VISION IAS
INSPIRING INNOVATION

PT 365

ECONOMY

Classroom Study Material

(May 2021 to January 2022)

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ECONOMY

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Note:

PT 365 documents comprehensively covers the important current affairs of last 1 year (365days) in a consolidated manner to aid Prelims preparation.

In our endeavour to further enhance the document in the interest of the aspirants, following additions have been incorporated:

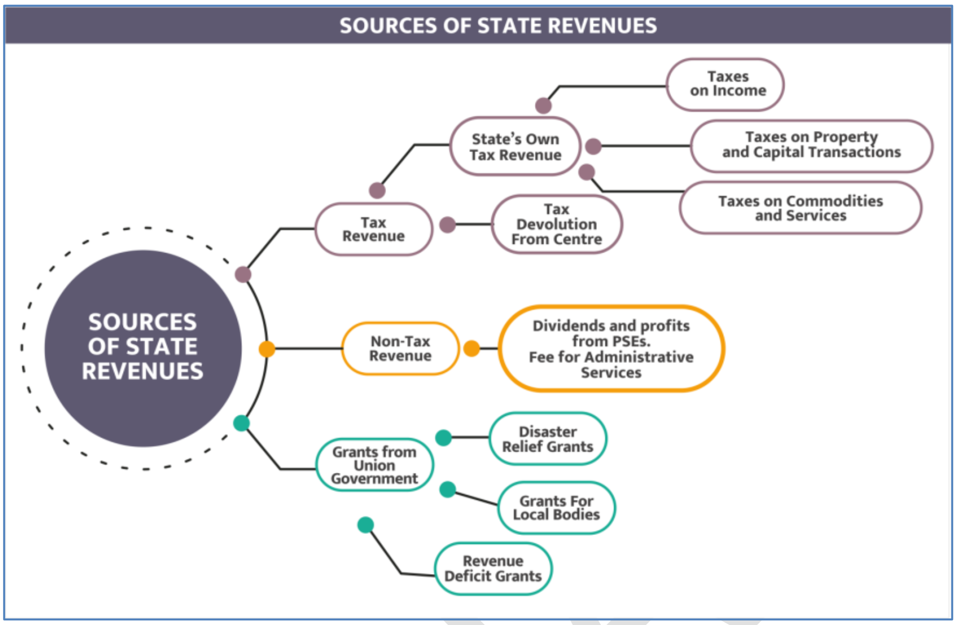
1. **Different colors have been used** in the document for easy classification and recollection of a variety of information.
2. **QR based Smart quiz** has been added to test the aspirant's learnings and understanding.
3. **Infographics** have been added to ease understanding, provide for smoother learning experience and ensure enhanced retention of the content.

SMART QUIZ	You can scan this QR code to practice the smart quiz at our open test online platform for testing your understanding and recalling of the concepts.	

1. FISCAL POLICY AND INCLUSIVE GROWTH

1.1. STATUS OF GOVERNMENT FINANCES

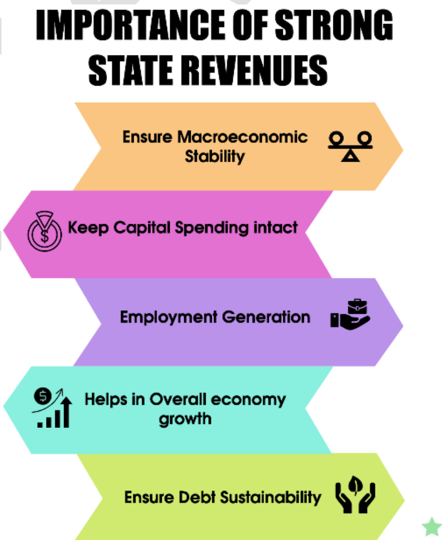
1.1.1. STATE FINANCES



Why in news?

RBI released **"State Finances: A Study of Budgets of 2021-22"** with theme **"Coping with the Pandemic: A Third-Tier Dimension"**, its **annual** assessment report on the **State governments finances.**

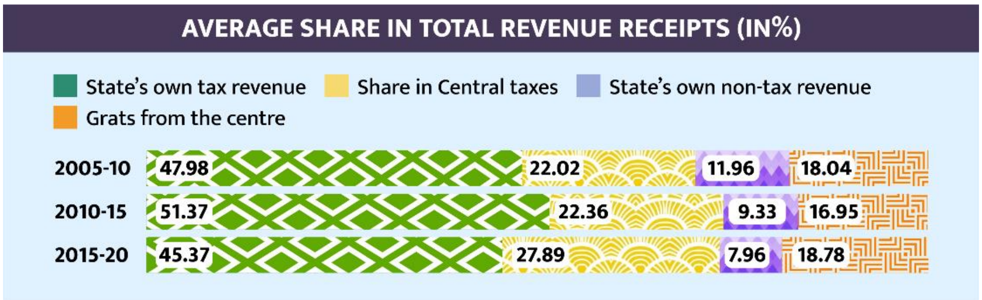
Key Highlights of report:



- **Consolidated Gross Fiscal Deficit (GFD):** Budgeted at **3.7%** to gross domestic product (GDP) of states for 2021-22 (improvement from **4.7%** in the revised estimates for 2020-21).
- **Combined debt to GDP ratio of States: 31% at end-March 2021** (higher than the **20% limit for states by 2022-23** recommended by **NK Singh Committee** or the FRBM Review Committee).
- Ratio of **interest payment to revenue receipts** increasing at a steady pace for last few years, indicating **erosion of debt sustainability.**
- **Market borrowing,** the largest component of outstanding debt, is expected to **reach 63%** at end-March 2022.
- The shares of **National Small Savings Fund (NSSF), loans from banks and financial institutions and public accounts** in total outstanding liabilities of the States have declined over the years.
- **15-25% revenue loss** on the finances of local authorities.

Other trends in state finance

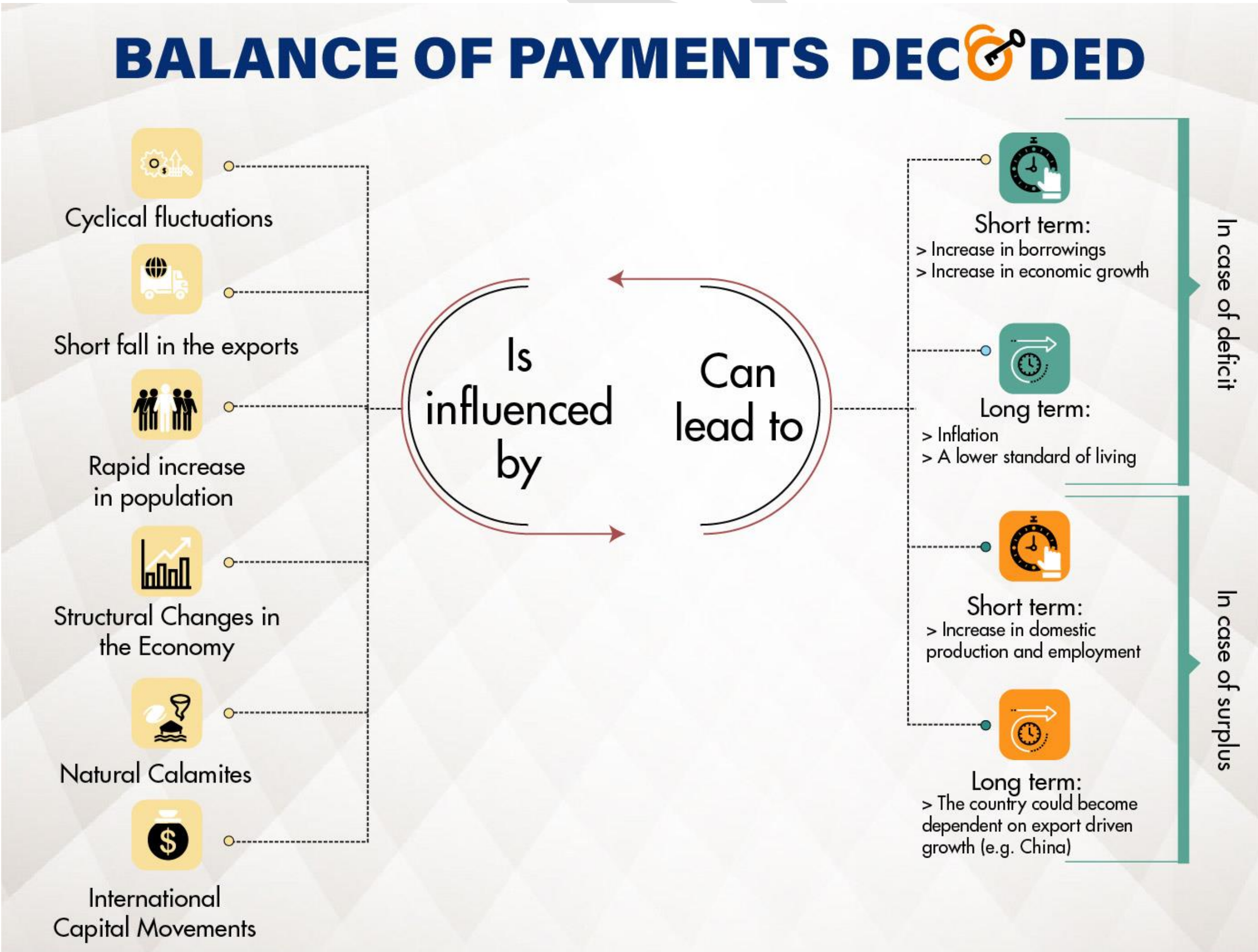
- **Increase in Fiscal deficit** from 2.9% (2019-20) to **4.1% of GDP (2020-21)** or by ₹2.25 lakh crore.
- **Increase in aggregate public debt** of states to **25.1% of GDP** in 2021-22, a significant rise from **17.2% of GDP** in 2011-12.
- **States' own tax revenue** is **the largest source of revenue** (estimated to be **45% of total revenue receipts** or **6.7% of their GSDP**) in 2021-22**.**



- **Lower property tax collection** in India **(0.2% of GDP)** as compared to some of the developed countries due to factors like **property undervaluation,** incomplete property tax **records** etc.
- Strain on state finances from State-owned **power distribution companies (DISCOMs) debt.**

Steps taken by Centre and RBI to support states

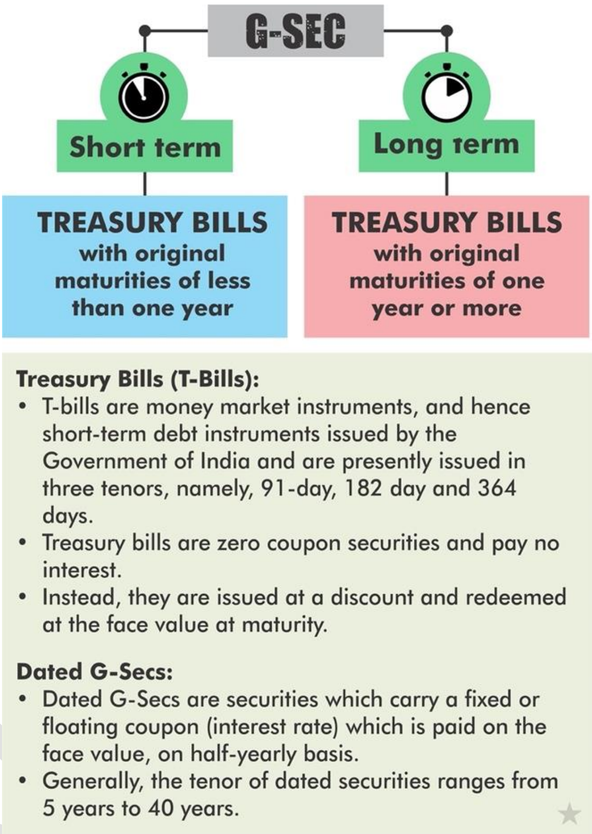
- **Reform-linked additional borrowing space for 2020-21:** In May 2020, the central government permitted states to increase their fiscal deficit limit from 3% of GSDP to **5% of GSDP in 2020-21.**
  - Of this 2% increase, an increase of 1% of GSDP was to be permitted upon **completion of reforms** in four areas (0.25% of GSDP for each reform): **one nation one ration card, ease of doing business, urban local body, and power distribution.**
- **Special Assistance to States for Capital Expenditure for 2021-22:** Under the scheme, states will be provided **interest-free loans of up to Rs 15,000 crore** in 2021-22, that need to be **repaid after 50 years.**
  - Of this, Rs **5,000 crore of loans are earmarked for states which carry out disinvestment** of State Public Sector Enterprises or monetisation/ recycling of infrastructure assets.
- **Health Sector:** The Central government has released around **Rs. 80,000 crores to the States under National Health Mission (NHM) as grants.**
- **RBI measures:**
  - Certain relaxations are being permitted with regard to availment of **Overdraft (OD) facilities.**
  - The **Ways and Means Advance (WMA) limits** of states have been enhanced.



1.1.2. GOVERNMENT SECURITIES (G-SECS)

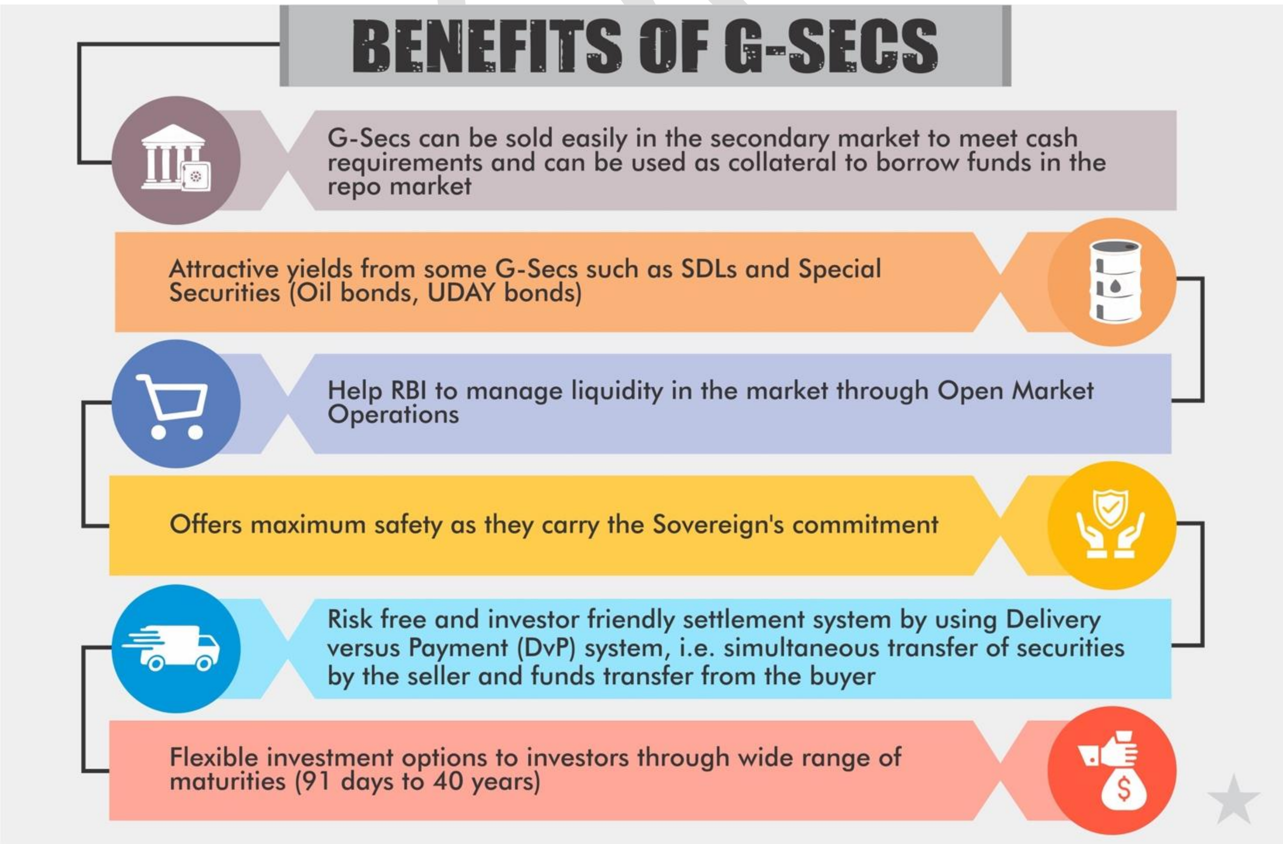
Why in news?

Recently, Reserve Bank of India (RBI) allowed **small retail investors** to invest in government securities (G-Secs) by opening gilt accounts with the central bank under **'RBI Retail Direct' scheme**.



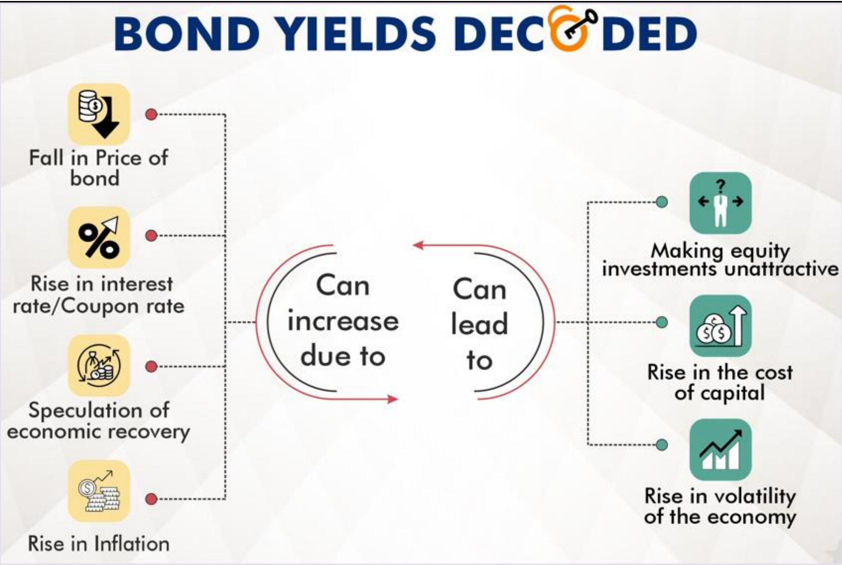
About G-Sec and Gilt Accounts

- A Government Security (G-Sec) is a **tradable instrument** issued by the **Central Government** or the **State Governments**.
- Based on the time period, G-Secs are of **two types** (see image).
- In India, the **Central Government** issues both, treasury bills and bonds or dated securities while the **State Governments** issue only bonds or dated securities, which are called the **State Development Loans (SDLs)**.
- It acknowledges the Government's debt obligation and practically carries no risk of default and, hence, is called **risk-free gilt-edged instruments.**
- A **"Gilt Account"** means an account opened and maintained for holding Government securities, by an entity or a person permitted by the Reserve Bank of India.
    - In case of a '**Person resident outside India**, the activities in the operations/maintenance of Gilt Account shall be governed by the **Foreign Exchange Management Act (FEMA), 2000** and the regulations framed there under.



Major Risks involved in holding G-Secs:

- **Liquidity risk**, i.e. inability of an investor to liquidate (sell) his holdings due to no buyer.
- **Market risk** due to adverse movement of prices of the securities from changes in **bond yields.**
- **Reinvestment risk** as cash flows on a G-Sec includes a coupon every half year and repayment of principal at maturity. The cash flows are required to be reinvested whenever they are paid, leading to situations of reinvestments at lower yield prevalent at the time.



Operational mechanism of G-Secs in India

- **Issuing Authority:** RBI, in consultation with the Government of India.
- **Issuing Platform: E-Kuber, Core Banking Solution (CBS) platform of RBI** for G-Secs auctions.
    - All non-E-Kuber members including non-scheduled Urban Cooperative Banks (UCBs) can participate in the primary auction through scheduled commercial banks or Primary Dealers (PDs) (called as Primary Members-PMs).
- **Clearing Agency: Clearing Corporation of India Limited (CCIL)** acts as the Central Counter Party (CCP), i.e., act as a seller to the buyer and a buyer to the seller of the actual transaction.

Recent initiatives regarding G-Secs and their impact/Potential Impact

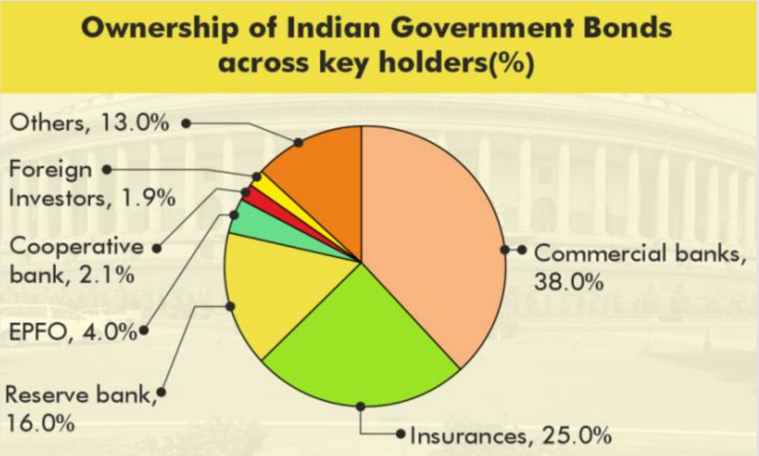
Initiatives	Impact/Potential Impact
RBI Retail Direct scheme for individual investors to **bid in primary auctions and buy and sell** government bonds. • The bonds on offer are **G-Secs**, SDLs, and **sovereign gold bonds**. • **No fee will be charged** for any of the services provided under the scheme.	• **Broaden Investor Base** with **additional investment avenue** for retail investors. • **Financialize the domestic savings.** But unlike small saving schemes of the Union government such as the Public Provident Fund or National Savings Certificate, there are **no special tax benefits on direct purchase of government bonds.**
Government Securities Acquisition Programme (G-SAP) from RBI with aim to purchase government securities worth Rs 1 lakh crore in the first quarter of **FY22.**	• It will ensure **financial stability and prevent crowding out.** • Decline in bond yield acts as a **fillip for the equities markets.**
Long-term repo operations (LTROs) with RBI to provide one-year to three-year money to banks at the prevailing repo rate, accepting government securities with matching or higher tenure as the collateral.	• Provide **longer duration** funds to banks as compared to the **short-term liquidity** by Liquidity Adjustment Facility (LAF) and the Marginal Standing Facility (MSF). • 1-year and 3-year loans to banks at interest rate similar to the overnight repo.
Operation Twist from RBI with aim to bring down long-term bond yields. • With **inverse relationship between bond prices** and **yields**, bonds purchase from RBI pushes prices upwards and the yield comes down.	• Lower longer-term yields will make savings less desirable due to lower interest rates and **boost economy** by making loans for home, vehicles etc. **less expensive.**

Related News

Government Securities (G-Secs) to soon join Global Bond Indices

- **Global Bond Index includes investment-grade and government bonds from around the world** with maturities greater than one year.
- G- Sec is a **tradeable instrument issued by the Central or state Governments.** It acknowledges government's debt obligation.
- G-Secs carry practically no risk of default and, hence, are **called risk-free gilt-edged instruments.**

- **Benefits of joining global bond indices**
  - Attract foreign inflows in the **debt market, reducing pressure on commercial banks** to absorb government bonds and **build goodwill** for the **Indian bond markets.**
  - **Give strength** and **stability** to **INR** and help **government in its market borrowing programme**.



1.2. TAXATION

1.2.1. RETROSPECTIVE TAXATION

Why in News?

Recently, parliament enacted the **Taxation Laws (Amendment) Act, 2021** to amend the **Income-tax (IT) Act, 1961** and the **Finance Act, 2012**, scrapping the 2012 retrospective tax law.

What is Retrospective Taxation and India's experience with it?

- It is a 'backward looking' tax, used by nations to **remove taxation anomalies** through new or additional charge on past transactions to overcome the misuse of legal loopholes by companies.
- It allows a country to pass a rule on taxing certain products, items or services and deals and **charge companies from a time behind the date on which the law is passed.**
- In India, it was introduced in **2012**, empowering Income tax Department to raise tax demands **on capital gains** arising from **indirect transfer of assets** located in India.

Changes introduced by Taxation Laws (Amendment) Act, 2021?

- Amends **Section-9 of IT Act, 1961** to **nullify the demands raised for indirect transfer** of Indian assets made before 28th May 2012 on fulfillment of specified conditions like withdrawal of appeal, petition, arbitration etc. in this regard.
- **Refund of any amount paid in these cases** without any interest under **Section-244A**.
- However, **offshore transactions involving Indian assets** executed after 28th May 2012 are **still taxable** as there is no retrospective application of the law.

Sovereign right to tax and its limits
- Right to tax is a **core sovereign power**.
- The Constitution of India empowers government to **levy or charge taxes except by the authority of law**.
- Though upheld by Investor-State Dispute Settlement (ISDS) tribunals as well, the Bilateral Investment Treaty (BIT) puts **certain limits on the right as:**
  - **Expropriation**, i.e., no confiscation or claim on property against owner wishes from government
  - **Fair and Equitable treatment**, i.e., the taxes should not be discriminatory
- In 2016, India framed **model BIT, excluding taxation measures from its scope**, reducing scope of ISDS to interfere in sovereign right to tax.

Conclusion

The new law leads to a more **transparent**, **stable,** and **predictable taxation regime**, sending a positive signal to investors on ability of India to sort out legacy issues to **improve investments** through stable operating environment and **help in early recovery** from COVID-19 by expanding the industrial base for increased tax base, higher growth, and work opportunities.

1.2.2. GLOBAL MINIMUM CORPORATE TAX RATE

Why in News?

Recently, the Organisation for Economic Co-operation and Development (OECD) released **Two Pillar model rules** for domestic implementation of 15% global minimum tax.

About Global Minimum Corporate Tax

- It is **part of the inclusive framework on Base Erosion and Profit Shifting (BEPS)** agreed upon by G20 countries and OECD.
  - BEPS refers to tax planning strategies used by MNCs that **exploit gaps and mismatches in tax rules to artificially shift profits to low or no-tax locations** where there is little or no economic activity, resulting in little or no overall corporate tax being paid.

How a global minimum corporate tax works?

- Suppose a company headquartered in Country A is reporting income **in Country B, where the rate is 11%.**
- With a global minimum rate of 15% in effect, **Country A would "top up" the tax and collect another 4%** of the company's profit from Country B representing the **difference between Country B's rate and the global minimum rate.**

- Global Minimum Corporate Tax requires countries to impose a **minimum tax on large multinational companies (MNCs)** to counter efforts by such firms **to escape taxes in their country of operations.**
- It will apply to **MNCs with revenue above €750 million** and aims for developing a **taxation structure that is relevant for a digital and globalized world.**
- This includes global companies like Google, Amazon, etc. who will be forced to pay taxes to countries based on where their goods or services are sold, **regardless of whether they have a physical presence in that nation.**

OECD two-pillar plan

- Under the OECD/G20 Inclusive Framework on **Base Erosion and Profit Shifting (BEPS)**, 139 countries (including India) and jurisdictions are **collaborating to put an end to tax avoidance strategies** arising from digitalization and globalization of the economy.
- The new **two-pillar plan** will help in **domestic implementation** of 15% global minimum tax by reforming international taxation rules and ensure that multinational enterprises pay a fair share of tax wherever they operate.
- This includes the **GloBE** rules with GloBE rules to be made part of domestic legislation in 2022.
  - GloBE rules provide for **taxation system** to ensure **large MNCs** pay the **minimum level of tax** on income arising in each of the jurisdictions in which they operate.
  - Rules will **create a "top-up tax"** to be applied on profits in any jurisdiction **whenever the effective tax rate is below minimum 15% rate.**

Implications on India

- According to experts, India is likely to benefit as the **effective domestic tax rate is above the threshold,** and the country would continue to attract investment.
- But it will mean **removal of existing digital service taxes and other unilateral measures by 2023** such as the **equalization levy** by India introduced in 2016.
- Also, **Large Indian headquartered MNEs may also need to comply with Pillar one rules,** and India will need to share its taxing right with other countries; and India could end up **losing revenue from other not-so-digitized companies** in the top 100.

1.3. NON-TAX REVENUE

1.3.1. DIRECT MONETISATION OF THE FISCAL DEFICIT

Why in news?

There is a debate whether India should undertake **direct monetisation of the fiscal deficit** by Reserve Bank of India (RBI), given the hurt to its economy caused by second wave of COVID-19 infections.

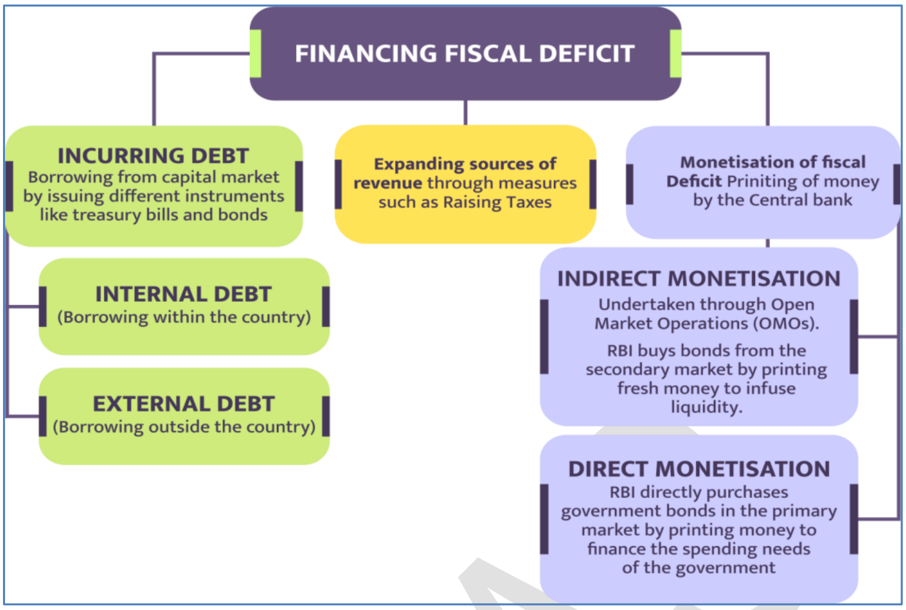
Fiscal deficit and its financing

- Fiscal deficit occurs when the government's expenditure exceeds its income. E.g., Due to lower tax collection and increased expenditure to mitigate the fallout of pandemic, India recorded a fiscal deficit of **9.3% of GDP** in 2020-21 and for 2021-22 it is put at **6.8% of GDP**.
- To finance this fiscal deficit, number of options is available with government (see **image**).

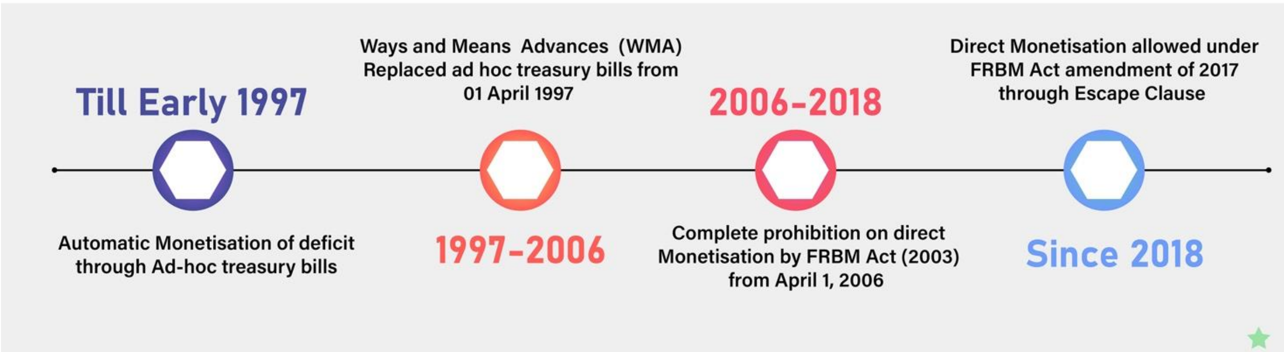
About Direct Monetisation of deficit

- Direct Monetisation refers to a scenario where a **central bank prints currency to the tune of accommodating massive deficit spending by the government.**

* It happens when the government privately places its bonds with the Central bank, i.e., the **RBI purchases government bonds in the primary market, increasing money supply in the system.**
    * It may not necessarily involve actual printing of currency as the central bank could simply credit the Government's account through an electronic accounting entry.
* It is referred as **helicopter money** when large sums of new money are printed to stimulate an economy during a crisis — like a recession.



DIRECT MONETISATION OF DEFICIT IN INDIA



Reasons behind demand of direct monetisation

* **Financing extraordinary recovery programmes** from government through direct liquidity.
* **Mitigating deflation and stimulating moderate inflation** through higher people spending.
* **Maintaining financial stability** by overcoming issues of limited savings, increase in interest rates and government borrowing costs if large deficits are financed through issuance of G-Secs.
* **Infuse liquidity** in the financial system when further interest rate cuts are not possible due to inflationary concerns. E.g., Repo rate in India is at 4% since May 2020 to avoid inflation.
* **Other Benefits:** No increase in future tax burdens and it can reduce the value of a government's outstanding obligations to some extent by increasing inflation.

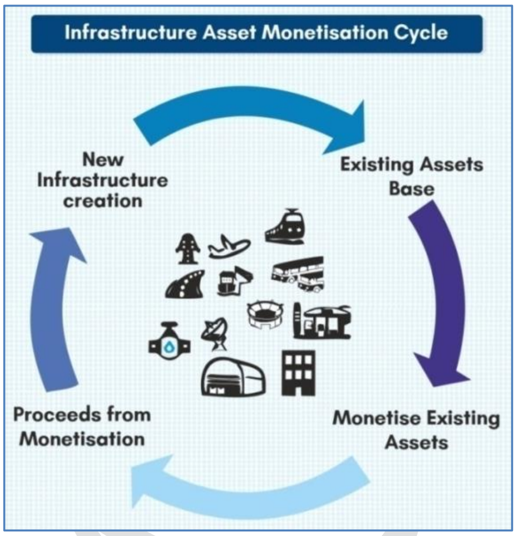
Concerns over use of direct monetisation in India

* **High inflation** due to unproductive spending. E.g., in 2008, it led to hyperinflation in Zimbabwe with 231,000,000% rise in prices in one year.
* **Erodes the credibility of RBI** and its ability to fulfill its mandate by removing the barriers between monetary and fiscal policy.
* **Hurt fiscal prudence** by disincentivizing the fiscal consolidation activities of the Government.
* **Ineffective to increase liquidity** as the money extended by a fiscal program inevitably ends up in the banking system, increasing bank reserves at RBI due to reluctance from banks to lend.
* **Depreciation of currency** due to supply-demand imbalance in the currency market. RBI could step in and intervene using its forex reserves. However, running down on forex reserves can ultimately result in a **balance of payments crisis**.

1.3.2. NATIONAL MONETISATION PIPELINE

Why in news?

Recently, Government of India launched the **National Monetisation Pipeline (NMP),** a roadmap for asset monetisation of various brownfield infrastructure assets across sectors**.**



About Asset Monetisation

- Also referred as **asset or capital recycling,** asset monetisation is the process of **conversion of assets into economic value**.
- Part of the government's non-debt capital receipts, it involves **offering public infrastructure to the private sector or institutional investors** to **serve three critical objectives**:
    - **Unlocks value from public investment** in infrastructure.
    - **Taps private sector efficiencies.**
    - **Creation of new sources of revenue** by unlocking of value of hitherto unutilized or underutilized public assets.
- It is different from disinvestment as government remains the owner of the **Brownfield Infrastructure Assets** (where investment is already being made, but assets are either languishing or not fully monetized or under-utilized) transferred for a **limited period** to unlock "idle" capital.
- Funds, so received by the public authority, helps government to reinvest them in other assets or projects including **social sector and other competing public priorities.**
    - It also helps in generating more returns from assets through higher operating efficiencies and enhanced user experience offered by private sector entity.

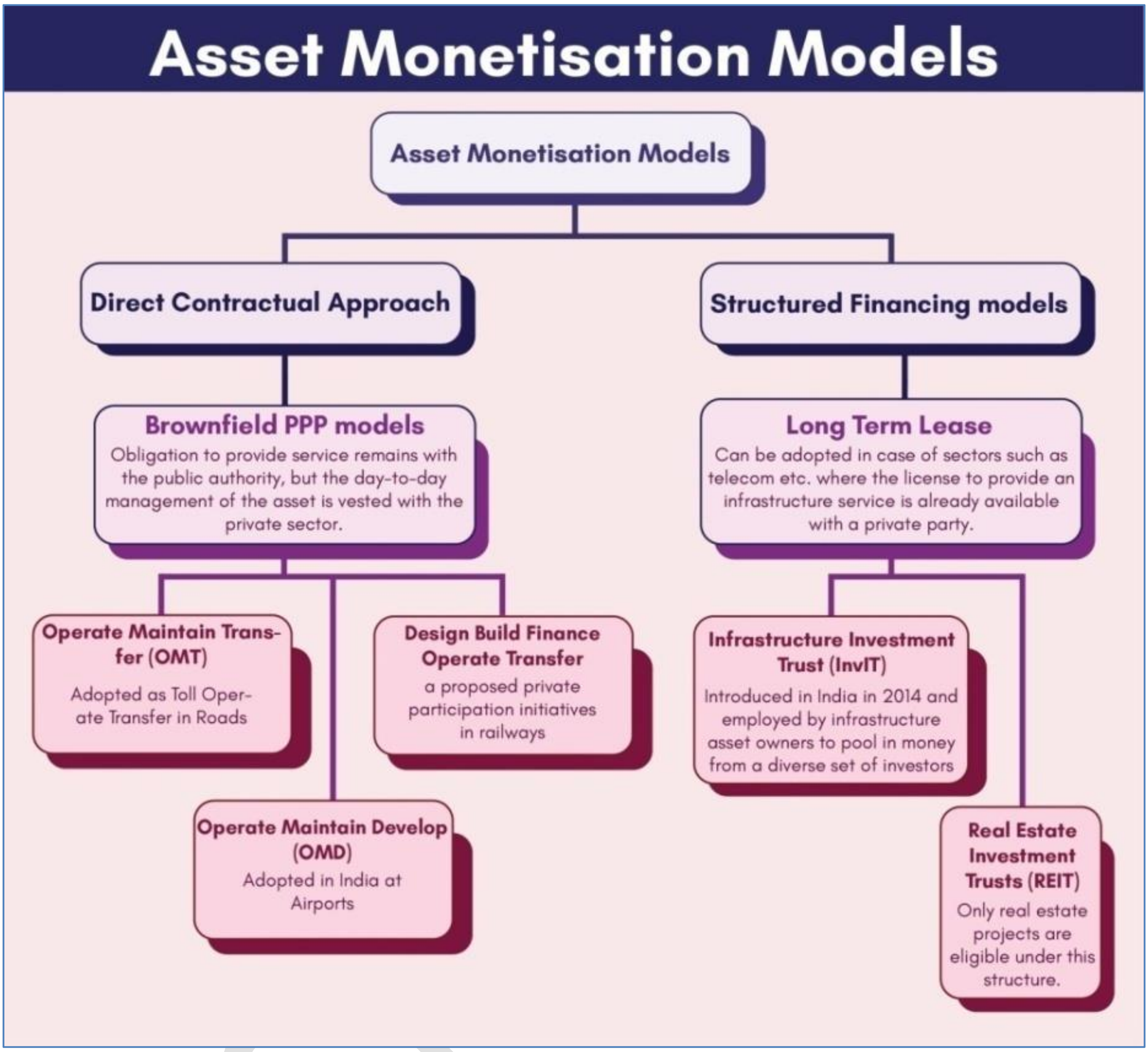
NMP Period : Co-terminus with NIP, 4 years (FY 22-25)

"Key sectors identified by the government for NMP"

The **top 5 sectors capture ~83%** of the aggregate pipeline value. These include: Roads followed by Railways, Power , oil & gas pipelines and Telecom.

