is the News?

The Prime Minister has launched multiple initiatives in Assam. It includes the Mahabahu-Brahmaputra Programme and the 2 bridges across the Brahmaputra.

Mahabahu-Brahmaputra Programme:

- **Aim:** It will provide seamless connectivity to the Eastern parts of India. It includes various development activities for the people living around River Brahmaputra and River Barak.

Key Initiatives launched under the Mahabahu-Brahmaputra programme:

- **Ro-pax Vessel Services:** These are water transport services. It launched between Neemati Ghat (Jorhat) and Majuli island, North Guwahati and South Guwahati as well as Dhubri and Hatsingimari. The benefits of this service include a reduction in travel time, vehicular emission and traffic on the road.
- **Inland Water Transport(IWT) Terminal:** It will be built at Jogighopa in Assam. The terminal will help in reducing the traffic on the Siliguri Corridor towards Kolkata and Haldia. It will facilitate the uninterrupted movement of cargo to the various North-Eastern States like Meghalaya and Tripura and to Bhutan and Bangladesh as well.
- **Launch of E-Portals:** E-Portals are launched to promote ease of doing business:
    - **Car-D (Cargo Data) portal**: It will collate cargo and cruise data on a real-time basis.
    - **PANI (Portal for Asset and Navigation Information)**: It will act as a one-stop solution for providing information about river navigation and infrastructure.

Hyderabad recognised as a 'Tree City of the World'

What is the News?

The Arbor Day Foundation and the UN's Food and
Agriculture Organisation have recognised Hyderabad as '2020 Tree City of the World'.

About Tree Cities of the World Programme:

Tree Cities of the World programme is an international program. It recognises cities and towns for properly and sustainably maintaining their urban forests and trees.

Criteria: To receive recognition, a town or city must meet five core standards:

1. **Establish Responsibility:** The city must have a written statement by city leaders. It must clearly delegate responsibility for the care of trees within its municipal boundary to either a staff member, a city department, or a group of citizens—called a Tree Board.
2. **Set the Rules:** The city should have a law or an official policy that governs the management of forests and trees.
3. **Know What You Have:** The city should have an updated inventory or assessment of the local tree resource. It will be helpful in effective long-term planning for planting, care, and removal of city trees.
4. **Allocate the Resources:** The city must have a dedicated annual budget for the implementation of the tree management plan.
5. **Celebrate Achievements:** The city holds an annual celebration of trees. It will raise awareness among residents, citizens and staff members who carry out the city tree programme.

Why was Hyderabad selected as a Tree City?

- Hyderabad is selected as a Tree City because of its initiatives like Haritha Haram programme and Urban Forest Parks plan.
    - Haritha Haram is a flagship program of the state government for large-scale plantations across the state to increase the green cover.
- **Significance:** Hyderabad is the only city from India to get recognition as a Tree City. With this recognition, Hyderabad joins 120 other cities from 23 countries including the US, the UK, Canada, and Australia.

Govt announces "Nurturing Neighbourhoods Challenge"

What is the News?

The Ministry of Housing and Urban Affairs shortlisted 25 cities for the 'Nurturing Neighbourhoods Challenge'. This challenge is covered under the Smart Cities Mission.

About Nurturing Neighbourhoods Challenge

- It is a three-year initiative hosted by the Smart Cities Mission, Ministry of Housing and Urban Affairs, in collaboration with the Bernard van Leer Foundation and World Resources Institute (WRI) India.
- All cities with a population above 5 lakhs are eligible to participate.

- **Purpose:** The challenge aims to enable Indian cities to focus on early childhood development (0-5-year-old children). The focus will incorporate into the planning and management of Indian cities.
- **Who can apply?** The challenge is open to all Smart Cities, capitals of States and UTs, and other cities with a population above 5 lakhs.
- **Benefits to Selected Cities:** Cities will receive technical assistance and capacity building. It will be helpful to develop, pilot and scale solutions that enhance the quality of life of young children.
- Over time, the programme will enable cities to incorporate a focus on early childhood development into the planning and management of Indian cities.

Ministry of Housing and Urban Affairs launches Pilot "Pey Jal Survekshan"

What is the News?

The Ministry of Housing and Urban Affairs launched a Pilot Pey Jal Survekshan.

About Pey Jal Survekshan

1. It is a drinking water survey launched in 10 cities under Jal Jeevan Mission (Urban).
2. **Ministry:** Ministry of Housing and Urban Affairs.
3. **Purpose:** It will ascertain the equitable distribution of water, reuse of wastewater in target cities. Moreover, it will map water bodies with respect to the quantity and quality of water.
4. **Coverage**: It will cover 10 cities; Agra, Badlapur, Bhubaneswar, Churu, Kochi, Madurai, Patiala, Rohtak, Surat, and Tumkur.

Key Features:

- The survey will be monitored through a technology-based platform. This platform will monitor the beneficiary responses.
- Authorities will collect data through various methods; face-to-face interviews with citizens and municipal officials, on-call interviews, water sample collection, laboratory testing, and field survey.
- Based on the learnings of the pilot survey, this exercise will extend to all **Atal Mission for Rejuvenation and Urban Transformation (AMRUT) cities.**

Self-regulatory toolkit by OTTs for implementation of Self Regulation Codes, 2020

What is the News?

17 Over-the-Top (OTT) Platforms have adopted a “toolkit” for effective implementation of the self-regulation code of 2020. The toolkit will be effective from February 10, 2021.

What are OTT platforms?

- It is a streaming media service offered directly to viewers via the Internet. Examples include Netflix, Amazon’s Prime Video, Hotstar, and others. Currently, there is no law or autonomous body governing digital content.

Universal Self Regulation Codes, 2020

- In 2020, OTT platforms signed a universal 'self-regulation' code under the Internet and Mobile Association of India (IAMAI). The key features of the code are:
- **Regulatory environment:** Information Technology Act, 2000 is the primary governing statute for online content.
- **Age classification:** The code includes a framework for age classification and content descriptions for titles as well as access control tools.
- **Consumer Complaints::** Each OTT platform will have to set up a Consumer Complaints Department. Other than that an advisory panel to deal with complaints, appeals, and escalations will also be set up.

Government's Response to the Code:

- The Ministry of Information and Broadcasting had refused to support the self-regulatory code. The grounds for rejection were that it lacks independent third-party monitoring, does not have a well-defined Code of Ethics, does not clearly enunciate prohibited content. Moreover, there is an issue of conflict of interest in grievance redressal.

Implementation Toolkit:

- **Purpose:** Toolkit will help in the implementation of the code 2020 of the OTT platforms. It will also address the feedback received from the Ministry of Information and Broadcasting on the issues of conflict of interest and prohibited content.
- **Implementation of the Code:** It will also frame the code of ethics and guiding principles for the signatory OTTs.
- **Guidance**: Further, The toolkit will guide OTTs on various dimensions like:
    - Grievance redressal mechanism
    - Relevant laws of the land,
    - Awareness programs for consumers
    - Training programs for creative and legal teams
    - Implementation of a detailed audit and compliance mechanism.
- **Secretariat:** A 'secretariat' will be set up for monitoring the implementation of the code. It would have representatives from the OTT platforms and IAMAI.

State Reform Action Plan (SRAP), 2019

What is the News?