About National Monetisation Pipeline (NMP)

- Monetisation of Assets was identified as **one of the three pillars for enhanced and sustainable infrastructure financing** in the country under the Union Budget 2021-22.
- Accordingly, National Monetisation Pipeline (NMP) has been planned to be co-terminus with the National Infrastructure Pipeline (NIP, announced in 2019) and help in **evolving a common framework for monetisation of core assets**.
- Monetisation through **disinvestment and monetisation of non-core assets** have **not been included** in the NMP.
    - **Core and Non-Core Assets:** Assets which are central to the business objectives of an entity and are used for delivering infrastructure services to the public/ users are considered as Core Assets. Other assets, which generally include land parcels and buildings, can be categorised as non-core assets.
- The **total indicative value** of NMP for Core Assets of Central Government has been estimated at **₹6.0 lakh crore** over the 4 year period, FY 2022-2025.
    - It **corresponds to 5.4%** of the total infrastructure investment envisaged under the **NIP** which is ₹111 lakh crore and **14%** of the proposed outlay for **Centre (₹43 lakh crore)**.
- The **framework for monetisation** of core asset monetisation has three key imperatives:
    - **Monetisation of rights not ownership**, i.e. handing back of assets after end of transaction life.
    - **Brownfield de-risked assets with stable revenue generation profile and of critical importance.**
    - **Structured partnerships under defined contractual frameworks & transparent competitive bidding**, where Contractual partners will have to adhere to Key Performance Indicators (KPIs) and Performance Standards.
- The assets and transactions identified under the NMP are expected to be rolled out through a **range of instruments/models** (see **image on asset monetisation models**).



1.3.3. LAND BANKS

Why in News?

Recently, the Department of Investment and Public Asset Management (DIPAM) finalised the **structure of the Land Bank Company** with task of **selling land parcels** owned by government departments and public sector companies.

What is a Land Bank?

- Land bank is a governmental entity or non-profit corporation to **manage and dispose of vacant properties, vacant land, or tax-delinquent properties** to ensure more productive use of vacant land.
- Started in 1990s by state governments, by 2017 **most Indian states** either already had sizeable land banks or were in the process of creating them.
- **NITI Aayog's**, in its **strategy for New India @ 75** suggested new system using Geographic Information System (GIS) based maps at all levels to create **pre-approved land banks** for manufacturing facilities.

Steps towards Land Bank

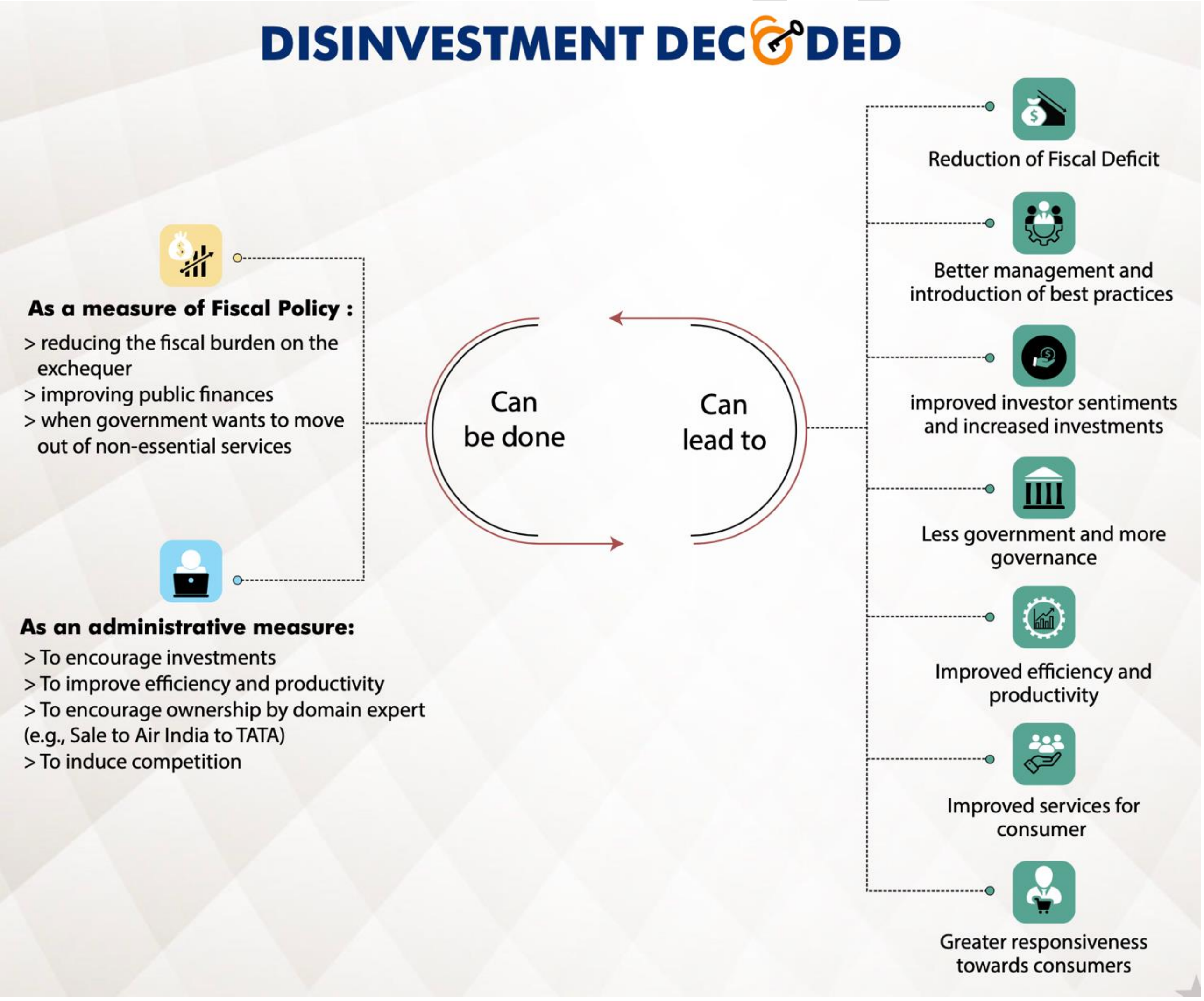
- In August 2020, **National GIS-enabled Land Bank system was launched** by integration of Industrial Information System (IIS) with GIS Systems **of six states in first phase.**
- At present, **India Industrial Land Bank (IIS) portal** covers more than **3,350 industrial areas/clusters** covering about **475,000-hectare land** across 31 States/UTs.
- IIS aims to provide the following:

Benefits of a land Bank

- **Improved Land use efficiency** as land is a scarce resource in India with just **2.4% of total land area** of the World and **18% of the World's population**.
- **Addressing inordinate delay in disposing Government land** due to various issues of land records, lack of single comprehensive land database, illegal encroachment etc.
- **Boost economic growth** as evident from China with a **staggering 26.07% contribution from land to economic growth** during 2001-2009.
- **Boosts Investment** by serving as a **one-stop solution to the free and easy accessibility of all related industrial information** for informed decision making by investors.
- **Ease of Doing Business** by overcoming issues from LARR Act 2013 which is often seen as impediment in land acquisition.
- **Other Benefits: Transparency** in Land market transactions and **reduced burden on judiciary**.

Right to Fair Compensation and Transparency in Land Acquisition, Rehabilitation and Resettlement (LARR) Act 2013

- The Act replaced Land Acquisition Act, 1894.
- Act provides for **Social Impact Assessment (SIA)** study to map and **estimate costs and benefits** to the people affected through the acquisition. SIA is mandatory for all projects except in **cases of urgency or for irrigation projects** where an Environmental Impact Assessment is required.
- All acquisitions require **rehabilitation and resettlement** to be provided to the people affected by the acquisition.
- **Compensation for the owners** of the acquired land shall be four times the market value in case of rural areas and twice in case of urban area.
- Act stipulates **mandatory consent** of at least 70% of landowners for acquiring land for Public-Private-Partnership (PPP) projects and 80% for acquiring land for private companies.



1.4. INCLUSIVE GROWTH

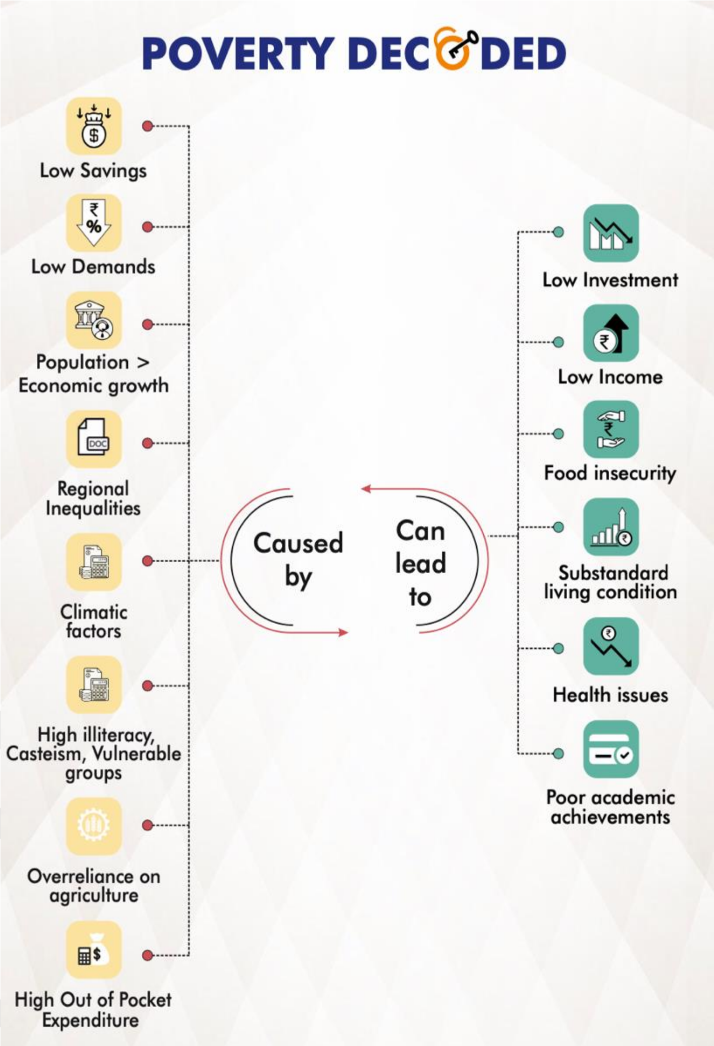
1.4.1. NATIONAL MULTIDIMENSIONAL POVERTY INDEX

Why in News?

In 2021, NITI Aayog released India's first **'National Multidimensional Poverty Index: Baseline Report and Dashboard'** in collaboration with **UNDP** and **Oxford Poverty and OPHI.**

United Nations Development Programme (UNDP)
- Leading United Nations organization (**HQ: New York**), UNDP works to **end the injustice of poverty, inequality, and climate change.**
- It plays a **critical role** in helping **countries** towards **SDGs** with work concentrated on 3 main focus areas:
  - **Sustainable development**
  - **Democratic governance and peace building**
  - **Climate and disaster resilience**

Oxford Poverty and Human Development Initiative (OPHI)
- It is an **economic research center within the Oxford Department** of International Development at the University of Oxford.
- It **aims to build and advance a more systematic methodological and economic framework** for reducing multidimensional poverty, grounded in people's experiences and values.
- OPHI's work is **grounded in Amartya Sen's capability approach** and works to implement it by creating real tools that inform policies to reduce poverty.



Multidimensional Poverty Index (MPI)

- It was developed in 2010 by **UNDP and OPHI** as a poverty estimation measure to be **used in UNDP's flagship Human Development Report.**
- The **Headcount or incidence of MPI** is based on **three macro dimensions** of poverty as:
  - **health, education** and **living standards,** covering **10 indicators** of acute deprivations faced by a person simultaneously.
- **MPI value** varies from **0 to 1** and if a person is deprived in a **third or more** of ten (weighted) indicators, the global MPI identifies them as **'MPI poor'.**

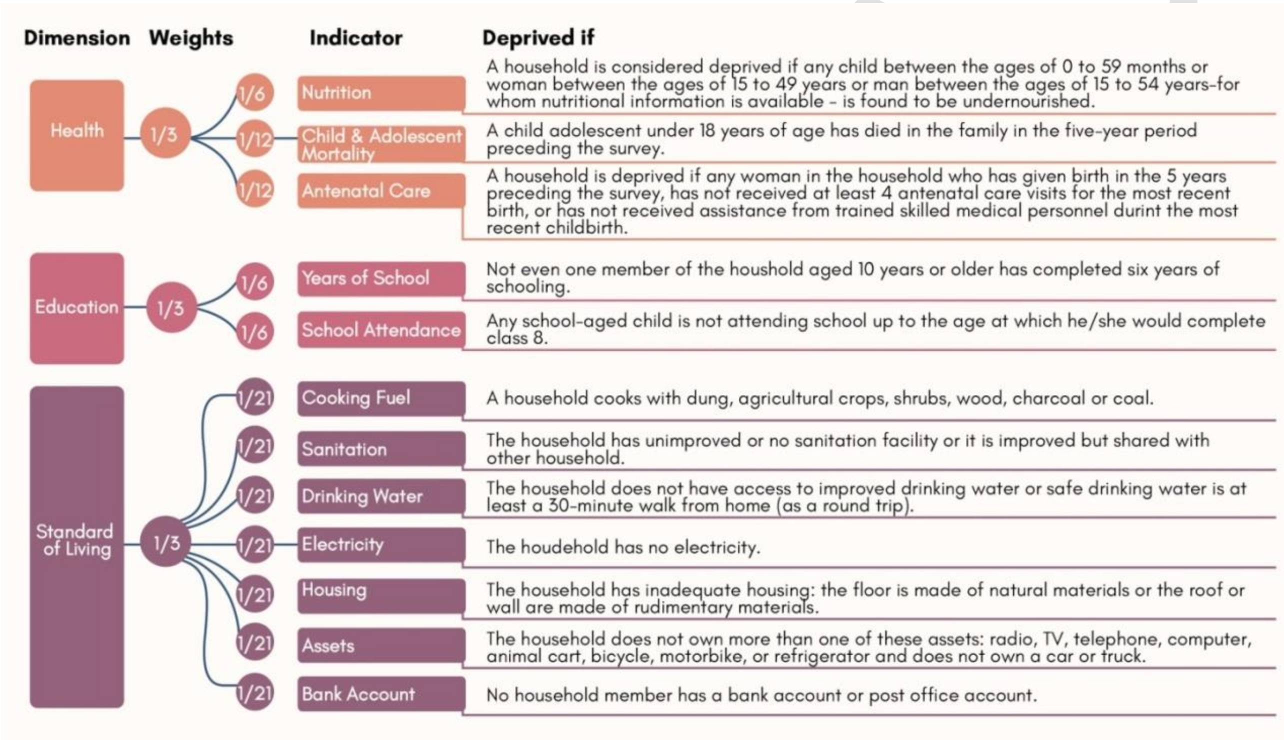
Dimensions of Poverty	Indicator	Deprived if living in the household where	Weight
Health	Nutrition	Any Adult under 70 years of age or any child for whom there is nutritional information is undernourished.	1/6
	Child Mortality	Any Adult under the age of 18 years has died in the family in the five-year period preceding the survey.	1/6
Education	Years of Schooling	No household member aged 'school entrance age + Six[4] years or older has completed at least six years of schooling.	1/6
	School Attendance	Any school-aged child is not attending school up to the age at which he/she would complete class eight.	1/6
Standard of living	Cooking Fuel	The household cooks with dung, wood, charcoal or coal.	1/18
	Sanitation	The household's sanitation facility is not improved (according to SDG guidelines) or it is improved but shared with other households.	1/18
	Drinking Water	The household does not have access to improved drinking water (according to SDG Guidelines) or improved drinking water is at least a 30-minute walk from home, round trip.	1/18
	Electricity	The household has no electricity.	1/18
	Housing	At least one of the three housing materials for roof, walls and floor are inadequate : the floor is of natural material and/or the roof and/or walls are of natural or rudimentary material.	1/18
	Assets	The household does not own more than one of these assets: radio, television, telephone, computer, animal cart, bicycle, motorbike or refrigerator, and does not own a car or truck.	1/18

- It is calculated by **multiplying the poverty headcount** by the **intensity of poverty**.

- In 'Global MPI 2021: Unmasking disparities by ethnicity, caste and gender', India was ranked at **62 out of 109** nations with **MPI value** of **0.123 (27.9% population** as **multidimensionally poor)**.
- For first time. Global MPI is disaggregated by **ethnicity or race** (for 40 countries with available information), **by caste (for India)** and by **gender** of the household head (for 108 countries)
- **Top 5 countries with MPI: India** (2015/16) at 381 millions, followed by Nigeria at 93 million, Pakistan, Ethiopia, Democratic Republic of the Congo.

National Multidimensional Poverty Index by NITI Aayog

- Part of Global Indices for Reforms and Growth (GIRG) initiative, the latest Index is based on the MPI from UNDP and OPHI.
- The major difference from Global MPI in National MPI is the inclusion of two additional indicators, i.e., **antenatal care** and **bank account** under the dimensions of **health** and **standard of living**.
- This baseline report of India's first ever national MPI measure is **based on the reference period of 2015-16 of the National Family Health Survey (NFHS)**.
- The MPI constitutes a **set of poverty measures.** These measures are explained as follows.



Key findings from National MPI

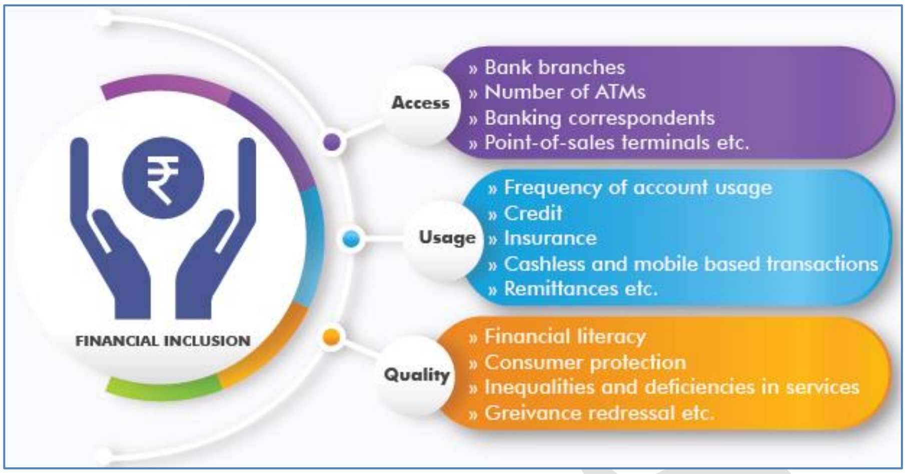
Based on **National MPI headcount ratio** and **intensity of India**, **States**, **UTs** and all the **districts**, the major findings of it are:

- **National MPI:** At **0.118** with **Rural MPI** at **0.155** and **Urban MPI** at **0.04** (MPI ranges from **0 to 1** and higher values imply higher poverty).
- **Highest Poverty States/UTs:** Bihar with 51.91% of the population as poor, followed by Jharkhand and Uttar Pradesh.
- **Lowest Poverty States/UTs:** Kerala with 0.71% of the population as poor, followed by Puducherry and Lakshadweep.

Earlier attempts to define Poverty in India

- In India, **Dadabhai Naoroji** in **1901**, in his book 'Poverty and the Un-British Rule in India' made first attempt to define poverty in Pre-Independence India.
  - It was followed by **National Planning Committee (NPC) in 1938** and **'Bombay Plan' in 1944** to define poverty lines.
- Post-Independence, **Planning Commission Working Group** in **1962**; **Dandekar and Rath** in **1971**; **Alagh Committee** in **1979**; **Lakdawala Committee** in **1993**; **Tendulkar Committee** in **2009** and **Rangarajan Committee** in **2014**.

1.4.2. FINANCIAL INCLUSION

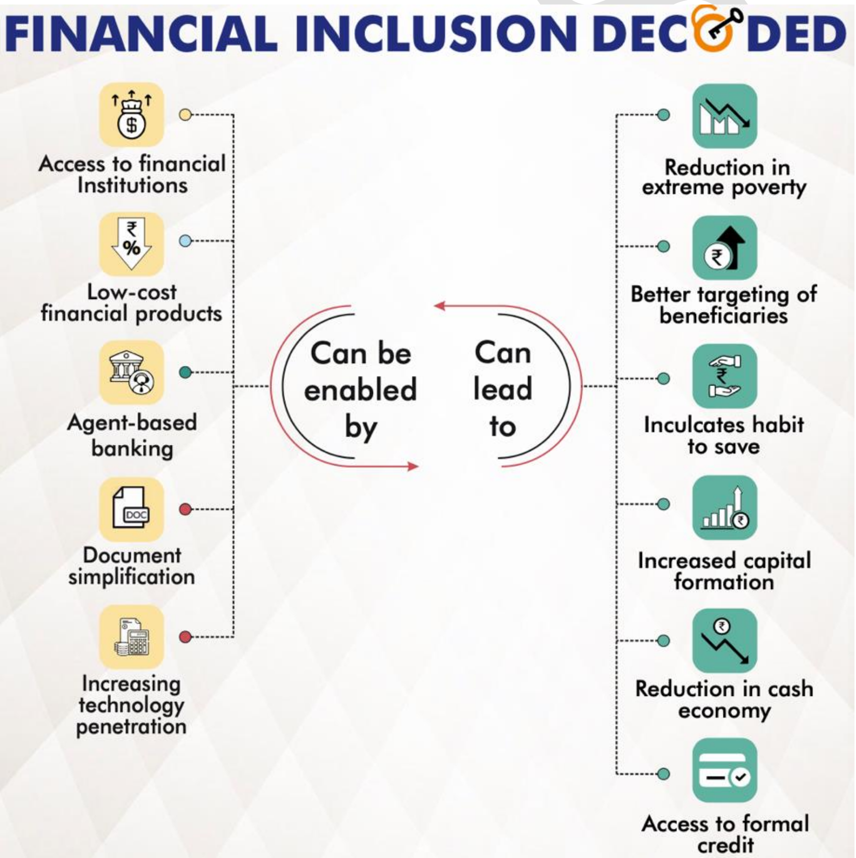


Why in news?

Recently, RBI released India's first composite **Financial Inclusion Index (FI-Index).**

About Financial Inclusion Index (FII)

- FII is a **comprehensive index to capture the extent of financial inclusion** across the country as **recommended by RBI under its National Strategy for Financial Inclusion 2019-2024.**
- It **incorporates details of banking, investments, insurance, postal as well as the pension sector** in consultation with the government and regulators.
- It **captures information on various aspects of financial inclusion on a scale from 0 to 100,** where 0 represents complete financial exclusion and 100 indicates full financial inclusion.
- There are **three broad parameters** with certain assigned weights – **access (35%), usage (45%) and quality (20%)** with **97 indicators.**
- The **FI-Index doesn't have a base year** reflecting cumulative efforts of all stakeholders over the years towards financial inclusion.



Other initiatives towards financial Inclusion

By RBI	**National Strategy for Financial Inclusion (NSFI) 2019-2024** to **expand and sustain** the **financial inclusion process** at the national level through a broad **convergence of action involving all the stakeholders** in the financial sector.
	National Strategy for Financial Education (NSFE) 2020-2025 to enable various sections of the population to **develop knowledge, skills, attitude and behaviour** which are needed to manage their money better and to plan for their future.
By Government	**Pradhan Mantri Jeevan Jyoti Bima Yojana (PMJJBY)** for people in the age group of 18 to 50 years having a **bank account**
	Pradhan Mantri Suraksha Bima Yojana (PMSBY) for people in the age group 18 to 70 years with a **bank account**
	Atal Pension Yojana (APY) for all **saving bank/post office** saving bank account holders in the age group of 18 to 40 years
	Pradhan Mantri Jan-Dhan Yojana (PMJDY) as a National Mission for Financial Inclusion to **ensure access to financial services** in an **affordable manner.** **Objectives of the scheme:**

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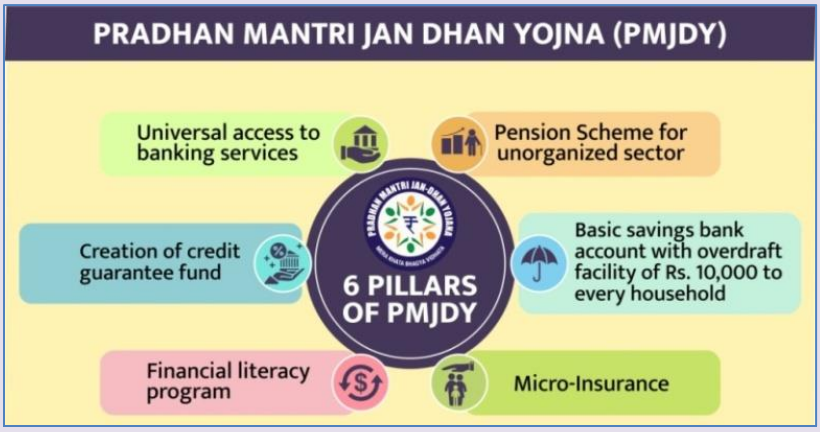
- To **ensure access to various financial services** like access to **need based credit, insurance and pension to the excluded sections** i.e., weaker sections and low-income groups.
- **Use of technology** to lower cost and widen the reach of financial sector.

PMJDY Performance in last Seven years

- **43.04 Crore accounts opened** by 2021 with more than half women.
    - Out of them, **86.5% accounts** are operative.
- **Two-third** of the accounts are in rural and semi-urban areas with nearly **5 crore PMJDY account holders** receiving direct benefit transfer (DBT) from the Government under **various schemes.**



- **Deposits under accounts** increased about 6.38 times from 2015 to 2021.

Jan Dhan Darshak App

- It provides a **citizen centric platform for locating banking touch points** such as bank branches, ATMs, Bank Mitras, Post Offices, etc. Over 8 lakh banking touch points have been mapped on the GIS App.
- It is also being **used for identifying villages which are not served by banking touch points** within 5 km

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</table>

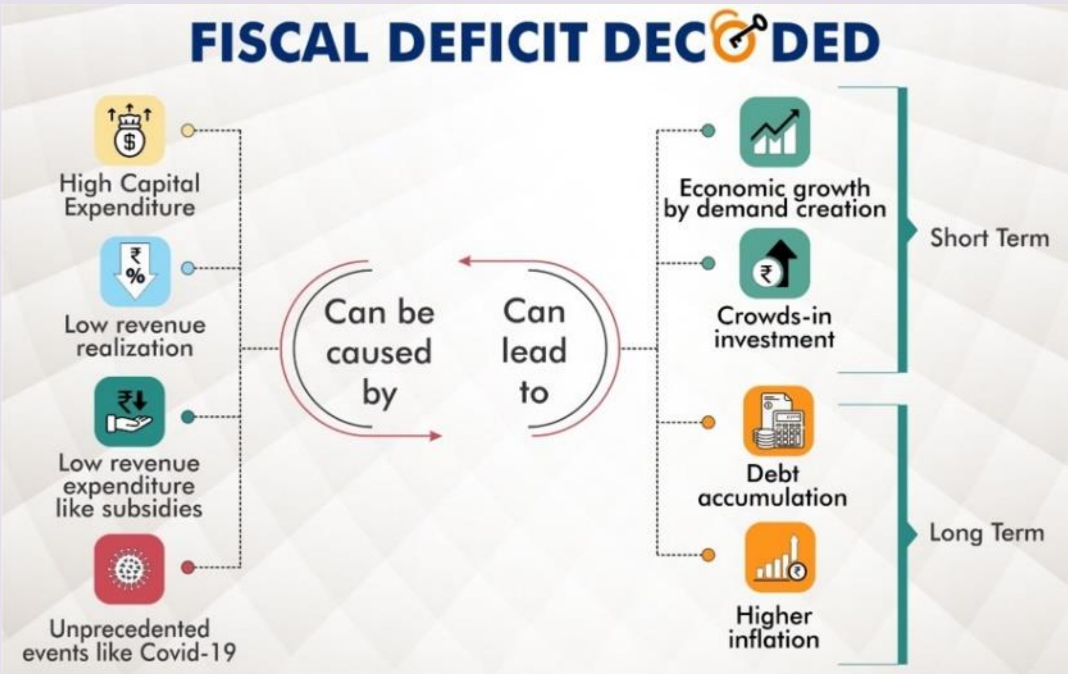
1.5. KEY CONCEPTS AND INFORMATION ON FISCAL POLICY

<table>
<tr>
<td>Debt to GDP Ratio</td>
<td>

- It is the ratio of a country's **public debt to its gross domestic product (GDP).** It indicates a country's ability to pay back its debts.
    - Fiscal Responsibility and Budget Management (FRBM) Act mandated **debt-to-GDP ratio of the Centre to be brought down to 40%** and that of states to **20% by 2024-25.**

</td>
</tr>
<tr>
<td>Fiscal Deficit</td>
<td>

- It is the difference between the total income of the government (total taxes and non-debt capital receipts) and its total expenditure.
    - Fiscal Deficit = Total expenditure of the government (capital and revenue expenditure) – Total income of the government (Revenue receipts + recovery of loans + other receipts).



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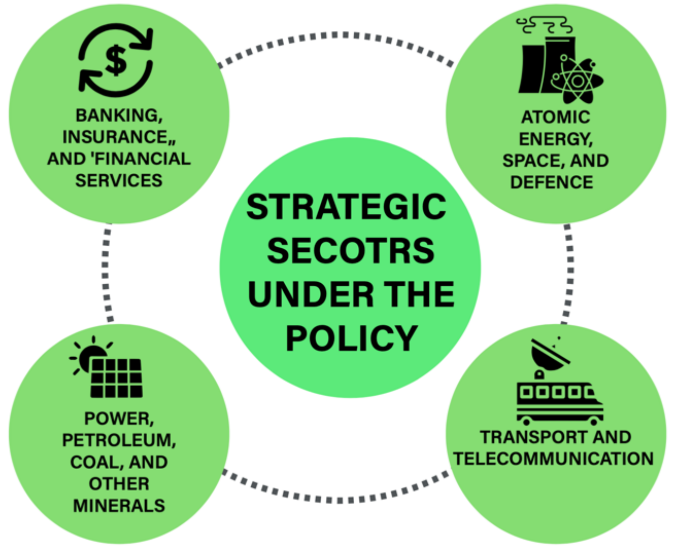
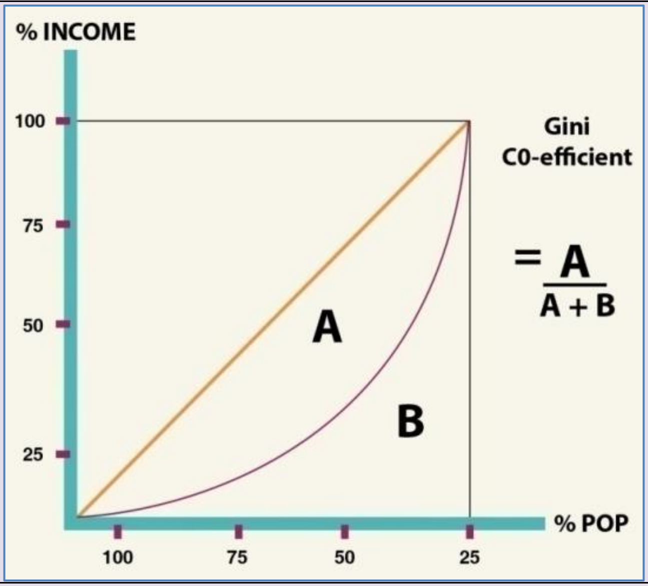
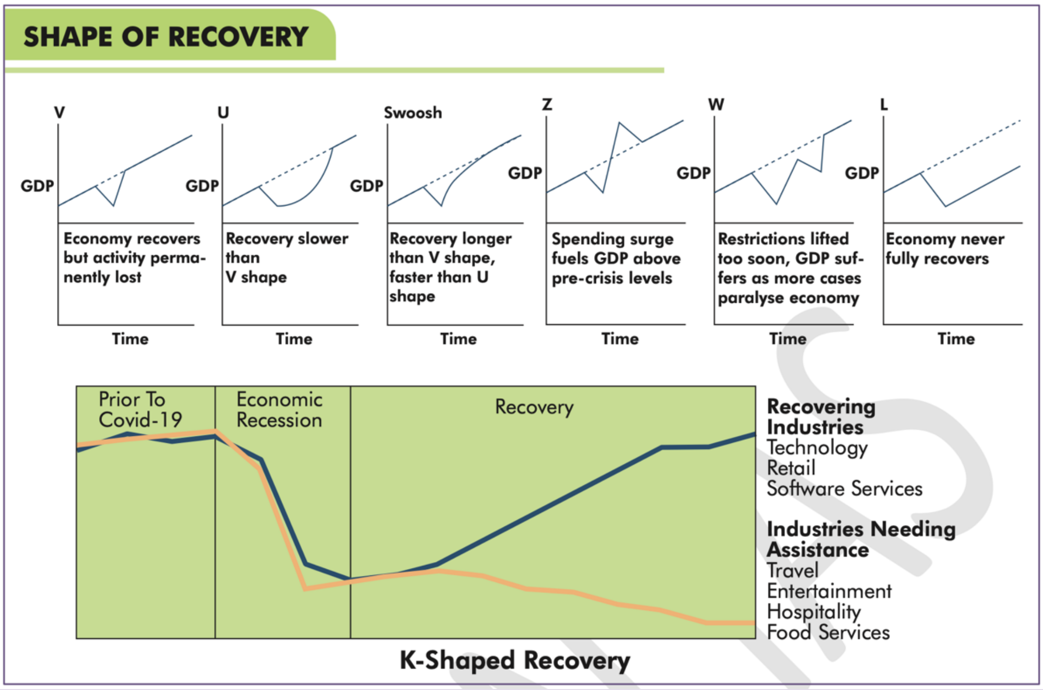
Strategic – Non-strategic sector bifurcation	• Guidelines for **Central Public Sector Enterprise (CPSE) Disinvestment** Released by **Ministry of Finance.** • New Guidelines aims at **privatization, merger, closure or subsidiarization of non-strategic CPSEs** to implement new PSE Policy. • **Main objective:** Reduce financial burden on government, introduce, competition and market discipline, encourage wider share of ownership etc. 
ITAT e-dwar	• It is an **e-filing portal of Income Tax Appellate Tribunal (ITAT) launched by Ministry of Law.** • It will enhance the **accessibility, accountability, and transparency** in the day to day working of the ITAT with other benefits of **economization of the use of paper, savings in costs, and rationalization of the fixation of cases** leading to quicker disposal of cases.
Place of Effective Management (POEM)	• With **increased exodus of businesses and families by HNI individuals** post Covid-19, the risks of flouting POEM has increased. • **Under Section 6 of the IT Act,** POEM is defined as "a place where key management and commercial decisions that are necessary for the conduct of the business of an entity as a whole are, in substance, made." • It was introduced in 2017-18 **to curb practice of limiting the scope for the Indian tax authorities** by artificially shifting insignificant or isolated events related to control and management outside India to avoid residential status and thereby tax in India.
Supplementary grant	• The **additional grant required to meet the required expenditure** of the government is called **Supplementary Grants.** This grant is mentioned under **Article 115** of the Constitution.
Gini Coefficient	• **Gini coefficient** is a popular tool to measure **income distribution inequalities** globally. ○ **Lorentz curve** is the graphical representation of this inequality and intimately related to the Gini coefficient. • Gini coefficient ranges from 0 (or 0%) to 1 (or 100%), with 0 representing perfect equality and 1 representing perfect inequality. 
K-shaped recovery	• K-shaped recovery happens **when different sections of an economy recover at starkly different rates.** While certain industries and individuals pull out of a recession, others stagnate. • India's **real estate sector sees K-shaped recovery where** the residential segment experienced healthy growth, the office segment remained lacklustre. • K shaped recovery is also **observed in Job market**: Lower-skilled workers lost their jobs disproportionately, while job losses aren't as significant for office workers in financial, service sectors.


SHAPE OF RECOVERY
V
GDP
Economy recovers but activity permanently lost
Time
U
GDP
Recovery slower than V shape
Time
Swoosh
GDP
Recovery longer than V shape, faster than U shape
Time
Z
GDP
Spending surge fuels GDP above pre-crisis levels
Time
W
GDP
Restrictions lifted too soon, GDP suffers as more cases paralyse economy
Time
L
GDP
Economy never fully recovers
Time
Prior To Covid-19
Economic Recession
Recovery
Recovering Industries
Technology
Retail
Software Services
Industries Needing Assistance
Travel
Entertainment
Hospitality
Food Services
K-Shaped Recovery

2. BANKING AND MONETARY POLICY

2.1. BANKING

2.1.1. PRIVATIZATION OF PUBLIC SECTOR BANKS

Why in news?

Recently, the Finance secretary said that the government will "eventually" **privatize most of the Public Sector Banks (PSBs)** and keep its **presence to a bare minimum.**

Benefits of PSBs Privatization

- **Better human resource management** through increased professional management.
- **Improved competitiveness** due to autonomous decision making (no government interference).
- **Promote innovation and expertise** development for cost effective services and higher customer satisfaction.
- **Improved assets quality and efficiency of debt coverage** and help them to retain and attract Urban and semi-urban consumers.

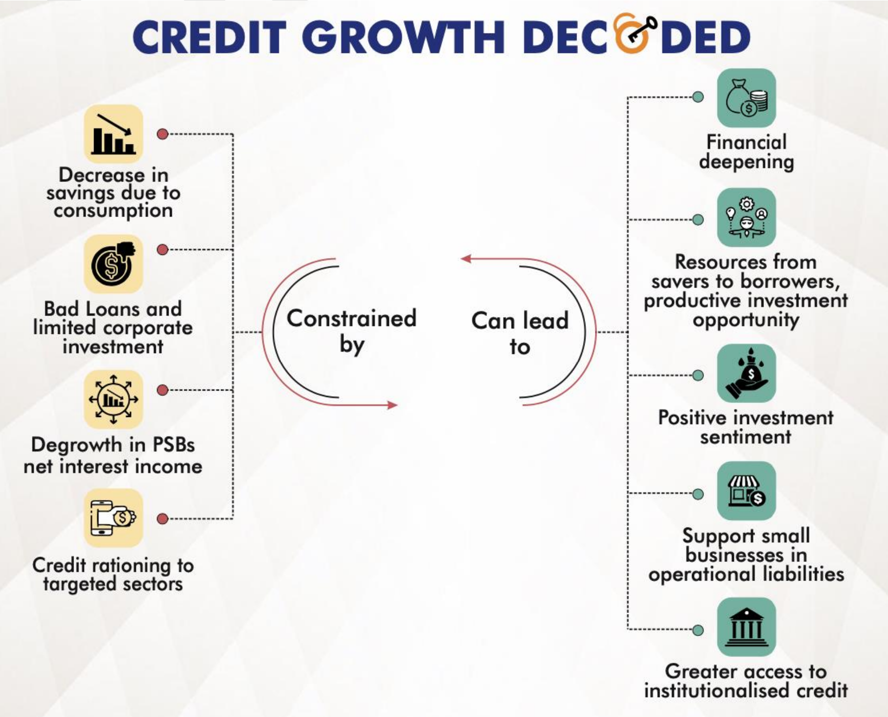
Concerns over PSBs Privatization

- **Financial exclusion of the weaker sections** due to profit driven private banks with concentration largely around the metropolitan/urban areas.
- **Reduced employment opportunities** for the youth, especially people from deprived sections with reservation.
- **Concerns over safety of deposits** due to removal of the **sovereign guarantee** behind the PSB.
- **Macroeconomic effects of bank failures** as happened in the past, leading to **bank nationalisation** in 1969.

Domestic Systemically Important Banks (D-SIBs)

- D-SIBs are the banks considered as **too big to fail** by RBI due to their size, cross-jurisdictional activities, complexity and lack of substitute and interconnection.
- Banks whose **assets exceed 2% of GDP are considered part of this group** such as **SBI, ICICI Bank, HDFC Bank** continues to **remain D-SIB.**
- As per the framework, from 2015, the **central bank has to disclose names of banks designated as D-SIB.**

Recent Steps to strengthen PSBs



- **Enhanced Access and Service Excellence (EASE)** was started in **FY19** as part of PSBs **reforms Agenda,** based on a unique **Reforms Index.**
  - For 2021-22, new reforms are designed under EASE 4.0 to further the agenda of customer-centric digital transformation and deeply embed digital and data into PSBs' ways of working.
- Launch of **PSBloansin59minutes.com** and adoption of the **Trade Receivables Discounting System (TReDS) for digital lending for MSMEs** and retail customers
- **Empowerment of bank Boards** to recruit the bank's Chief Risk Officer from the market, on **market-linked compensation**
- Infusion of **Rs.3.17 lakh crore by the Government** and **Mobilisation of over Rs. 2.49 lakh crore** by the banks themselves etc.

2.1.2. PROMPT CORRECTIVE ACTION (PCA)

Why in news?

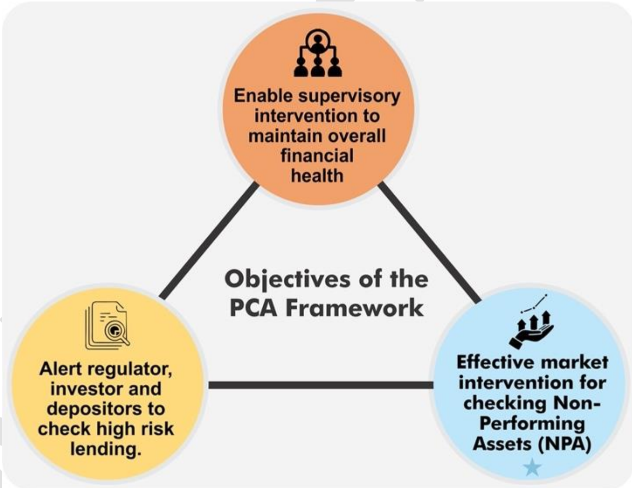
Recently, RBI issued **revised norms for commercial banks** that are to be placed under the Prompt Corrective Action (PCA) framework with effect from January 1, 2022.

More on News

- RBI has also issued Prompt Corrective Action (PCA) Framework for Non-Banking Financial Companies (NBFCs) to tighten regulation over weaker NBFCs.
- It will cover All **Deposit Taking NBFCs** [NBFCs-D, Excluding Government Companies]; All **Non-Deposit Taking NBFCs in Middle, Upper and Top Layers** (NBFCs-ND) including Core Investment Companies (CICs) [Excluding - (i) NBFCs not accepting/not intending to accept public funds; (ii) Government Companies, (iii) Primary Dealers and (iv) Housing Finance Companies].

About PCA

- PCA is a framework under which **financial institutions**, usually banks and now NBFCs as well, with **weak financial metrics are put under watch by the RBI.**
- It was **first introduced in 2002** as a structured early-intervention mechanism for banks that become under capitalised due to poor asset quality, or vulnerable due to loss of profitability.
- It was last **reviewed in 2017** based on the recommendations of the **Financial Stability and Development Council and the Financial Sector Legislative Reforms Commission.**



Important changes in the PCA Framework for Banks

- **Parameters:** Three parameters, **Capital, Asset Quality and Leverage**, to be monitored under the revised framework with **three risk thresholds,** from 1 to 3, in the increasing order of severity.
  - The revised framework has **removed return on assets as an indicator.**
- **Applicability:** To apply **on all banks operating in India including foreign banks** operating through branches or subsidiaries based on breach of risk thresholds of identified indicators.
  - However, **payments banks and small finance banks (SFBs) have been removed** from the list of lenders where prompt corrective action can be initiated.
- **Entry:** PCA Framework will apply based on the **Audited Annual Financial Results and the ongoing Supervisory Assessment made by RBI**; or if circumstances so warrant.
- **Exit:** Based on the **Supervisory comfort of RBI** and **no breaches in risk thresholds** in any of the parameters for **four continuous quarterly financial statements,** one of which should be Audited Annual Financial Statement (subject to assessment by RBI);

Corrective actions prescribed after a bank or NBFC is placed under PCA

<table>
<tr><th colspan="3">Mandatory and Discretionary actions by RBI</th></tr>
<tr><th>Specifications</th><th>Mandatory actions</th><th>Discretionary actions</th></tr>
<tr><td>Risk Threshold 1</td><td>• Restriction on dividend distribution/remittance of profits.
• Promoters/Owners/Parent (in the case of foreign banks) to bring in capital.
• Restriction on issue of guarantees or taking on other contingent liabilities on behalf of group companies (only for CICs)</td><td rowspan="3">Special Supervisory Actions:
• Strategy related
• Governance related
• Capital related
• Credit risk related
• Market risk related
• HR related
• Profitability related
• Operations/Business related
• Any other</td></tr>
<tr><td>Risk Threshold 2</td><td>In addition to mandatory actions of Threshold 1,
• Restriction on branch expansion; domestic and/or overseas</td></tr>
<tr><td>Risk Threshold 3</td><td>In addition to mandatory actions of Threshold 1 & 2,
• Appropriate restrictions on capital expenditure, other than for technological upgradation within Board approved limits.
• Restrictions/reduction in variable operating costs (For NBFCs)</td></tr>
</table>

However even under PCA, **banks are allowed to invest in government securities**/other high-quality liquid investments.

About NBFCs and their Regulation

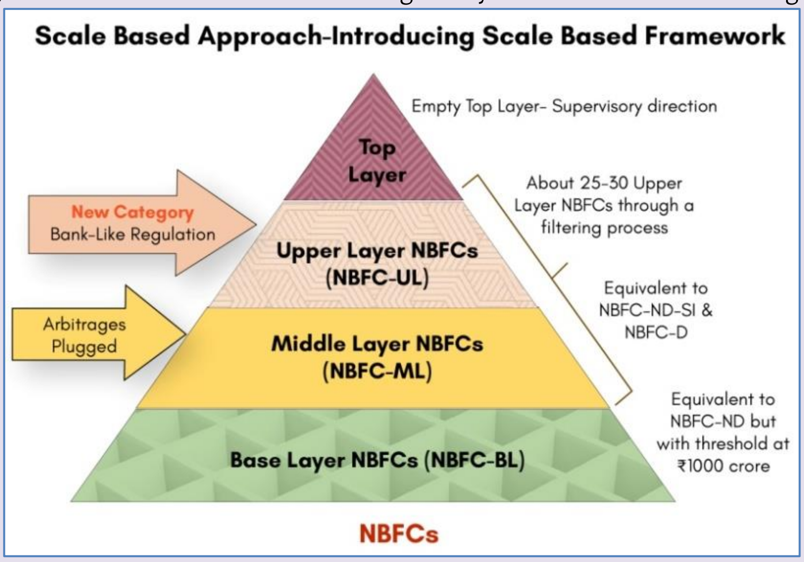
- **NBFCs**, also known as **nonbank financial institutions**, are entities that provide certain-bank like and financial services but do not hold a banking license and **excludes** entities with agriculture activity, industrial activity, purchase or sale of any goods (other than securities) as **principal business** or providing any service and sale/purchase/construction of immovable property.
    - Principal Business is the financial activity which consists of **more than 50% of company assets** and **over 50% if it's gross income.**
- **NBFCs difference from banks**: NBFCs **can't accept** demand deposits; NBFCs are **not part of** payment and settlement system and **can't issue** cheques drawn on itself; and **DICGC** facility **is not available** to depositors of NBFCs.
- **Regulation:** NBFCs are **regulated by RBI** although some NBFCs are regulated by **SEBI, IRDAI, National Housing Bank** etc. to avoid dual regulation.
- **Systemically important NBFCs**: NBFCs whose asset size is of ₹ 500 crore or more are considered as systemically important NBFCs. Example. Power Finance Corporation Limited (PFCL), Rural Electrification Corporation Limited (RECL) etc.

PCA FRAMEWORK For NBFCs-D and NBFCs-ND

INDICATOR	RISK THRESHOLD 1	RISK THRESHOLD 2	RISK THRESHOLD 3
Capital to risk weighted assets ratio (CRAR)	Upto 300 bps below the regulatory minimum CRAR [currently, CRAR <15% but ≥12%]	More than 300 bps but upto 600 bps below regulatory minimum CRAR [currently, CRAR <12% but ≥9%]	More than 600 bps below regulatory minimum CRAR [currently, CRAR <9%]
Tier I Capital Ratio	Upto 200 bps below the regulatory minimum Tier I Capital Ratio [currently, Tier I Capital Ratio <10% but ≥8%]	More than 200 bps but upto 400 bps below the regulatory minimum Tier I Capital Ratio [currently, Tier I Capital Ratio <8% but ≥6%]	More than 400 bps below the regulatory minimum Tier I Capital Ratio [currently, Tier I Capital Ratio <6%]
Net non-performing assets (NNPAs) including non-performing investments (NPIs)	>6% but ≤ 9%	>9% but ≤12%	>12%

Regulation of NBFCs: Revised Scale-Based Regulatory (SBR) Framework

- Recently, Reserve Bank of India (RBI) introduced a revised scale-based regulatory framework for non-banking financial companies (NBFCs).
- Under the revised regulatory framework (to come into effect from **01 October 2022**), they will be subjected to a **Scale-Based Regulatory (SBR) Framework** with **Four-layers** based on their size, activity and perceived riskiness (see image).



- **Base Layer:** It include NBFCs-ND with asset size below **₹1000 cr** and NBFCs in activities as- **P2P lending, Account Aggregator, Non-Operative Financial Holding Company** and **NBFCs** not availing **public funds** and no **customer interface.**
- **Middle Layer:** All deposit taking NBFCs; NBFCs-ND with asset size of Rs 1000 cr or more; NBFCs in activities as- Standalone Primary Dealers, Infrastructure Debt Fund, CICs, Housing Finance Companies and Infrastructure Finance Companies;
- **Upper Layer:** Top ten NBFCs in terms of their asset size and NBFCs identified by RBI as warranting enhanced regulatory framework; and
- **Top Layer:** Ideally to remain empty but RBI can populate it if substantial increase in the potential systemic risk from NBFCs in the upper layer.

The new **SBR framework** also introduced changes to-

- **Extant NPA classification** to be 90 days by **March 2026 for all categories of NBFCs**;
- Ceiling of **Rs 1 crore per borrower** in IPO funding;
- At least one **Director with experience** in a bank/NBFC;

- Changes in **Capital Guidelines** for NBFC in Middle and Upper Layer;
- Revised **Governance guidelines** (e.g., Chief Compliance Officer) and **prudential guidelines** on Credit concentration/Sensitive Sector Exposure etc.

2.1.3. PAYMENT BANK

Why in news?

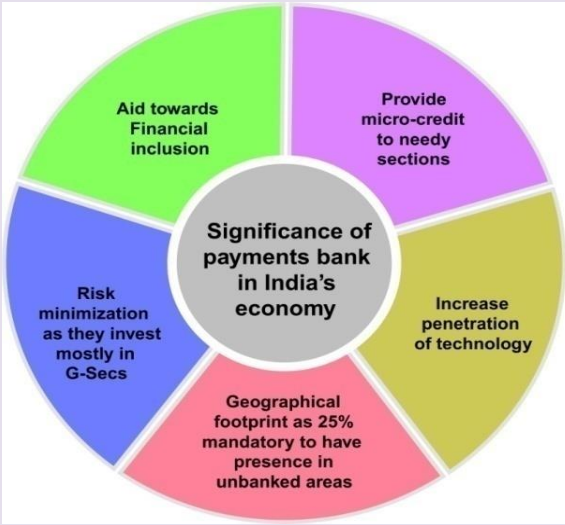
RBI accorded Scheduled Bank status to number of Payment Banks like Paytm Payments Bank, Airtel Payments Bank etc.

Scheduled Bank status and its Benefits

- Scheduled Banks are the banks included in the **Second Schedule** of **Reserve Bank of India Act, 1934**.
  - This includes **Scheduled Commercial Banks and Scheduled Co-operative Banks**
- Scheduled Bank status allows banks to explore new business opportunities, take part in **Request for Proposals** issued by the government and other large corporations, **primary auctions, fixed-rate and variable rate repos** and **reverse repos**.
- They can also participate in **Marginal Standing Facility** and will be eligible **to partner** in **government-run financial inclusion schemes**.
- They are eligible for **refinancing facility from the RBI** at the **bank rate, acquire membership** to **clearing house**, and get **access to currency storage facility**.

About Payment Bank

- Suggested by **Nachiket Mor committee** in 2013, it is a bank **registered** under **Companies Act, 2013** and **licensed** under **Banking Regulation Act, 1949.**
- **Minimum paid-up equity capital** of the payments bank is **₹100 crores** and it is required to maintain a minimum **capital adequacy ratio** of 15%.
- **Promoters** of the payments bank should hold at least **40% of its paid-up equity capital** for the **first 5 years**.
  - Promoter/promoter group can have **Joint Venture with an existing SCB**.
- They operate on a smaller scale **with no credit risk (can't advance loans or issue credit cards).**
- It can **accept demand deposits (up to Rs 1 lakh), offer remittance services, mobile payments/transfers/ purchases** and other banking services
- They **maintain Cash Reserve Ratio (CRR) with RBI** and invest in eligible government securities/ treasury bills under **Statutory Liquid Ratio (SLR).**
- They can access **inter-bank uncollateralised call money market** and **collateralized repo and CBLO market** for temporary liquidity management.
- Recently, SEBI allowed the payment banks to act as investment bankers, i.e. to work in raising capital for corporations, governments, or other entities like Goldman Sachs, Morgan Stanley.



2.1.4. DEPOSIT INSURANCE AND CREDIT GUARANTEE CORPORATION (DICGC) (AMENDMENT) ACT, 2021

Why in news?

Deposit Insurance and Credit Guarantee Corporation (DICGC) (Amendment) Act, 2021 has been in news recurrently.

About DICGC

- DICGC is a wholly owned subsidiary of the RBI created under the DICGC Act, 1961 with **Deputy Governor of RBI as its ex-officio Chairman.**
- Governed by the provisions of the **DICGC Act of 1961** and **DICGC General Regulations of 1961**, DICGC is liable to pay the **insured deposit amount** to **depositors** of an **insured bank.**
- It registers a bank as insured immediately and automatically on issuance of banking license.
- For all insured banks, Payment of deposit insurance premium to DICGC is compulsory and DICGC pays the insured deposit amount to depositors in situations like-

- Liquidation (sale of all assets on closing down of the bank), **Reconstruction** or any other arrangement under a scheme, or **Merger or acquisition** by another bank.

- It covers all commercial banks, including Payment Banks, Small Finance Banks, Regional Rural Banks, Foreign Bank branches in India, Local Area Banks and Co-operative Banks in all States and Union Territories.
- In the last budget, the deposit insurance cover was increased from ₹1 lakh to ₹5 lakh per depositor per bank, fully protecting **98.1%** of the total **252.6 crore accounts** or **50.9%** of **total assessable deposits** as at end-March 2021.
    - Internationally, fully protected accounts are around 80% and 20-30% of total assessable deposits.
    - Bank-group wise, the percentage of insured deposits vis-à-vis total deposits is 84% for RRBs, 70% for cooperative banks, 59% for SBI, 55% for PSBs, 40% for private sector banks and 9% for foreign banks.

Key Features of DICGC (Amendment) Act, 2021

- Introduction of **interim payments from DICGC** to these depositors with 90 days (max) timeline.
- Provisions for **penal interest** in case of delay to ensure timely repayment from banks to DICGC.
- Removal of earlier ceiling of 15 paise (0.15%) on premium and DICGC to notify the ceiling on premium with prior RBI approval.
- Empower DICGC's Board to defer due repayments from insured banks after insurance pay out on its own terms.

2.2. ASSET QUALITY AND RESTRUCTURING

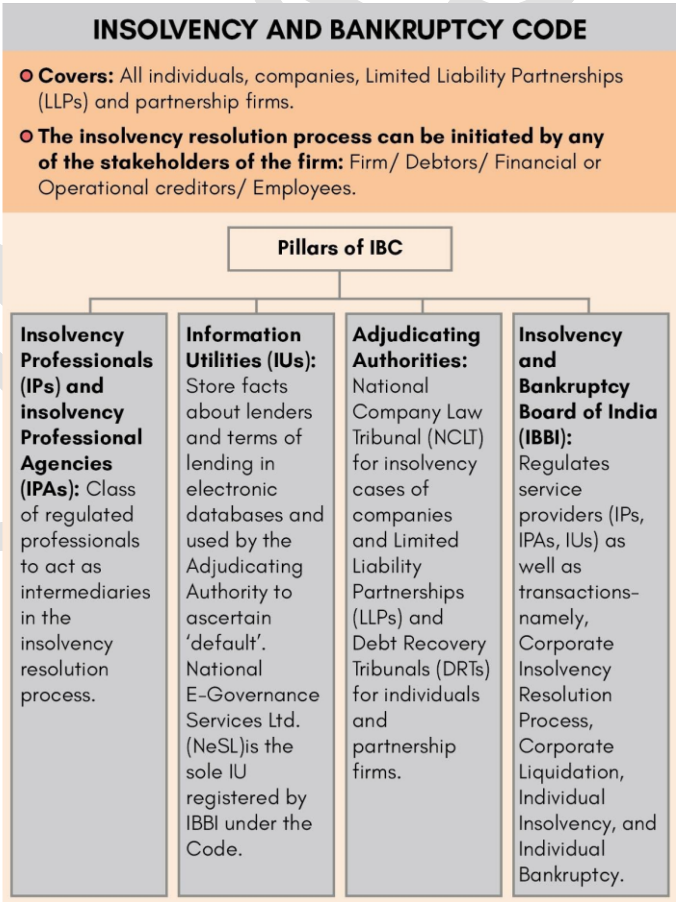
2.2.1. INSOLVENCY AND BANKRUPTCY CODE (IBC)

Why in News?

Recently, the parliament passed **Insolvency and Bankruptcy Code (Amendment) Bill 2021** to Pre-Packaged Insolvency Resolution Process (PPIRP) for corporate MSMEs.

Insolvency and Bankruptcy Code (IBC)

- **The IBC, 2016** provides for **resolution of stress assets** of a company, a limited liability partnership, a proprietorship, or partnership firm, or an individual
- In over 5 years of its operation, it has created an **insolvency ecosystem** in India under the **National Company Law Appellate Tribunal** as **Appellate Authority** via its pillars (see image).



What is Pre-packaged insolvency resolution?

- A pre-packed insolvency resolution mechanism is a process wherein a resolution arrangement is agreed upon between the distressed corporate debtor (CDs) and lender before approaching the National Company Law Tribunal (NCLT) for bankruptcy proceedings.
- It follows a **debtor-in-possession model** and gives legal sanction to a plan agreed among banks, promoters, and the buyer.
- It also protects from **fraudulent activities/mismanagement** by allowing **Committee of Creditors** (CoC) to make an application for change in the management of the company and pass control to the resolution professional via 66% voting.
    - CoC is composed **of financial creditors to the Corporate Debtor (CD) or operational creditors** in the absence of unrelated financial creditors
- **It allows for a Swiss challenge to the resolution plan submitted by a CD,** allowing third party to submit resolution plan, in case operational creditors are not paid 100% of outstanding dues.

Differences between PIRP and Corporate Insolvency Resolution Process (CIRP)

Criteria	PIRP	CIRP
Control of the firm during insolvency	Debtors remain in control of their distressed firm.	Company is managed by the resolution professional.
Completion Deadlines	**120 days** of the commencement date.	**270 days** from the commencement date.
Process of resolution of the debt	Distressed company enters into direct agreement between secured creditors and the existing owners or outside investors.	Resolution through open bidding system.

In **2019**, the Insolvency and Bankruptcy Board of India (IBBI) set up a working group for **Tracking Outcomes of Insolvency and Bankruptcy Code, 2016 (IBC),** also known as **GN Bajpai committee**.

Cross Border Insolvency

- Another issue of IBC in dealing with special circumstances in which an insolvent debtor has assets and/or creditors in more than one country.
- Regulated by Section 234 and 235 of IBC, they are **ad-hoc in nature** and **susceptible** to **delay**.
  - **Section 234** empower **Central Government** to enter into **bilateral agreements** with other countries to resolve situations about cross-border insolvency, and
  - **Section 235** allows **Adjudicating Authority** to issue a **letter of request** to a court or competent authority to deal with a request for evidence or action in connection with insolvency proceedings under IBC in countries with agreement under Section 234.
- The absence of standardized cross border insolvency framework gives rise to complexities and raises number of issues such as:
  - **Extent of access to assets** held in a foreign country for an insolvency administrator,
  - **Priority of payments**, i.e., whether local creditors to have access to local assets before funds go to the foreign administration or not,
  - **Recognition of the claims of local creditors** in a foreign administration,
  - **Recognition and enforcement of local securities**, taxation system over local assets where a foreign administrator is appointed etc.
- Based on **Insolvency Law Committee** of 2018 recommendations, a robust cross border insolvency framework can be created by adopting the United Nations Commission on International Trade Law (UNCITRAL) with certain modifications to suit Indian context.

2.2.2. NATIONAL ASSET RECONSTRUCTION COMPANY LIMITED (NARCL) AND INDIA DEBT RESOLUTION COMPANY LIMITED (IDRCL)

Why in News?

To resolve the legacy NPAs and clean up the bank books, two new related entities- NARCL and IDRCL were incorporated in 2021 under debt management agreement.

More on News

- Despite various resolution mechanisms (e.g., IBC, SARFAESI Act, Debt Recovery Tribunals etc.) and 28 Asset Reconstruction Companies (ARCs), **Legacy NPAs** is still a big concern. To resolve it,
  - **NARCL** will function as an **ARC** (**majorly owned** by **PSBs** with **Canara Bank** as **Sponsor**), incorporated in July 2021, to **aggregate** and **acquire** stressed assets; and
  - **IDRCL** will serve as a service company [**majorly owned** by Private Sector Banks **(51%)**, rest with PSBs], incorporated in September 2021, to manage and dispose of the assets.
- NARCL with a finite life of **5 years** with IDRCL term being co-terminus to NARCL.

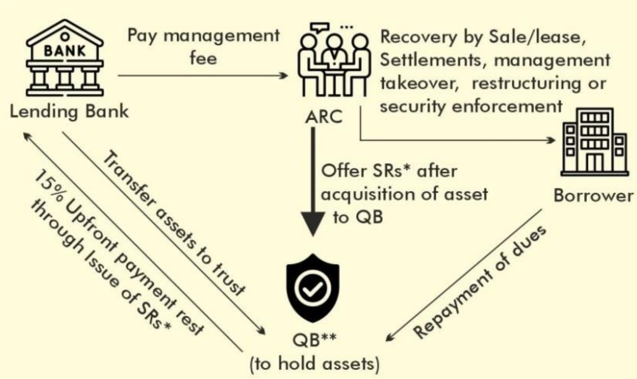
About Asset Reconstruction and ARC

- Asset reconstruction is defined as 'the acquisition of banks/financial institutions right or interest in any financial assistance by an ARC for realization of such financial assistance.
- In India, ARCs are incorporated under the **Companies Act** and registered with RBI under **section 3** of the Securitization and Reconstruction of Financial Assets and Enforcement of Security Interest **(SARFAESI), Act 2002**.

Resolution Process

- NARCL will acquire assets of around **₹2 lakh crore** by making an offer to Lead Bank, with Lead Bank to run a '**Swiss Challenge**' process to invite other ARCs/Bidders to better NARCL anchor offer, before NARCL being declared as a **preferred bidder**.

- The assets will be acquired by NARCL in the underlying trusts, with IDRCL to prepare and suggest the proposed restructuring/ resolution plan, strategies, etc. for each of them.
- The **asset acquisition** and **resolution** will happen within the **RBI Framework for ARCs**.
  - E.g., Asset acquisition within the extant regulations of RBI under **15:85 structure** (15% in Cash and 85% in Security Receipts or SRs).
- Based on international practices like Malaysia and UK, SRs issued by NARCL will be **backed by Government** (up to ₹30,600 crore) for **credibility** and providing a **contingency buffer**.
- Valid for 5 years, the government will charge a 'guarantee fee' on the amount it guarantees, which will increase annually to incentivize early and timely resolution.



Working of ARCs

*SR or Seurity receipt is a receipt/security, issued by an ARC to any QBs on purchase/acquisition of an undivided right, title or interest in the financial asset

**QB or Qualified buyer represents the corporate entities like FIs, Insurance Company, Bank, Trustee,AMC etc. or any category of non-institutional investors specified by RBI or by SEBI

- NARCL will reconstruct only those assets which are 100% provided for by the lenders and not classified as fraud or amid a liquidation process.

2.3. MONETARY POLICY

2.3.1. RBI SURPLUS TRANSFER

Why in News?

Recently, the Reserve Bank of India (RBI) approved the transfer of **₹99,122 crore** as surplus (excess of income over expenditure) to the central government from its reserves.

How does RBI generate surplus?

RBI's Income Sources (% contribution)	RBI's Expenditure (% contribution)
• **Other income from foreign sources (41%)** including Profit/Loss on sale and redemption of foreign securities, Gain/Loss from forex transactions among others. • **Return from domestic sources (33%)** which include interest on Loans and Advances, interest on Liquidity Adjustment Facility (LAF) operations etc. • **Return from foreign sources (19%)** which include interests from foreign currency deposits, interest on Repo/Reverse Repo transactions etc. • **Other income from domestic sources (7%)** including Profit/Loss on sale and redemption of Rupee securities, Commission among others.	• **Provisioning of risks in RBI's reserves (63%):** It includes- ○ **Contingency Fund (CF),** funded largely from the RBI's profits, it is the second biggest fund designed to meet contingencies from exchange rate operations and monetary policy decisions. ○ **Asset Development Fund (ADF)** includes provisions made towards investments in subsidiaries and associated institutions and to meet internal capital expenditure. • **Agency charges** (15%) which include commission to banks, primary dealers etc. • **Printing of notes** (12%) • **Employee cost** (10%)
RBI's total expenditure is only about 1/7th of its total net interest income, thereby generating surplus.	

How does RBI transfer surplus to the government?

- RBI surplus transfers to the Central Government are done in **accordance with Section 47** (Allocation of surplus profits) **of the Reserve Bank of India Act, 1934.**
- The amount of surplus to be transferred is revised time to time based on committee's recommendation and RBI needs.
  - **Committees on RBI Surplus Transfer:** V Subrahmanyam in 1997, Usha Thorat in 2004 and Y H Malegam in 2013 and Bimal Jalan Committee in 2018.
- Under the present **revised Economic Capital Framework or ECF** from Bimal Jalan Committee the **amount of surplus** that the RBI must transfer to the Centre is determined by **two factors** as:
  - **Realized equity** (essentially existing amount in CF) to be maintained within a range of **6.5% to 5.5%** of the RBI's balance sheet and transfer the excess amount from it.
  - **Economic capital** (essentially CGRA) to be kept in the range of **20-24.5%** of the balance sheet and rest should be transferred to government.

Why RBI surplus has gone up sharply this year?
- **Lower expenditure** as RBI has chosen to maintain the **lowest required buffer** (CF at 5.5%).
- **Higher income** from its **Open Market Operations** and a **sizeable rise in forex reserves.**
- Contribution from **Targeted long term repo operations (TLTROs)**, i.e. targeted long-term repo operations **used to infuse cash in the banking system** for on-lending to specific sectors.

2.3.2. INDIA'S FOREX RESERVES

Why in News?

In 2021, Indian Foreign Exchange reserves hit new lifetime high of around **US$ 642 billion**, making India the **fourth largest Forex reserve** holder after China, Japan and Switzerland.

About Foreign Exchange Reserves

- Foreign Exchange Reserves, also known as **Forex Reserves**, are assets held on reserve by a central bank in foreign currencies.
- Mostly dominated by **foreign currency assets**, it can also include **other instruments** like bonds, treasury bills, Gold Reserves, Special Drawing Rights at IMF etc.
- Due to **US dollar** use in **settlement of international transactions**, currency assets are dominated by dollar among various currencies (Euro, British pound, Japanese Yen and Chinese Yuan).
- Vital for **global trade and commerce**, Forex reserves serve number of purposes (see image).

Reasons for recent rise in Indian Forex Reserves

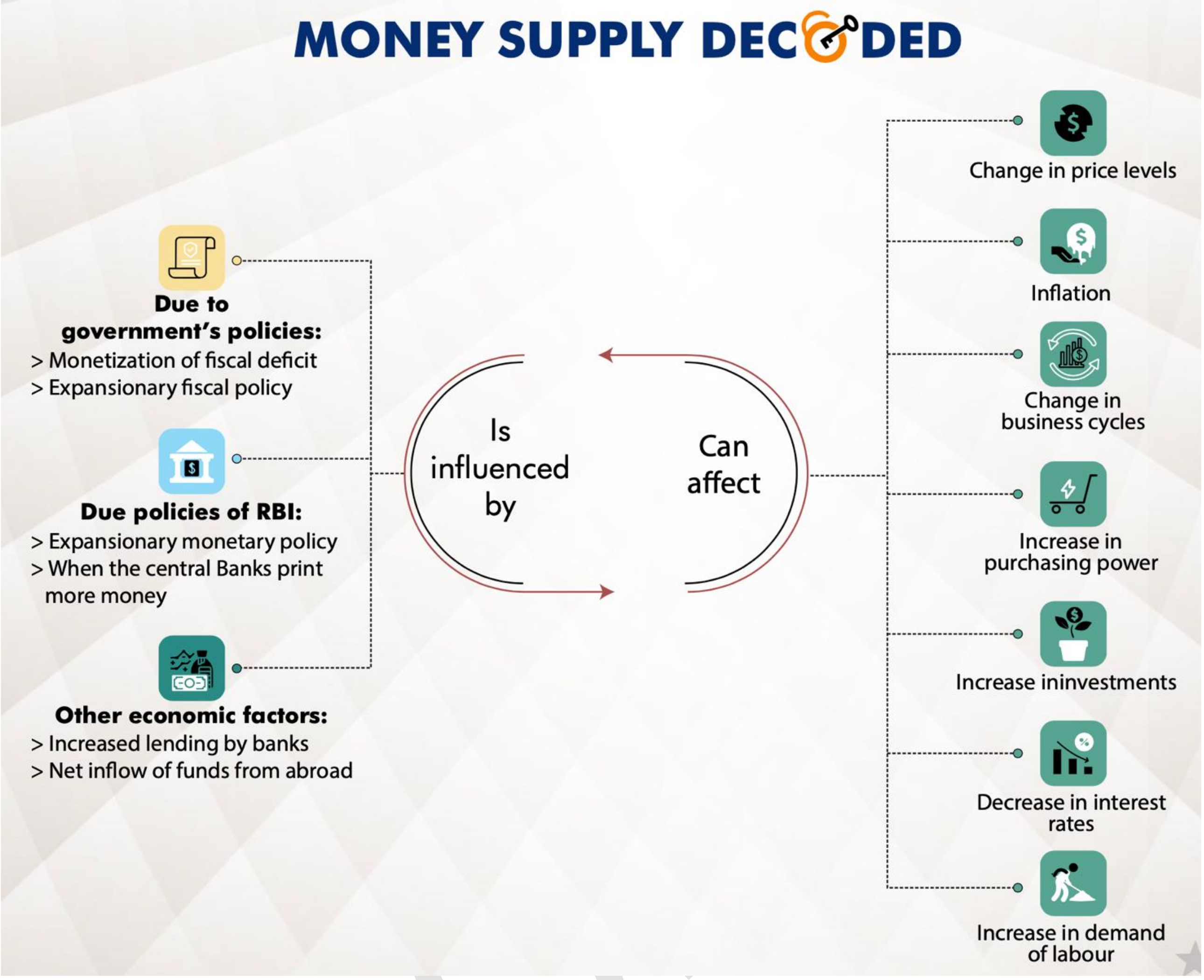
- **High Foreign Capital Flow** from Rising FDI and Foreign Portfolio Investment (FPI) etc.
- **Reduced Capital outflow** due to reduced consumptions under Covid-19 and curbs on foreign travel, leading to record BoP surplus.
- **Record remittances** from its Diaspora in last two years (above US$ 80billion), and
- **Massive Liquidity Injection** by USA through stimulus measures against economic impact of pandemic.

Arguments for maintaining High Forex Reserves

- **Reduced risk from External Vulnerabilities** such as Volatile Oil Prices, high outflow of hot money (FPIs),
- **Exchange Rate Management** through **occasional RBI intervention** to curb excessive volatility,
- **Generate Investors' Confidence** through ability to finance India's **Current Account Deficit** and minimize the impact of just **above Junk Category** rating and **net negative international investment position** of -12.9% of GDP,
- **Help emerge as Regional Leader** through increased ability to open currency swap lines for others, (e.g. SAARC nations, as done in 2012 through currency swap mechanism),
- **Liquidity against domestic and global Economic Risks** like **High banking NPAs**, corporate bond market crisis due to IL&FS payment default or the Covid-19 related uncertainties,
- **Cushion against monetary stimulus withdrawal** for US Fed in near future; avoiding **external sector crisis** with over 10% **currency fluctuation** as happened earlier

Arguments against maintaining High Forex Reserves

- At above US$600 billion, Forex reserves are higher than our **external debt obligations** and enough to cover more than **15 months** of our projected **2021-22 imports,**
- Low returns on **Forex reserves**- usually around 1% or less due to near zero interest rates in advanced economies,
- **Large infrastructure** financing needs of India to meet development aspirations and utilize young demography.
- **Risks of High opportunity and fiscal costs** of sterilization of liquidity, i.e., unused excessive cash despite development needs, poverty and large youth population,
- **Shows lack of confidence** from government on its economy resilience, soundness of macroeconomic management and its measures to raise capital or exports.



2.4. KEY CONCEPTS AND INFORMATION ON BANKING AND MONETARY POLICY

<table>
<tr><td>Non-Performing Asset</td><td>

When a loan whose principal or interest payment is overdue for less than 90 days, it comes under the purview of Special Mention Accounts (SMA).
<table>
<tr><th>SPECIAL MENTION ACCOUNT</th><th>PRINCIPAL/INTEREST PAYMENT & PARTLY/WHOLLY DUE</th></tr>
<tr><td>SMA-0</td><td>1-30 Days</td></tr>
<tr><td>SMA-1</td><td>31-60Days</td></tr>
<tr><td>SMA-2</td><td>61-90 Days</td></tr>
</table>
It is a loan or advance for which the principal or interest payment remains overdue for a period of 90 days.
Banks are required to classify NPAs further into Substandard, Doubtful and Loss assets.

Substandard assets: Assets which have remained NPA for a period less than or equal to 12 months.
Doubtful assets: Assets which have remained in the substandard category for a period of 12 months
Loss assets: It is considered uncollectible and of such little value that its continuance as a bankable asset is not warranted, although there may be some salvage or recovery value.

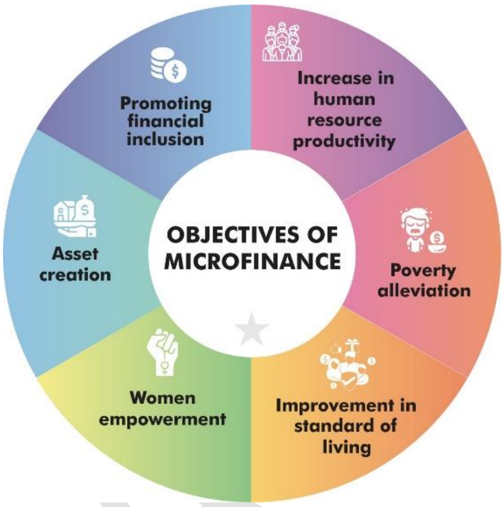
</td></tr>
<tr><td>Capital Adequacy Ratio (CAR)</td><td>It governs the capital that a bank ought to hold as a percentage of its total assets. CAR is also known as Capital to Risk (Weighted) Assets Ratio (CRAR).</td></tr>
<tr><td>Leverage ratio</td><td>It shows how much a lender has stretched itself in borrowing funds to generate income. The more the leverage, the riskier the turf on which the lender stands.</td></tr>
<tr><td>Return on assets (RoA)</td><td>It measures profitability, derived from net income (profit) as a percentage of total assets.</td></tr>
</table>

Haircut	• Haircut refers to the **lower-than-market value placed on an asset being used as collateral for a loan.**
Co-lending	• Co-lending or co-origination is a **set-up where banks and non-banks enter into an arrangement** for the joint contribution of credit for priority sector lending.
Provisioning coverage ratio (PCR)	• PCR is ratio of **provisioning to gross non-performing assets** and indicates the **extent of funds** a bank has kept aside to cover **loan losses**
Platform for Regulated Entities for Integrated Supervision and Monitoring (PRISM)	• PRISM is a **web-based end-to-end workflow automation system** from **RBI** to **strengthen compliance** by **supervised entities** (SEs), including banks and non-banking financial companies. • PRISM includes **functionalities** (inspection; compliance; incident functionality for cyber security; complaints; and returns functionalities), **with built-in remediation workflows, time tracking, notifications and alerts**, management information system (MIS) reports and dashboards.
Regulatory Sandbox	• Regulatory Sandbox (RS) refers to **live testing of new products or services in a controlled/test regulatory environment** for which regulators may (or may not) permit certain regulatory relaxations for the limited purpose of the testing. o RS allows market participants to **collect evidence on the benefits and risks of new financial innovations,** while carefully monitoring and containing their risks. • Objective of the RS is **to foster responsible innovation in financial services, promote efficiency and bring benefit to consumers.**
Consumer Confidence Survey (CCS)	• It is conducted by the Reserve Bank of India (RBI). • CCS seeks **qualitative responses from households, regarding their sentiments on the general economic situation, employment scenario, price level, households" income and spending** which provides useful inputs for monetary policy.
Inflation Expectations Survey of Households (IESH)	• Recently, the Reserve Bank of India (RBI) announced the launch of the next round of IESH **to capture inflation expectations and consumer confidence, which provide useful inputs for its monetary policy.** • The survey aims at capturing **subjective assessments on price movements and inflation,** of about 6,000 households, based on their **individual consumption baskets, across 18 cities.** • The survey seeks quantitative as well as qualitative responses from households.

3. PAYMENT SYSTEMS AND FINANCIAL MARKETS

3.1. PAYMENT SYSTEMS

3.1.1. MICROFINANCE REGULATIONS

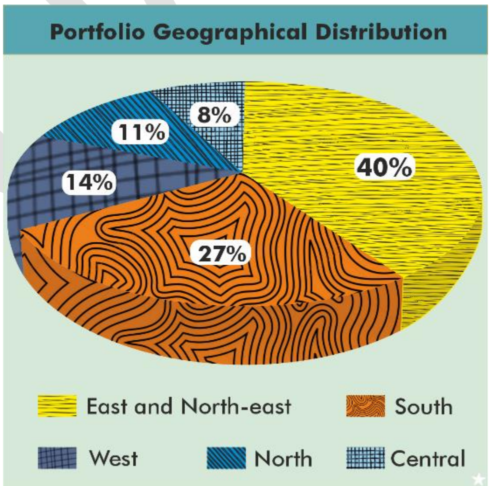


Why in news?

The RBI has proposed a new regulatory regime for microfinance with uniform set of guidelines for all lenders.

About Microfinance

- Microfinance is a **banking service** provided to **unemployed or low-income individuals or groups** to help them to work their way out of poverty by undertaking income generating activities.
- **Features:** Lending of small amounts of loans without any collateral and flexible repayment schedule.
- **Origin:** Microfinance largely originated from works of NGOs with Bangladesh Grameen Bank as first microfinance institution in 1983.
- **Indian Microfinance:** Unlike a parallel evolution in other parts, Indian microfinance evolved in relationship with public banks though linkage between Self-Help Groups (SHGs), NGOs and banks.
- Starting from **SHG-Bank linkage programme of 1992,** Indian microfinance movement is now world's largest with nearly 102 million accounts and outstanding credit of **over ₹1 lakh crore**.
- Apart from SCBs, small finance banks, RRBs, Co-operative banks, NBFCs and NBFC-MFIs also provide microfinance.
  - **NBFC-MFI** is a **non-deposit taking NBFC** with **minimum net owned fund of ₹5 crore** (₹2 crore for NBFC-MFIs registered in the North Eastern Region) and having **minimum 85 per cent of its net assets** (assets other than cash, bank balances and money market instruments) **in the nature of 'qualifying assets'**



Proposed framework for Regulation of MFIs

Single uniform set of regulations for all **Regulated entities (REs) of RBI** with changes as:

Parameters	Existing Regulatory framework for NBFC-MFIs	Proposed changes in regulatory framework
Definition of Microfinance borrower	Borrower with annual household income not exceeding ₹1,25,000 for rural and ₹2,00,000 for urban and semi-urban areas.	**Same criteria** shall be **extended to all REs** for the purpose of the **common definition** with addition of **Board approved policy** from all REs enumerating factors considered for assessment of household income.
Limits on household indebtedness	Total indebtedness of the borrower does not exceed ₹1,25,000 (excluding loan for education and medical expenses).	Link the loan amount to household income in terms of **debt-income ratio,** with all REs to ensure that the EMI a household has to pay does not exceed **50%** of its income.
Nature of loans	Collateral free loans without any prepayment penalty.	The collateral free nature of microfinance loans shall be extended to all REs.
Limit on number of loans, loan amount and tenure	**Earlier, Loan amount limit of ₹1,25,000** with **Minimum tenure of 24 months** for loans above ₹30,000. Also, **no more than two NBFC-MFIs can lend to the same borrower**; and at least **50% of loans** are given for income generation activities	All limits shall be withdrawn
Repayment periodicity	Microfinance borrowers of NBFC-MFIs are permitted to repay weekly, fortnightly or monthly instalments as per their choice.	Board approved policy will provide the flexibility of repayment periodicity to microfinance borrowers as per requirement of REs.