Ministry of Commerce and Industry has informed Lok Sabha about the rankings of States and Union Territories (UTs) under State Reform Action Plan (SRAP), 2019.

About State Reform Action Plan (SRAP):

- **SRAP:** It is an index that ranks states and Union Territories based on the implementation of the Business Reform Action Plan.

- **Released by:** It has been released by the Department for Promotion of Industry and Internal Trade (DPIIT) since 2015.
- **Objective**: To attract investments by increasing the Ease of Doing Business in each State. It introduces an element of healthy competition through a system of ranking states.
- **Parameters**: It includes 180 reform points covering 12 business regulatory areas such as Access to Information, Single Window System, Labour, Environment, Paying Taxes among others.
- **Method of Ranking:** The rankings are based on feedback obtained from users/professionals against 180 out of 187 reform points. Its method is similar to the methodology followed by the World Bank in its global Doing Business rankings.
- **Ranking**: The top five states under the SRAP 2019 are Andhra Pradesh, Uttar Pradesh, Telangana, Madhya Pradesh and Jharkhand.

SRAP, 2020:

- Department for Promotion of Industry and Internal Trade(DPIIT) has prepared a 301-point State Reforms Action Plan,2020, and shared with States/UTs.
- The Action Plan is spread across 15 reform areas. It seeks to promote a sector-specific approach to create an enabling business environment across various sectors in the country.
- The various sectors include Trade License, Healthcare, Legal Metrology, Fire License/NOC, Cinema Halls, Hospitality, Telecom, Movie Shooting and Tourism.

What is "One District One Product Scheme"?

What is the News?

The Ministry of Commerce and Industry has informed Lok Sabha about the One District One Product Scheme.

***One District One Product Scheme* (ODOP):**

- **Aim:** To identify one product per district based on the potential and strength of a district and national priorities. A cluster for that product will be developed in the district and market linkage will be provided for that.
- **Significance:** This initiative is seen as a transformational step towards realizing the true potential of a district. It will fuel economic growth and generate employment and rural entrepreneurship.

***Merging of ODOP with Districts as Exports Hub initiative*:**

- The ODOP initiative has been operationally merged with the ‘Districts as Export Hub’ initiative. Later is implemented by the Director-General of Foreign Trade (DGFT), Department of Commerce.
- **Objective:** To convert each District of the country into an Export Hub by identifying products with export potential. It also aims to address bottlenecks in exporting products and support local manufacturers.

- Under the initiative, the State Export Promotion Committee(SPEC) and District Export Promotion Committee (DEPC) have been constituted in several districts.

Mega Investment Textiles Parks (MITRA) scheme for textile sector

Why in News?

The Finance Minister has announced the launch of Mega Investment Textiles Parks (MITRA) Scheme.

About Mega Investment Textiles Parks (MITRA) Scheme

- **Aim:** The scheme aims to enable the textile industry to become globally competitive and boost exports. The scheme also aims to boost employment generation within the textile sector and also attract large investment.
- **Main Features of the Scheme:**
    - The scheme was launched in addition to the Production Linked Incentive(PLI) Scheme
    - Under the scheme, there is a plan to establish Seven textile parks over three years.
    - These textile parks will have a world-class infrastructure. They will also have plug-and-play facilities (business facilities will be available ready-made) to help create global champions in exports in the textile sector.
- **Significance**: The scheme will create a level-playing field for domestic manufacturers in the international textiles market. It will also pave the way for India to become a global champion of textiles exports across all segments.

Note:

- Indian textile sector is the sixth-largest exporter of textiles and apparel in the world.
- The industry is also among the top employers in the country providing direct employment to 45 million people and 60 million people in allied industries.

"Vehicle Scrappage Policy" to phase out old and unfit vehicles

What is the News?

The Finance Minister has announced the voluntary vehicle scrappage policy. It aims at phasing out old and unfit vehicles.

About vehicle scrappage policy

- **Aim of the Policy: Scrappage policy will** encourage fuel-efficient, environment-friendly vehicles on the road. Thereby It will reduce vehicular pollution and the oil import bill.
- **Key Features :**
    - Under the policy, vehicles would undergo fitness tests after a certain period of time. In the case of personal vehicles, the duration is 20 years. In the case of commercial vehicles, this duration is 15 years.

  - Each fitness test will cost approximately Rs 40,000. Other than that, old vehicles will have to pay green tax and road tax.
  - If a vehicle fails a fitness test, it will not get a renewal certificate and won't be able to run on the road.
  - However, if it passes a fitness test, the vehicle will have to undergo a fitness test, after every 5 years.
  - The aim of all these costs is to discourage consumers from keeping the older vehicle.
- **The incentives for vehicle scrappage not announced yet.** It is expected that the Government may announce some incentives and monetary benefits for the consumers scrapping their old vehicles.

NITI Aayog's "Megacity plan for Little Andaman"

What is the News?

Niti Aayog has released a megacity plan for Little Andaman. The plan is a part of its Vision Document titled "Sustainable Development of Little Andaman Island".

Facts:

- **Aim**: To leverage the strategic location and natural features of the Little Andaman island. A new greenfield coastal city will be developed as a free trade zone. The city will compete with Singapore and Hong Kong.

Zones: The document has proposed the development along the three zones:

- **Zone 1:** It will spread along the east coast of Little Andaman. It will be the financial district and medi city and will include an aerocity and a tourism and hospital district.
- **Zone 2:** It will spread over 85 sq km of pristine forest in Andaman. It will have a film city, a residential district and a tourism Special Economic Zone(SEZ).
- **Zone 3 –** It will spread over 52 sq km of pristine forest. It will be a nature zone. It will be further categorised into three districts: an exclusive forest resort, a nature healing district and a nature retreat, all on the western coast.

Pointly for Policy

- **KAPILA campaign:** KAPILA stands for Kalam Program for Intellectual Property Literacy and Awareness campaign.It is a Ministry of Education campaign that aims to create awareness regarding Intellectual Property Rights(IPR) in Higher Education Institutions (HEIs) and to develop a vibrant Intellectual Property(IP) filing system.
- **Education Finance Watch (EFW) Report:** It has been released by the World Bank and UNESCO's Global Education Monitoring (GEM) Report.The report summarizes the available information on patterns and trends in education financing around the world.
- **Global Education Monitoring Report(GEM Report):** It is an annual report published by UNESCO. The report was formerly known as the Education for All Global Monitoring Report.The report aims to monitor progress towards Sustainable

Development Goal 4 (SDG 4) on education. It also targets education-related goals in the SDG agenda.