Pricing of micro loans	Maximum interest charged by an NBFC-MFI shall be the lower of – • the cost of funds plus a margin cap of **10% for MFIs** with loan portfolio of **₹100 crore or above** and **12% for others;** • The average base rate of the five largest commercial banks by assets multiplied by 2.75.	No ceiling on interest rate of NBFC-MFIs with: • Board of each NBFC-MFI to adopt an **interest rate model** based on relevant factors (cost of funds, risk premium and margin) to determine the rate of interest to be charged for loans and advances. • Like other NBFCs, NBFC-MFIs will also be guided by fair practices code and to ensure disclosure and transparency of interest rates.
Exemptions to not-for-profit companies	Exemption from registration requirements to those 'not for profit' microfinance companies (registered under Section 25 of the Companies Act, 1956 (Section 8 of the Companies Act, 2013)) which are: • engaged in providing credit not exceeding ₹50,000 for a business enterprise and ₹1,25,000 for meeting the cost of a dwelling unit to any poor person and • not accepting public deposits. • registered under Section 8 of the Companies Act, 2013;	Exemption to those 'not for profit' microfinance companies which are- • engaged in providing collateral-free loans to households with annual household income of ₹1,25,000 and ₹2,00,000 for rural and urban/semi urban areas respectively, • EMIs of loans does not exceed 50 per cent of the household income and • having asset size of less than ₹100 crore.

3.1.2. FACTORING IN INDIA

Why in news?

Recently, Factoring Regulation (Amendment) Act, 2021 was in news.

About Factoring

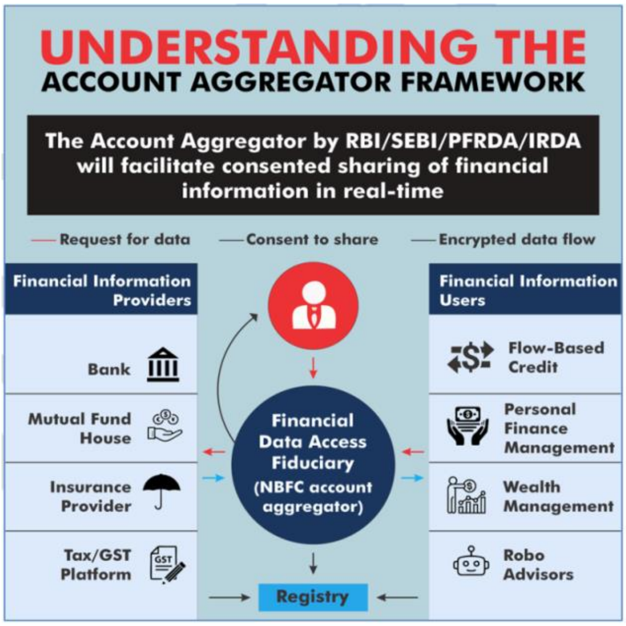
- Factoring is a transaction where an entity sells its receivables (dues from a customer) to a third party (a 'factor' like a bank or NBFC) for immediate funds.
- An important source of liquidity worldwide, especially for MSMEs facing liquidity issues, the **Factoring Regulation Act, 2011** provides for a legal framework on factoring.
- It allows **four types** of entities to engage in factoring business, i.e. **Banks, NBFCs, Statutory Corporations and Companies.**
- But only 7 NBFCs (called **NBFC-Factors**) received factoring business registration from RBI due to condition of **factoring as principal business**, i.e. NBFCs need to have its-
    - Financial assets in the factoring business constitute at least 50% of its total assets and income derived from factoring business is not less than 50% of its gross income.
- To liberalize the restrictive provisions and ensure strong regulatory mechanism, the amendment act was enacted (in line with recommendations of **UK Sinha Committee** or **Expert Committee on MSMEs**) with RBI notifying its significant regulations.

Major Amendments in the act:

- **Removing the factoring as principal business criteria** to increase number of NBFCs eligible for factoring business,
- **Streamlining factoring process** to prevent dual financing frauds and empower government to specify time period for registration of invoice and satisfaction of charge upon it,
- **Allow Trade Receivable Discounting System (TReDS) platforms to register charge directly** with Central Registry of Securitization Asset Reconstruction and Security Interest (CERSAI) on behalf of the factors using the platform.
    - It will improve the operational efficiency of the process, promote TReDS and reduce procedural burden on factors.
- **Amend definitions** of "assignment", "factoring business" and "receivables" to bring them in consonance with international definitions.
- **Gave regulation making power to RBI** on the manner of granting certificate of registration under Section 3, and the manner of filing of particulars of transactions with the Central Registry by TReDS entities on behalf of factors under Section 19

3.1.3. OTHER DEVELOPMENTS IN THE PAYMENT SYSTEMS

3.1.3.1. ACCOUNT AGGREGATOR SYSTEM LAUNCHED TO BOLSTER LENDING ECOSYSTEM



- **Account Aggregator (AA) system** is a **data-sharing system** to **revolutionize investing and credit.**
- It involves an account aggregator, a financial entity to **consolidate all the financial data of an individual** and present it in **reader friendly manner** with **analysis** of different financial holdings.
- Under the RBI Act, 1934, RBI released the "Non-Banking Financial Company - Account Aggregator (Reserve Bank) Directions, 2016" with
  - Account Aggregator as a special class of NBFC under **section 45-I of RBI Act**, to- Enable easy sharing of financial data, Provide inbuilt consent framework for users etc.
- **Significance:** Help firms to **assess the creditworthiness** of small businesses, recommend wealth management product to individual, or tailor an insurance policy for a family.
  - **No other country in the world has developed such thorough data-sharing framework** that can be deployed to cover over 50 million businesses and over a billion people.

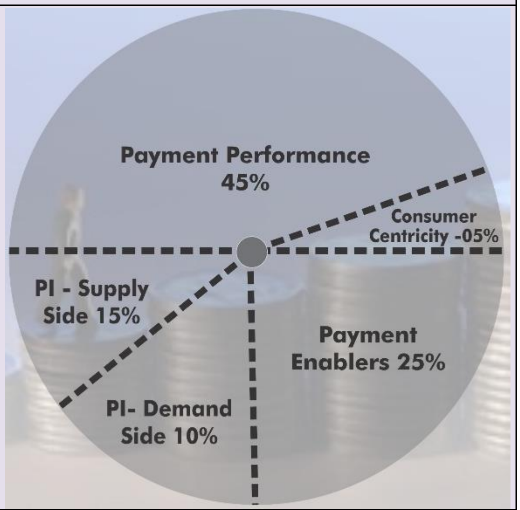
3.1.3.2. REAL TIME GROSS SETTLEMENT (RTGS) & NATIONAL ELECTRONIC FUND TRANSFER (NEFT) PAYMENT SYSTEMS OPENED FOR NON-BANKS

- **RBI has allowed Non-Banks** (like Prepaid Payment Instrument issuers, card networks, White label ATM operators) **to participate in its Centralized Payment Systems (CPS).**
- **CPS** comprises of RTGS and NEFT systems, both **owned and operated by the RBI.**
- Till now, **only Banks were allowed** to use both payment systems and very **few select non-banks are approved to participate in CPS,** such as- clearing corporations of stock exchanges, select financial institutions (NABARD, EXIM Bank) etc.
- Under new rules, **non-Banks** will be
  - **Allotted a separate Indian Financial System Code** (IFSC);
  - **a current account will be opened with the RBI** in its core banking system (e-Kuber);
  - a **settlement account** maintained with the RBI etc.

Particulars	NEFT	RTGS
Settlement	Happens in batches. Settlements occur every 30 minutes	Real-time and instantaneous
Transaction limits	Minimum: Rs 1 Maximum: No limit. However, individual banks may set their own limits for each transaction and the amount transacted per day	Minimum: Rs 2 lakh Maximum: No limit
Charges involved	Nil for online transactions. A fee may be charged for NEFT done via bank's branch	Nil for online transactions. A fee may be charged if done via bank's branch
When to use	Transferring small amounts, especially to settle accounts between family and friends	For making instant transfers of high-value amounts. For example: paying a vendor who supplies goods for your business

3.1.3.3. INITIATIVES TAKEN BY THE GOVERNMENT FOR PAYMENT SYSTEMS

e-RUPI	• "e-RUPI" is an **electronic voucher based digital payment system** which is **person-specific** and **purpose-specific payments system.** • It is **developed by the National Payments Corporation of India** on its **UPI platform,** in collaboration with the Department of Financial Services, Ministry of Health & Family Welfare and National Health Authority. • It is **backed** by **existing Indian rupee** as **underlying asset** but it is different from a virtual currency as it is **specific to a purpose**, i.e. **closer to a voucher-based payment system.** ○ Prepaid in nature, these vouchers are like e-gift cards and the cards code can be shared via SMS or as QR code.

Payments Infrastructure Development Fund (PIDF) Scheme	• Recently, RBI decided to extend the coverage of PIDF scheme by including street vendors identified as part of the PM Street Vendor's AtmaNirbhar Nidhi (PM SVANidhi Scheme) in **tier-1 and tier-2 centres as beneficiaries.** • **About PIDF scheme** o PIDF intends to **subsidize deployment of payment acceptance infrastructure** in Tier-3 to Tier-6 centres with special focus on Northeast. o It envisages creating **30 lakh new touch points** every year for digital payments.
Framework for Payment Service Operators (PSOs)	• Issued by RBI under provisions of **Payment and Settlement Systems Act 2007**, framework places **minimum standards** to manage risks in outsourcing of payment and/or **settlement-related activities** from PSOs. • PSO means a **person who operates an authorized payment system.** E.g., Clearing Corporation of India Ltd., National Payments Corporation of India, VISA are some of the **authorized PSOs.** • Earlier, **RBI allowed PSOs to take direct membership of Centralized Payment Systems,** such as RTGS and NEFT.
Framework for Offline Digital Payments	• Released by RBI **under Payment and Settlement Systems Act, 2007, the framework** is **aimed at pushing digital transactions in rural and semi-urban areas.** • It will enable small value digital payments in offline mode using cards, wallets and mobile device and allowed **face-to-face mode only**, i.e., **offline payments of up to Rs 200 per transaction**, subject to the **total limit** of **Rs 2,000**. • Offline payment transactions may be offered **without an additional factor of authentication (AFA) and** RBI's **integrated ombudsman scheme** will be applicable for grievance redressal.
Bharat Interface for Money - Unified Payments Interface (BHIM-UPI)	• **Bhutan has become the first country to adopt India's UPI standards** for its quick response (QR) code and **second country after Singapore to have BHIM-UPI acceptance at merchant locations.** • **About BHIM-UPI** o BHIM-UPI is India's **real-time digital payment system** for safe, easy & instant digital payments. o Developed (in 2016) and operated by **NPCI**, **BHIM application** (app) powers multiple bank accounts into a **single Virtual Payment Address (UPI ID)** with services like- instant bank-to-bank payments, bill payment, Scan and Pay, Request Money etc. via mobile number or UPI ID only.
HARBINGER 2021 – Innovation for Transformation	It is RBI's **first global hackathon** with the theme 'Smarter Digital Payments', to develop solutions that have the potential to • Make digital payments accessible to the under-served. • Enhance the ease of payments and user experience. • Strengthen digital payments security and promoting customer protection.
Card Tokenization	• Aimed for improving safety and security of payment system, RBI **deferred the implementation** of tokenisation of cards for online transactions by six months i.e., till June 30, 2022. • Tokenisation is a process by which **card details are replaced by a unique code or token**, allowing online purchases to go through **without exposing card details**. • The token is used for contactless card transactions at point-of-sale (PoS) and for QR code payments with merchant's database. • It makes payment secure as only random numbers rather than card details are shared with merchants.
Reserve Bank of India - Digital Payment Index (RBI-DPI)	• The composite RBI-DPI Index has grown from 207.84 of March 2020 to 270.59 in March 2021. This **demonstrated rapid adoption and deepening of digital payments across the country in recent years.** • RBI- DPI was launched in **2021** with **March 2018 as base year.** • RBI-DPI comprises **5 broad parameters** (with number of **sub-parameters**) (refer infographic). 

3.2. FINANCIAL MARKETS

3.2.1. SOCIAL STOCK EXCHANGE

Why in News?

After recommendations of the technical Group, Securities and Exchange Board of India (SEBI) has laid the framework for Social Stock Exchanges (SSE).

About Social Stock Exchanges (SSE)

- SSE functions as **a regulated funding platform** to allow For-Profit Social Enterprises (FPEs) and not-for-profit organizations (NPO) with a social purpose, to raise funds.
  - At present, avenues through which the social sector (FPEs and NPO) receive funding include Corporate Social Responsibility (CSR), impact investing, philanthropic/Government grants etc.
- At SSE, **impact investors** can buy stake in the form of bonds from listed organizations.
- It provides a mechanism to **preserve the social and environmental mission of the organizations,** giving the **investors opportunities to mitigate socio-economic problems** through investments that also have the potential to produce financial returns.
- **Examples of prominent SSEs:** UK (Social Stock Exchange), Canada (Social Venture Connexion), South Africa (South African Social Investment Exchange), Singapore (Impact Investment Exchange).

Framework for SSE includes

- SSE will work under the **regulatory ambit of SEBI as a separate segment** of the existing stock exchanges.
- Based on **15 broad eligible social activities** approved by SEBI, NPOs engaged in those activities **may raise funds through equity, Zero Coupon Zero Principal Bonds, Mutual Funds etc.** after registering with SSE.
- SEBI will engage with NABARD, SIDBI and stock exchanges towards instituting **a capacity-building fund with a corpus of ₹100 crore.**
- **Social audit shall be mandated** for social enterprises raising funds/registered on SSE.

Why do we need an SSE?

- **Improved market access to capital** for enterprises that seek to deliver a positive change in society.
- **Improved Transparency and accountability** with Better Project Implementation due to monitoring.
- **Help government** in achieving the developmental goals by leveraging private sector participation.

3.2.2 REGULATORY DEVELOPMENTS FROM SEBI

About SEBI

- SEBI (HQ: **Mumbai**) was constituted in **1988** through a **Government of India resolution.**
- In **1992**, it became a **statutory body** through the **Securities and Exchange Board of India Act, 1992**.
- It acts as a **market regulator to promote and regulate the securities market** and **protect the interests of investors in securities**.
  - To do so, it has three main powers of- **Quasi-Judicial, Quasi-Executive** and **Quasi-Legislative**.
- In **2015**, the **commodity markets** regulation was also given to SEBI by merging **Forwards Market Commission** with SEBI.

Regulatory Developments

Gold Exchange	SEBI announced framework for setting **up a gold exchange** that will provide investors security in the form of electronic gold receipts (EGR). • EGRs will be traded, cleared, and settled like other securities and **will help in efficient and transparent price discovery, investment liquidity, and assurance in the quality of gold**

Algo Trading	SEBI is working to regulate Algo Trading due to issues of preferential access and its misuse for systematic market manipulation. • **Algorithmic trading or Algo trading** is a **computer assisted** buying and selling of stocks using **pre-programmed computer strategies** to execute buy and sell trades based on **set parameters, instructions or market pattern and conditions.** • Commonly used for high-volume orders at high speed, around **50% of the daily trading volume** in Indian stock markets is through advanced form of algo trading.
Sweat Equity	Securities and Exchange Board of India (SEBI) has **relaxed the quantum of sweat equity** that can be **issued by new-age technology companies listed** on the **Innovators Growth Platform** (IGP). • Sweat equity refers **to shares issued by a company to its employees for non-cash consideration.** Startups and promoters typically use it to fund their companies
T+1 Settlement Cycle	**SEBI (Securities and Exchange Board of India)** has introduced an optional **T+1 settlement cycle** for the markets. • To come into force on January 01, 2022, T+1 means that settlements will have to be cleared within one day of the actual transactions taking place. • **Potential benefits:** Increased market liquidity and trading turnover with reduced settlement risk and broker defaults

3.2.3. BONDS IN NEWS

India's first Euro-denominated Green Bond	Recently, **Power Finance Corporation Ltd (PFC),** leading NBFC in power sector, issued India's first €300 million 7-year **Euro Green Bond**. • In green bonds, the **money raised** by the **issuer** are earmarked towards financing **`green' projects'** like **renewable energy, clean transportation etc**. • Started by development banks like European Investment Bank and World Bank in 2007, the first ever green bond of India was launched by **Yes Bank** in 2015.
Floating Rate Funds	• Floating rate funds are those funds who **buy bonds with changing interest rates according to the changing rates in the economy.** • Seen huge inflows in recent months due to expectations of rise in interest rates, floating rates **insulate investors** from **losses** due to **rate hikes**. • According to SEBI rules, **65% of the corpus of floating rate funds must be invested in floating rate instruments.**
Social Impact Bonds	• SIB is a **contract with public sector or governing authority, whereby it pays for better social outcomes** in certain areas and **passes on part of savings achieved to investors.** • **SIB is not a bond, per se,** since repayment and return on investment depend upon achievement of desired social outcomes; **if objectives are not achieved, investors receive neither a return nor repayment of principal.** • It is also known as **Pay-for-Success contracts.** • The Pimpri Chinchwad Municipal Corporation (PCMC) in Maharashtra's Pune district signed a Memorandum of Understanding (MoU) with the United Nations Development Programme (UNDP) India to co-create **India's first Social Impact Bond (SIB).**

Inflation Index Bonds (IIB)	• Amid hardening inflation, **RBI asked financial institutions to sense the possible demand for IIB.**
	  ○ Globally, IIBs were first issued in 1981 in UK. **In India, RBI issued IIBs (linked to WPI) in 2013.**
	• IIB **provides the investor a constant return** irrespective of the level of inflation in the economy.
	• Main objective of Inflation Indexed Bonds is **to provide a hedge and to safeguard the investor against macroeconomic risks** in an economy.
	  ○ **Inflation index** used in IIBs **may be WPI or CPI.**

3.2.4. DEVELOPMENTS IN RELATION TO STOCK EXCHANGES

NSE Prime	• NSE has launched NSE Prime as a new **corporate governance initiative.** • NSE Prime is a framework that prescribes **higher standards of corporate governance for listed companies** than those required by regulations. • It is open for all the NSE-listed companies to adopt **voluntarily.** • **Benefits: Raise the bar for corporate** governance standards in India; Enable **investors to identify companies** that have voluntarily signed up for higher standards of corporate governance; **Broaden the quality of investors** in listed companies etc.
NSE-Shine Bullion Blockchain Platform	First for India, the NSE-Shine is a **blockchain platform** for **gold bullion** launched by the National Stock Exchange (NSE) with **Chainflux** in support with **India Gold Policy Centre** (IGPC) and the **Indian Bullion and Jewelers' Association** (IBJA). • The platform will provide a **data framework** for **bullion bar integrity** for settlement of **Gold derivatives contracts.**

	• It will also help in ensuring **data security, data integrity**, and **data traceability** for each bullion bar ID at any point of time.
GUAREX	• National Commodity and Derivatives Exchange Limited (NCDEX) launched agri-index futures contract GUAREX. • GUAREX is **a price-based index tracking the price movement in the futures contracts** of its underlying i.e., **Guar Seed and Guar Gum Refined Splits on a real-time basis.** ○ It is **India's first sectoral index in Agri-commodities basket**. • India is the **world's largest Guar producer accounting for 80-85%** of the world's output (**Rajasthan** is the country's **top producer**). • NCDEX is a **leading agricultural commodity exchange** in India.
Anchor Investor	• Life Insurance Corp. of India (LIC) is looking to **raise upto 25000 crore from anchor investors.** • Anchor investors are **institutional investors who are invited to subscribe the shares before the Initial Public Offers** (IPOs). ○ Each anchor investor **needs to invest a minimum of Rs 10 crore.** • Anchor investors are essentially brought in **to enhance the confidence of investors and gauge the demand for the IPO** in the market. 
Escrow Account	• Recently, **Securities and Appellate Tribunal** (SAT) allowed **National Stock Exchange** (NSE) to withdraw Rs 6,085 crore deposited by it in an escrow account. • It is an account where funds or assets are held in trust by a **third party** whilst two or more parties complete a transaction. ○ It offers benefits like **overcoming uncertainty** on ability to meet obligations and **facilitating custody of cash, securities and other collaterals** based on the transaction type.

3.3. KEY CONCEPTS AND INFORMATION ON PAYMENT SYSTEMS AND FINANCIAL MARKETS

Stagflation	• Stagflation is an economic situation in which the **inflation rate is high, economic growth rate slows, and unemployment remains steadily high.** ○ It creates a **dilemma for government since most actions designed to lower inflation** may raise unemployment levels, and policies designed to decrease unemployment may worsen inflation.
Legal Entity Identifier (LEI)	• Recently, RBI made the **LEI mandatory for cross-border transactions** for capital or current account transactions **worth Rs 50 crore and above.** • LEI is a **20-character, alpha-numeric code** based on the **ISO 17442** standard from International Organization for Standardization (ISO). • It is used to **uniquely identify parties to financial transactions worldwide,** improving the **quality and accuracy of financial data reporting systems** for better risk management. • It's issuance and use is regulated by **Global Legal Entity Identifier Foundation (GLEIF),** established by the **Financial Stability Board** in 2014.
Equalization Levy	• Equalisation levy is by its definition a **levy to equalise the tax component of a resident e-commerce company as well as a non-resident e-commerce company.** • India introduced **'Equalisation Levy 2.0' (EL 2.0)** in Finance Act 2020, beginning 1 April 2020.
Financial Stability Report (FSR)	• It is a **bi-annual report** that reflects risks to **financial stability and the resilience** of financial system.

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<td>Wholesale Price Index (WPI)</td>
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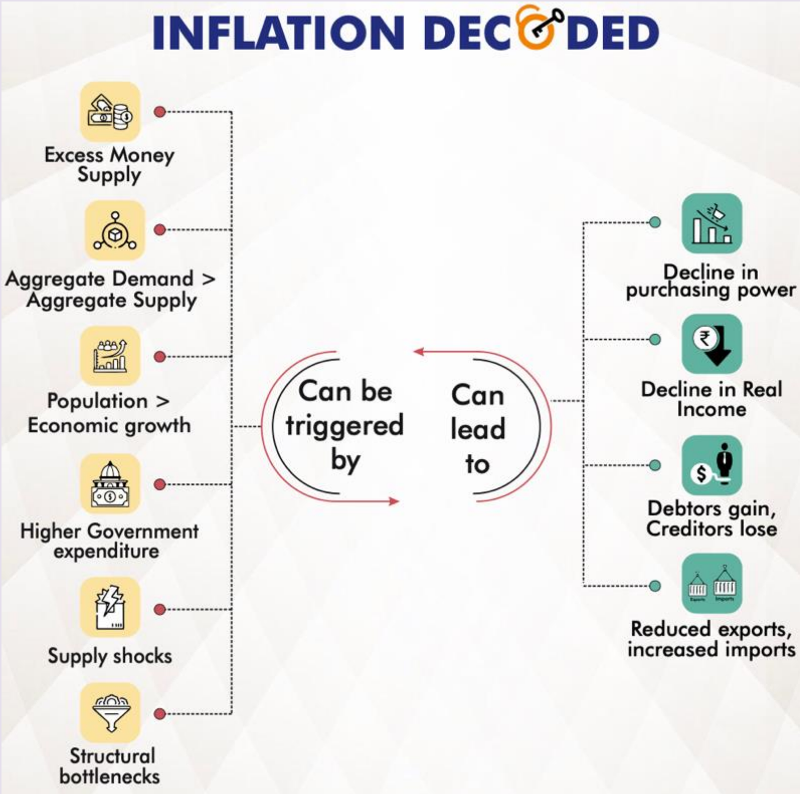

- Released by **Office of the Economic Adviser, Department for Promotion of Industry and Internal Trade,** WPI **measures average change** in the **prices of commodities for bulk sale** at the level of **early stage of transactions.**
- The commodities covered under it are divided under 3 Major Groups: **Primary Articles, Fuel and Power and Manufactured products.**
- The prices tracked are **ex-factory price** for **manufactured products, agri-market (mandi) price for agricultural commodities** and **ex-mines prices** for **minerals.**
- Weights given to each commodity covered in the WPI basket is **based on the value of production adjusted for net imports.** WPI basket **does not cover services.**
- The base year of All-India WPI has been revised from **2004-05 to 2011-12.**

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<td>Network for Greening the Financial System</td>
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- RBI joined the **Network for Greening the Financial System (NGFS)** as a member.
- Launched at the Paris One Planet Summit in 2017, NGFS is a **group of central banks and supervisors** willing **to share best practices** and **Mobilize mainstream finance** to support the **transition towards a sustainable economy.**

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<td>SCORES portal</td>
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- SCORES is an **online platform designed** to help investors to lodge their complaints with SEBI against listed companies and intermediaries.

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<td>Variable Capital Company (VCC)</td>
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- Recently, the **K.P. Krishnan expert committee on feasibility of Variable Capital Company (VCC)** for fund management in the International Financial Services Centre recommended its VCCs adoption as vehicle by IFSCA.
- VCCs is an **alternative form of corporate vehicle** from companies, unit trusts and LLPs which can be set-up as a **standalone fund** or an **umbrella fund with multiple sub-funds.**
- It can help in building the **overall financial services ecosystem** as it dispenses with some of the key limitations of companies and LLPs with higher regulatory standards than those applicable to trusts.

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Pension Fund Regulatory and Development Authority (PFRDA)	• The Pension Fund Regulatory and Development Authority (PFRDA) has registered **over 23% jump** in the subscriber base under its two flagship pension schemes at **42.7 mn by the end of April 2021** **About PFRDA** • PFRDA (HQ**: Delhi**) was established in 2003 through the Government of India resolution to **promote, develop and regulate the pension sector** in India. • It became a **statutory body** through the **Pension Fund Regulatory & Development Authority Act, passed in 2013** and notified in **2014**. • It **regulates NPS** and **any other pension scheme** not regulated by any other enactment.

4. EXTERNAL SECTOR

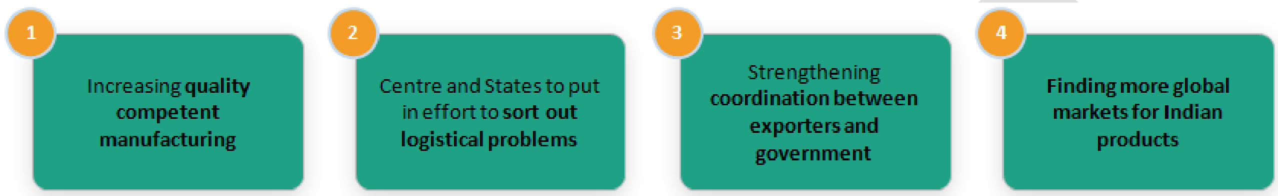
4.1. INDIA'S EXPORTS

Why in news?

Recently, India's **quarterly exports cross $100 bn mark** for the first time as a result of sector specific interventions taken by the government during the COVID crisis.

More on Exports

- Government has set **merchandise export target of $400 billion** for the year 2021-22 and overall export target of **$1 trillion** exports by **2027**.
- Four-point strategy from government to boost exports.



Trends in India's overall trade

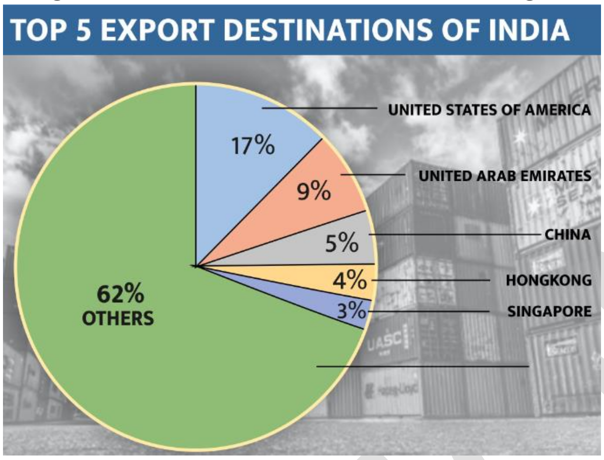
- India's overall exports (merchandise and services combined) in 2019-20 were **US$ 526.6 billion** as against **US$ 538.1 billion** in 2018-19.
- India's **share in world exports has increased from 0.6% in 1991 to 1.7%** in 2018 but remains paltry compared with China's ~13% and US' ~9%.
    - **India ranked 18th** on the list of the top exporting countries worldwide in 2019.
- As percentage of GDP, **India's exports are about 18 per cent of GDP.**
- India's **services trade has been a major driver of its exports** due to its high growth and services trade surplus has been financing almost 50% of India's merchandise trade deficit.

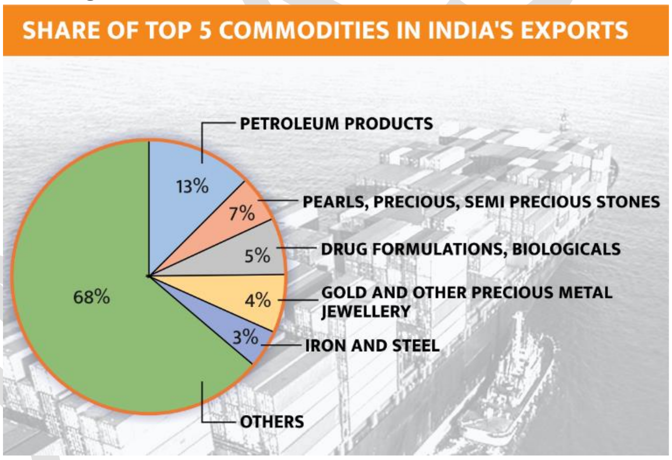
Initiatives from Department of Commerce to boost India's Exports in the COVID/Post-COVID times

- **Extension of Import Validity period** and **Export Obligation period** in **Advance Authorizations** for relief for exporters.
- **Export of medical supplies to the world** such as Hydroxychloroquine and Paracetamol, N95 masks, 2/3 ply surgical masks, alcohol-based sanitizers, PPE etc.
- **Enhanced Ease of Doing Business** through electronic governance and foreign trade facilitation for instance, electronic platform for Preferential Certificate of Origin (COO) was released.
- **Adoption of Technical Regulations (TRs) and Quality Control Orders (QCO's)**.
- **Fast track mechanism for trade remedy** to promote transparency, efficiency, and expeditious relief to the domestic industry, such as the e-filing facility for anti-dumping investigations.
- **Developing Districts as Export Hubs** through measures like preparation of State export strategy/ policy by all State/UT Governments, product/service identification in each District, and preparation of District Export Action Plans (DEAPs) by DGFT among others.

Reasons for India's Underperformance in Exports

- **Low Level of Participation in Global Value Chains (GVCs)** as compared to major exporting nations in East and Southeast Asia.
- **Limited export basket diversification** as top 10 principal exports account for 78% (in terms of commodity groups) of total merchandise exports.
- **Low competitiveness of Indian Products** due to domestic factors like **lackluster infrastructure, complex land** and **labour laws**, etc.
- **Regional Disparities** as **70%** of India's export are dominated by **five states** - **Maharashtra, Gujarat, Karnataka, Tamil Nadu**, and **Telangana**.
- India faces **three fundamental** challenges **with regard to export promotion**:
  - **Intra- and inter-regional disparities in export infrastructure** with coastal states performing extremely well in comparison to landlocked states.
  - **Poor trade support and growth orientation among states.**
  - **Poor research & development infrastructure to promote complex and unique exports** curbing the innovative tendencies.
- **Inability to exploit comparative advantage** in lower-skilled and labor-intensive exports. E.g. in textiles, garments and footwear India share being taken by Bangladesh and Vietnam.





Recent Initiatives to boost exports

- **IndiaXports Initiative** to increase MSME exports by **50% in 2022** by using an Info Portal as a knowledge base for exports by Indian MSMEs on export potential, potential markets etc.
  - MSMEs have been contributing nearly 40% of overall India's exports.
- **Capital Infusion in Export Credit Guarantee Corporation:** ECGC was set up in 1957 to promote exports by providing Credit Risk Insurance and related services for exports.
  - **ECGC** has launched **NIRVIK Scheme** to provide high insurance cover, reduced premium for small exporters and a simplified claim settlement process.
- **Production-Linked Incentive (PLI) is provided** for 13 high-potential sectors, including auto, battery cell, pharma, telecom networking, food, and textiles to promote their manufacturing.
- **Export Preparedness Index' (EPI)** from NITI Aayog to highlight the export potential of each state and the role of regional level economies in enhancing India's share in the global trade.
- **Draft National Logistics Policy** to create a single-window e-logistics market that will cut logistics costs, from 13-14% of GDP, to 10%.
- **Continuation of National Export Insurance Account (NEIA) and infusion of 1,650 crore** over five years (2021-2022 to 2025-2026) **to tap potential of project exports in focus market** and **enhance manufacturing in India.**
  - NEIA Trust was established in 2006 **to promote project exports from India that are of strategic and national importance.**
- **India's First International Maritime Services Cluster (IMSC): Gujarat Maritime Board will set up the first IMSC at GIFT City.** (GIFT City is India's only approved IFSC (International Financial Services Centre) located in Gandhinagar, Gujarat.)
- IMSC will be developed as a **dedicated ecosystem comprising ports, shipping, logistics services providers and pertinent government regulators,** all present in the same geographic vicinity of GIFT City.
- **Interest Equalization Scheme for exporters:** The government has approved the **extension of Interest Equalization Scheme for Pre and Post Shipment Rupee Export Credit**, with the same scope and coverage up to Sept 30, 2021.
  - Exporters get a subsidy on interest ranging between 3 per cent and 5 per cent.

- ✓ The banks provide **credit at the lower interest rate to exporters and are later reimbursed by the government.**
- ✓ Scheme is **available to MSME exporters of all items.** Other exporters get it for 416 identified products.

4.2. WTO RELATED DEVELOPMENTS

4.2.1. AGREEMENT ON AGRICULTURE

Why in News?

Recently, Minister of Commerce & Industry stated that World Trade Organization (WTO) Agreement on Agriculture is tilted against developing countries.

About Agreement on Agriculture (AoA)

- **AoA** provides a framework for the **long-term reform** of **agricultural trade** and **domestic policies,** with the aim of leading to fairer competition and a less distorted sector.
- Coming **into force in 1995**, it covers:
    - **Market access:** the use of trade restrictions, such as tariffs on imports.
    - **Domestic support:** the use of subsidies and other support programmes that directly stimulate production and distort trade.
    - **Export competition:** the use of export subsidies and other government support programmes that subsidize exports.
- Under the Agreement, **WTO members agree to "schedules" or lists of commitments that set limits on the tariffs they can apply** to individual products and on levels of domestic support and export subsidies.

Agreement on Agriculture: Negotiation Timeline

Round	Key Provisions
Uruguay Round (Launched in **1986** at **Punta del Este**, signed in **1994** at **Marrakesh** and WTO created in **1995** at **Geneva**)	AoA was signed by WTO members with: • **Specific commitments to reduce support and protection** in the areas of domestic support, export subsidies and market access. • It also **takes into account non-trade concerns,** including food security and the need to protect the environment, and provides special and differential treatment for developing countries. • **Special Agricultural Safeguard (SSG) was provided to developing economies** under which they can impose an additional duty in case of import surge (volume) or fall of import price below a specified reference price. **Uruguay Round also created certain categories of domestic support:** • **De Minimis:** Minimal amounts of domestic support that are allowed even though they distort trade- up to 5% of the value of production for developed countries, 10% for developing. • **Peace Clause:** Provides protection to domestic support measures and export subsidies of a WTO Member from challenge other WTO Members. o Peace Clause **expired on January 1, 2004. Another temporary peace clause** was made at the **WTO Bali conference** in December 2013 for four years until 2017. o It stipulated that no country would be legally barred from food security programs for its own people even if the subsidy breached the limits specified in the WTO AoA.
Doha Round or Doha Development Agenda (launched in 2001 on Trade Negotiations)	**2013 Bali Ministerial Conference:** Signing of **Trade Facilitation Agreement** and launch of various agriculture agreement like • **Permanent solution to Public Stockholding** for food security purposes. • To **expand the Green Box list of "general services".** • A **declaration to reduce all forms of export subsidies** and to enhance transparency and monitoring. • A **temporary peace clause** was added in Bali.

	2015 Nairobi Package: Decision to **eliminate agricultural export subsidie**s and set disciplines on export measures with equivalent effect as: • WTO members agreed to **engage constructively in finding a permanent solution to developing countries' use of public stockholding programmes** for food security purposes. • Ministers also agreed to continue **negotiations on a special safeguard mechanism (SSM).**

Developing countries (including India) concerns on AoA

- **Urgently reach a permanent & workable solution** to dispute over public stockholdings of foodgrains for food security programmes with no penalization for breaching any limits,
- **Include all forms of export subsidization in export subsidies** as despite high farm subsidies from developed countries, many are excluded from export subsidies
- **Use of Sanitary & Phytosanitary (SPS) Measures & Technical Barriers to Trade by Developed Countries** to selectively ward off imports or deny market access to developing countries

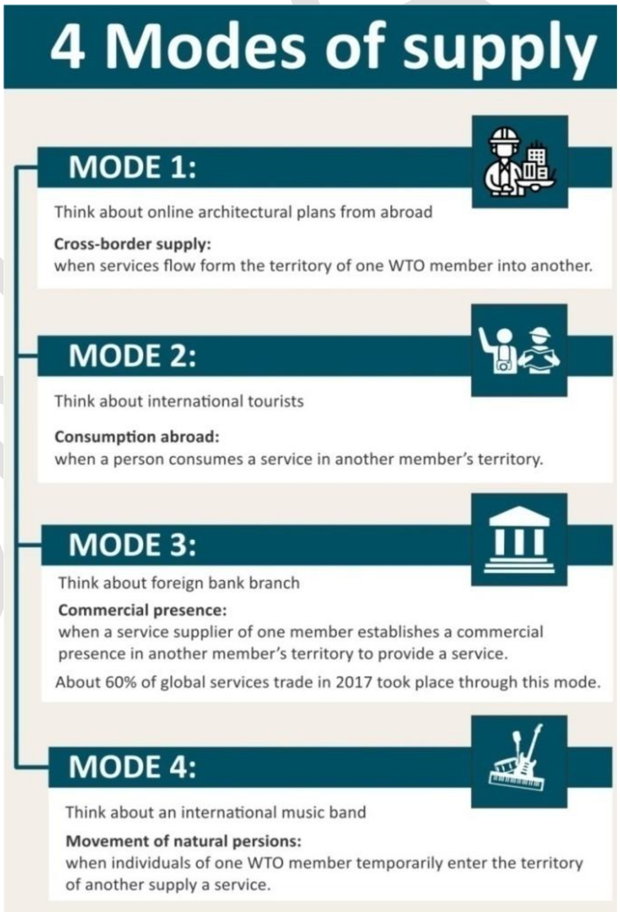
4.2.2. SERVICES DOMESTIC REGULATIONS (SDR)

Why in News?

Recently, **67 member countries** of the **World Trade Organisation (WTO)** concluded their negotiations on Services Domestic Regulations (SDR).