- **Samarth Scheme:** It was launched by the Ministry of Textiles.It aims to address the skill gap in the textile sector. It will also supplement the efforts of the textile industry in providing gainful and sustainable employment to the youth.
- **Go Electric Campaign:** It is a campaign of the Bureau of Energy Efficiency (BEE) to promote and spread awareness on electric mobility.The campaign will boost the confidence of electric vehicle manufacturers and will also spread awareness about the benefits of e-mobility and EV Charging Infrastructure in India.
- **Bureau of Energy Efficiency (BEE):** It is a statutory body. It was established in 2002 under the Energy Conservation Act, 2001 by the Ministry of Power.It assists in developing policies and strategies for reducing the energy intensity of the Indian economy.
- **Centre's 100-day Special Campaign:** It was launched by the Ministry of Jal Shakti on 2nd October 2020.It aims to achieve 100% tap water connections to all schools and AnganWadi Centres(AWCs) under the Jal Jeevan Mission.
- **Mission Bhagiratha:** It is a flagship programme of the Telangana government.It is aimed at providing safe drinking water to every household.
- **Saksham Campaign:** It is a fuel conservation campaign organized by Petroleum Conservation Research Association(PCRA).It aims to sensitize the masses about conservation and efficient use of petroleum products which will lead towards better health and environment.
- **Petroleum Conservation Research Association(PCRA):** It is a registered non-profit society under the Ministry of Petroleum & Natural Gas. It was set up in 1978.It is a national government agency, promoting energy efficiency in various sectors of the economy. **Headquarters:** New Delhi.
- **Traffic Crash Injuries and Disabilities: The Burden on Indian Society Report**: It has been published by the World Bank in collaboration with SaveLIFE Foundation.The report highlights the socio-economic impact of road accidents.It also analyses the Medical care access and post-accident financial distress of various categories of people.

ENVIRONMENT

State of Environment Report, 2021

What is the News?

Centre for Science and Environment(CSE) has released the State of Environment Report, 2021.

About the State of Environment Report, 2021:

- It is an annual publication by the Centre for Science and Environment(CSE) along with Down To Earth.
- It covers aspects such as forests, wildlife, agriculture, rural development, water and sanitation, and climate change. This publication is regarded as the most credible and complete annual survey of India's environment.

Key Findings:

Impact of Covid-19 Pandemic:

- **Pandemic Generation:** The country is all set to host a 'pandemic generation'. 375 million children (from newborn to 14-year-olds) have a long-lasting impact ranging from being underweight, stunting, and increased child mortality.
- **Hidden Victims of Pandemic:** The pandemic has its hidden victims. Out of the 500 million children forced out of school globally, India accounts for more than 50%.
- **Increase in Poverty:** Covid-19 has also turned the world's poor into poorer. 115 million additional people might get pushed into extreme poverty and most of them live in South Asia.

Industrial Pollution:

- India's air, water, and land have become more polluted between 2009 and 2018.
- Tarapur in Maharashtra has emerged as the most polluted cluster.

On Sustainable Development Goals (SDGs)

- India ranks 117 among 192 nations in terms of sustainable development. It is behind all South Asian nations except Pakistan.
- **Five best performing states in achieving SDGs:** Kerala, Himachal Pradesh, Andhra Pradesh, Tamil Nadu, and Telangana
- **Five worst-performing states in achieving SDGs:** Bihar, Jharkhand, Arunachal Pradesh, Meghalaya, and Uttar Pradesh.

On air pollution

- In 2019, 67 million Indians died due to air pollution. Its economic cost was over US $36,000 million, which is equivalent to 1.36 percent of India's GDP.

On Water:

- Since 2014-15, an average of 34% of MGNREGA funds has been spent on water-related works. It led to the creation of almost 11 million assets in half a million villages.

On biodiversity and forests

- Environmental crime cases are increasing and disposal of the cases is slow. In 2019, 34,671 crimes were registered and 49,877 cases are pending trial. To clear the backlog in a year, courts need to dispose of 137 cases a day.
- Forestland diversion is continuing consistently. In 2019, over 11,000 hectares were diverted in 22 states. Eight coal projects were granted clearance in 'No-Go' areas. These projects diverted around 19,614 ha of forestland and evicted over 10,000 families.

Why Cherrapunji is receiving low rainfall?

What is the News?

According to a study, Mawsynram(Meghalaya) become the wettest place in the World. It has replaced Cherrapunji(Meghalaya) from the top spot. Mawsynram receives over 10,000 MM of rain in a year.

About the study:

- The study looked at the rainfall pattern of the past 119 years (period of 1901–2019).It found a decreasing rainfall trend at Cherrapunji and nearby areas.
- The 1973–2019 period shows a decrease of about 0.42 mm per decade in rainfall. This trend was statistically significant at seven stations (Agartala, Cherrapunji, Guwahati, Kailashahar, Pasighat, Shillong and Silchar).

What was the need for this study?

- Northeast India is highly sensitive to changes in regional and global climate. The first signs of the effect of climate change will be evident in extreme cases such as the rainfall at Cherrapunji.
- Northeast India also has the highest vegetation cover in India. It includes 18 biodiversity hotspots of the world,
- Thus, it is important in terms of its greenery and climate-change sensitivity.

Reasons for decreasing trend of rainfall:

- **Changes in Temperature:** The changes in the Indian Ocean temperature have a huge effect on the rainfall in the NorthEast region.
- **Reduction in Vegetation Area:** Satellite data analysis shows a reduction in the vegetation area in northeast India. Lesser vegetation results in changing rainfall patterns.
- **Increase in Cropland Area and Deforestation:** Jhum cultivation or shifting cultivation in the region has contributed to deforestation and increase in crop land area.

Jhum Cultivation:

- Jhum Cultivation also known as shifting cultivation. It is a slash-and-burn agricultural practice that is widely practiced among the indigenous communities of Northeast India.
- Under this cultivation, the farmers grow the crops by first clearing the land of trees and vegetation and burning them thereafter. The burnt soil contains potash which increases the nutrient content of the soil.

Elephants died of Haemorrhagic Septicaemia(HS) in Karlapat Wildlife Sanctuary

What is the News?

6 elephants died of Haemorrhagic Septicaemia (HS) in Karlapat Wildlife Sanctuary. This sanctuary is located in Odisha's Kalahandi district.

Haemorrhagic septicaemia (HS)

- It is a contagious bacterial disease caused by the bacteria Pasteurella multocida.
- In this disease, the respiratory tract and lungs of the animals are affected, leading to severe pneumonia.
- **Vulnerable Group:** It commonly affects cattle and water buffaloes. The Mortality rate is high in infected animals. **There are no reported cases of human infection.**
- **Transmission:** The disease is spread through direct contact with infected animals, through ingestion or inhalation of the bacteria among others.
- **Symptoms:** Primary symptoms include swishing tails, undigested food in faeces, and reduced milk yield.
- **Distribution:** The disease occurs mostly in South and Southeast Asia, the Middle East, and most of Africa. In Asia, this disease outbreak is concentrated mostly in areas with climatic conditions typical of monsoon (high humidity and high temperatures).
- **Treatment:** Treatment is usually effective in the early stage only when fever sets in.

Karlapat Wildlife Sanctuary

- It is a wildlife sanctuary located in the Kalahandi district in Odisha. The sanctuary is famous for the lush green dry deciduous forest.
- **Fauna**: The sanctuary is home to a plethora of wildlife animals such as leopard, gaur, sambar, nilgai, barking deer, mouse deer, soft claws ottawa and a wide variety of birds.
- **Flora**: The sanctuary consists of flora like Sal, Bija, Asan, Harida, Amala, Bahada, and Bamboo and varieties of medicinal plants.
- **Waterfalls:** There are several small and big waterfalls inside the sanctuary like Phurlijharan, Ghusrigudi, Dumnijhola, Kamalajharan, Koyirupa, Kuang, and Raja Rani.

TIFAC launches SAKSHAM Portal and Seaweed Mission

What is the News?

Technology Information, Forecasting and Assessment Council (TIFAC) celebrated its 34th Foundation Day. The theme of the Foundation day was: "Technology, Innovation and Economy for Atma Nirbhar Bharat".

About TIFAC:

- It is an autonomous technology think tank under the Department of Science & Technology (DST), Ministry of Science and Technology. It was set up in 1988.
- **Mandate:** TIFAC identifies the **technological priorities of the future** like cyber-physical systems, quantum computing, green chemistry and water.
- TIFAC launched 2 initiatives: 1) SAKSHAM Portal, 2) Seaweed Mission

SAKSHAM Portal:

- **Need of the Portal:** The COVID-19 pandemic has compelled the labour force to return to their native lands due to loss of jobs.
- **Aim:** It is a dynamic job portal for mapping the skills of Shramiks (labour) vis-à-vis requirements of the MSMEs across the country.

- **Features of the Portal:**
    - This portal will facilitate placement of 10 lakh blue-collar jobs by directly connecting Shramiks with MSMEs.
    - It will help eliminate middlemen/ labour contractors. It will also help in the identification of skill proficiency level and development of Skill Cards for Shramik.
    - Likewise, it will also reduce the hardship of Shramiks (labour) in finding jobs in nearby MSMEs.

Seaweed Mission:

- **Why was this mission launched?** Out of the global seaweed production, China produces 57%, Indonesia 28%. Whereas, India is having a mere share of 0.01-0.02%.
- **Purpose:** Under the mission, TIFAC will demonstrate a model for commercial farming of seaweeds, and it's processing for value addition. It will boost the national economy.
- **Benefits of Cultivating Seaweed:**
    - It is estimated that if seaweed cultivation is done in 10 million hectares or 5% of the EEZ area of India, it can provide employment to 50 million people.
    - Additional benefits of Seaweed cultivation;
        - Improves national GDP;
        - improves ocean productivity;
        - Reduce algal blooms and sequester millions of tons of CO2;
        - Create a healthier ocean and can also use to produce bioethanol.

The "fishing cat" in India is under threat

What is the News?

The Fishing Cat Conservation Alliance will be starting a worldwide month-long campaign. It will raise awareness and garner support across the globe for the conservation of the Fishing Cat.

About Fishing Cat

- It is a highly elusive wild cat feline species found primarily in wetland and mangrove habitats.

Characteristics:

- **Adept swimmers:** The fishing cat is an adept swimmer and enters water frequently to prey on fish as its name suggests. It is known to even dive to catch fish.
- **Food Habits:** They are nocturnal (active at night). Apart from fish also prey on frogs, crustaceans, snakes, birds, and scavengers on carcasses of larger animals.
- **Breeding:** It is capable of breeding all year round. But in India, its peak breeding season is known to be between March and May.

Habitat:

- **Globally:** They are found in South and Southeast Asia. In Cambodia, images of fishing cats are found carved in the walls of ancient structures and are known as Kla Trey, 'Tiger fish'.
- **India:**
    - Foothills of the Himalayas along the Ganga and Brahmaputra river valleys and in the Western Ghats.
    - Patchy distribution along the Eastern Ghats.
    - Sundarbans in West Bengal and Bangladesh
    - Chilika lagoon and surrounding wetlands in Odisha
    - Coringa and Krishna mangroves in Andhra Pradesh.

Conservation Status:

- **IUCN Red List:** Vulnerable.
- **CITES:** Appendix II
- **Indian Wildlife Protection Act,1972:** Schedule I

Threats:

- Habitat loss [wetland degradation and conversion for aquaculture and other commercial projects],
- Sand mining along river banks,
- Agricultural intensification resulting in loss of riverine buffer and
- Conflict with humans in certain areas resulting in targeted hunting and retaliatory killings.

Conservation Initiatives:

- **State Animal:** In 2012, the West Bengal government officially declared the Fishing Cat as the State Animal.
- **Fishing Cat Conservation Alliance**: It is a team of conservationists, researchers, working to achieve a world with functioning floodplains and coastal ecosystems. It will ensure the survival of the fishing cat and all species with which it shares a home.

"Global Climate Litigation Report 2020" released by UNEP

What is the News?

The United Nations Environment Programme(UNEP) has released the Global Climate Litigation Report 2020.

About Global Climate Litigation Report 2020

- **Published by:** The report was published by the UNEP in cooperation with the Sabin Center for Climate Change Law at Columbia University.
- **Objective:** The provides an overview of the current state of climate change litigation cases.

What is "Garbage to Power Plant"?

What is the News?

The Prime Minister mentioned the garbage to power (Waste to power) plant in his speech. The plant is being commissioned inside the Dr. B.R. Ambedkar Agriculture Market.

About the Garbage-to-power plant:

- **Developed by:** CSIR-Indian Institute of Chemical Technology (IICT)
- **Technology:** It is based on a **biomethanation technology-based Anaerobic Gas lift Reactor(AGR).** CSIR-Indian Institute of Chemical Technology (IICT) has **patented the reactor.**
  - **Biomethanation**: It is a process by which organic material is microbiologically converted to biogas, under anaerobic conditions.
- **How does the plant work?**
  - To initiate the process of biomethanation, conveyor belts carry tonnes of vegetable waste to shredders.
  - The shredded waste is then converted into a semi-liquid mixture. It is then put into large containers or pits to start the process of anaerobic digestion. Organic waste is eventually converted into biofuel which has two major components, **methane and carbon dioxide**.
  - The fuel is then put into **'100 percent biogas generators'** that converts the fuel into electricity and reaches the market's electricity bulbs.

Pointly for Environment

- **Caracal:** It is a medium-sized wild cat native to Africa, Middle East, Central Asia and South Asia including India. It is an elusive, primarily nocturnal animal. Its sightings are not common. **IUCN Red List**: Least Concern. **Wildlife Protection Act, 1972:** Schedule I and **CITES listing:** Appendix I for Asian population and Appendix II for others. The National Board for Wildlife has included caracal in the list of critically endangered species.
- **Black Necked Crane:** It is a medium-sized crane. The largest populations of this bird are in China with smaller numbers extending into Vietnam, Bhutan, and India. It is central to Buddhist mythology and culture. The Union territory of Jammu and Kashmir in India considers it as the state bird. **IUCN Red List**: Near Threatened, **CITES**: Appendix I and **Indian Wildlife (Protection) Act, 1972:** Schedule I
- **Hedgehog:** It is an insectivorous spiny (needle-like anatomical structure) mammal of the subfamily Erinaceidae. These mammals have been on this land even before human evolution. However, there is no mention of them even in our folk tales. Out of the 17 species of hedgehog around the world, India is home to three: Indian Long-eared or collared hedgehog, Indian hedgehog and Bare-bellied or Madras hedgehog.
- **Carbon Watch App:** It has been launched by the Chandigarh administration. The app allows users to assess their carbon footprint. It also suggests ways to reduce Carbon Footprint. **Carbon footprint** is the amount of greenhouse gas (especially carbon dioxide) released into the atmosphere by particular human activity.