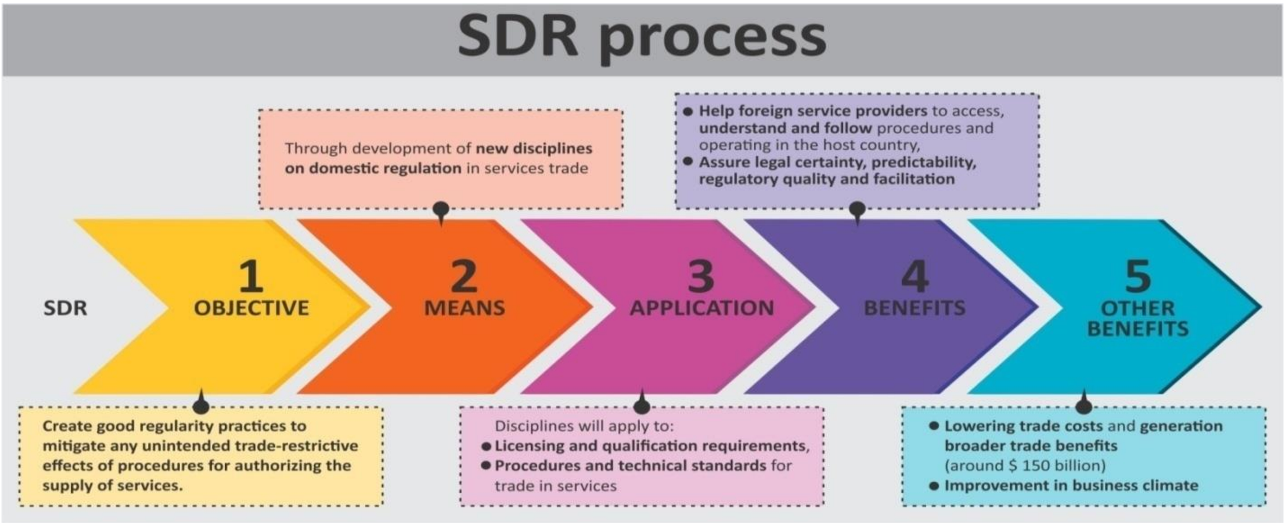
Trade in Services and General Agreement on Trade in Services (GATS)

- **International Trade Rules on Services** are **governed by GATS**, an outcome of Uruguay Round.
- It provides a **framework of rules** governing services trade on all services, with two exceptions-
  - Services supplied in the exercise of governmental authority, and
  - Coverage measures affecting air traffic rights and services directly related to the exercise of Air Transport Services.
- GATS is applicable to four-modes of supplying services (as given in **Image**) and establishes a mechanism for all WTO members (to varying degree) to make commitments to liberalize trade in services, and
- The agreement also provides mechanism for resolving disputes between countries.



Services Domestic Regulation (SDR) and its Potential Benefits

- Launched at the **11th Ministerial Conference** at Buenos Aires (**2017**), the new **plurilateral agreement** is the first set of rules on services in **24 years** at WTO.
  - The agreed members include countries accounting for **over 90%** of world trade such as the USA, China, EU, Brazil, etc.
- The new disciplines will be incorporated as **additional commitments** by the member's services commitments under **GATS Schedules** (GATS Article XVIII).
  - The signatories have left the pact open for other countries to join and apply it on a "**Most-Favored Nation** (MFN)" basis, i.e., giving equal treatment to countries that are not parties to the agreement as given to parties to the agreement.
- **Potential Benefits:** Check cumbersome procedures though its objectives, means etc.; reduce the costs attributable to regulatory divergence and opaque regulations; and **support women empowerment** and boost **women's participation in services trade**.



Concerns over SDR (by India and Others)

- It establishes a **competing and parallel mechanism** to pursue and achieve same objectives without the entire WTO membership consent.
- GATS allow the member countries to determine the extent of market access they will grant in various service sectors and treat the Foreign Service providers differently.
- Its use to bring rules to **erect barriers to services trade** and **cross-border movement of professionals** through **qualification and licensing requirements**, and **technical standards**.
- **Working Party on Domestic Regulation** (WPDR) was established in 1999 (under **Article VI:4** of GATS) precisely to put these disciplines.

4.2.3. COVID-19 VACCINE AND IP WAIVER

Why in news?

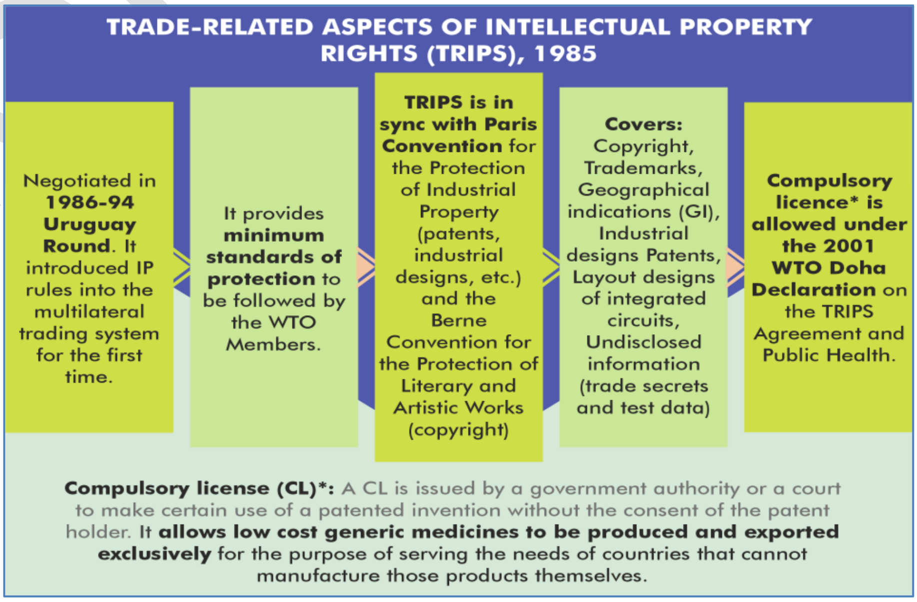
Recently, the United States (US) announced support for waiving intellectual property protection for Covid-19 vaccines.

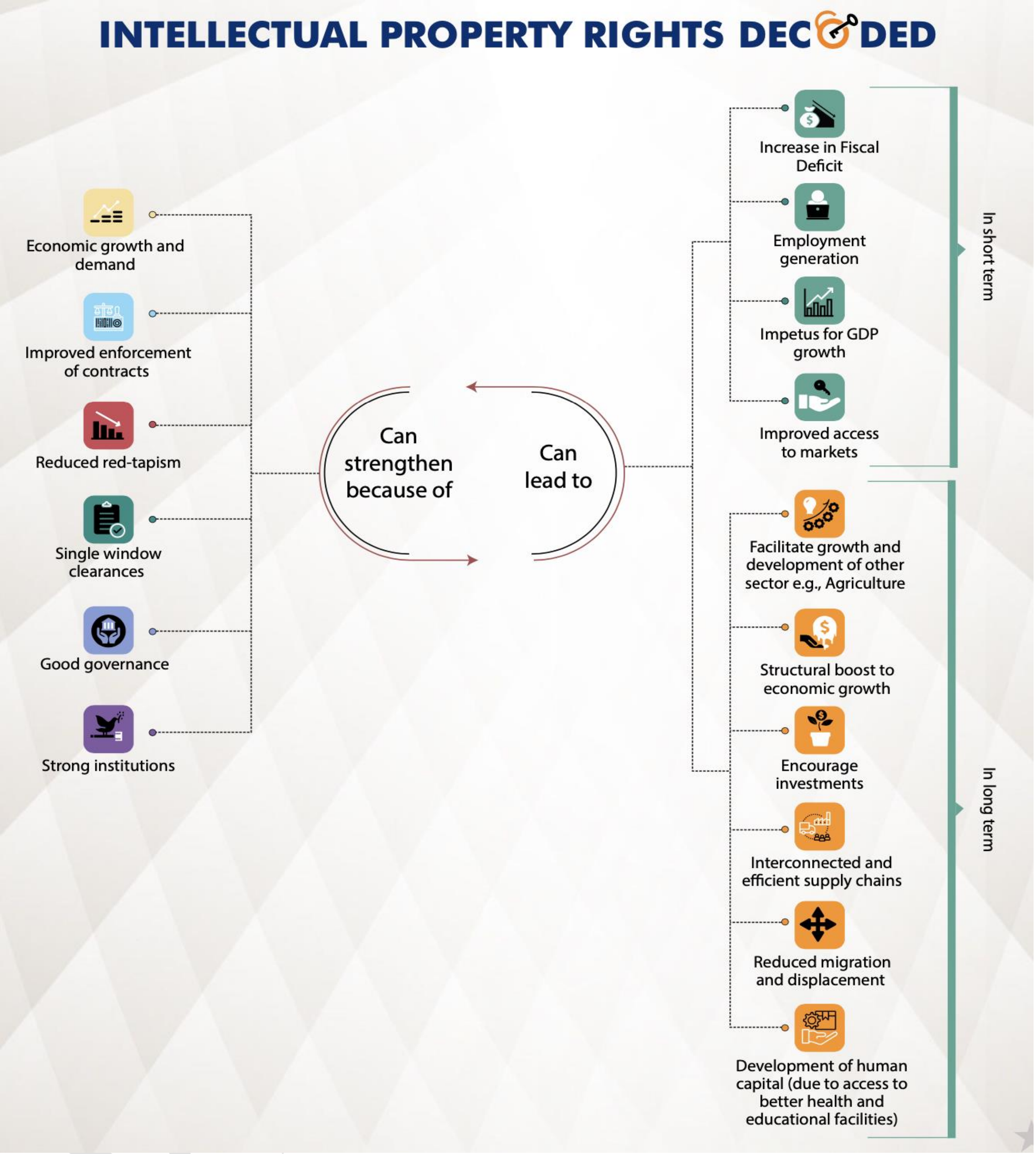
COVID-19 Vaccines Global Access (COVAX)

- It is a worldwide initiative aimed at **equitable access to COVID-19 vaccines** directed by **Gavi, the Vaccine Alliance, the Coalition for Epidemic Preparedness Innovations, and the World Health Organisation.**
- COVAX is one of three pillars of the Access to COVID-19 Tools (ACT) Accelerator, which was launched by the WHO, the European Commission and France in response to this pandemic.

More in news

- **Initiated by India and South Africa,** the waiver campaign is backed by over 100 countries and international organizations like WHO and the United Nations AIDS charity, UNAIDS.
    - UNAIDS is leading the global effort to **end AIDS as a public health threat by 2030** as part of the Sustainable Development Goals.
- The campaign seeks **waiver on certain conditions of the Trade Related Aspects of Intellectual Property Rights (TRIPS) Agreement** from WTO that could impede timely access to affordable medical products to combat Covid-19.
- Waiver will **reduce IPR barriers in production of own vaccines** by countries including poor ones.





4.2.4. TEA EXPORTS

Why in News?

Recently, India has raised concerns at a WTO Meeting regarding European Union's decision to classify **anthraquinone as a pesticide (found in tea)** and labelling it as a non-tariff barrier.

More on News

- India argued that **anthraquinone is a naturally occurring pollutant or a hydrocarbon and not a pesticide.**
- Also, Russia has classified tea as "fruits and vegetables", due to which a **higher-level quality-check parameters** was applied to tea.

About Anthraquinone

- **Ubiquitous in the environment**, it has been naturally detected in the air, water, soil, plants, fish/seafood and animal tissue.
- It is known as a **bird repellent** used in paint, textile, and paper industries.

Tea Statistics of India

- India is the **second largest producer of tea**, **fourth largest exporter** of tea in the world after Kenya, China and Sri Lanka.
    - Total tea export stood at US$ 830.90 million in FY19 and **US$ 826.47 million in FY20.**
- India offers **high-quality specialty teas, such as Darjeeling (GI Tag), Assam Orthodox and the high-range Nilgiris**, which have a distinctive aroma, strength, color and flavor.
- India produces both Crush-Tear-Curl (CTC) and Orthodox variety of tea.

Obstacles in Tea exports

- Export market volatility is higher for CTC variety brews.
- **Lack of enforcement/mechanisms to check if authentic Darjeeling tea is sold abroad**.
    - For instance, Nepal tea is being sold as Darjeeling tea in domestic and international markets which is an infringement to GI tag.

4.3. GLOBAL FINANCIAL INTEGRATION

4.3.1. CAPITAL ACCOUNT CONVERTIBILITY (CAC)

Why in news?

Recently, the Deputy Governor of RBI indicated towards fundamental shifts in the capital account convertibility framework in India, resurrecting a debate relating to Capital account liberalization.

What does capital account convertibility (CAC) mean?

- Convertibility refers to the **ability to convert domestic currency into foreign currencies and vice versa** to make payments for balance of payments transactions.
- Thus, CAC is the ability or freedom to convert domestic currency for capital account transactions.

Regulation of CAC

RELATED CONCEPTS: BALANCE OF PAYMENTS (BoP), CAPITAL ACCOUNT AND CURRENT ACCOUNT

BoP of a country records all economic transactions of a country (that is, of its individuals, businesses and governments) with the rest of the world during a defined period, usually one year. It has 2 components-

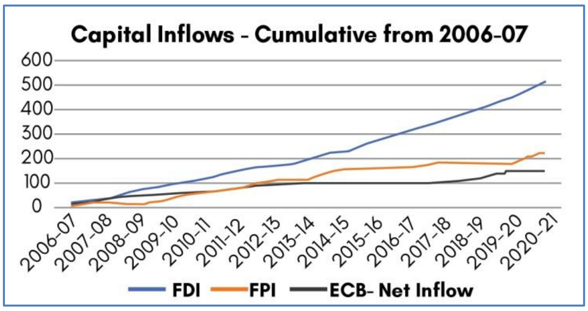
Current account (country's short-term transactions or the difference between its savings and investments)
- **Visible trade:** export and import of goods
- **Invisible trade:** export and import of services.
- **Unilateral transfers.**
- **Investment income** (income from factors such as land or foreign shares)
- **Transfers** (grants, gifts, remittances, etc.)

Capital Account (inflows and outflows of capital that directly affect a nation's foreign assets and liabilities)
- **Foreign investment:** Foreign Direct Investment (FDI) and Portfolio Investment.
- **Loans:** external assistance, external commercial borrowings and trade credit.
- **Banking capital.**
- **Non-resident Indian (NRI) deposits.**

- Presently, India has **partial capital account convertibility**, started in 1990s.
- Past Committees to recommend a pathway towards fuller CAC:
    - **Committee on CAC, 1997 (Tarapore Committee, 1997)** recommended full CAC for 1999-2000 based on fulfilment of certain benchmarks related to Fiscal Deficit, Inflation, Non-Performing Asset (NPA) etc.
    - **Committee on Fuller CAC, 2006 (Tarapore Committee, 2006)** suggested measures for gradual capital account liberalization.

Steps taken to move towards fuller CAC
- **Fully Accessible Route (FAR)** to remove limit on non-resident investment in specified G-Secs.
- **RBI** has allowed **banks,** which operate International Financial Services Centre Banking Units (IBUs), **to trade in non-convertible forward (NDF) rupee market**.
    - An NDF is a foreign exchange derivative contract, allowing investors to trade in non-convertible currencies, with contract settlement in a convertible currency.
- **Liberalized Remittance Scheme** to allow all resident individuals, including minors, to freely remit up to USD 2,50,000 per financial year for any permissible current or capital account transaction or a combination of both.
- **Reduced FDI restrictions** in all sectors except for some sectoral caps or restrictions in socially sensitive (e.g., gambling), volatile (e.g. real estate) and strategic (e.g. atomic energy) sectors.
- **Rationalization of External Commercial Borrowing (ECB)** through steps like-
    - **Replacing the system of sector wise limits**: All entities eligible to receive FDI have been permitted to raise ECBs up to USD 750 million per financial year under automatic route subject to certain terms and conditions prescribed in the Guidelines.
    - **Relaxed the end-use restrictions related to ECBs**: allowing corporates and non-banking finance companies (NBFCs) to raise ECBs for working capital and general corporate purposes.

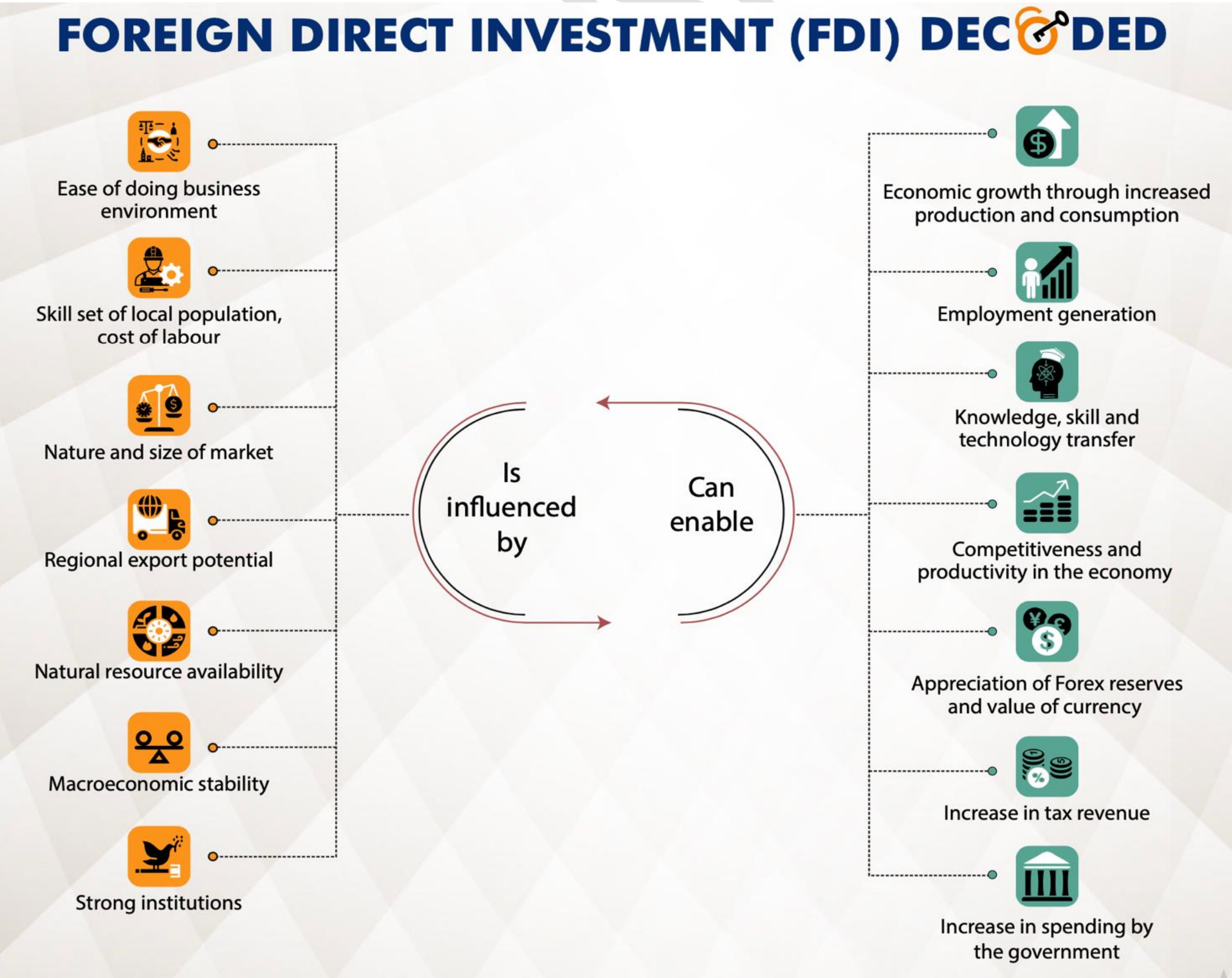
Benefits associated with CAC



- **Facilitates economic growth** by removing impediments to inflows of capital from global players including investors, businesses, and trade partners.
- **Pressure on Government** for better infrastructure, discipline in policies, etc. to ensure credibility of national economy as a stable and mature market.
- **Improves efficiency of the financial sector** through increased competition, liquidity etc.
- Helps in **offshore rupee market development** as well as domestic investor's get opportunity to invest in foreign assets at a reduced cost.
- Improved employment and business opportunities etc.

Risks associated with free capital mobility

- **Increased exchange rate volatility** in case of sudden exit of capital causing volatility, devaluation, or inflation in Forex.
- **Unsustainable Foreign Debts** makes businesses prone to the risk of high repayments in case of foreign debt if exchange rates become unfavorable.
- **Creates Credit and asset bubbles** if foreign investors use equity markets to bet on currency appreciation, distorting asset values and adding to the risk of speculative bubbles.
- **Exposure to global macroeconomic shocks.**
- **Effects on Balance of Trade and Exports** in case of substantial inflows leading to an overvalued exchange rate, making Indian exports less competitive in the international markets.
- **Lack of effectiveness in generating growth** unless productive growth happens to ensure long-term growth through robust infrastructure, ease of business, technological advancements etc.



4.3.2. WORLD BANK DISCONTINUE EASE OF DOING BUSINESS (EODB)

Why in News?

The World Bank Group has announced discontinuation of its ‘Doing Business’ rankings on country business climates.

About Ease of Doing Business Rankings

- Launched in 2002, Doing Business project **provided objective measures of business regulations and their enforcement** across 191 economies and selected cities at the sub-national and regional level.
  - It **looks at domestic small and medium-size companies** and measures the regulations applying to them through life cycle of a company.
- In EoDB index from World Bank, **‘higher rankings’** (lower numerical value) indicate simpler regulations for businesses and stronger protections of property rights.
- India moved to **63rd position** (from 142nd in 2014) on Ease of Doing Business Ranking 2020.

Issues with Ease of ‘Doing Business’ rankings

- Decision to discontinue came **after a review of data irregularities found in 2018 and 2020 reports.**
  - Irregularities had affected four countries: China; Saudi Arabia; UAE; and Azerbaijan.
- **Libertarian bias** as it tends to reduce the complexity of economic activity to a few quantifiable metrics with a libertarian bias, creating an **incentive for countries to pursue economic policies that conform to World Bank’s vision of economic development.**
- **Gaming the system**, i.e. obsessing countries to move up in the rankings rather than pushing for long-term **structural reform.**
- **One size fits all approach** and based on the ideological priors of institutions and stakeholders, is always likely to contain some fatal flaws.

4.3.3. FREE TRADE AGREEMENTS (FTAS)

Why in news?

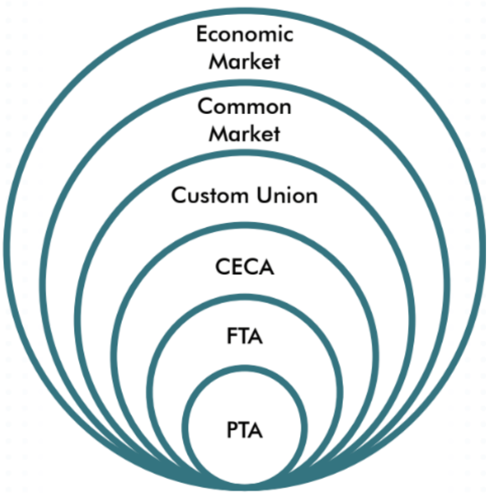
To fast-track **free trade agreement (FTA) negotiations** with several countries like the UK, Australia, the European Union, and Canada, India is keen to conclude an **“early harvest” trade deal** with some of these countries.

How Early harvest scheme (EHS) is different from an FTA?

- Early harvest scheme is a **precursor to an FTA** between two trading partners. This is to help the two trading countries **identify certain products for tariff liberalisation pending the conclusion of FTA** negotiation. It is primarily a **confidence building measure.**
- A good example of an **EHS is the one between India and Thailand which was signed in October 2003,** wherein several products were identified to be reduced to zero in a phased manner.

What are FTAs and other types of trade agreements?

- FTAs are arrangements between two or more countries or trading blocs that primarily agree to **reduce or eliminate customs tariff and non-tariff barriers on substantial trade** between them.
- FTAs, normally cover **trade in goods** (such as agricultural or industrial products) or **trade in services** (such as banking, construction, trading etc.), but can also **cover other areas** such as intellectual property rights (IPRs), investment, government procurement etc.
- **Other types of trade agreements (Refer infographic)**
  - **Preferential Trade Agreement (PTA):** In a PTA, two or more partners **agree to reduce tariffs on agreed number of tariff lines.** For example, India MERCOSUR PTA.
  - **Comprehensive Economic Cooperation Agreement (CECA) and Comprehensive Economic Partnership Agreement (CEPA):** These terms describe agreements which consist of **an integrated package on goods, services and investment** along with other areas including IPR, competition etc. The **India Korea CEPA** is one such example.
  - **Custom Union:** In a Customs union, partner countries may decide to **trade at zero duty among themselves**, however they maintain **common tariffs against rest of the world.** An example is Southern African Customs Union (SACU).
  - **Common Market:** A common market is a Customs Union with provisions to facilitate free **movements of labour and capital, harmonize technical standards** across members etc. European Common Market is an example.
  - **Economic Union:** Economic Union is a Common Market extended through further **harmonization of fiscal/monetary policies and shared executive, judicial & legislative institutions.** European Union (EU) is an apt example of this type.



4.3.4. KEY GLOBAL INSTITUTIONS

Institution	Important Information
World Trade Organisation (WTO)	• WTO (HQ: **Geneva, Switzerland**) is the successor to the **General Agreement on Tariffs and Trade (GATT)** as the only global international organisation dealing with the rules of trade between nations. • It was established on **1st January 1995** after successful completion of **Uruguay Round Negotiations (1986-94).** • It has **164 members** (since July 2016), representing 98% of world trade, with **Ngozi Okonjo-Iweala** as its current Director-General. ○ She is the **first woman** as well as the **first African** to become WTO Director-General. • **Goal:** To ensure that trade flows as smoothly, predictably, and freely as possible. • **WTO Flagship Publications:** World Trade Report, World Trade Statistical Review.
International Monetary Fund (IMF)	• IMF (HQ: **Washington DC, USA**) is a **specialized UN Agency** conceived in **1944** with 44 countries at the **United Nations Bretton Woods Conference in New Hampshire, USA.** • It monitors the economic and financial policies of its **190 member** countries, providing policy advice to nations for promotion of **international financial stability** and **monetary cooperation.** • It also facilitates **international trade, sustainable economic growth, employment,** and **global poverty reduction** to raise living standards. • **IMF Flagship Publications:** World Economic Outlook, Global Financial Stability Report, Fiscal Monitor, External Sector Report.

World Bank	• World Bank (HQ: **Washington DC, USA**) is a **specialized UN Agency** conceived along with IMF, also known as **Bretton Woods Twins.**
	• It consists of **five organisations** as:
	  ○ **The International Bank for Reconstruction and Development (IBRD),** established in **1944,** lends to middle-income and creditworthy low-income countries,
	  ○ **The International Development Association (IDA),** established in **1960,** gives interest-free loans and grants to poorest countries.
	    ✓ **Collectively, these two are known as the World Bank.**

	• In addition to the above two, **World Bank Group** consists of- ○ **The International Finance Corporation (IFC)**, established in **1956**, is the largest global development institution with focus on the private sector. ○ **The Multilateral Investment Guarantee Agency (MIGA)**, created in **1988**, to promote FDI into developing countries for economic growth, poverty reduction etc. ○ **The International Centre for Settlement of Investment Disputes (ICSID)**, established in **1966**, for international conciliation and arbitration of investment disputes. • **World Bank Flagship Publications:** Global Financial Development Reports, World Development Reports, Global Economic Prospects. ○ Recently, it discontinued the **Ease of Doing Business** Index.
New Development Bank (NDB) New Development Bank	• NDB (HQ: **Shanghai, China**) is a **Multilateral Development Institution** established at the 6th BRICS summit in **Fortaleza in 2014**. • Operational since **2015**, it aims to **mobilize resources for infrastructure and sustainable development projects** in BRICS and other emerging economies and developing countries. • It has an **Authorized Capital** of **US$100 bn** and **Subscribed Capital** of **US$50 bn**. • In 2021, it expanded beyond BRICS with **UAE, Uruguay, Bangladesh,** and **Egypt** joining as new members. ○ Bangladesh and UAE have deposited their instrument of accession to become official members while Egypt and Uruguay are still prospective members.
Asian Development Bank (ADB) ADB ASIAN DEVELOPMENT BANK	• ADB (HQ: **Mandaluyong, Metro Manila, Philippines**) is a **multilateral development bank** established in **1966**. • Starting from **31 members**, ADB membership has grown to **68 members** (49 from Asia and the Pacific and 19 from outside). • It works toward a prosperous, inclusive, resilient, and sustainable Asia and the Pacific along with efforts to eradicate extreme poverty. • It helps its members and partners through **loans, technical assistance, grants, and equity investments** to promote social and economic development. • **Japan** and **USA** are its biggest shareholders, followed by **China** and **India**. India is the **biggest beneficiary** from ADB as well with loans of over **US$52 bn**. • ADB Flagship Publication: **Asian Development Outlook**
Asian Infrastructure Investment Bank (AIIB) AIIB ASIAN INFRASTRUCTURE INVESTMENT BANK	• AIIB (HQ: **Beijing, China**) is a **multilateral development bank** for social and economic development in Asia and beyond. • Operational from **2016**, after signing of the Articles of Agreement in **2015**, its membership has grown from **57 founding members** to **105**. • It seeks to finance the **infrastructure for Tomorrow (i4t)** to foster sustainable economic development, create wealth and improve infrastructure connectivity. ○ This includes the **four thematic priorities from AIIB** as- Green Infrastructure; Connectivity and Regional Cooperation; Technology Enabled Infrastructure; and Private Capital Mobilization. • China is its **biggest shareholder**, followed by **India** and **Russia**.
Organisation for Economic Co-operation and Development (OECD) OECD	• OECD (HQ: **Paris, France**) is an **intergovernmental economic organisation** established in 1961 to stimulate economic progress and world trade. • It superseded the **Organisation for European Economic Co-operation** (OEEC), established in 1948 to help administer the **Marshall Plan** for European reconstruction. • **Organisation Motto:** 'Better Policies for Better Lives' with 38 members- mainly high HDI or developed countries. ○ **India is not a member of OECD**, but a key economic partner along with Brazil, china, Indonesia, and South Africa. • **OECD Flagship Publications/Indices:** International Migration Outlook, OECD Better Life Index
World Economic Forum (WEF) WORLD ECONOMIC FORUM	• **WEF** (HQ: Geneva, Switzerland) is a not-for-profit foundation founded in 1971 by Klaus Schwab **for Public-Private cooperation** • It engages the foremost political, business, cultural and other leaders of society to shape global, regional and industry agendas towards its mission of improving the state of the world. • **Organization's Motto:** Entrepreneurship in the Global Public Interest • **WEF Flagship Publications:** Global Competitiveness Report, Global Gender Gap Report, Global Risks Report and recently launched Global Cybersecurity Outlook.

4.3.5. OTHER GLOBAL FINANCIAL DEVELOPMENTS

Cornwall Consensus	• In a report, **G7 Economic Resilience Panel demanded a radically different relationship** between the public and private sectors, to create a sustainable, equitable and resilient economy. • The proposed **"Cornwall Consensus"** will replace **Washington Consensus (WC)** which defined the **rules of the game** for the **global economy** since **1989**. • **Washington Consensus** minimized the state's role in the economy and pushed an aggressive free-market agenda of deregulation, privatization, and trade liberalization. ○ But it failed to respond effectively to economic, ecological, and epidemiological shocks against global economic crisis twice (first in 2008 and then in 2020 COVID crisis). **Key features of Cornwall Consensus** • **Accelerate reform of global economic governance** to promote the common good. • **Establish collective mechanisms to monitor, assess and invest** in addressing emergent economic, environmental, or geo-political risks. • **Accelerate investment in the Sustainable Development Goals**, promote digital inclusion, eliminate tax evasion, and facilitate full access for developing countries to global markets.
'Digital Berlin Wall'	• International Monetary Fund (IMF) director warned **world may soon face a "digital Berlin Wall"** whereby **European Union, US and China all adopt discordant (different) technology standards.** ○ It may **force poor nations to "choose sides"** leading to **balkanization of the digital economy** and risk a 6% **hit to global economic output.**
Net Stable Funding Ratio (NSFR)	• These **rules are part of the Basel III regulation designed to make banks more stable** and **prevent** a repeat of the 2008-09 **financial crisis.** • The rules **treat physically traded gold** like any other **commodity, requiring banks to hold more cash to match their gold exposure as a buffer against adverse price moves**. ○ The rules will increase the cost of bank's balance sheets to hold gold. • In India, NSFR shall come into effect from October 1, 2021.
Longevity Finance	• **IFSCA (International Financial Services Centres Authority)** has **constituted an Expert Committee** to recommend approach towards development of **Longevity Finance Hub**. **Need For Longevity Finance:** • Global estimates suggest that there are **one billion people in the silver generation** (individuals aged 60 and older) with a combined **spending power of $15 trillion**. ○ **Development in medicinal science** and technology will further extend lifespan and longevity of the silver generation. • This demographic change will throw open new challenges and opportunities in areas of **wealth management, health, insurance, and other investment products.**

4.4. KEY CONCEPTS AND INFORMATION ON EXTERNAL SECTOR

London Interbank Offered Rate (LIBOR)	• London Interbank Offered Rate (LIBOR) is a **benchmark interest rate at which major global banks lend to one another** in the international interbank market for short-term loans. • LIBOR will be **phased out by June 30, 2023** because of which RBI issued advisory to transition from LIBOR to other widely accepted **alternative reference rate** (AAR) like **AONIA** (Australian Interbank Overnight Cash Rate) and **SARON** (Swiss Average Rate Overnight).

Enforcing Contracts Portal	• Launched by Department of Justice, the Enforcing Contracts Portal aims **to promote ease of doing business** and **improve Contract Enforcement Regime** in country.
	• With **163rd rank** of India on "Enforcing Contracts" parameters in 2019 Ease of doing business (EoDB) rankings, portal will work to improve it by-
	  ○ Providing information pertaining to **legislative and policy reforms,**
	  ○ Easy access to latest information on **commercial cases in Dedicated Commercial Courts** of Delhi, Mumbai, Bengaluru and Kolkata.
	  ○ Provide **access to repository of commercial laws** for ready reference.

America COMPETES Act	• **America Creating Opportunities for Manufacturing, Pre-Eminence in Technology, and Economic Strength Act**, or the **America COMPETES Act of 2022** from USA proposes ○ **Procedures for foreign nationals** with an **ownership interest in a start-up entity** to self-petition for **classification as a W-1 non-immigrant**. • It is expected to **open more opportunities in the US for Indian talent**, and for skilled workers.
Special Drawing Rights (SDRs)	• It is an **international reserve asset,** created by the IMF in 1969 to **supplement its member countries' official reserves.** • Its **value is based on** a basket of five currencies: **the U.S. dollar, the euro, the Chinese renminbi, the Japanese yen, and the British pound sterling.** • It is **neither a currency nor a claim on the IMF**.

	o It is a potential claim on the freely usable currencies of IMF members. o **SDRs can be exchanged for these currencies**. • **Voting power** of IMF member countries **is directly related to their quotas.**
Tax Inspectors Without Borders (TIWB) Programme	• **TIWB is a joint initiative** of United Nations Development Programme (UNDP) and Organisation for Economic Cooperation and Development (OECD) **to enable sharing of tax audit knowledge and skills with tax administrations in developing countries.** o TIWB programmes can include **pre-audit risk assessment, investigatory techniques,** audit cases involving transfer pricing issues, anti-avoidance rules, or **sector-specific issues** (e.g. natural resources, e-commerce, etc). o TIWB **does not cover assistance relating to customs matters** nor is concerned with providing policy support, advice on legislative changes. o TIWB programmes are **flexible and tailored to a country's specific needs**.

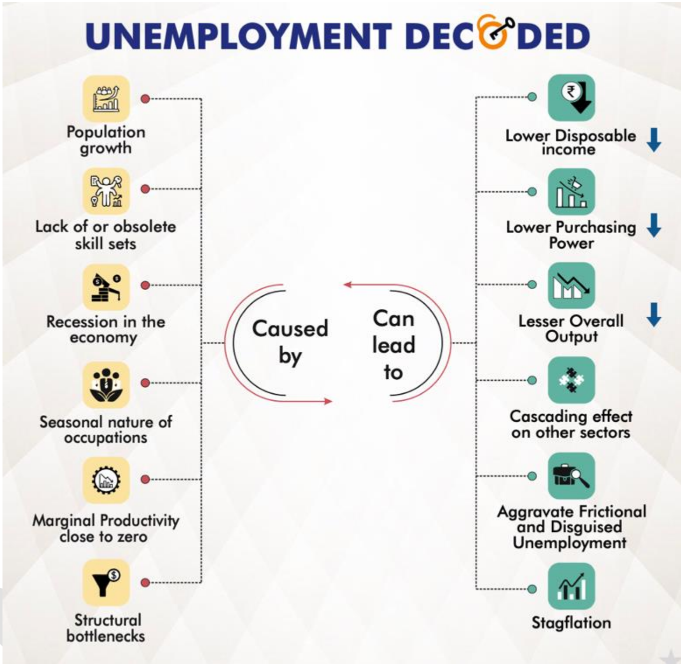
5. LABOUR, EMPLOYMENT, SKILL DEVELOPMENT AND ENTREPRENEURSHIP

5.1. LABOUR AND EMPLOYMENT

5.1.1. PERIODIC LABOUR FORCE SURVEY

Why in News?

The third annual report on Periodic Labour Force Survey (PLFS) data indicated that despite slip in the real growth rate of the economy the Unemployment Rate (UR) fell to 4.8% in 2019-20.



About Periodic Labour Force Survey (PLFS)

- PLFS was launched by NSO in April 2017 for labour force data at more frequent time intervals.
- The first annual report (July 2017-June 2018) was **released in May 2019 and the second in June 2020.**
- Third Annual Report is brought out based on PLFS conducted during July 2019-June 2020.

Two Fold Objectives of PLFS

- Estimate the **key employment and unemployment indicators** (viz. Worker Population Ratio (WPR), Labour Force Participation Rate (LFPR), Unemployment Rate (UR)) **in the short time interval of three months** for the urban areas only in the 'Current Weekly Status' (CWS).
- Estimate **employment and unemployment indicators in both 'Usual Status'** (principal activity status + subsidiary economic activity status) **and CWS in both rural and urban areas annually.**

1. Labour force Participation Rate (LFPR):

$$\frac{\text{no. of employed persons+no.of unemployed persons}}{\text{total population}} *100$$

2. Worker Population Ratio (WPR)

$$\frac{\text{no. of employed persons}}{\text{total population}} *100$$

3. Proportion unemployed (PU)

$$\frac{\text{no. of unemployed persons}}{\text{total population}} *100$$

4. Unemployment Rate (UR):

$$\frac{\text{no.of unemployed persons}}{\text{no. of employed persons+no.of unemployed persons}} *100$$

Categories on workforce by PLFS:

- **Self-employed** (which includes own account workers, employers, and unpaid helpers in family enterprises)
    - **Own account workers run small enterprises without hiring any labour** but may take help from family members, while employers hire workers.
- **Regular wage/salaried workers and**
- **Casual labourers.**

Activity Status: Activity status of a person is determined on the basis of the **activities pursued by the person during the specified reference period.** It includes:

- **Usual Status:** When the activity status is determined on the basis of the reference period of last 365 days preceding the date of survey.
- **Current Weekly Status (CWS):** When the activity status is determined on the basis of a reference period of last 7 days preceding the date of survey.
- **Principal activity status:** The activity status on which a person spent relatively long time (major time criterion), 365 days preceding the date of survey.
- **Subsidiary economic activity status**- The activity status in which a person in addition to his/her usual principal status, performs some economic activity for 30 days or more for the reference period of 365 days preceding the date of survey.

What Data in PLFS indicates?

- Decline in unemployment rate and an increase in LFPR

between 2017-18 and 2019-2020, even as the real growth rate of the economy slipped (from 7% to 4.2% over that period).
  - **UR fell to 4.8%** in 2019-20. In 2018-19, it stood at 5.8% and 6.1% in 2017-18.
  - High UR in the 15-29 age group (15%) with higher joblessness in urban youth as compared to in rural areas.
- **Increase in LFPR** with even **higher increase** in **WPR** to **38.2%** in 2019-20 in comparison to 35.3% in 2018-19 and 34.7% in 2017-18.
  - But almost entire rise in workforce was due to increase in agriculture workforce (reaching 45.6% from 42.5% in 2018-19).
- Sharp increase in **Female LFPR by 5.5 percentage points** (from 2018-19), largely **driven** by the **increased LFPR of rural women.**
- **Due to lockdown**, LFPR for men and women in April-June 2020 declined to **55.5%** and **15.5%** against **56.7%** and **17.3%** from the January-March 2020.