- **Asia Environmental Enforcement Award:** It is given by the United Nations Environment Programme (UNEP) in partnership with UNDP, United Nations Office on Drugs and Crime (UNODC), CITES, INTERPOL, and World Customs Organisation(WCO).The award publicly recognises excellence in controlling transboundary environmental crime. Government officials and institutions or teams can be awarded for the enforcement. Wildlife Crime Control Bureau (WCCB) has received this award.
- **Mandarin Duck:** It is provided with a tag of the most beautiful duck in the world.AIt was first spotted by Swedish botanist Carl Linnaeus in 1758.The bird is native to East Asia but has established populations in Western Europe and America too.Recently, the bird has appeared after 118 years in Maguri-Motapung beel in Assam's Tinsukia district. **IUCN Red List**: Least Concern.
- **Fossils of Dickinsonia:** Researchers have discovered three fossils in Madhya Pradesh.These fossils possibly belong to the earliest known living animal named 'Dickinsonia'(550-million-year-old).The fossils are found on the roof of Auditorium Cave at Bhimbetka Rock Shelter, a UNESCO World Heritage Site in Madhya Pradesh.
- **Dickinsonia :** It is an extinct genus of basal animal. They lived during the late Ediacaran period in what is now Australia, Russia, and Ukraine.It (roughly) resembles a bilaterally symmetrical ribbed oval. Its affinities are presently unknown.As per some theories, it is the oldest known animal, visible without a microscope.
- **Kaziranga National Park:** It is located in the State of Assam. It is the single largest undisturbed area in the Brahmaputra Valley floodplain. The park was designated as a World Heritage Site by UNESCO.It is also recognized as an Important Bird Area by BirdLife International for the conservation of avifaunal species.It also houses the world's largest population of Great One-horned Rhinoceros (IUCN Status- Vulnerable).
- **Centre for Wetland Conservation and Management (CWCM):** It has been established as a part of the National Centre for Sustainable Coastal Management(NCSCM).The center comes under the Minister of Environment, Forest, and Climate Change.It aims to address specific research needs and knowledge gaps in the conservation and management of wetlands.
- **World Wetlands Day:** It is celebrated every year on 2 February. This day marks the date of the adoption of the Ramsar Convention on Wetlands in 1971.**Theme for 2021:** 'Wetlands and Water'.
- **Global Climate Risk Index, 2021:** It has been released by German watch.The index analyses the impacts of extreme weather events. This analysis is presented both in terms of fatalities and economic losses, due to extreme weather events.The index has ranked India at 7th Position which means India is the 7th worst-hit country by extreme weathers.
- **India Energy Outlook 2021:** International Energy Agency(IEA) releases the India Energy Outlook 2021 Report. This report aims to ensure reliable, affordable, and sustainable energy for a growing population. It explores the opportunities and challenges ahead for India.

SOCIAL

Inscription of Vijayanagara king Krishnadevaraya death discovered

What is the News?

The first-ever written inscription of the date of death of Vijayanagar king Krishnadevaraya discovered at Honnenahalli in Karnataka.

About the inscription:

- The inscription is written in Kannada. According to the inscription, Krishnadevaraya was one of the greatest emperors of India who ruled from the South.
- He died on 17th October 1529 (Sunday) which was incidentally marked by a lunar eclipse.
- Further, during that day, a village named Honnenahalli was gifted for conducting worship to the god Veeraprasanna Hanumantha.

About King Krishnadevaraya:

- Krishnadevaraya was the emperor of the Vijayanagara Empire during 1509–1529.
- **Dynasty:** He was the third ruler of the Tuluva Dynasty and is considered to be its greatest ruler. He possessed the largest empire in India after the decline of the Delhi Sultanate.
- **Dominant Ruler:** He became the dominant ruler of India by defeating the Sultans of Bijapur, Golconda, the Bahmani Sultanate, and the Gajapatis of Odisha.
- **Titles**: Krishnadevaraya earned the titles Kannada Rajya Rama Ramana (Lord of the Kannada empire), Andhra Bhoja (Andhra Bhoja(Scholar) King), and Mooru Rayara Ganda(King of Three Kings).
- **Foreign Travellers:** Portuguese travelers Domingo Paes and Fernão Nuniz visited the Vijayanagara Empire during his reign.
- **Mathematician:** The great south Indian mathematician Nilakantha Somayaji also lived in the Empire of Krishnadevaraya.
- **Golden Age of Telugu Literature**: The rule of Krishna Deva Raya is known as the golden age of Telugu literature. Eight Telugu poets regarded as eight pillars of his literary assembly and known as Ashtadiggajas.
    - Among these eight poets, **Allasani Peddana** is considered to be the greatest. He is given the title of Andhra Kavita Pitamaha (the father of Telugu poetry).
- **Telugu Poem:** Krishna Deva Raya himself composed an epic Telugu poem **Amuktamalyada**.

What is "Pagri Sambhal Movement"?

What is the News?

Farmers Union protesting against the three farm laws are celebrating February 23 as ‘Pagri Sambhal Diwas’ to remember the Pagri Sambhal Movement.

About Pagri Sambhal Movement:

- The Pagri Sambhal movement was a successful farm agitation against British government. It forced the British government to repeal three laws related to agriculture back in 1907.
    - The three farm-related were the Punjab Land Alienation Act 1900, the Punjab Land Colonisation Act 1906, and the Doab Bari Act.
    - These acts would reduce farmers from owners to contractors of land. Moreover, it would have given the British government a right to take back the allotted land if the farmer even touched a tree in his field without permission.
- **Led by:** The movement was led by Bhagat Singh's uncle Ajit Singh. He wanted to channel people's anger over the farm laws to bring down the British government.
- **Anthem of the movement:** Pagri Sambhal Jatta, a song by Banke Dayal, the editor of Jhang Sayal, became an anthem of the movement.
- **Bharat Mata Society:** It was formed by Bhagat Singh's father Kishan Singh and uncle Ajit Singh with their revolutionary friend Ghasita Ram. The society aimed to mobilise this unrest into a revolt against the British government.

Impact of the movement on British Government:

- The British made minor amendments to the laws. However, the movement did not end.
- Further, the movement also couldn't remain non-violent after Ajit Singh was booked for sedition for his speech at a public meeting.
- Hence, the British government repealed the three controversial laws in May 1907.

President addressed "Guru Ravidas" Jayanti

What is the News?

The President of India has addressed the Guru Ravidas Jayanti Event.

About Guru Ravidas:

- Ravidas was a 14th-century saint and reformer of the Bhakti movement in North India. It is believed that he was born in Varanasi in a cobbler's family.
- **Guru Ravidas Jayanti:** It is celebrated on Magh Purnima. (It is the full moon day in the Hindu calendar month of Magha).
- **Disciple of:** He is believed to be a disciple of the bhakti saint-poet Ramananda. He was also contemporary to the bhakti saint-poet Kabir.
- **Spiritual Guru:** The Guru Ravidas is considered as a spiritual Guru of the Meera Bai.

Teachings of Guru Ravidas

- **Abolition of Caste:** Guru Ravidas dedicated his whole life to the abolition of the caste system. He openly disliked the notion of a Brahminical society.
- **One God:** He gained prominence due to his belief in one God and his unbiased religious poems. He also rejected the idea that people considered lower caste cannot meet God.