Related news

World Employment and Social Outlook: Trends 2022 Report
- **Published by International Labour organization**, report details effects of COVID-19 crisis on the world of work with key highlights as:
  - **Global unemployment** is projected to stand at **207 million in 2022**, surpassing 2019 level by some 21 million.
  - In 2020, an additional **30 million adults fell into extreme poverty** (living on less than US$1.90 per day).

Great Resignation
- It is an idea predicting a **large number of people leaving their jobs** after the COVID pandemic ends and life returns to normal.
- **Reasons:** Low salary, burnouts, limited opportunities, poor employee benefits, toxic corporate culture, instability etc.

5.2. SKILL DEVELOPMENT

Why in news?

Recently, Indian Prime Minister addressed the nation on **World Youth Skill Day 2021.**

World Youth Skill Day

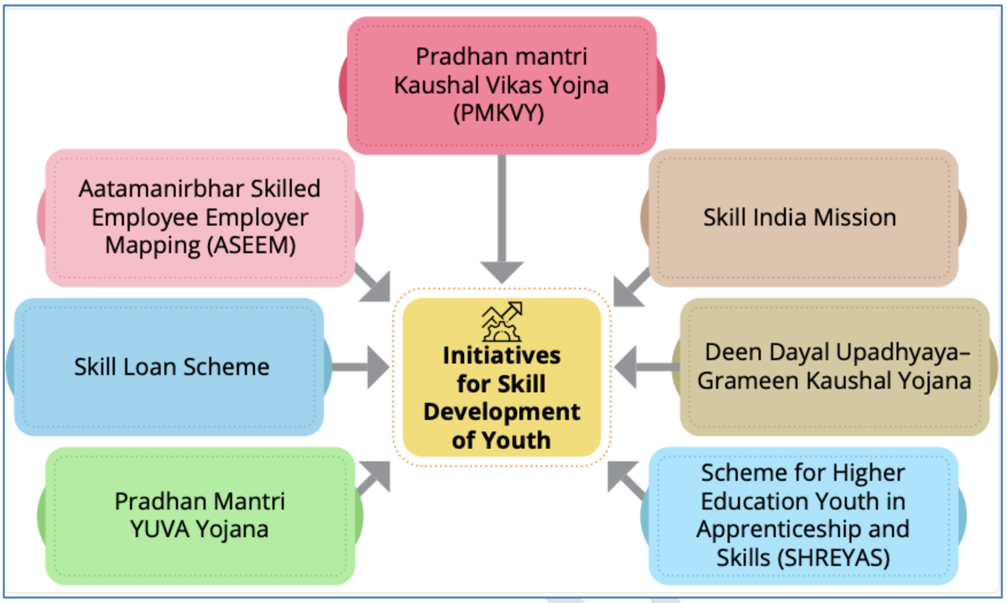
- In 2014, the **United Nations General Assembly (UNGA) declared July 15 as World Youth Skills Day,** to celebrate the strategic importance of **equipping young people with skills for employment**, decent work and entrepreneurship.
- This year the **theme is 'Reimagining Youth Skills Post-Pandemic'**.
- **Significance of the day**:
  - It aims to achieve the **Incheon Declaration: Education 2030**, which devotes considerable attention to technical and vocational skills development and **elimination of gender disparity** and ensuring access for the vulnerable.
  - It provided a unique **opportunity for dialogue between young people, technical and vocational education, and training (TVET) institutions,** firms, employers' and workers' organizations, policy makers and development partners.
- **Role of TVET:**
  - **Equip youth with the skills required** to access the world of work, including skills for self-employment.
  - **Improve responsiveness** to changing skill-demands by companies and communities, increase productivity and increase wage levels.
  - **Reduce access barriers to the world of work**, for example through work-based learning, and ensuring that skills gained are recognised and certified.
  - **Offer skills development opportunities** for low-skilled people who are under- or unemployed, out of school youth and individuals not in education, employment, and training (NEETs).

Key Highlights of event

- **Jan Shikshan Sansthans (JSSs)** help in **imparting vocational skill training programs** to several beneficiaries at minimum cost and infrastructure.
  - 75 newly sanctioned JSSs, and a portal made specifically for JSSs have been announced.
- Curriculum of 57 industry new courses has been launched.

- **'Going Online As Leaders' (GOAL)** are helping tribal population with areas like art and culture, handicraft, textiles and digital literacy among tribal areas leading to entrepreneurship development among the tribal population.
- **Van Dhan Yojna** is effectively connecting the tribal society with new opportunities.

What are the initiatives taken by the Government for skill development of youth?



- **Pradhan mantri Kaushal Vikas Yojna (PMKVY)** to enable a large number of Indian youths to take up industry-relevant skill training that will help them in securing a better livelihood.
- **Skill India Mission** aims at **vocational training and certification of Indian youth** for a better livelihood and respect in the society. It provides training to over 40 crore people in India in different skills by 2022.
- **Skill Management and Accreditation of Training Centres (SMART)** is an **Information Technology (IT) initiative** that aims to synergize the efforts of all the stakeholders in the skill ecosystem and streamline the skill development initiatives.
- **Skills Acquisition and Knowledge Awareness for Livelihood (SANKALP)** aims to **improve short term skill training qualitatively and quantitatively** through strengthening institutions, bring in better market connectivity and inclusion of marginalized sections of the society.
- **Skills Strengthening for Industrial Value Enhancement (STRIVE)** is World Bank assisted project with the objective of **improving the relevance and efficiency of skills training** provided through Industrial Training Institutes (ITIs) and apprenticeship.
- **ASEEM portal** to help skilled people find sustainable livelihood opportunities.
- **Nai Roshni**, a leadership **training programme for minority women** and **MANAS** (Maulana Azad National academy for Skills) for **upgrading entrepreneurial skills of minority youth.**

Recent Initiatives taken for Skill Development

DigiSaksham	• It is launched by **Ministry for Labour and Employment** with **Microsoft India** as a digital skills programme to **enhance the employability of youth** by **imparting digital skills** required in the technology driven era. • It will provide **free of cost training in digital skills** including basic skills as well as **advance computing** to more than three lakh youths in the first year. • It **gives priority to jobseekers of semi-urban areas** belonging to disadvantaged communities and they can access the training through **National Career Service (NCS) Portal.**
Skill Impact Bond (SIB)	• The **first-of-its-kind** and the **largest 'Impact Bond' for skilling** in India, it is launched by the National Skill Development Corporation (NSDC) in partnership with global private partners. • Together, they have brought a **US$ 14.4 million** fund to benefit **50,000 young people** in India over **four years.**
National Apprenticeship Training Scheme (NATS)	• NATS (under Ministry of Education) is a **one-year programme equipping technically qualified youth with practical knowledge and skills** required in their field of work. • The programme will continue from **2021-22** to **2025-26 with organizations** to impart **training** at their **place of work** with **50%** of **stipend amount** being **reimbursed** by Government of India to employer. • In **5 years**, it targets to provide employment to approximately **7 lakhs youths** and approx **9 lakhs** apprentices will be trained.

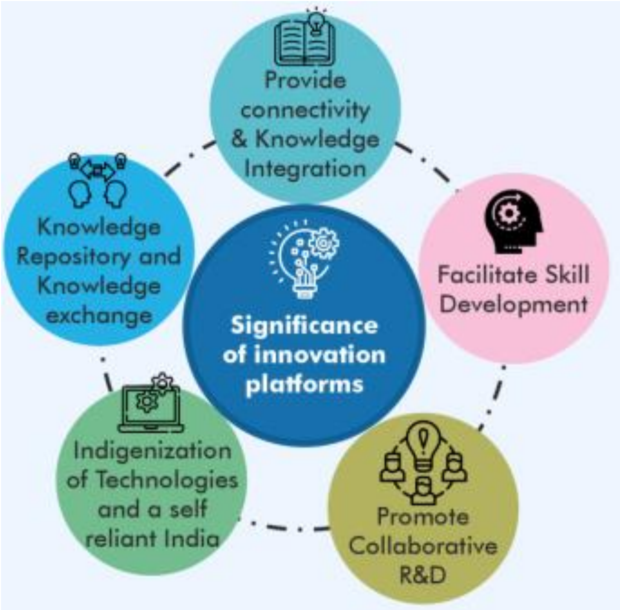
Rail Kaushal Vikas Yojana (RKVY)	• Launched by the Ministry of Railways **under the aegis of Pradhan Mantri Kaushal Vikas Yojana**, aim of RKVY is **to impart training skills to the youth in various trades** to bring qualitative improvement. ○ Candidates who are **10th passed and between 18-35 years shall be eligible** to apply. • It will provide training to **50000 candidates** over a period of **three years in four trades** viz. Electrician, Welder, Machinist and Fitter and will comprise of initial basic training of 100 hours.

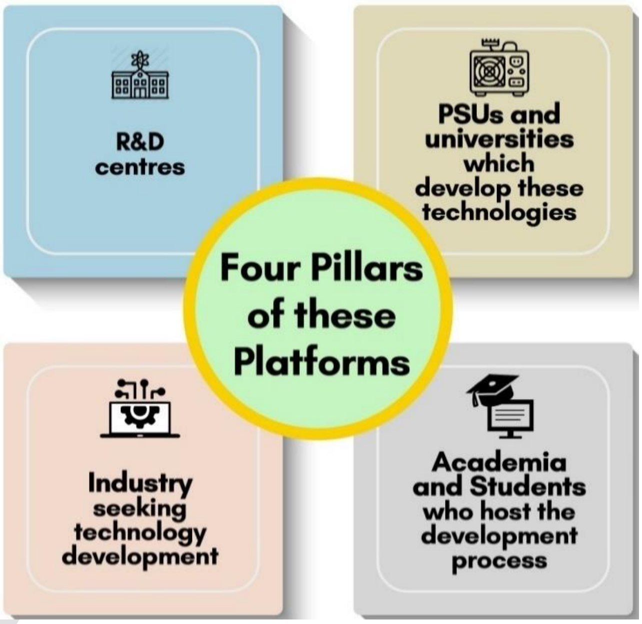
5.3. INNOVATION AND ENTREPRENEURSHIP

5.3.1. MINISTRY OF HEAVY INDUSTRIES LAUNCHED SIX TECHNOLOGY INNOVATION PLATFORMS

Why in News?

Recently, Ministry of Heavy Industries launched six technology innovation platforms **for development of technologies for globally competitive manufacturing in India.**





Platform	Developed by	Focus on
Drishti	Central Manufacturing Technology Institute, Bangalore	Machine tool sector.
Technology & Innovation Platform	HMT in association with IISc Bangalore	Import reduction in machine tool sector.
SanRachna, a digitally enabled platform	Bharat Heavy Electricals Limited	Renewable energy and power electronics sector
Kite (knowledge integration for technology enrichment)	IIT Madras	Virtual reality, automation, advance manufacturing technologies and robotics.
ASPIRE (Automotive Solutions Portal for Industry Research & Education)	International Centre for Automotive Technology	Automotive technology.
TechNovuus	Automotive Research Association of India	Sustainable mobility.

5.3.2. STARTUP ECOSYSTEM IN INDIA

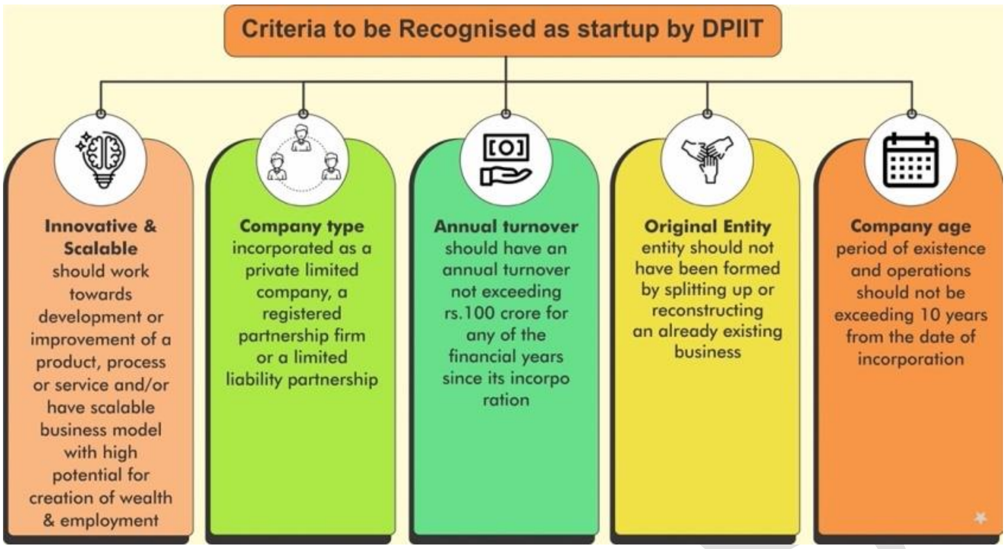
Why in News?

Recently, the PM highlighted the rising startup ecosystem in India with more than 70 unicorns i.e., startups with valuation over **$1 billion**.

What is a Start-up?

- Startup refers to a company in the **initial stages of operations** which is driven by **ideas and innovation**, **risk taking**, and can-do spirit.

- Under the **Startup India** (launched in 2016) startups are recognized by the **Department for Promotion of Industry and Internal Trade (DPIIT)** based on the criteria as given in **image.**



Startup Ecosystem of India

- Globally, India has the **third largest startup ecosystem** in the world with over **58,000** DPIIT recognized startups including **70+ unicorns** with cumulative valuation above **$200 billion**.
- Around **40%** of them are in **tier-II and tier-III cities; at least one startup in 630 districts** and **46%** of them having **at-least one-woman director**.
- For **tech startups**, India is the **2nd largest ecosystem** with growing technology centric startups in health, education, agriculture etc. using technologies like **Internet of Things (IoT), Blockchain, Artificial Intelligence** etc.

Initiatives to Strengthen Startups and its Ecosystem

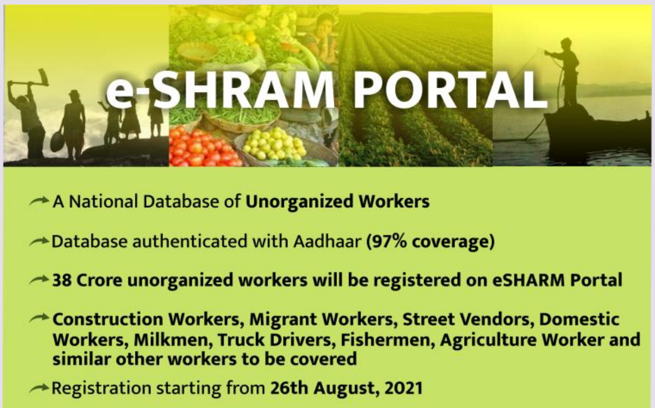
- **Startup India Seed Fund Scheme (SISFS): ₹945 crore fund** to provide early-stage financial assistance to 3,600 entrepreneurs through 300 incubators for next 4 year (starting from 2021-22).
- **Fund of Funds for Startups (FFS) Scheme: ₹10,000 crore corpus** to fund startups at early stage, seed stage and growth stage with DPIIT as **monitoring agency** and **Small Industries Development Bank of India (SIDBI)** as **operating agency**.
- **Ease of Procurement:** Relaxed prior turnover and experience in public procurement for startups to onboard them on **Government e-Marketplace** (GeM portal).
- **Startup India Hub:** A virtual online platform (launched in 2017) for all stakeholders of the entrepreneurial ecosystem in India to discover, connect and engage with each other.

MeitY Start-up Hub (MSH)

- It is the **Nodal entity** set up by MeitY to **facilitate MeitY's vision** of promoting technology innovation, start-ups, and creation of Intellectual Properties.
- It acts as a **national coordination, facilitation and monitoring centre** to integrate all the incubation centres, start-ups and innovation activities of MeitY.
- It is also implementing the **SAMRIDH** programme to **develop Startup Accelerator ecosystem in India.**

- **International Access to Indian Startups** through government-to-government collaborations.
- **Support for Intellectual Property Detection** through Startups Intellectual Property Protection (SIPP) for fast-tracked patents, designs and trademarks by paying only the statutory fees.
- **Faster Exit for Startups** (within 90 days vis-à-vis 180 days for other companies).

5.4. KEY CONCEPTS AND INFORMATION ON LABOUR, EMPLOYMENT, AND ENTREPRENEURSHIP

Labour and Employment	
All India Quarterly Establishment based Employment Survey (AQEES)	• Designed to be an **Establishment based Employment Survey**, AQEES is launched with the objective of **collecting the employment data on quarterly basis from all the establishments** to estimate the **demand side conditions of the labour market**. • The AQEES has two parts as: o The **Quarterly Employment Survey (QES)** to provide the employment **estimates** for the establishments **employing 10 or more workers.** o **Area Frame Establishment Survey (AFES)** to provide the employment estimates for the establishments **recruiting 9 or less workers.**
AIM-iLEAP (Innovative Leadership For Entrepreneurial Agility And Profitability) Initiative	• Atal Innovation Mission (AIM) (by NITI Aayog) is a flagship initiative to **promote a culture of innovation and entrepreneurship in the country.** • It concluded the first fintech cohort of 'AIM-iLEAP' as a major step to **accelerate Tech Start-ups across India.** • **Objective of the AIM-iLEAP:** To invite technology start-ups across a broad range of functions and present their solutions to the corporate leadership and innovation team for enabling market access and industry partnerships.
SAMBHAV	• It is a **National Level Awareness Programme** organized **by Ministry of Micro, Small & Medium Enterprise** (MSME). • As a **month-long initiative**, it encourages **students from different colleges/ITIs** to take up entrepreneurship and create awareness on various schemes implemented by Ministry of MSME.
E-Shram Portal	The labour ministry has launched the **National Database for Unorganised Workers** (NDUW) or e-Shram portal. **Key Features of e-Shram Portal**  • All registered workers will be issued an **e-Shram card** with **Universal Account Number (UAN)** to avail benefits of various social security schemes of the government. • It will serve as a **reference point for the authorities to track and reach out** to unorganised workers and offer them relief in times of crisis. E.g. • Provision of **accidental cover of Rs. 2 lakh in case of death or permanent disability** and Rs. 1 lakh in case of partial disability.
All India Survey on Domestic workers (AISDWs)	• The survey is aimed **at estimating the number and proportion of DWs at the national and state level,** percentage distribution of domestic workers for live-in/live-out, formal/informal employment, and other socio-economic characteristics. • The AISDWs is **part of the 5 All India Surveys** being **undertaken by the Labour Bureau.** Other four are All-India Survey are on- o Migrant Workers, o Employment generated in Transport Sector, o Employment Generated by Professionals, and o All-India Quarterly Establishment based Employment Survey (AQEES).
Innovation and Entrepreneurship	
Chips to Startup (C2S) Programme	• Under Ministry of Electronics and Information Technology (MeitY), C2S Programme **aims to train 85 thousand high-quality and qualified engineers** in the area of Very large-scale integration and Embedded System Design. • Under the programme, applications are invited from **100 academia, R&D organizations, start-ups and MSMEs** to initiate projects in **certain key areas including Energy & Environment, Healthcare, Agriculture, Disaster management** etc. • C-DAC will serve as the nodal agency for the programme with IITs, NITs, and IIITs **among the 100 academic institutions** including. o Government has also decided to celebrate **16 January** as **National Startup Day.**

SMILE (Support for Marginalized Individuals for Livelihood and Enterprise)	• Ministry of Social Justice and Empowerment has formulated an **umbrella scheme SMILE that will be launched soon.** • It covers welfare measures for both transgender persons and persons engaged in the act of begging **with focus extensively on rehabilitation, provision of medical facilities, counselling, education, skill development,** economic linkages etc. **SMILE includes two sub-schemes:** • Central Sector Scheme for **Comprehensive Rehabilitation for Welfare of Transgender Persons.** • Central Sector Scheme for **Comprehensive Rehabilitation of persons engaged in the act of Begging.**
Ubharte Sitaare Fund	• The Fund aims at **arranging funds for promotion of micro, small and medium companies which engage in export-oriented activities.** • The fund has been **set up by Exim Bank and Small Industries Development Bank of India (SIDBI).** o The fund is a mix of structured support, both **financial and advisory services** through **investments in equity or equity like instruments, debt** (funded and non-funded) and **technical assistance** (advisory services, grants, and soft loans) to the Indian companies.
Global Innovation Index (GII) 2021	• Co-published by the **World Intellectual Property Organisation** (WIPO), **Cornell University and INSEAD**, the report provides an annual ranking of innovation capabilities and performance of **131 countries and economies** around the world. • Theme of GII 2021 is **'Tracking Innovation through the COVID-19 Crisis'.** • Its **80+ indicators** explore broad vision of innovation, including political environment, education, infrastructure, and business sophistication.

India Innovation Index (I3)	• It is released by **NITI Aayog** with the Institute for Competitiveness.
	• I3 measures **innovation inputs** through **'Enablers' and innovation output as 'Performance'** with aim to **create an extensive framework** for continual evaluation of India's innovation environment.
	  o **Enabler parameters:** 'Human Capital', 'Investment', 'Knowledge Workers', 'Business Environment', 'Safety and Legal Environment'.
	  o **Performance parameters:** 'Knowledge Output', 'Knowledge Diffusion'.
	• Based on **states and UTs scores**, it recognizes opportunities and challenges, and assist in tailoring government policies to foster innovation.

6. AGRICULTURE

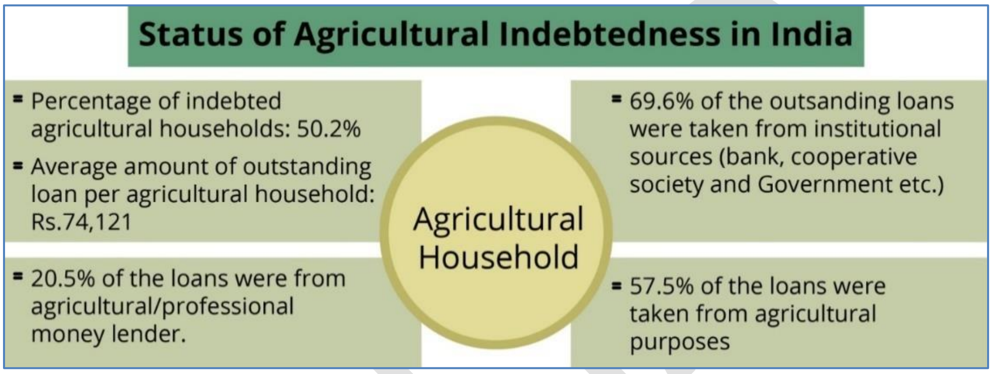
6.1. FARMER'S INCOME

6.1.1. AGRICULTURAL INDEBTEDNESS IN INDIA

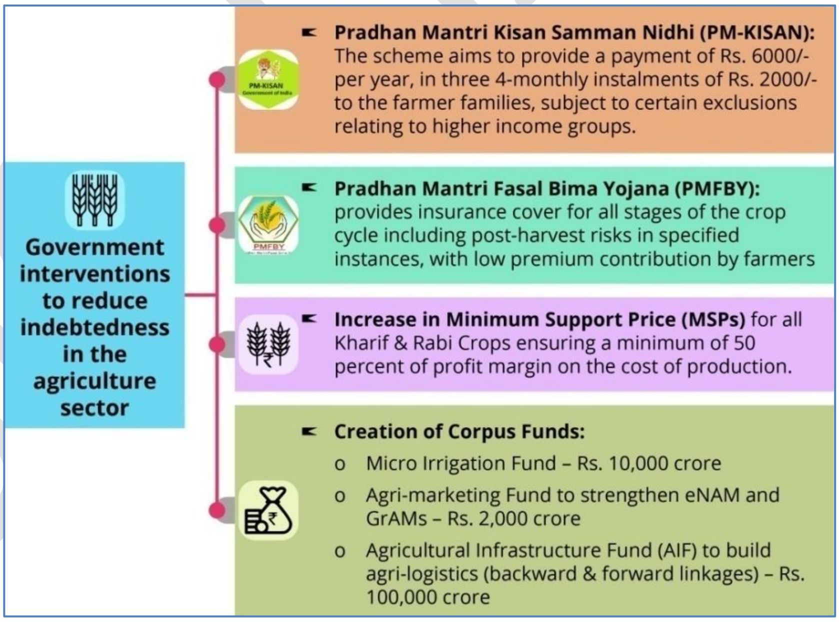
Why in News?

According to the **'Situation Assessment of Agricultural Households and Land Holdings of Households in Rural India, 2019' survey by the National Statistical Office,** the average outstanding loan per agricultural household increased by 57.7% from 2013 to 2018.

Key findings of the report



- **Increase in average income of agricultural households** and farm incomes
- Andhra Pradesh with highest average outstanding loan of Rs 2.45 lakh with highest proportion (93.2%) of agricultural households under debt, followed by Telangana (91.7%) and Kerala (69.9%).



Reasons for rising indebtedness

- **Easy access to institutional finance due to Government effort.**
- **Inadequate growth in farm productivity and income** due to factors like rising cost of cultivation, price volatility, climate change, **Subsistence farming of small landholdings** etc.
- **Poor risk mitigation mechanism** like crop Insurance coverage.
- **Dependence on high interest informal loans** among small and marginal farmers, tenants etc.
- **Intergenerational debt cycle** due to debts for non-productive purposes such as to meet the family needs, perform social functions (related to marriages, birth, death), etc.
- **Farm loan waivers** leading to increased loan taking with hope of being waived-off.

6.2. FERTILIZER SUBSIDY

Why in News?

Recently, the subsidy for Diammonium phosphate (DAP) fertiliser was increased from Rs. 500 per bag to Rs. 1200 per bag, an increase of 140%, an additional subsidy burden of **₹14,775 crore** in Kharif season.

Fertilizers in India

- Indian fertilizer industry is **third largest in the world in terms of production and second largest in terms of consumption**.

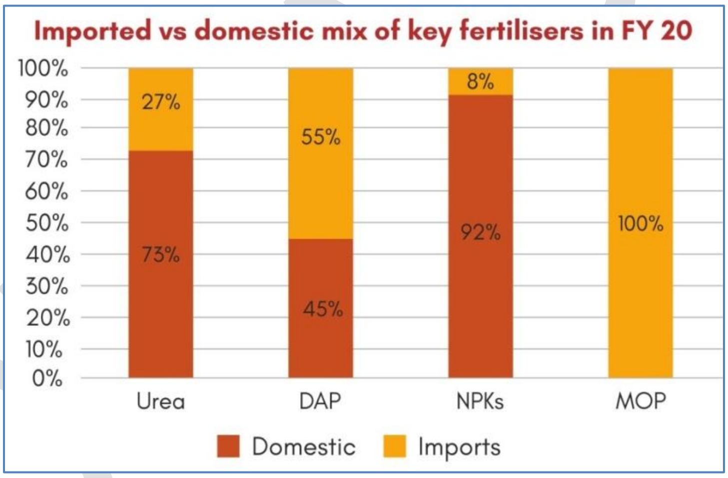
- Depending on the nutrient composition, the fertilizers can broadly be divided into **two categories**: (i) **nitrogenous fertilizers and (ii) phosphatic and potassic (P&K) fertilizers.**
- India fertilizers market is projected to register a **CAGR of 11.9%** during the forecast period (2021-2026).

Categories of Fertilizers

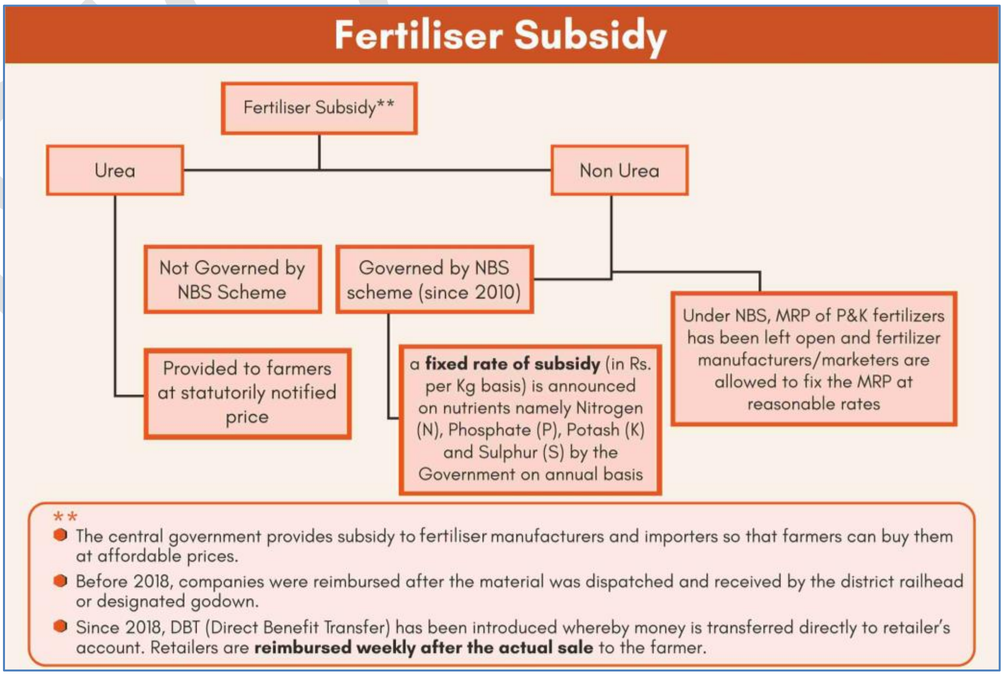
Nitrogenous Fertilizers	Urea Calcium Ammonium Nitrate (CAN) Ammonium Nitrate Ammonium Sulfate Anhydrous Ammonia Other Nitrogenous Fertilizers
Phosphatic Fertilizers	Mono-Ammonium Phosphate (MAP) Di-Ammonium Phosphate (DAP) Triple Superphosphate (TSP)
Potash Fertilizers	Muriate of Potash (MOP) Other Potash Fertilizers

Concerns with Fertiliser subsidy

- **High Fiscal Burden** of subsidies (**about 0.73 lakh crore or 0.5 percent of GDP**), 2nd **highest after food subsidy**.
- **High Import Dependency** with nearly 28% of the 55 million metric ton of annual fertilizer demand meet through imports. **(Refer graph for imported vs domestic mix of key fertilisers in FY 20).**
  - Urea receives the largest subsidy in terms of absolute amount (70% of total subsidy) because of its high use.



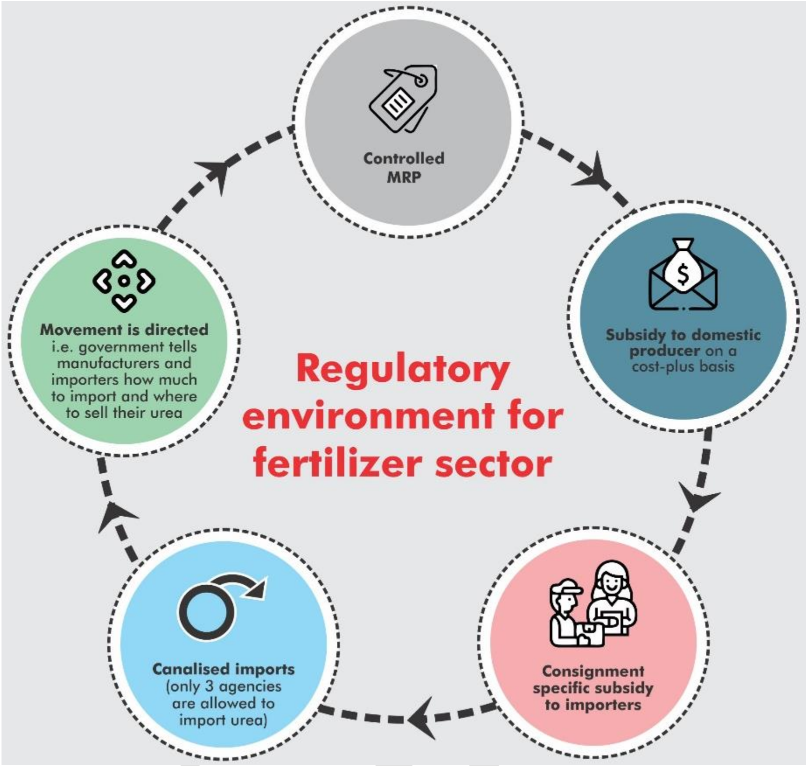
- **Imbalanced use of fertilisers due to subsidy regime**, i.e., against the ideal **NPK ratio of 4:2:1**, the present ratio in Punjab and Haryana is **25:5:1**, affecting **crop yield, deterioration in soil health** and **adversely impacting** the environment.
  - Excessive nitrogen fertilizer applications sometime lead to **pest problems by increasing the birth rate, longevity, and overall fitness of certain agricultural pests.**
  - Similarly, **fertilizer burn** can result in **drying out of leaves** and **damage or even death** of plants.
- **Significant emission of greenhouse gases** into the atmosphere from excessive use of fertilizers and **contamination of surface water and groundwater** from fertilizer overuse.
  - Nutrient-rich fertilizer runoff stimulates productivity in aquatic ecosystem, which can lead to **harmful algal blooms or fish kills.**



Way forward

To address these challenges, government should work on- **Direct cash transfer of subsidy to Farmers**, cap on number fertilizer bags per farmer, awareness among farmers on balanced fertilizer use **according to different agro-climatic** regions, and **promotion of green alternatives to chemical fertilisers** such as

- **Bio fertilisers** (Algal, fungal, and bacterial) with potential to increase crop yield up to 15-25%.
- **Slow-release natural product**, like **Milorganite**, which releases nutrients slowly to the plant and adds **organic matter** to feed the soil.



Government Steps in Fertilizer Sector:

- **New Urea Policy-2015 (NUP-2015)** to **maximize indigenous urea production**, promoting **energy efficiency** in urea production and **rationalizing subsidy** burden on the government.
- **Neem Coated Urea (NCU)** to promote the **balanced use of fertilizers**. It has been made **mandatory for all the domestic producers** of urea to produce 100% as NCU.
- **Pooling of domestic gas** with Re-gasified Liquified Natural Gas (R-LNG) to provide natural gas at uniform price to all-natural gas grid connected Urea manufacturing plants.
- **Soil Health Card (SHC)** with status of soil with respect to 12 parameters, namely N, P, K (Macro-nutrients); S (Secondary- nutrient); Zn, Fe, Cu, Mn, Bo (Micro - nutrients); and pH, Electrical Conductivity (EC), Organic Carbon (OC) (Physical parameters).
  - It also **indicates dosage of fertilizers and other soil amendments** needed to maintain soil health in the long run.
- Exploring indigenous deposits of **Phosphatic rock and Potash** and make it available to indigenous industries to **produce DAP** (Diammonium Phosphate) and **SSP** (Single Super Phosphate), **NPK** (Nitrogen, Phosphorous and Potassium) and **MOP** (Muriate of Potash).
  - This includes deposits in Rajasthan, central part of peninsular India, Hirapur (MP), Lalitpur (UP), Mussoorie syncline, Cuddapah basin (Andhra Pradesh).

6.3. SECTORAL ANALYSIS OF CROPS

6.3.1. PULSES

Why in News?

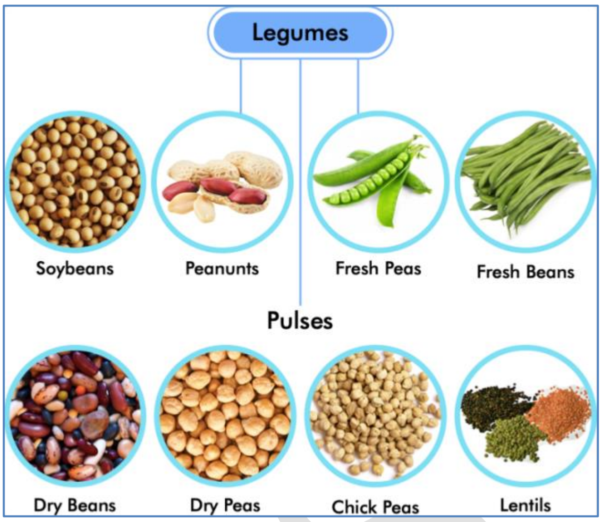
To achieve self-sufficiency in pulses, Union government formulated strategy for Kharif 2021 season.

More about News

- Under the strategy, a detailed plan for both **area expansion and productivity** enhancement for **Tur, Moong and Urad** has been formulated.
- **Certified seeds** of High Yielding varieties (HYVs) will be distributed **free of cost** to increase area through intercropping and sole crop.
- More than **20 lakh mini kits** (almost ten times more than the last year) of seeds to be distributed amounting to Rs. 82.01 crores.

Pulses in India

- The dry, edible seeds of plants in the **legume family**, pulses are a category of superfoods that includes chickpeas, lentils, dry peas and beans.

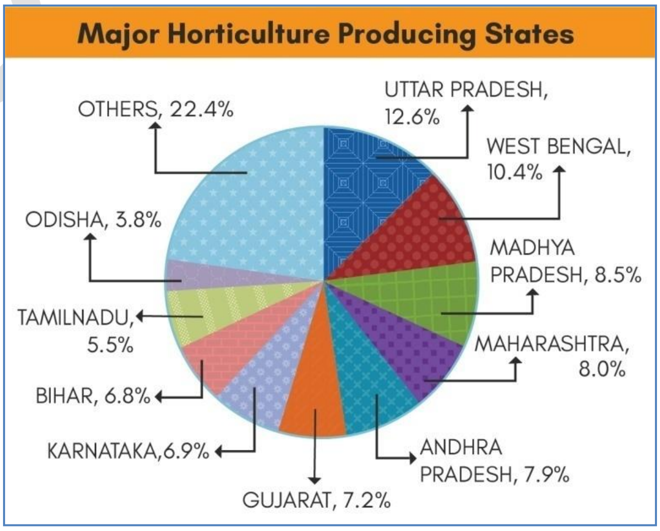


- Pulses can be grown in **both Kharif and Rabi seasons** with **Rabi pulses** contributing over **60%** of the total production.
- **Gram is the most dominant pulse** with nearly 40% share in total pulses production, followed by Tur/Arhar and Urad/Black Matpe.
- **Madhya Pradesh, Maharashtra, Rajasthan, Uttar Pradesh, and Karnataka** are the top pulses producing States.
- Overall, Pulses account for **around 20% of the area under foodgrains** and contribute **around 7-10% of the country's total foodgrains production**, making India
  - **Largest producer** (about 25% of global production),
  - **Largest consumer** (about 27% of world consumption) and
  - **Largest importer** (about 14%) of pulses in the world.

Government Schemes

- **Integrated Schemes of Oilseeds, Pulses, Oil palm and Maize or ISOPOM:** Focused and integrated approach to strengthen the market invention and effective pricing policies.
- **NFSM-Pulses:** A Centrally Sponsored Scheme on National Food Security Mission to **enhance the production of rice, wheat and pulses by 10, 8 and 2 million tonnes** respectively.
- **NFSM + Special initiatives**: A centrally sponsored **Accelerated Pulses Production Programme (A3P) and Pulses development scheme** with interventions like Technology Demonstrations, Integrated Nutrient Management (INM), Integrated Pest Management (IPM), Efficient Water Application Tools etc.
- **Price Support Scheme (PSS):** A component under the umbrella scheme **Pradhan Mantri Annadata Aay Sanrakshan Abhiyan (PM-AASHA)** launched to ensure MSP to farmers.
  - Under PSS, physical procurement of pulses, oilseeds and copra are done by **Central Nodal Agencies** with proactive role of State governments.
  - National Agricultural Cooperative Marketing Federation of India Ltd (NAFED), FCI also takes up procurement of crops under PSS with expenditure and losses being borne by the Centre.

6.3.2. HORTICULTURE



Why in News?

Recently, Union Agriculture Minister launched **Horticulture Cluster Development Programme (CDP)** to ensure holistic growth of horticulture.

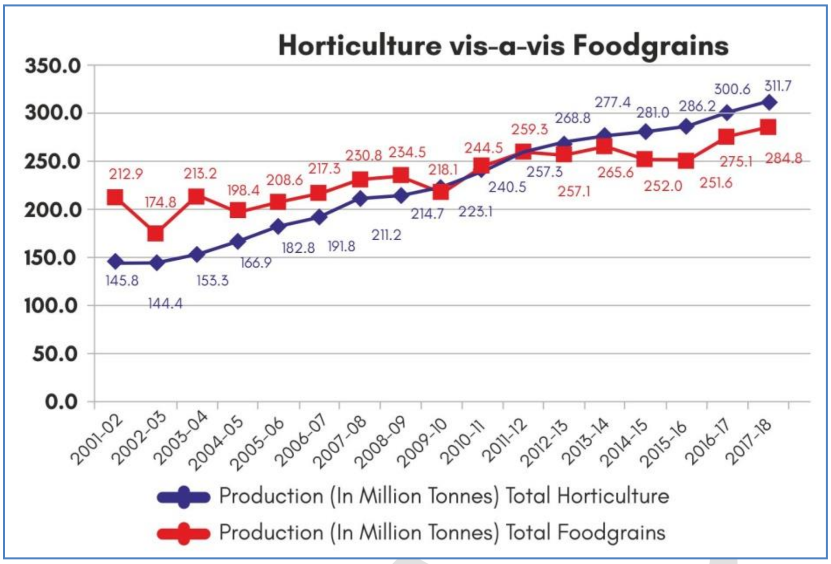
More on news

- It is a **central sector programme**, implemented by **National Horticulture Board**, starting with pilot phase in **12 horticulture clusters** (out of total 53 clusters) covering nearly **10 lakh farmers from 11 States/UTs.**
- It will leverage **geographical specialization** and promote **integrated and market-led development**, making Indian horticulture clusters globally competitive.
- The Ministry has also provided an **enhanced allocation of ₹2250 Crore for the year 2021-22** for 'Mission for Integrated Development of Horticulture' (MIDH).

About Horticulture

- Horticulture includes production, utilisation, and improvement of horticultural crops, such as **fruits and vegetables, spices and condiments, ornamental, plantation, medicinal and aromatic plants.**
- Horticulture crops are characterised by **high-value crops, higher productivity** per unit of area and lower requirement of irrigation and input cost.

- The **diverse agro-climatic conditions and rich diversity in crops and genetic resources** enable India to produce a wide range of horticultural crops round the year.
- India accounts for **13% of the global production of fruits and 21% of vegetables**, making it the **second largest producer**, after China. India also **ranks at first position** in the production of Banana, Mango, Lime and Lemon, Papaya and Okra.
  - Fruits and vegetables account for **nearly 90% of total horticulture production** in the country.



Mission for Integrated Development of Horticulture (MIDH)

- It is a **Centrally Sponsored Scheme** for the **holistic growth of the horticulture sector**.
- Under MIDH, Government of India (GOI) **contributes 60%, of total outlay for developmental programmes in all the states (90% for states in North East and Himalayas).**
- It also provides **technical advice and administrative suppor**t to State Governments/ State Horticulture Missions (SHMs) for the Saffron Mission and other horticulture related activities Rashtriya Krishi Vikas Yojana (RKVY)/National Mission on Sustainable Agriculture (NMSA).
- Under MIDH, a number of sub schemes and strategies to improve Horticulture production.
- In 2014, **CHAMAN 'Coordinated programme on Horticulture Assessment & Management using geoiNformatics'** was initiated under MIDH for **better horticulture assessment and development** through remote sensing, GIS and field survey

Schemes under MIDH

Sub Scheme	Target group / area of operation
NHM-National Horticulture Mission	All states & UTs except states in NE and Himalayan Region.
HMNEH- Horticulture Mission for North East & Himalayan States	All states in NE and Himalayan Region.
NBM-National Bamboo Mission	All states & UTs
NHB- National Horticulture Board	All states & UTs focusing on commercial horticulture.
CDB-Coconut Development Board	All states & UTs where coconut is grown.
CIH- Central Institute for Horticulture	NE states, focusing on HRD and capacity building.

6.3.3. COTTON CULTIVATION

Why in News?

Recently, two reports were released by Cotton 2040 titled "Physical Climate risk assessment for global cotton production" and "Physical Climate Risk and vulnerability Assessment for India".

Global Key Findings of the report

- All global cotton-growing regions will be exposed to **increased risk from at least one climate hazard.**
- All six highest cotton-producing countries – India, USA, China, Brazil, Pakistan and Turkey – are exposed to increased **climate risk, particularly from wildfire, drought and extreme rainfall.**

Cotton 2040

- Cotton 2040 is a platform that envisages a **sustainable global cotton industry** by bringing together leading international brands and retailers, traders, farmers and other stakeholders across the value chain.
- **It is facilitated by Forum for the Future**, a leading international sustainability **non-profit.**

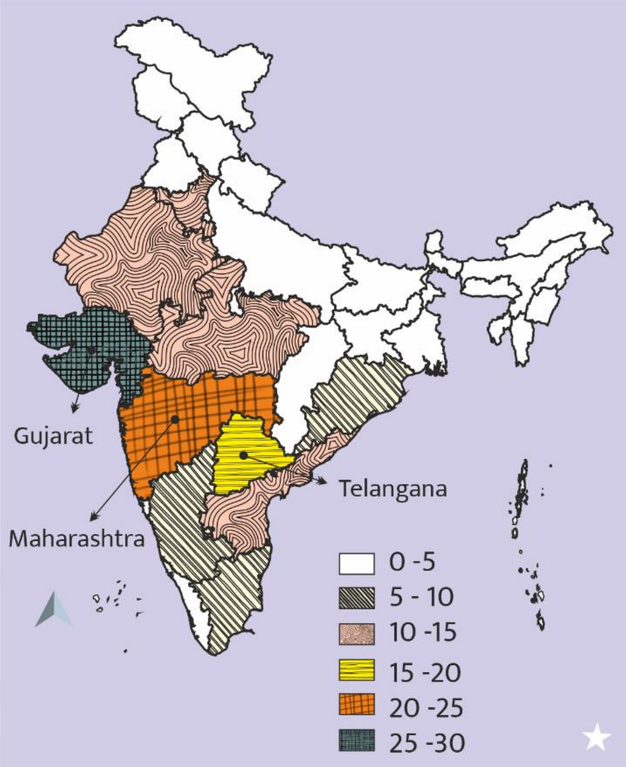
Physical Climate Risk and vulnerability Assessment for India

- It is the **first-ever detailed physical climate risk and vulnerability assessment** for India's cotton value chain.

Key Findings on India:

- Climate change could expose **one third of India's cotton growing regions to high risks** from temperature increases, changes to rainfall patterns and extreme weather events by 2040.
- In the 2040s, cotton-growing regions across India will be subject to **greater heat stress** than under present-day conditions with some regions facing an **increase in water stress** as well**.**
- All districts to experience **increase in number of days with significantly lower labour productivity.**
- Common areas of vulnerability in all Cotton growing districts studied include **multidimensional poverty, low female work participation rates, low male and female literacy rates, and limited access to banking services, technology, and information.**

Percentage of national production on a state level as of 2019



Cotton Cultivation in India

- Cotton is a **Kharif crop and grows well in black cotton soil** (high water retention capacity) of deccan plateau.
- Annual temperature requirement is **20-28 degree Celsius, and rainfall of 55-110 cm is ideal.** It requires **minimum 180 frost-free days.**
- The majority of cotton cultivation comes from **ten major cotton growing states**, which are grouped into three diverse agro-ecological zones.

KEY FACTS ABOUT COTTON CULTIVATION IN INDIA

Largest Producer	▪ India is the **highest cotton producing country** in the world (as of 2020) and ranks at **first place in terms of land area** under cotton cultivation (**38% of global cotton area**). ▪ India is **second largest consumer** of raw cotton, after China.
Cotton Species	▪ Indian farmers grow four species of cultivated cotton; Gossypium arboretum (**desi cotton**) and herbaceum (**Asian cotton**), Gossypium barbadense (**Egyptian cotton**) and Gossypium hirsutum (**American upland cotton**). ▪ Currently, more than **80% of cotton grown in India are Bt cotton hybrids** of the upland variety G. hirsutum.
Livelihood	▪ **Roughly 60 million people are engaged directly or indirectly** in the cotton value chain, with about 40-50 million people employed in the cotton trade and its processing. ▪ The cotton textile industry employs the **highest number of people in the country after agriculture** and contributes about **4% to the country's GDP.**
Exports	▪ In 2018-19, textile and clothing constituted **12% of India's total exports**, a large share of which was cotton yarn. ▪ In 2019-20, India produced **6,000 metric tonnes of cotton lint** out of which 900 metric tonnes was exported.

Northern Zone - Punjab, Haryana and Rajasthan at 16.8% of national production	**Central Zone** - Gujarat, Maharashtra and Madhya Pradesh at 54.6%	**Southern Zone** - Telangana, Andhra Pradesh, Karnataka and Tamil Nadu at 26.9%

6.3.4. NATIONAL MISSION ON EDIBLE OILS – OIL PALM (NMEO-OP)

Why in News?

Recently, Cabinet approved a new centrally sponsored scheme, NMEO-OP, to promote domestic cultivation of oil palm in the next five years.

About NMEO-OP

- It will **subsume the current National Food Security Mission-Oil Palm programme.**
- Under this scheme, it is **proposed to cover an additional area of 6.5 lakh hectare (ha.) for oil palm till** the year 2025-26 and thereby reaching the target of 10 lakh hectares ultimately.

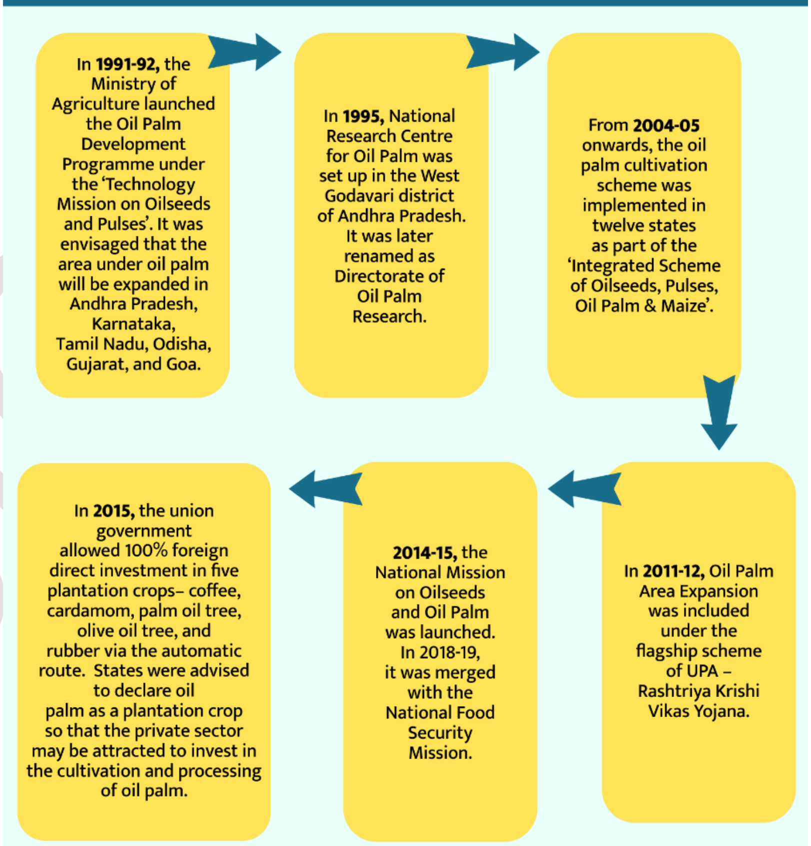
About Palm Oil

- Oil Palm (or Palm Oil) is produced from **palm fruit** of **Elaeis Guineensis** (African oil Palm) or **Elaeis Oleifera** (indigenous to South and Central America).
- As a vegetable oil, it is rich in Vitamin A and E with no trans fatty acids; used in food products and in industrial applications.

Key features of the scheme

- To have a special focus on **Northeast region** and the **Andaman and Nicobar Islands.**
- **Price assurance to the oil palm farmers** on the lines of the MSP for the Fresh Fruit Bunches (FFBs) from which oil is extracted by the industry. This will be known as the **Viability Price (VP).**
    - Assurance to farmers will be **in the form of the viability gap funding and the industry will be mandated to pay 14.3% of the CPO price which will eventually go up to 15.3%.**
        - ✓ There is a sunset clause for the scheme which is 1st November 2037.
        - ✓ Palm oil farmers will be **paid the price difference via DBT.**
    - To give **impetus to the North-East and Andaman, the Government will additionally bear a cost of 2% of the CPO price.**
    - This will **protect the farmers from the fluctuations of the international CPO prices** and protect him from the volatility.

PREVIOUS MEASURES TO PROMOTE PALM OIL

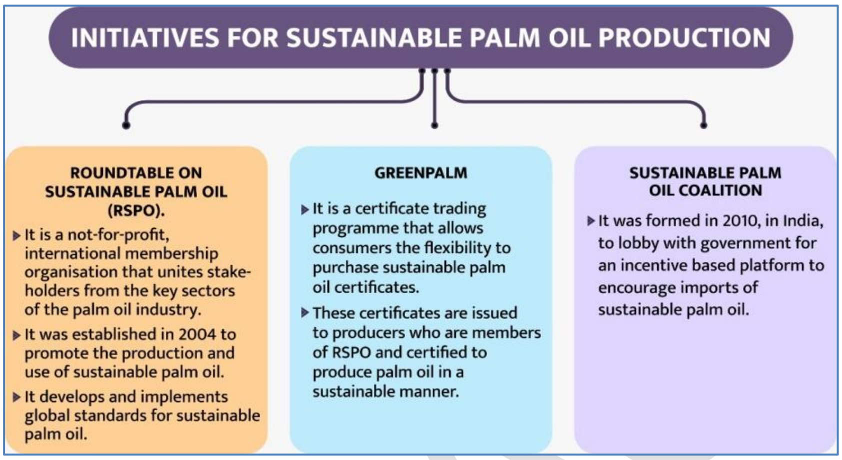


- **₹29,000 per hectare** assistance to farmers for **planting materials** (earlier **₹12,000 per hectare**).
    - Substantial increase is also made for maintenance and inter-cropping interventions. A special assistance @ **₹250 per plant** is being given to replant old gardens for rejuvenation of old gardens.
- **Special assistance to North-East and the Andaman regions** with special provisions being made for half-moon terrace cultivation, bio fencing and land clearance along with integrated farming.
- Up to **₹100 lakhs** assistance to **Seed gardens will be provided** for 15 hectares in the North-East and Andaman regions and **₹80 lakhs** for 15 hectares in the rest of India **to ensure no shortage of planting material in the country.**

- **A financial outlay of ₹11,040 crore has been made for the scheme**, out of which **₹8,844 crore** is Government of India share and **₹2,196 crore** from States (it includes the viability gap funding).

Significance of the Scheme

- India is the **largest palm oil importer** in the world**.** It will **reduce import dependence** as India imports 13 million tonnes of edible oil annually out of nearly 25 million tonnes of demand.
  - The **domestic production of crude palm oil (CPO) is expected to go up to 11.20 lakh tonnes by 2025-26 and up to 28 lakh tonnes by 2029-30.**

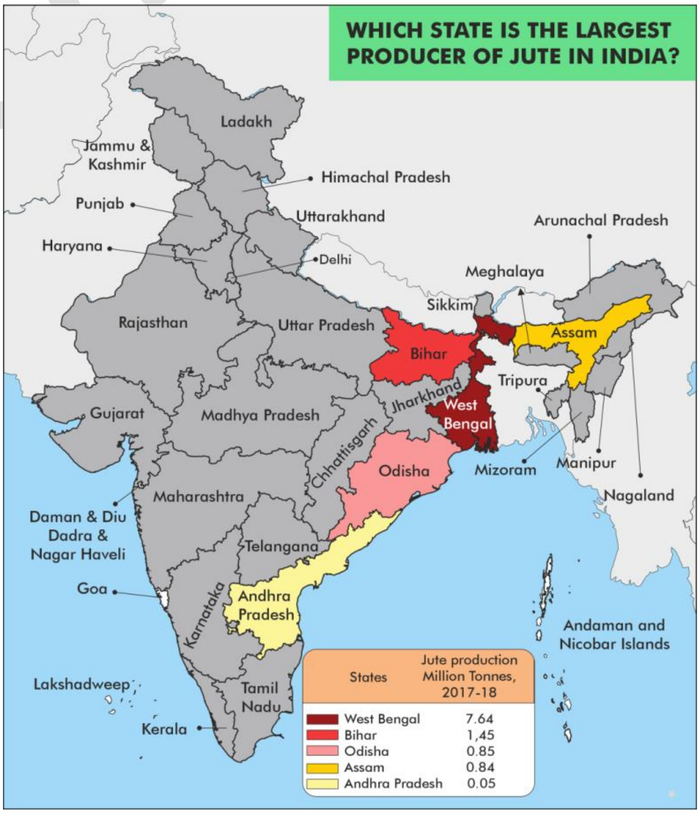


- **Cost competitiveness vis-à-vis other vegetable oils and animal fats** as palm oil produces **10 to 46 times** more oil per hectare compared to other oilseed crops and has yield of around **4 tons of oil per ha**. Also, it is easy to cultivate and bears fruit all-round year.
- **Vast Palm Oil production potential** (India has potential area **of 28 lakh ha**, out of which more than **9 lakh ha** in the northeastern region against present production of only **3.70 lakh ha**).
- **Reduce food inflation** in India by bringing palm oil price under domestic control with economic benefits of increased capital investment, employment generation and increase farmers' income.
- **Help in Climate change management** due to its high carbon sequestration potential.
- **Helps meet Global demand** as it is used as **main vegetable oil due to adequate availability, versatility in usage and lower cost.**
  - Global demand for vegetable oils is projected to **increase by 46% by 2050**.
  - Concerns over the health hazards associated with trans-fatty acids (TFA) and genetically modified organisms (GMO) have also raised the demand for palm oil, as **palm oil is not derived from a GMO nor does it contain TFA.**

6.3.5. JUTE INDUSTRY

Why in News?

Recently, CCEA approved reservation norms for the mandatory use of jute in packaging this year, **stipulating 100% of food grains and 20% of sugar must compulsorily be packed in jute bags.** (It is done under **Jute Packaging Materials (Compulsory use in Packing Commodities) Act, 1987.)**



Significance

- **Environment protection** as jute is natural, bio- degradable, renewable, and reusable fibre.
- Protect the **interest of domestic production of raw jute** and jute packaging material in India.
- **Ensures a guaranteed market** for the produce of 40 lakh jute farmers.

About Jute

- Jute requires **alluvial soil and heavy rainfall** and 20 to 40-degree Celsius temperature.
- Warm and high humid climate during monsoon season is suitable.

- India is the **largest producer** of jute in the world.

Initiatives to promote Jute industry

- **Jute-Improved Cultivation and Advanced Retting Exercise** for improve the productivity and quality of raw jute.
- **Jute SMART** an e-govt initiative to promote transparency in the jute sector.
- Jute is **included in MSP regime.**

6.3.6. SUGAR MILLS

Why in news?

Recently, the Department of Food and Public Distribution issued guidelines for restructuring under Sugar Development Fund (SDF) Rules 1983.

More on news

- Restructuring of SDF rules is aimed to **facilitate rehabilitation of financially weak but economically viable sugar mills** who have availed loans under the Sugar Development Fund (SDF) Act, 1982.
    - SDF is presently utilized **to grant loans to the sugar mills** for **facilitating the rehabilitation and modernization**/ Bagasse based co-generation power projects/ production of anhydrous alcohol or ethanol from alcohol/ conversion of existing ethanol plant into Zero Liquid Discharge (ZLD) plant and development of Sugar cane.
    - The loans are provided at a **concessional rate of 2% below the prevailing bank rate.**
- The **outstanding amount of default of SDF loans is ₹3068.31 crores** (as on 30.11.2021).

Key highlights of the new guidelines

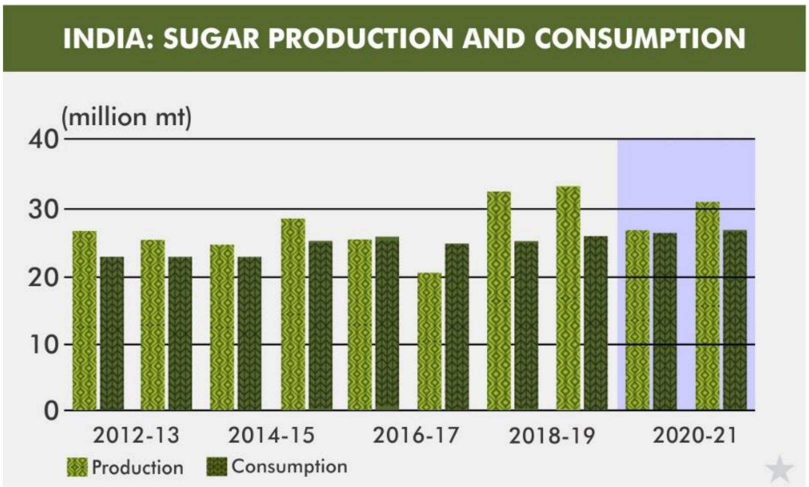
- These guidelines are **uniformly applicable for SDF loans availed by all types of concerns**, including Co-operative Societies, Private Limited Companies and Public Limited Companies.
- **Eligibility Criteria for sugar factory:**
    - It has been incurring cash losses continuously for the last 3 financial years or
    - Its net worth is negative, and the sugar factory is not closed/has not ceased to crush cane for more than 2 sugar seasons, excluding the current sugar season.
- **Benefits**
    - **Two years moratorium** and then five years of repayment.
    - **Waiver of additional interest** in full will be given to the eligible sugar factories.
    - **The rate of interest will be changed** to the interest rate as per the prevailing bank rate on the date of approval of the rehabilitation package as per SDF Rule 26 (9) (a).

Sugarcane pricing policy

- **Fair and Remunerative Price (FRP):** It replaced the Statutory Minimum Price (SMP) of sugarcane in 2009 through amendment of the Sugarcane (Control) Order, 1966, with FRP as:
    - The **minimum price that sugar mills have to pay sugarcane farmers** to insulate them from increasing input costs.
    - It is linked to a **basic recovery rate of sugar**, with a premium payable to farmers for higher recoveries of sugar from sugarcane.
    - It is determined on the basis of **recommendations given by the Commission for Agricultural Costs and Prices (CACP),** an expert body under the Ministry of Agriculture & Farmers' Welfare, and in consultation with state governments.
- **State-Advised Prices (SAPs):** Used by states to declare SAP for sugarcane considering the cost of production and productivity levels. The SAP is generally higher than the FRP.
- **Minimum Selling Price (MSP):** In exercise of the powers conferred by the Essential Commodities Act, 1955, Centre notified **Sugar Price (Control) Order, 2018** under which the Centre fixes the MSP after taking into account the FRP of sugarcane and minimum conversion cost of the most efficient mills.
    - The MSP was introduced to ensure **industry may get at least the minimum cost of production** of sugar, so as to enable them to clear cane price dues of farmers.
- **Public Distribution System:** At present, sugar is distributed at a subsided rate of Rs 13.5 per kg to 2.5 crore families under the Antyodaya Anna Yojana (AAY).
- **Export policy:** India's export subsidy includes Production Assistance Scheme, Buffer Stock Scheme and Marketing and Transportation Scheme.

Reasons behind Liquidity Crunch at Sugar Mills

- **High sugarcane production** due to combination of factors like **fixed prices** which are well above that of alternative crops, **domestically controlled prices** which are well above international levels of sugar prices and availability of **High yield sugarcane varieties**.
- **Cane reservation area and bonding** with designated mill obligated to purchase from cane farmers within the cane reservation area.
  - However, it **reduces the bargaining power of the farmer** and **Mills lose flexibility** in augmenting cane supplies and quality.
- **Minimum radial distance criterion** of 15 km between any two sugar mills under the Sugarcane Control Order, leading to **distortions in the market.**
- **Government control over** exports and imports of sugar.



Steps to overcome Liquidity Crunch

- **National Policy on Biofuels (2018)** to have a **20% target blending rate for ethanol by 2030 (now changed to 2025).**
- **Tripartite agreement** between sugar companies, banks, and Oil Marketing Companies (OMCs) to ensure ethanol.
- **Export subsidy for sugar** to make Indian exports competitive. It is contested by other countries in the WTO and India has been allowed to continue with the subsidies till December 2023.

Recommendations of NITI Aayog Task Force under Ramesh Chand

Set up to find long-term solutions for the sugar industry and sugarcane farmers, it has recommended-

- Adoption of **revenue sharing formula,**
- **Diversification** towards less water intensive crops,
- **Enhanced ethanol blending,**
- **Revision in Minimum Selling Price** of sugar,
- **Redesigning of export incentives** to make them WTO compliant,
- **Discontinuation of buffer stocks,** promotion of jaggery, etc.

6.4. SUSTAINABLE AGRICULTURE

6.4.1. LARGE AREA CERTIFICATION (LAC) SCHEME

Why in news?

About 14,491 hectare area in Andaman and Nicobar has been certified as organic under the Large Area Certification (LAC) Scheme of the PGS-India (Participatory Guarantee System) certification programme (the first large contiguous territory to be certified).

About LAC

- It is a unique quick certification programme to harness the potential areas of Organic farming in India.
- It was launched by the Department of Agriculture and Farmers Welfare under its flagship scheme of **Paramparagat Krishi Vikas Yojana (PKVY).**
- Under LAC, **each village in the area is considered as one cluster or group** and simple documentations are maintained village-wise.
- All farmers with their farmland and livestock need to adhere to the standard requirements and on being verified get certified en-mass without the need to go under conversion period.
- **Certification is renewed on annual basis** through annual verification by a process of p**eer appraisals as per the process of PGS-India.**

CERTIFICATION CONFUSION

For any food to be sold as organic in India, whether fresh produce or packaged product, it must be certified via one of two systems. That road can be long, winding and often expensive.

NATIONAL PROGRAMME FOR ORGANIC PRODUCTION (NPOP)

Adopted in 2001 and administered by the Ministry of Commerce & Industry, it was originally meant for exports.

Under this programme, one of 28 third-party certifiers must check that a farm is free of manufactured chemicals (fertilizers, insecticides, herbicides hormones and pesticides).

In case of processed food, the certifier checks that the produce came from an NPOP certified farm and was processed by a NPOP-certified processor.

Certified foods carry the India Organic logo. The standards are recognized by the European Commission, America's USDA, and Switzerland.

THE CATCH

- **Third-party certification** is expensive and must be renewed annually.
- **So the programme** is restricted to big companies, ones that work with farmers over thousands of acres, and earn revenues largely from exporting non-perishables - oilseeds, processed food, cereals, tea, spices and pulses.

PARTICIPATORY GUARANTEE SYSTEM FOR INDIA (PGS-INDIA)

: It operates outside the framework of third-party certification.

Practised in 38 countries and recognized by the Union Ministry of Agriculture & Farmers Welfare since 2018, it certifies clusters of small farmer (two and five acres each)

Five or more growers who live close to each other form a group and get trained in organic farming under a government scheme.

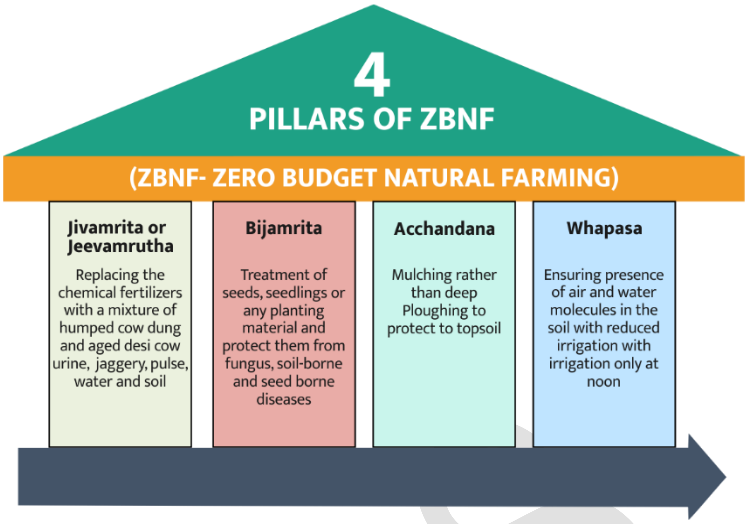
Then, with help from Regional Councils (India now has 562), farmers inspect each other's holdings, Should a grower violate any norms, their produce is not sold through group.

India now has 6,646 PGS groups, covering about 2.1 lakh farmers.

THE CATCH

- **The system is poorly founded**, farmers are often trained badly and the system does little to create a long-team market for organic produce.
- **The PGS is not recognized** by the US and European Union, two big markets for organic food, So small farmers cannot sell their produce abroad.
- **They can't sell** their food to NPOP-certified processors either, This means they often have little incentive to stay organic.

6.4.2. ZERO-BUDGET NATURAL FARMING (ZBNF)

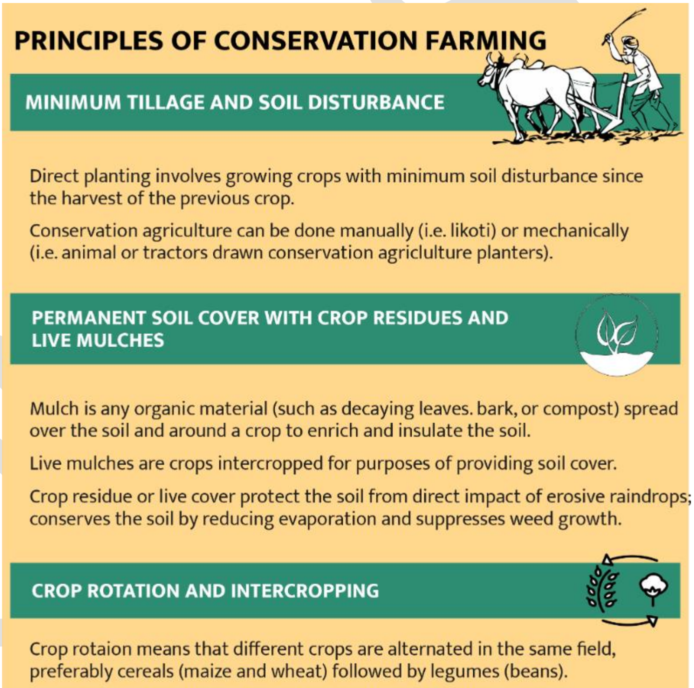


Why in news?

Indian Council of Agricultural Research (ICAR) committee highlighted that **ZBNF would result in tremendous reduction in production of agricultural crops thus compromising India's food security.**

About ZBNF

- It is a method of **chemical-free agriculture** drawing from **traditional Indian practices.**
    - The word 'budget' refers to credit and expenses, thus the phrase 'Zero Budget' means **without using any credit,** and without spending any money on purchased inputs. 'Natural farming' means **farming with Nature and without chemicals.**
- It was **originally promoted by** Maharashtrian agriculturist and Padma Shri recipient **Subhash Palekar**, who developed it **in the mid-1990s as an alternative to the Green Revolution.**
- It is a **natural farming technique in which farming is done without use of chemicals and without using any credits** or spending any money on purchased inputs.
- ZBNF was **mentioned in two budget speeches** of the Central government in **2019-20 and 2020-21.**



6.4.3. PRE-SUMMIT OF UNITED NATIONS (UN) FOOD SYSTEMS SUMMIT 2021

Why in News?

Ahead of the UN Food Systems Summit (September 2021 in New York), UN Food Systems Pre-Summit 2021 took place in Rome which is organized by the United Nations and Italy.

About UN Food systems Summit

- **UN Food Systems Summit** aims to **launch bold new actions to deliver progress on all 17 SDGs,** each of which **relies on healthier, more sustainable and equitable food systems.**
- The term **"food system"** refers to the **constellation of activities involved in producing, processing, transporting and consuming food.**

6.4.4. OTHER SUSTAINABLE PRACTICES/SCHEMES IN AGRICULTURE

Bioenergy crops	• As per new study converting annual crops to perennial bioenergy crops can induce a cooling effect on the areas where they are cultivated. • **Bioenergy crops are defined as any plant material used to produce bioenergy.**

	• Bioenergy is "energy derived from recently living material such as wood, crops, or animal waste."
Cage Aquaculture (CA)	• Webinar on **"Cage aquaculture"** was organised highlighting the importance of reservoirs and cage aquaculture for the development of the fisheries sector. • CA involves the **growing of fishes in existing water resources while being enclosed in a net cage** which allows free flow of water. • CA is **promoted under the flagship scheme Pradhan Mantri MatsyaSampada Yojana** (PMMSY). • PMMSY aims at **enhancing fish production, doubling of incomes of fishermen, reducing post-harvest losses** and generating employment opportunities in fisheries sector and allied activities.

Hydroponics and Aeroponics.	• **In hydroponics, the sapling is usually placed on a substrate** (like rock wool, volcanic ash, peat moss, coco coir or clay pebbles), which is **dosed with nutrient-rich water periodically.**
	  o Many a times, plants are simply **along a channel that has flowing water.**
	• **In Aeroponic plants are grown in a controlled air environment** and are not placed on a substrate or in water.
	  o The **exposed roots are periodically sprayed with nutrient solutions** for the plants to grow.
	• Crops are grown in a **clean and controlled environment, without the use of soil or pesticides** and thus, a very limited chance of contamination.
	

Agricultural Photovoltaic (Agri-PV)	• Cochin International Airport Ltd (CIAL) has developed **large-scale Agri-voltaic farming**. • Agri-voltaic farming- is a **mixed system of solar energy production associating solar panels and crop** at the same time on the same land area. • It is an **evolving practice in sustainable development** that combines the production of food and energy. • **PV-module are installed in Agri voltaic system (AVS)** inclination angle equal to the latitude of the place of installation. • Agri-PV overcomes the present either-or situation by **achieving both power generation and agricultural yield.**
Nano Urea Liquid	• Indian Farmers Fertiliser Cooperative Limited (IFFCO) has introduced the **world's first Nano Urea Liquid** for farmers across the world. • **Nano Urea Liquid is d**eveloped to **replace conventional Urea**, it can **curtail its requirement by at least 50%.** • Its use will boost **balanced nutrition program** by reducing the **excess use of Urea application in the soil** and will make the crops **stronger, healthier and protect them from lodging effect**.
Harit Dhara	• It is an **anti-methanogenic feed supplement** developed by Indian Council of Agricultural Research. • When given to bovines and sheep, it **cuts down their methane emissions by 17-20% and boosts milk production.**
Projects for Crop Production Forecasting	• **FASAL Scheme** (Forecasting Agricultural output using Space, Agro-meteorology and Land based observations) for following 9 crops: Rice, Wheat, Tur, Rabi Pulses, Rapeseed & Mustard, Rabi Jowar, Cotton, Jute and Sugarcane. • **CHAMAN** (Coordinated Horticulture Assessment and Management using geo-iNformatics) for Potato, Onion, Tomato, Chilli, Mango, Banana, and Citrus. • **KISAN project** for evaluating the role of satellite technology in crop yield estimation
Coastal Fisheries Initiative-Challenge Fund (CFI-CF) Global Knowledge Competition	• **Launched by**: World Bank • It seeks to **provide innovative solutions to the address the problem of overfishing,** focusing on coastal fisheries in 4 countries**: Cabo Verde, Ecuador, Indonesia and Peru.** • It aims to **mobilize the collective power of fisheries and seafood stakeholders** to implement solutions to overfishing in coastal fisheries. • **CFI is an initiative of the Global Environment Facility** that supports environmentally, economically and socially sustainable use and management of coastal fisheries.

PT 365 - Economy

Mobile app 'Matsya Setu'	• It aims **to disseminate latest freshwater aquaculture technologies** to aqua farmers of the country. o Aquaculture is **breeding, raising, and harvesting fish, shellfish, and aquatic plants.** • App will help **farmers to learn the advancements in the technologies and Better Management Practices** in maintaining soil & water quality. • **Key features of app:** o Species-wise/ subject-wise **self-learning online course modules.** o Information about **feeding and health management** in aquaculture. o **e-certificate upon successful completion** of each course module.
National Initiative on Climate Resilient Agriculture (NICRA)	• A recent study showed that **monsoon precipitation is sensitive to the choice of irrigation practices in South Asia,** one of the most heavily irrigated regions of the world. o **Excess irrigation and consequent increase in evapotranspiration** (the sum of evaporation from the land surface plus transpiration from plants) over northern India **shifts the September monsoon rainfall towards the north-western part of the subcontinent** and increases widespread weather extremes over Central India. o These hydro-climatic hazards related to precipitation extremes **are increasing the crops risk.** • NICRA, a project of Indian Council of Agricultural Research, aims **to enhance resilience of Indian agriculture to climate change and climate vulnerability** through strategic research and technology demonstration. • It **critically assesses different crops/zones in the country for vulnerability** to climatic stresses and extreme events, in particular, intra seasonal variability of rainfall.
River Ranching Programme	• River ranching programme has been introduced as special activity under **Pradhan Mantri Matsya Sampada Yojana (PMMSY) scheme.** **About the programme** • It aims for augmenting and enhancing the **fish production and productivity** through expansion, intensification, diversification and productive utilization of land and water. • The program will help in achieving **sustainable fisheries**, reducing habitat degradation, conserving **biodiversity**, maximizing **social-economic benefits** and assessing **ecosystem services.** • **National Fisheries Development Board (NFDB)** has been designated as the Nodal Agency. • As a Phase –I programme NFDB during 2020-21 has targeted t**hree major river systems namely Ganges and its tributaries, Brahmaputra & Barak River tributaries and Mahanadi & other rivers.** • Accordingly, six major Inland state focusing on length of river belt namely **Uttar Pradesh, Tripura, Chhattisgarh, Odisha, Uttarakhand, and Bihar** were selected. • PMMSY is a flagship scheme **for focused and sustainable development of fisheries sector** in the country with an estimated investment of Rs. 20,050 crores for its implementation during a **period of 5 years from FY 2020-21 to FY 2024-25 in all States/Union Territories**, as a part of AatmaNirbhar Bharat Package.

6.5. LIVESTOCK SECTOR OF INDIA

Why in News?

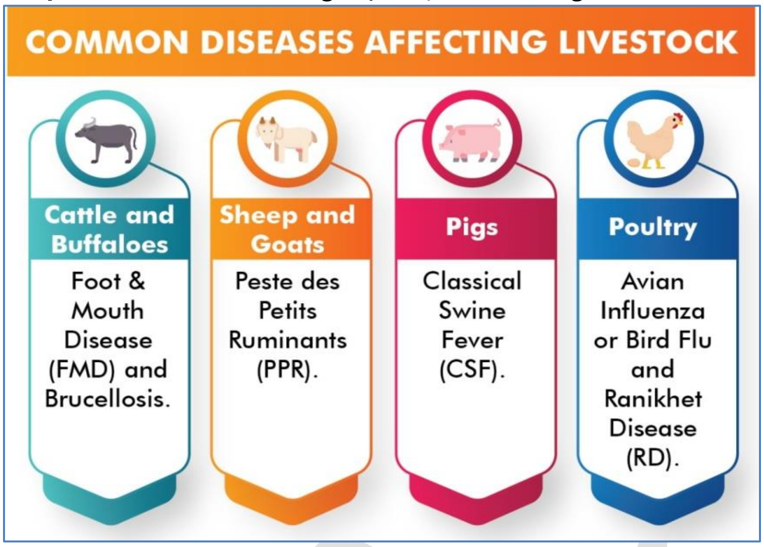
Recently, the parliamentary standing committee on agriculture pointed out several impediments to growth of the livestock sector in India.

Status of Livestock Sector in India
- Contributing **34% of total Agriculture GDP (2019-20)**, the Livestock Sector in India has been growing at a Compound Annual Growth Rate (CAGR) of **8.15%** from 2014-15 to 2019-20.
- It gives **job to about 8.8 % of the population** and **livelihood to two-third of rural community**.
- It also contributed **16% of the income of small farm households** as against an average of 14% for all rural households.
- Animal Husbandry is a State subject and as per the **20th Livestock Census, India** has-
    - **World's highest livestock owner**- First in the total buffalo population, **second** in the goat population and **third** in the sheep population.
    - **Second largest producer of fish** and second largest aquaculture nation in the world.
    - **Second largest poultry market** in the world.

Impediments faced by Livestock Sector in India

- **Low productivity of farm animals.**
- **Inadequate and poor quality of veterinary infrastructure.**

- **Deficiency of vaccines and vaccination set-up** such as manufacturing capacity, cold storage facilities, and poor quality of vaccine.
- **Shortage of nutritional fodder** as hardly 5% of the cropped area in India is utilized to grow fodder despite deficit of 11% in dry fodder, 35% in green fodder and 28% in concentrates feed.
- **Lack of inclusivity in Veterinary Services.**
- **Lack of access to markets** except in few like poultry products and to some extent for milk.
- **Pressure of Adjustment to the emerging market forces** like stringent food safety, and quality norms.
- **Weak institutional mechanisms** on insurance of animals.