- **Guru Granth Sahib:** The devotional songs of Guru Ravidas made an instant impact on the Bhakti Movement. Around 41 of his poems were included in the religious text of the Sikhs 'Guru Granth Sahib'.
- **Begumpura:** His idea of "Begampura" was considered as his moral and intellectual achievement. Begampura was a city conceived by him. In that city, there will be no sorrow, no caste and class.
- **Ravidassia Religion:** His teachings resonated with the people leading to the birth of the Ravidassia religion or Ravidassia Dharam.

"Maharaja Suheldev" Memorial and "Chittaura Lake" development work inaugurated

What is the News?

The Prime Minister has laid the foundation stone of a Maharaja Suheldev memorial and the development work of Chittaura lake in Uttar Pradesh's Bahraich district.

About Maharaja Suheldev:

- Maharaja Suheldev was the erstwhile ruler of Shravasti in Uttar Pradesh's Bahraich district who ruled in the 11th century.
- He is known to have defeated and killed Ghazi Salar Masud in battle in Bahraich in 1034 AD. Ghazi Salar Masud was the nephew of Mahmud of Ghazni.
- Further, He is also mentioned in the 17th-century historical romance **Mirat-i-Masudi.** It was written by Abd-ur-Rahman Chishti in Persian-language. The book was written during the reign of the Mughal emperor Jahangir.
- People of the Rajbhar and Pasi community consider him as their descendant. These communities have a significant presence in Uttar Pradesh.

Chittaura Lake:

- Chittaura Lake is located in Uttar Pradesh. The lake is also known as Ashtwarka jheel.
- A small river named Teri Nadi flows from this lake. Apart from that, The lake is home to many migratory birds.
- The lake is believed to be the place where the fight between Maharaja Suheldev and the Muslim invader Ghazi Saiyyad Salar Masud.
- A statue of Raja Suhaldev and a temple dedicated to Goddess Durga is present near the lake.

What is the "Char Dham Project"?

What is the News?

In the Supreme Court, the government denied any link between the Char Dham road-widening project and the recent flash floods in the Rishi Ganga valley. It claimed many lives and damaged the Tapovan hydro project.

Char Dham Project:

- Char-Dham Road Project is a prestigious two-lane expressway project. The Ministry of Road Transport and Highways is executing this program in Uttarakhand.
- **Purpose:** The project proposes widening roads up to 10 meters to improve the accessibility to Char-Dham (shrines); Yamunotri, Gangotri, Badrinath, and Kedarnath.
- **Implementing Agencies:** Uttarakhand State Public Works Department (PWD), Border Roads Organisation (BRO), and the National Highway & Infrastructure Development Corporation Limited (NHIDCL).
- **Project Mode:** The work under the program is being implemented in Engineering, Procurement, and Construction (EPC) mode.
    - **Under the EPC model,** the project cost is completely borne by the government. But the contractor is legally responsible to complete the project under some fixed predetermined timeline. It may also involve scope for a penalty in case of time overrun.
- **Chamba Tunnel:** It is a 440-meter-long tunnel built by BRO on the Rishikesh-Dharasu road Highway(NH94) in Uttarakhand. The construction of the tunnel is a part of the Chardham project.

"Tholpavakoothu" the shadow leather puppetry to be Performed using Robots

What is the News?

For the first time, Tholpavakkoothu, the famous shadow leather puppetry will tell the stories of the Ramayana with the help of robots.

Tholpavakoothu

- Tholpavakoothu is a form of shadow leather puppetry that is practiced in Kerala. It is also known as Nizhalkkoothu and Olakkoothu.
- **Temple art form:** It is a traditional temple art. It has roots in Palakkad and neighboring regions in Kerala. It used to be performed in the Bhadrakali temples of Palakkad for telling tales from the Ramayana.
- **Origin:** It is believed to have originated in the ninth century AD and uses Kamba Ramayana as its basic text.
- **Made up of:** The puppets used to be made out of deerskin but are now typically made from goatskin. The puppets are painted in vegetable dyes, as these dyes last long.
- **Instruments used:** The instruments used for the art form include Ezhupara, Chenda, and Maddalam.
- **Puppeteer**: The lead puppeteer is usually called a pulavar. It is an honorific given to a puppeteer who is also a scholar.

"Tileswari Barua" - possibly the youngest martyr of India got recognised by PM

What is the News?

The Prime Minister went the historic martyr town of Dhekiajuli in Assam and recognised the freedom fighters of that town. The town was associated with the Quit India Movement of 1942.

During his visit, the PM also laid the foundation stone for two medical colleges and launched a road and highway project.

Dhekiajuli's connection to the Quit India movement:

- Dhekiajuli was home to possibly the youngest martyr of the Indian freedom struggle, (Tileswari Barua).

Sequence of Events:

- On September 20,1942, as part of the Quit India movement, parades of freedom fighters marched to various police stations across several towns in Assam.
- These squads were known as '**Mrityu Bahini**' or death squads. The Mrityu Bahini had wide participation including women and children. They went to unfurl the tricolour on the top of police stations, as police stations were seen as the symbols of colonial power.
- However, British administration came down heavily on them and open fired them. Due to which at least 15 people were shot dead in Dhekiajuli including the 12-year-old girl **Tileswari Barua**. This made Tileswari Barua possibly the youngest martyr of the freedom movement.

***Impact of this incident* :**

- This incident led to an increase in women's participation in the Freedom Struggle. Several important women icons were Kanaklata Barua, Pushpalata Das, Tileswari Baru among others.
- They not only started picketing but were also leading the 'death squads', presiding over meetings among others.

National Tribal Festival "Aadi Mahotsav"

What is the News?

The Vice President of India has inaugurated "Aadi Mahotsav", a National Tribal Festival.

- **Aadi Mahotsav:** It is an annual Tribal Festival that was started in the year 2017.
- **Organized by:** It is a joint initiative of the Ministry of Tribal Affairs, Government of India & Tribal Cooperative Marketing Development Federation of India (TRIFED).
- **Aim: It aimed t**o familiarise the people with the rich and diverse craft, and the culture of the tribal communities, in one place.
- **Theme: "**A Celebration of the Spirit of Tribal Crafts, Culture and Commerce", which represents the basic ethos of tribal life.

Pointly for Social

- **Rashtriya Sanskriti Mahotsav:** It is a festival started by the Ministry of Culture in the year 2015.The festival aims to enhance mutual understanding and bonding between people of diverse cultures. Thereby it secures stronger unity and integrity of India.The 11th edition of the festival is being held in West Bengal.

- **Kinnal Craft or Kinhal Craft:** It is a traditional wooden craft local to the town of Kinhal or Kinnal in Koppal District, Karnataka.The craft was awarded the Geographical Indication tag in 2012.The traditional artisans of the craft are known as chitrakars.The themes are mainly mythological — idols of deities.
- **Prabuddha Bharata:** It is an English monthly journal of the Ramakrishna Order founded in 1896, by Swami Vivekanand.The journal carries articles on social sciences and humanities comprising historical, psychological, cultural, and social sciences themes. Personalities like Netaji Subhas Chandra Bose, Bal Gangadhar Tilak, Sri Aurobindo have contributed to the Journal over the years.
- **Ramakrishna Order:** It is the monastic lineage that was founded by Ramakrishna. It gave birth to twin organizations Ramakrishna Math and Ramakrishna Mission both headquartered at Belur Math in Kolkata.
- **Pattachitra or Patachitra Painting:** It is a traditional, cloth-based scroll painting based in Odisha and West Bengal.**Odisha paintings** are based on Hindu mythology.They are especially inspired by Jagannath and the Vaishnava sect.On the other hand, **Bengal paintings** are mostly based on mythological, religious stories, folklore, and social.

SCIENCE AND TECHNOLOGY

ISRO, MapmyIndia to develop India's "indigenous mapping portal"

What is the News?

Indian Space Research Organisation (ISRO) and MapmyIndia announced a collaboration. They will launch an indigenous mapping portal and geospatial service. It will be an Indian alternative to Google Maps.

About collaboration on indigenous mapping portal and geospatial service:

- MapmyIndia is one of India's oldest players in the cartography space. It is even older than Google Maps. However, due to lack of access to satellite services, it was not able to provide similar services like Google Maps.
- The collaboration will enable them to jointly identify and build a holistic geospatial portal. They will utilize earth observation datasets, 'NavIC', Web Services, and APIs (Application Programming Interface) available in MapmyIndia.
- These organizations will also leverage 'Bhuvan', 'VEDAS', and 'MOSDAC' geoportals for their collaboration.

Geospatial Portals:

- **Bhuvan Portal:** It is the national geo-portal developed and hosted by ISRO. It provides geospatial data, services, and tools for analysis. The portal is used to find and access geographic information (geospatial information) and associated geographic services (display, editing, analysis, etc.) via the Internet.

- **Visualization of Earth observation Data and Archival System (VEDAS) :** It is an online geoprocessing platform of ISRO. It uses optical, microwave, thermal, and hyperspectral Earth Observation (EO) data. Its applications are particularly meant for academia, research, and problem-solving. Some areas of application are; Renewable Energy, Coastal & Marine Resources, Hydrology, Climate Studies, Cryosphere, Atmospheric and Ocean Sciences, Planetary Sciences, and so on.
- **Meteorological and Oceanographic Satellite Data Archival Centre (MOSDAC):** It is a data repository for all the meteorological missions of ISRO. It deals with weather-related information, oceanography, and tropical water cycles.

What is "Sandes" platform?

What is the News?

National Informatics Centre (NIC) launched an instant messaging platform called Sandes.

About the Sandes platform:

- It is an instant messaging platform like WhatsApp. It was previously named Government Instant Messaging System (GIMS).
- The platform can be used for all kinds of communications by anyone with a mobile number or email id.
- Initially, the platform was available to only government officers. It is now available for the common public as well.

Scientists map detailed "genome of malaria vector mosquito"

What is the News?

Scientists have unveiled the detailed genome of the Asian malaria vector mosquito Anopheles stephensi.

Who conducted the research?

- The research was conducted by the Tata Institute for Genetics and Society (TIGS) and Institute of Bioinformatics and Applied Biotechnology both in Bengaluru.

Key Finding of the research:

- It unearthed more than 3,000 genes of the **Anopheles stephensi genome** that previously evaded scrutiny.
- These newly discovered genes play key roles in the metabolism of ingested blood meal, reproduction, and immunity against microbial parasites.

National Framework for Malaria Elimination(NFME) 2016-2030

- The framework has been developed with a vision to eliminate malaria from the country. It will contribute to improved health and quality of life and alleviation of poverty by 2030.
- **Goals:**

  - Eliminate malaria (zero indigenous cases) throughout the entire country by 2030; and
  - Maintain malaria-free status in areas where malaria transmission has been interrupted and prevent re-introduction of malaria.

"Square Kilometre Array" (SKA) Project

What is the News?

The Square Kilometre Array Observatory (SKAO) Council held its first meeting recently. In that, the member countries approved the establishment of Square Kilometre Array (SKA).

Facts:

Square Kilometre Array (SKA) Project:

- It is an international effort to build the world's largest radio telescope. It is not a single telescope. It consists of an array of antennas strategically designed and set up in South Africa and Australia.
  - **South Africa –** host high and mid-frequency dish antennas
  - **Australia –** Low-frequency antennas.
- **Aim:** To allow astronomers to look deeper into the universe and unravel secrets about its evolution.
- **Member Countries:** South Africa, Australia, UK, Canada, China, France, Germany, **India**, Japan, Italy, the Netherlands, Portugal, South Korea, Spain, Sweden and Switzerland.
  - **Note:** India's SKA membership is currently under review with India's Department of Atomic Energy(DAE) and Department of Science and Technology (DST) and is expected to be completed sometime this year.
- **What is Square Kilometre Array Observatory (SKAO)?**
  - SKAO is a new intergovernmental organisation dedicated to radio astronomy
  - The operation, maintenance and construction of SKA will be overseen by Square Kilometre Array Observatory (SKAO).
  - Headquarters: The SKAO is headquartered in the UK.
- **India's Participation:** India is participating in the project through the DAE and the DST.

Pointly for Science and Technology

- **Placebo Effect:** It is defined as a phenomenon in which some people experience a benefit after the administration of an inactive "look-alike" substance or treatment.This substance, or placebo, has no known medical effect. Sometimes the placebo is in the form of a pill (sugar pill), but it can also be an injection (saline solution) or consumable liquid.
- **Nanophotonics or nano-optics:** It is the study of the behavior of light on the nanometer scale and the interaction of nanometer-scale objects with light. It is a branch of optics, optical engineering, electrical engineering, and nanotechnology.It has applications in Solar Cells, Optical Technology, Integrated Circuits among others.
- **Novel Open Reading Frames(nORFs):** These are novel genomic regions that cannot be defined by our current definition of a gene.These regions are broadly involved in

diseases. They were seen as dysregulated (poor ability to manage) in 22 cancer types.These regions can form structures.They can also undergo biochemical regulation like known proteins.

- **Spinal Muscular Atrophy**: It is a rare genetic disease. The person suffering from this disease cannot control the movement of their muscles.It is caused by the loss of nerve cells that carry electrical signals from the brain to the muscles.The disease most often affects babies and children.
- **Zolgensma Gene therapy:** It is a gene replacement therapy used for the treatment of spinal muscular atrophy (SMA) in paediatric patients.The therapy involves a one-time injection that replaces the defective gene with a normal gene and rectifies the disorder.
- **Einsteinium**: It is named after Albert Einstein.It was discovered in 1952 in the debris of the first hydrogen bomb (the detonation of a thermonuclear device called "Ivy Mike" in the Pacific Ocean).It is difficult to create and is highly radioactive. Therefore, very little is known about this element.The element is not visible to the naked eye.The usage of the element is also limited except for the purposes of scientific research.
- **Arka Shubha Variety of Marigold Flower:** Marigold is mostly herbaceous plants belonging to the sunflower family Asteraceae.The Arka Shubha variety of marigold has been developed by Indian Institute of Horticultural Research(IIHR).This variety of marigold has a higher carotene content of 2.8%.It will also fetch money even if they get spoilt as it can be used for extraction of crude carotene which is mainly used in pharmaceutical sector.

INTERNAL SECURITY

Indian Navy's combat-readiness exercise "Tropex-21"

What is the News?

TROPEX 21 is currently underway in Indian Ocean Region(IOR). It is the Indian Navy's largest biennial Theatre Level Operational Readiness Exercise.

***Exercise* TROPEX:**

- It is an inter-service military exercise. It involves the participation of the Indian Army, Air Force, Navy, and Coast Guard.
- **Aim:**
    - To test the combat readiness of the Navy in a multi-dimensional scenario of the current geostrategic environment.
    - To validate the Navy's capabilities like offensive-defense capabilities, safeguarding the maritime domain, and promote stability and peace in the Indian Ocean Region.
- **Conducted by:** The exercise is being overseen by Naval Headquarters. Other participants include Eastern, Western and Southern Naval Command of the Indian Navy and

Andaman and Nicobar Command (the only Tri-Service theatre command of the Indian Armed Forces located at Port Blair).

- **Location:** The exercise is being conducted in the Indian Ocean Region(IOR) and its adjunct waters.
- **Theme of the exercise:** ‘Combat Ready, Credible and Cohesive force.
- **Phases under the exercise:** Exercise TROPEX is being progressed over distinct phases that will also test the Navy's transition from peacetime to hostilities.
    - In the first phase, the Indian Navy had conducted coastal defense Exercise ‘Sea Vigil’.
    - It was followed by a large-scale Tri-Service joint amphibious , Exercise AMPHEX-21.

"INS Viraat" - SC ordered a status quo on dismantling

What is the News?

The Supreme Court has ordered status quo on the dismantling of the Navy’s aircraft carrier, INS Viraat. The Navy decommissioned INS Viraat from service in 2017.
Facts:

What is the issue?

- "The decision to dismantle INS Viraat was taken after holding due consultation with the Indian Navy," said the Government in the Parliament in 2019.
- However, a firm (Envitech Marine Consultants Pvt. Ltd) has filed a petition in the Supreme Court. The firm seeks to convert INS Viraat into a maritime museum and a multi-functional adventure centre.
- So, the apex court has issued notice to the Centre and others. In that notice, the court sought their responses on a plea filed by the firm. Apart from that, the court ordered status quo on the dismantling of the INS Viraat.

INS Viraat:

- **INS Viraat** is a Centaur class aircraft carrier. It had served in the British Navy as HMS Hermes for 25 years (from 1959 to 1984). After refurbishment, it was commissioned into the Indian Navy in 1987.
- **Motto**: Its motto was (in Sanskrit) – “Jalamev Yasya Balmev Tasya” (One who controls the sea is all-powerful).
- **Achievements:**
    - It played an important role in **Operation Jupiter in 1989** during the Sri Lankan Peacekeeping operation. In the operation, the ship sent Indian peacekeeping forces to Sri Lank.
    - The ship also performed blockading Pakistani ports, primarily the Karachi port as part of **1999's Operation Vijay**
    - It was also deployed in **Operation Parakram** during 2001-02 following the terror attack on the Indian Parliament.

  - The ship is nicknamed as the "**Grand Old Lady**"
- **Decommissioned in:** The aircraft was decommissioned in March 2017.
- INS Viraat is the **second aircraft carrier to be dismantled** in India. In 2014, **INS Vikrant** was dismantled in Mumbai.

Pointly for Internal Security

- **Vertical Launch Short Range Surface to Air Missile (VL-SRSAM):** It has been indigenously designed and developed by Defence Research & Development Organisation (DRDO) for the Indian Navy. It is an all-weather air missile that will be used to neutralize various aerial threats at close ranges including sea-skimming targets.It has a strike range of about 40 km.
- **Helina and Dhruv Astra Missile Systems**: These are third generation fire and forget Anti-Tank Guided Missiles (ATGM). Defence Research and Development Organization (DRDO) indigenously designed and developed these missiles.Helina (Helicopter launched Nag) is the army version of the missile whereas Dhruva Astra is the air force version.
- **Ka-226T Helicopter**: It is a design of Russia's famous Kamov design bureau.It is a light helicopter with a maximum take-off weight of over 3.5 tonnes.It can carry a payload of up to 1 tonne.In 2015, India and Russia had concluded an Agreement for at least 200 Ka-226T twin-engine utility helicopters.The total indigenous content of the helicopters is between 27%-33%.
- **Exercise AMPHEX- 21:** It is a tri-service joint amphibious exercise which involved the participation of Navy, Army and Air force.The exercise aims to validate India's capabilities to safeguard the territorial integrity of it's island territories and to enhance operational synergy and joint warfighting capabilities amongst the three Services.
- **Exercise Yudh Abhyas:** It is one of the largest joint military training exercises between India and USA. The exercise was started in 2004 under the US Army Pacific Partnership Program.The 16th edition of the exercise was held in Rajasthan.

MISCELLANEOUS

Defence Minister launches "E-Chhawani portal"

What is the News?

Union Defence Minister has launched the e-Chhawani portal.

About the Portal:

- The portal aims to provide online municipal services to more than 20 lakh citizens across 62 Cantonment Boards.
- **Developed by:** The portal developed jointly by eGov Foundation, Bharat Electronics Limited(BEL), Directorate General Defence Estates(DGDE) and National Informatics Centre(NIC).

PM to inaugurate "World Sustainable Development Summit 2021"

What is the News?

The Prime Minister will inaugurate the World Sustainable Development Summit 2021.

About World Sustainable Development Summit(WSDS):

- It is an annual event organized by **The Energy and Resources Institute(TERI)** since 2001. The summit was earlier known as Delhi Sustainable Development Summit.
- **Purpose:** The Summit brings together a wide number of participants in the fight against climate change. Participants include governments, business leaders, academicians, climate scientists, youth, and civil society.
- **Key Partners:** The Ministry of Environment, Forests and Climate Change(MoEFCC), Ministry of New and Renewable Energy, and the Ministry of Earth Sciences are key partners of the Summit.
- **Theme for 2021:** "Redefining our common future: Safe and secure environment for all".

The Energy and Resources Institute (TERI)

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

Other Initiatives by TERI:

- **Lighting a Billion Lives (LaBL):** It is an initiative of TERI to provide clean lighting access to the bottom of the pyramid communities.
- **Green Olympiad:** It is conducted by TERI in association with MoEFCC. It is an international environment examination that is annually organized for middle and high-school students.
- **Green Rating for Integrated Habitat Assessment (GRIHA):** It was conceived by TERI and developed with the Ministry of New and Renewable Energy. It is a national rating system for green buildings in India.

Pointly for Miscellaneous

- **Global Bio India 2021:** It is organised by the Department of Biotechnology, Ministry of Science & Technology along with Biotechnology Industry Research Assistance Council (BIRAC).It aims to showcase the strength and opportunities of India's biotechnology sector at national and global level.**Theme for 2021:** The theme is "Transforming lives" and the tagline is "Biosciences to Bioeconomy".
- **Arka Vyapar App:** It was launched by the Indian Institute of Horticultural Research(IIHR).The app aims to connect farmers with traders to help farmers get the best available prices for their products.

- **Tapovan Vishnugad Hydropower Plant:** It is a 520 MW run-of-river hydroelectric project.It was constructed by the National Thermal Power Corporation Limited(NTPC) on Dhauliganga River in Chamoli District of Uttarakhand.The power plant is located on downstream on the Alaknanda River (one of the two headstreams of Ganges).It was severely damaged in February 2021 due to flash flood caused by Uttarakhand glacier burst.

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