- **Inadequate** institutional credit with **weak extension services at field level** to ensure adoption of technologies etc.

Major Government Schemes aimed towards growth of Livestock Sector	
Development Programmes	• **National Livestock Mission** to enhance the **level of nutrition** and **standard of living of livestock keepers** and **farmers** especially small holders through sustainable, safe, and equitable livestock development. o It includes **Sub-Missions on Fodder and Feed Development, Skill Development, Technology Transfer and Extension etc.** • **Rashtriya Gokul Mission (RGM)** for development and conservation of indigenous breeds through selective breeding in the breeding tract and genetic upgradation of nondescript bovine population. This is done through: o **Gopal Ratna awards and Kamdhenu awards** for encouraging farmers/breeder societies to rear Indigenous breeds of Bovines. o Establishment of **integrated cattle development centres 'Gokul Grams'** and National Kamdhenu Breeding Centres. o **E-PashuHaat portal** for connecting breeders and farmers. o **PashuSanjivni:** An Animal Wellness Programme encompassing provision of Animal Health cards ('Nakul Swasthya Patra') along with UID identification. • **National Programme for Dairy Development** with aim to enhance quality of milk and milk products and increase share of organized milk procurement.
Disease Control programme	Number of Central Sector Schemes like: • **Scheme on livestock health & disease control (LH&DC)** with **National Animal Disease Reporting System (NADRS)** as a sub-component. o NADRS is a web-based platform for reporting of animal disease from the level of block veterinary institution on a real-time basis. • **National Animal Disease Control Programme for Foot & Mouth Diseases (FMD) and Brucellosis (NADCP)** with target to control FMD and Brucellosis by 2025 and to eradicate them by 2030 through vaccination.
Infrastructure Development Funds	• **Animal Husbandry Infrastructure Development (AHIDF)** with corpus of ₹15000 crore to incentivize investments by individual entrepreneurs, private companies, MSME, Farmers Producers Organizations (FPOs) etc. in dairy and meat processing and value addition infrastructure and Animal Feed Plant. • **Dairy Processing & Infrastructure Development Fund** with ₹8,004 crore corpus to provide loan assistance to Eligible End Borrowers (EEBs) such as the State Dairy Federations, District Milk Unions, etc. to modernize the milk processing plants and machinery and to create additional infrastructure for processing more milk.
Other initiatives	• **e-GOPALA application by National Dairy Development Board (NDDB)** to helps farmers manage their livestock. • Special Drive by the Department of Animal Husbandry and Dairying (AH&D) for providing **all dairy farmers of Milk Cooperatives and Milk Producer Companies with Kisan Credit Cards (KCC)**.

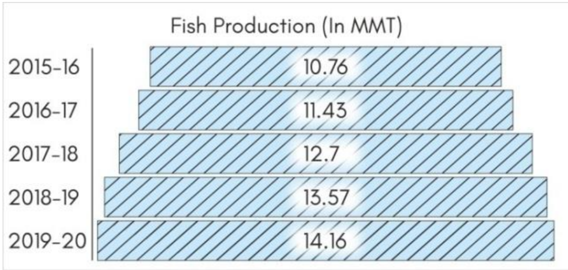
6.6. FISHERIES SECTOR IN INDIA

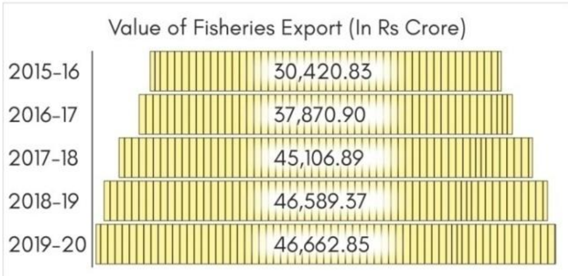
Why in news?

Recently, the Government has set target of **₹1 lakh crore** exports from fisheries sector by **2024-25**.

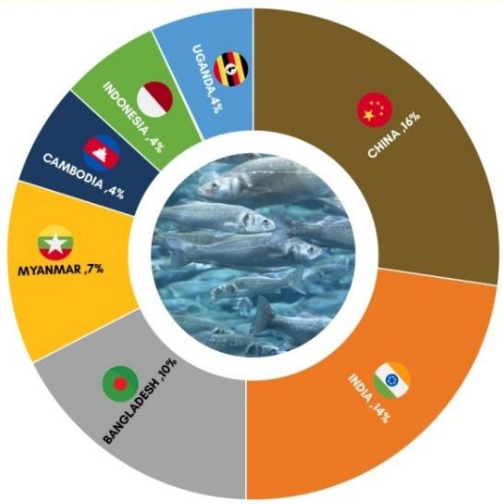
About Fisheries in India

- India is the **3rd largest fish producing and 2nd largest aquaculture nation** in the world.
  - Aquaculture is the farming of aquatic animals, including finfish, crustaceans, molluscs, etc. and aquatic plants, mostly algae, using or within freshwater, sea water, brackish water, and inland saline water.
- India has more than 10% of the global biodiversity in terms of fish and shellfish species.
- It contributes nearly **7.7% to the global fish production and ranks 4th in global exports of fish products** with vital role from states in its governance as Fisheries **is a State subject**.
  - **Central Government complement's the former's efforts** under the guiding principles of cooperative federalism.
  - While **Inland Fisheries are fully managed by State Governments, Marine Fisheries are a shared responsibility between the Central and Coastal State/UT Governments.**





Percentage of Inland Fish production of Major Countries, 2018



Percentage of Marine Fish production of Major Countries, 2018

Government Initiatives for the Sector

- **In 2019,** a **new Ministry of Fisheries, Animal Husbandry and Dairying with two separate Departments:**
  - Department of Fisheries,
  - Department of Animal Husbandry and Dairying
- **Blue Revolution** with an outlay of **₹3000 crore** and **create an enabling environment for integrated and holistic development and management of fisheries** for the socio-economic development of the fishers and fish farmers.
- **Pradhan Mantri Matsya Sampada Yojana (PMMSY)** for **focused and sustainable development of fisheries sector** in the country with an estimated investment of **₹20,050 crores** for its implementation during a **period of 5 years from FY 2020-21 to FY 2024-25 in all States/Union Territories**, as a part of AatmaNirbhar Bharat Package.
- **Fisheries and Aquaculture Infrastructure Development Fund (FIDF)** of **₹7522 crore** created during 2018-19.
- **National Policy on Marine Fisheries (2020)** to develop an **ecologically healthy, economically viable and socially inclusive fisheries sector** for economic prosperity and well-being of fishers and fish farmers; provide food and nutritional security in sustainable and responsible manner.
- Extension of **Kisan Credit Card (KCC)** to fishermen and women.

Nationwide River Ranching Programme

- **"River ranching programme"** is introduced as a special activity under **Pradhan Mantri Matsya Sampada Yojana (PMMSY) scheme** to augment and enhance **fish production** and **productivity** through expansion, intensification, diversification and productive utilization of land and water.
    - It will help towards **sustainable fisheries**, reducing habitat degradation, conserving **biodiversity**, maximizing **social-economic benefits,** and assessing **ecosystem services.**
    - **National Fisheries Development Board (NFDB)** is the Nodal Agency for it.
- In Phase –I (2020-21), NFDB has targeted **three major river systems namely Ganges and its tributaries, Brahmaputra & Barak River tributaries, and Mahanadi & other rivers**.
    - Accordingly, six major Inland state focusing on length of river belt namely **Uttar Pradesh, Tripura, Chhattisgarh, Odisha, Uttarakhand, and Bihar** were selected.

Related News

Fisheries subsidy at WTO

- Launched at Doha Ministerial Conference, WTO members are working on an agreement to **prohibit 'harmful' fisheries subsidies** which lead to overfishing and depletion of fish stocks.
- The draft WTO text has proposed **time bound exemptions for subsidies** given by **developing and least-developed countries for fishing close to shore.**
    - As per developed countries, these **subsidies create significant distortions in global fish markets** and a major factor contributing to overfishing and overcapacity.

India's concern

- **Dilution** of developing countries' **special and differential treatment (S&DT) rights.**
    - **S&DT provides several flexibilities for developing countries**, such as longer time periods for implementing agreements and commitments, lower levels of commitment and measures to increase trading opportunities.
- **Abolishing subsidies** will cost means of livelihood for low-income and poor fishermen.
- It will **limit the food security** of the nation.
- **Sovereign rights of coastal states** to explore, exploit and manage living resources within their maritime jurisdiction (enshrined in international instruments) **must be preserved** and **not be subject to WTO dispute settlement mechanism.**
- Any agreement must **recognise that different countries are at different stages of development** and **current fishing arrangements should** reflect it.

6.7. FOOD PROCESSING INDUSTRY

Why in news?

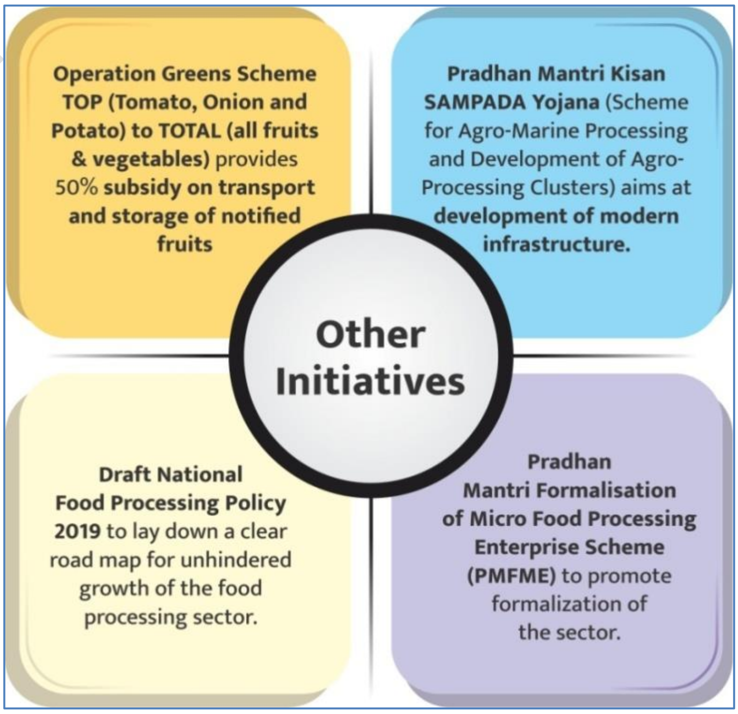
The Ministry of Food Processing Industries (MoFPI) has launched an online portal for **'Production Linked Incentive Scheme for Food Processing Industry' (PLISFPI).**

About PLISFPI

- It is a **Central Sector Scheme** with an **outlay of ₹10900 crore.**
- It will be implemented **over a six-year period** from 2021-22 to 2026-27 with objective:
- To support creation of **global food manufacturing champions** commensurate with India's natural resource endowment and support **Indian brands of food products in the international markets.**

Components of PLISFPI

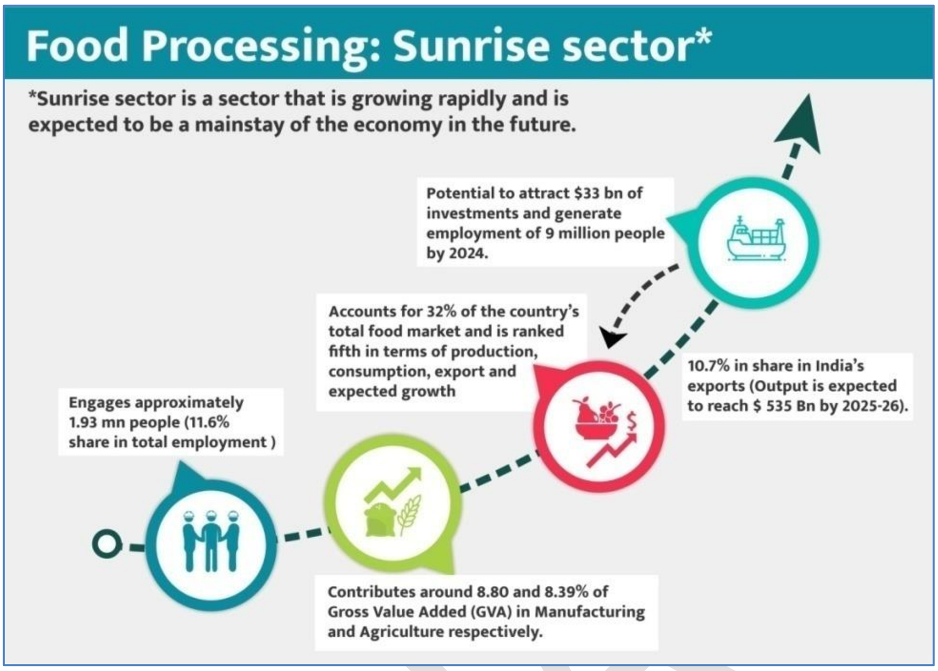
- **Incentivizing manufacturing** of four major food product segments: Millets based products, Processed Fruits & Vegetables, Marine Products, Mozzarella Cheese.
- Support for **branding and marketing** abroad.



- Innovative/Organic products of SMEs including Free Range - **Eggs, Poultry Meat, Egg Products in these segments are also covered under above component.**

Scheme is open to

- Proprietary Firm or Partnership Firm or Limited Liability Partnership (LLP) or a Company registered in India; Co-operatives; and SME by making an application for seeking approval for coverage under the Scheme.
    - Coverage under the PLI Scheme won't **affect eligibility** under any other scheme and vice versa.



About Food Processing Industry (FPI)

- According to MoFPI, if any **raw product of agriculture, animal husbandry or fisheries is transformed** in such a way that it's **original physical properties undergo a change**; the **transformed product is edible**; and has **commercial value**, then it comes **within the domain of FPI**.
- If there is **significant value addition** (increased shelf life, shelled and ready for consumption etc.), such produce also **comes under food processing**, even if it does not undergo manufacturing processes.
- The key **sub-segments** of FPI in India are Dairy, Fruits & Vegetables, Poultry & Meat processing, Fisheries, Food retail, etc.

Schemes under SAMPADA Yojana

- **Mega Food Parks (to provide modern infrastructure facilities for the food processing along the value chain from the farm to the market);**
    - **About 22 mega food parks are operational out of 37 approved across the country as on February 2021.**
- **Integrated Cold Chain and Value Addition Infrastructure;**
- **Creation/Expansion of Food Processing & Preservation Capacities (Unit Scheme);**
- **Infrastructure for Agro-Processing Clusters;**
- **Creation of Backward and Forward Linkages;**
- **Food Safety and Quality Assurance Infrastructure;**

Related News

Ban on Blending of Mustard Oil

- Food Safety and Standards Authority of India (FSSAI) has banned blending of mustard oil with any kind of edible oil from 2021.
- Blending in edible vegetable oil was allowed in a notification in **1990**.
- In **1998**, the **dropsy epidemic** — a disease that caused swelling in the body due to the build-up of fluid in tissues was witnessed in North India.
- With **adulteration of mustard oil with Argemone Mexicana seed oil** as the cause behind disease, FSSAI made regulations for the blending of edible vegetable oil in 2006 of-
    - Producers and companies involved in blending were regularized through the **Agriculture Produce (Grading and Marking) Act (AGMARK)**.
    - It also made it mandatory to write the kind of oil used for blending over the packet.
- However, this blending led to an increase in dependency of India on imports of edible oil and also Stagnation of land under Mustard cultivation in last 25 years.

Expected benefits of the ban on blending
- It will encourage mustard growers to **increase sowing area under mustard crop**, leading to **higher domestic production** of mustard oil and **fall in edible oil imports** in the long run.
- Replace traditional rapeseed-mustard oil varieties with Canola rapeseed-mustard to **provide healthy oil for human consumption**.

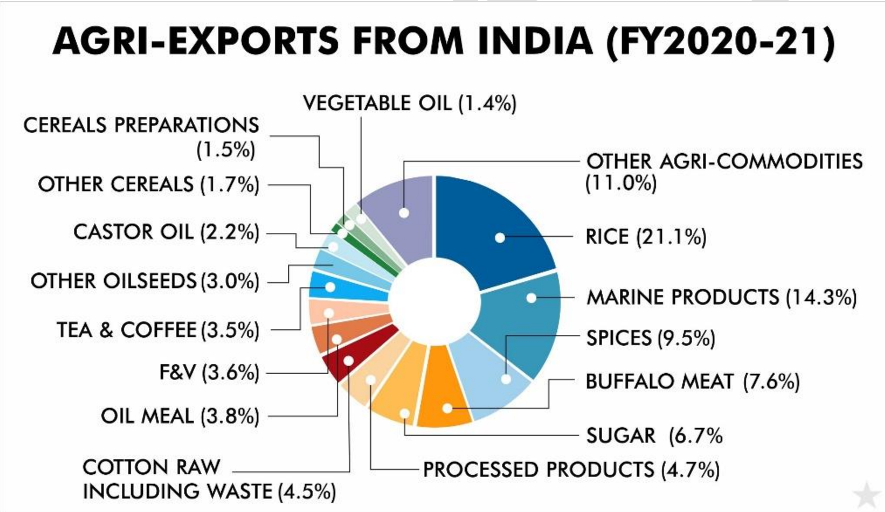
Food Safety and Standards Authority of India (FSSAI)
- It is an autonomous statutory body established under the **Food Safety and Standards Act, 2006**.
- It works under administrative supervision of **Ministry of Health & Family Welfare** and lays down **science-based standards** to ensure **availability of safe and wholesome food** for consumption.

Central Organisation for Oil Industry & Trade (COOIT)
- It was incorporated in **1952** as the **apex organisation** of the **entire vegetable oil and oilseeds sector in India** and aims to **promote trade** in oilseeds, vegetable oils, oilcakes etc.
- It **organizes scientific and technological development** and research in oil and oilseed industry.
- It recommends to Government **remedial measures to improve domestic edible oil situation** while framing policies related to the sector.

6.8. INDIA'S AGRICULTURAL EXPORT

Why in news?

According to the commerce ministry, country's **agricultural exports** are anticipated to **exceed US$ 50 billion** for the "first time" this fiscal year.



More about news

- **Rice exports** are expected to reach **21-22 million tonnes** this year. Non-basmati rice, wheat, sugar, and other grain exports have also seen healthy growth.
- **Marine product exports** are expected to **exceed US$ 8 billion** for the "first time" this fiscal year.
- **Coffee exports** have registered a healthy growth of **around 35%.**
- **Government** steps to increase exports- **Extending validity** of various certifications / accreditations beyond their expiration dates; establishing **control rooms** to handle issues; issuing **online certificates** for exports; and enabling the opening of **more testing facilities.**

Agriculture Export Facilitation Centre (AFEC), Pune
- It is India's first AFEC established by the **Mahratta Chamber of Commerce Industries and Agriculture (MCCIA)** in association with the National Bank for Agriculture and Rural Development **(NABARD).**
- **It aims at boosting the agricultural and food exports of Maharashtra** by disseminating need-based information, providing timely guidance and organising training courses for all stakeholders.
- It will serve as a **one-stop destination to provide exporters all possible assistance.**

About India's Agricultural Exports

- India is **net exporter** of Agri products. As per WTO's Trade Statistics, **share of India's agricultural exports** and imports in the **world agriculture trade** in 2017 was **2.27%** and 1.90%, respectively.
- India's total exports have an **11% contribution** from **agricultural and processed food products**.
- **Key Exported commodities: Marine products, basmati rice, buffalo meat, spices, non-basmati rice, cotton raw, oil meals, sugar, castor oil** and **tea**.
- **Key Destinations:** Indian agricultural/horticultural and processed foods are exported to more than **100 countries/regions** with **USA** as the **largest export destination** during 2020-21, followed by other destinations like **China, Bangladesh, UAE, Vietnam, and Saudi Arabia**.
- **Export as percentage of GDP:** The agricultural exports **as a percentage of India's agricultural GDP** has increased from 9.4 % in 2017-18 to **9.9** % in 2018-19.

- However, its **total agricultural export basket accounts for a little over 2.5% of world agricultural trade.**

Agriculture Export Policy

It was brought in 2018 and sets out a target of US$ 60+ Billion by 2022. It focuses on agriculture **export oriented production**, export promotion and **synchronization** within policies and programmes of Government of India.

Objectives:

- To **diversify** our **export basket, destinations** and boost high value- and value-added agricultural exports, including focus on **perishables.**
- To promote **novel, indigenous, organic, ethnic, traditional, and non-traditional** Agri products exports.
- To provide an **institutional mechanism** for pursuing market access, tackling barriers and dealing with sanitary and phytosanitary issues.
- To strive to **double India's share in world Agri exports** by integrating with **global value chains.**
- Enable **farmers to get benefit of export opportunities** in overseas market.

Initiatives	
Agricultural and Processed Food Products Export Development Authority (APEDA)	• It was **established under the Agricultural and Processed Food Products Export Development Authority Act** passed by the Parliament in December 1985. • APEDA is **mandated with the responsibility of export promotion and development of scheduled products** such as Fruits, Vegetable, Meat, Poultry Products. Dairy Products, Confectionery, Biscuits, Bakery Products, Honey, Jaggery and Sugar Products, Cocoa products, chocolates, floriculture Products. Pickles, Papads and Chutneys etc. ○ It also provides **financial assistance, information, guidelines towards the development of scheduled products.**
Scheme of Mega Food Park	• Food Processing Industries minister inaugurated Indus Best Mega Food Park at Raipur, Chhattisgarh. • Mega Food Park is a **"Cluster" based** approach under which the government provides **financial assistance up to ₹50 Crore per project**. **Scheme of Mega Food Park aims at** • **providing a mechanism to link agricultural production to the market by bringing together farmers**, processors and retailers so as to ensure maximizing value addition • minimizing wastage • increasing farmers income

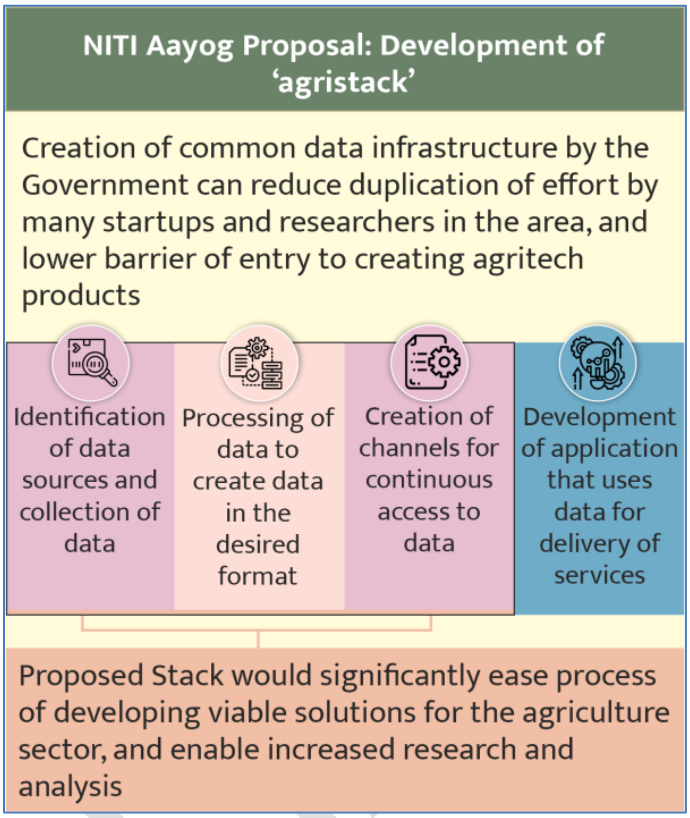
6.9. AGRISTACK

Why in News?

Recently, many organizations that work for farmers' rights and digital rights flagged concern over government's plan of creating 'AgriStack'.

About Agristack

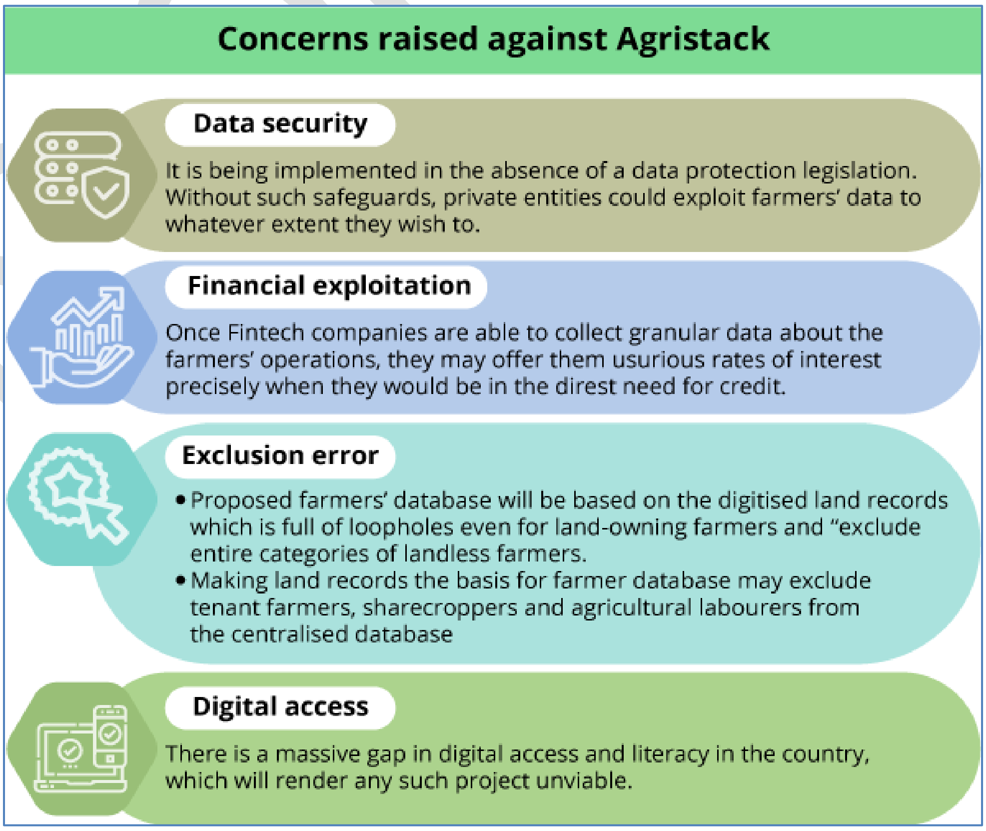
- AgriStack is a **collection of technologies and digital databases** proposed by government with focus on farmers and the agricultural sector.
- AgriStack may have **a Farmers' Stack, a Farm Stack** and a **Crop Stack** integrated on a technology platform linking existing digital land records, cadastral maps of farms and information.
  - **Farmers' Stack can consist of farmer data with Aadhaar** as unique identifier, Farm Stack can have geospatial information on each farm (with a farm identity) owned by a farmer with cadastral maps, and **Crop Stack can contain crop data linked to farms.**
- Data would be **interlinked to land registration, cadastral maps and satellite images** from state government departments and public entities.
- Over a period of time, **Pradhan Mantri Fasal Bima Yojana (PMFBY), PM-KISAN and Soil Health Card** will also be **integrated** through a **common database** along with land record details.
- '**AgriStack**' has started with Memorandum of Understanding (MoU) with Microsoft Corporation to create a 'Unified Farmer Service Interface' through its cloud computing services.
  - The MoU will start as a pilot project in 100 villages of Uttar Pradesh, Madhya Pradesh, Gujarat, Haryana, Rajasthan and Andhra Pradesh.



- Four other MoUs are also signed- with **Star Agribazaar, Patanjali Organic Research Institute for agricultural management and services, Amazon Internet Services**, and **Esri India** for different operations under AgriStack such as issuance of pre- and post-harvest advisories, creation if national agriculture geo hub etc.
- Also, government is **preparing a centralized farmers database** and formulating various services based on it in order to create a digital ecosystem for agriculture.
    - This database will be linked with the land records of farmers across the country and **unique farmer IDs will be generated.**
    - With an **integrated database for farmers**, information related to all benefits and assistances provided through various schemes can be kept at one place.

Benefits of Agristack

- **Improved access to formal credit** including small and marginal farmers and **prevent leakages of aid** with accurate targeting.
- **Improved crop insurance products and delivery** through geographic information system (GIS) and remote sensing technologies.
- **Smooth mechanism for marketing and price discovery** by enabling **market intelligence** for de-risking commodity price fluctuations, demand-supply forecasting, and weather advisory.
    - A marketplace can be created where various **entrepreneurs and suppliers of products and services can meet.**
- **Better quality of input** to address **the information asymmetry** and provide all information about farmers and their farming easily to relevant stakeholders (seed, chemical fertiliser and pesticides, machinery companies or fin-tech companies).
- **GIS and IoT (internet of things)** services can be deployed to give feedback to stakeholders.

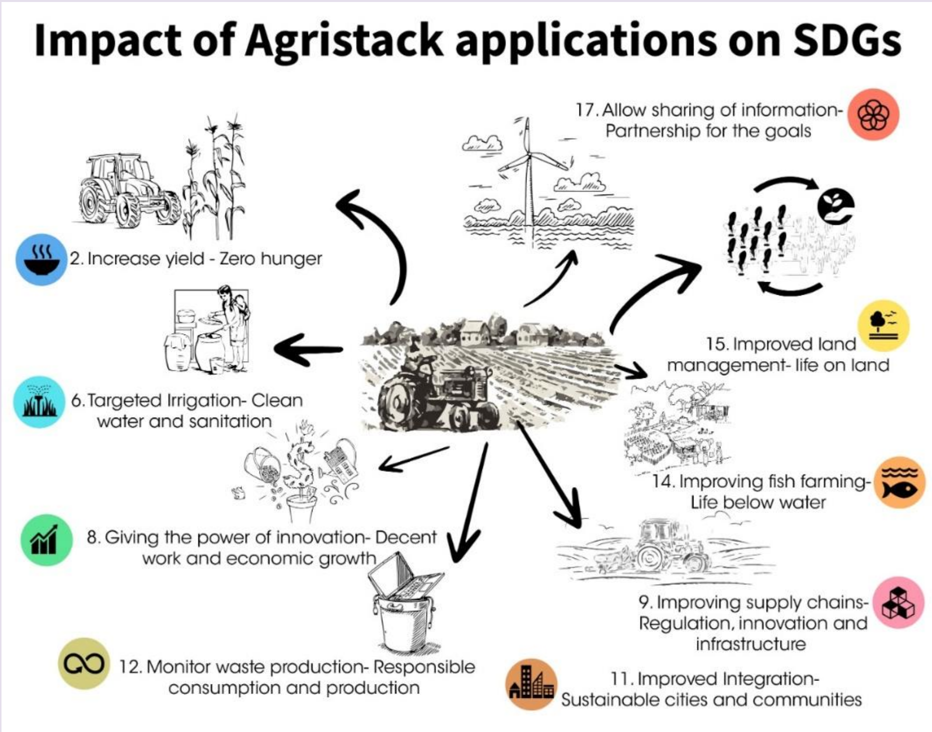


Other Digital Initiatives in Agriculture

- **IndEA Digital Ecosystem of Agriculture** (IDEA), a **National Digital Agriculture Ecosystem** to increase agricultural efficiency and productivity**.** It includes-
  - **National Mission on Digital Agriculture** (NMDA), multi-stakeholder IDEA Advisory Council to guide NMDA, assigning a **Unique Farmer ID (UFID)** to every farmer etc.
- **Matsya Setu App** by Ministry for Fisheries, Animal Husbandry, and Dairying with aim **to disseminate latest freshwater aquaculture technologies** to aqua farmers of the country.
- **Kisan Sarathi Digital Platform** by MeitY to provide right information at the right time and technological interventions to empower farmers and **personalised advisories on agriculture and allied areas** directly from scientists of **Krishi Vigyan Kendra**.
- **AI-Sowing App** by Microsoft and International Crops Research Institute for the Semi-arid Tropics (ICRISAT) to send advisory to the farmers on optimal date of seed-sowing.
- **Kisan Suvidha** as an omnibus smartphone app to help farmers by providing information regarding weather, dealers' market prices, plant protection, agro advisories, IPM practices etc.
- **MKisan App** to enable farmers and stakeholders to obtain advisories and other information sent by experts and govt. officials through mkisan portal without registering on the portal.
- **Crop Insurance App** to calculate **insurance premium** for notified crops based on area, coverage amount and loan amount.
- **Farm-o-pedia:** Developed by CDAC Mumbai, this is a multilingual Android app that targets the farmers of rural Gujrat. The major functionalities of this app are, it helps farmers get suitable crops as per soil and season, helps farmers get crop-wise information, weather monitoring and cattle management.

Related News

Centre to raise farmers database from 5.5 crore to 8 crore as a core to Agristack



- The Ministry of Agriculture has created a **National Farmers' Database** to **link agriculture** with **digital technology, scientific research and knowledge**.
  - The 5.5. crore farmers database is created from data of **existing schemes like PM-KISAN, Soil Health Card,** and **PM Fasal Bima Yojana**.
  - Now, it will be further expanded from **5.5 crore to 8 crore** by December 2021 with help of states and **link it with state land record data (as done by Karnataka).**
- The database will **serve as the core of Agri-Stack** which is a **collection of technology-based interventions in agriculture**, using federated farmers database to build innovative Agri-focused solutions by leveraging emerging technologies.

6.10. KEY CONCEPTS AND INFORMATION ON AGRICULTURE

Trench Farming	• Recently, ASSOCHAM suggested adoption of 'trench farming' to grow herbs, vegetables in Ladakh. • Trench is a **simple structure for growing vegetables during extreme winters**. Trench cultivation **harnesses soil and solar heat** to create suitable climatic conditions for growth of leafy vegetables like spinach, fenugreek, coriander, lai etc. • A **suitable size of 30' x 10' x 3' with transparent UV stabilized 200-micron polythene sheets** are used as the technology is **low-cost and portable**. • The farmers can **relocate the trench tunnel** to whatever location they want.

	• **Significance** ○ Take up **commercial cultivation of Indian and exotic vegetables and flowers** in large greenhouses to **meet army and local people demand** in the region. ○ **Supply it to the rest of the country at a premium** since India imports some of these exotic vegetables from other countries such as broccoli and bell pepper.
Transport and Marketing Assistance (TMA) scheme	• Government has **enhanced the scope of TMA scheme for specified agriculture products** by including **dairy products** in its purview and increasing the rates of assistance. • It was introduced to **provide assistance for the international component of freight,** to **mitigate disadvantage** of higher freight costs faced by the Indian exporters of agriculture products. • It has been extended till March 31, 2022 and the rates of assistance have been increased by **50% for exports by sea** and **100% for exports by air**.
National Institutes of Food Technology, Entrepreneurship and Management Act, 2021	• It declares **National Institute of Food Technology Entrepreneurship and Management (NIFTEM) Kundali (Haryana)** and **Indian Institute of Food Processing Technology (IIFPT) Thanjabur (Tamil Nadu)** under the Ministry of Food Processing Industries as **Institutions of National Importance (INI)**. • INI is defined as one **which serves as a pivotal player in developing highly skilled personnel within the specified region of the country/state.** • For an institute **to be declared as an INI, a special Act must be passed in the parliament that provides the institute with this status.** ○ There are also certain criteria that the institutes must meet.

7. INDUSTRY AND ASSOCIATED ISSUES

7.1. MINING

7.1.1. MINERAL CONSERVATION AND DEVELOPMENT (AMENDMENT) RULES, 2021

Why in news?

Ministry of Mines has notified the Mineral Conservation and Development (Amendment) Rules, 2021 to amend the Mineral Conservation and Development Rules, 2017.

Background

- The **Mines and Minerals (Development and Regulation) Act, 1957** regulates the mining sector in India and mandates the requirement for granting leases for mining operations.
- **Section 18** of the MMDR Act, 1957 **empowers Central Government to frame rules** for **conservation and scientific development of minerals** and **protection of environment** from mining operations.
- Accordingly**, Mineral Conservation and Development Rules (MCDR)** were framed (amended from time to time).

About Mineral Conservation and Development (Amendment) Rules, 2021

- **Submission of Digital plans:** All plans related to mine shall be prepared by combination of **Digital Global Positioning System (DGPS)** or **Total Station** (an electronic/optical instrument used for surveying) or **by drone survey** for certain or all leases as **specified by Indian Bureau of Mines.**
- Persons holding lease of mines (Lessees) with **excavation plan of 1 million tonne or more/leased area of 50 hectare or more** are required to submit **drone survey images of leased area and up to 100 meters outside the lease boundary every year**.
  - Other lessees will **submit high resolution satellite images**.
- Mining Engineer can have **diploma in mining and mine surveying** along with a **second-class certificate of competency** issued by the **Director General of Mines Safety**.
- **Reduction of compliance burden** by omission of the provision of daily return.
  - In addition to State Government, **Indian Bureau of Mines also has power of taking action** against wrong information in monthly or annual returns.
  - **Part-time mining engineer** or **part-time geologist** can be engaged for **category 'A' mines** (leased area below 25 hectares); **easing compliance burden on small miners.**
- **Financial assurance:** If lease holder does not submit final mine plan within specified time frame, he/she **forfeits financial assurance** or **performance security**.
- **Rationalization of penalty rules**
  - Previously, the rules provided for penalty of imprisonment, fine or both for **violation of each and every rule irrespective of the severity of the violation.**
  - Amendments in the rules have categorized violations as Major (fine, imprisonment or both), Minor (Only fine, reduced penalty) and decriminalized rest of the violations.

National Mines and Mineral Scenario

Minerals

- India is **largely self-sufficient** in minerals, supplied as **primary raw materials** to industries, such as **iron & steel, aluminum, cement, bauxite, chromite, limestone, china clay-based ceramics, glass** etc.
- India is deficient in **kyanite, magnesite, rock phosphate, manganese ore** etc.
- **Total value of mineral production** (excluding atomic & fuel minerals) during 2020-21 has a **decrease of about 11.35%** over the previous year due to COVID-19 pandemic and lockdown.

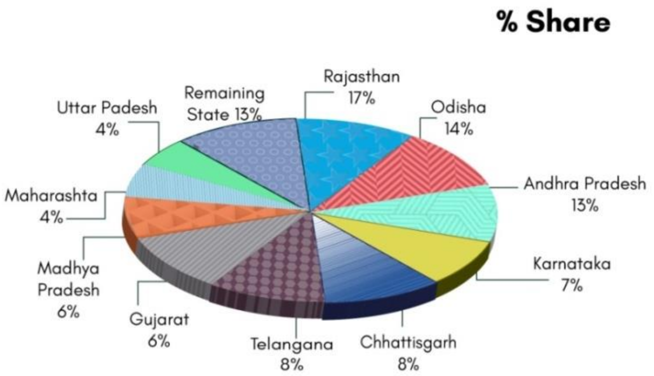
Mines

- Indian mining industry is **characterized by a large number of small operational mines.**
- In terms of **value of mineral production**, about **87% comes from 10 states.**

Other Reforms in Mining Sector

- **Comprehensive Reforms in MMDR Act, 1957** in **2015-**
  - **Mandating online auction** of mineral concessions for transparency.

- Establishment of **District Mineral Foundation** and **National Mineral Exploration Trust**.
- Stringent penalty for illegal mining.
- Create a **new category of mining license** i.e., the prospecting license-cum-mining lease, a two stage-concession for the purpose of undertaking prospecting operations (exploring or proving mineral deposits), followed by mining operations etc.
- **Empowers** central government to increase the area limits for mining and mining leases shall be granted for a period of 50 years for all minerals other than coal, lignite, and atomic minerals.



India's ranking in 2018 in world production was
- 2nd in Crude Steel, Coal
- 3rd in Zinc
- 4th in Aluminium, Chromite, Iron Ore, and Lead
- 5th in Bauxite
- 7th in Manganese Ore
- 11th in Copper
- 15th in Magnesite
- 16th in Apatite & Rock Phosphate

- **National Mineral Policy, 2019** to boost mining sector and prevent illegal mining, such as:
  - Encouraging private sector to take up exploration, **merger and acquisition** of mining entities, transfer of mining leases and **creation of dedicated mineral corridors** to boost private sector participation.
  - A **three-pronged strategy** for prevention of illegal mining viz.
    - ✓ Constitution of task force by the State Governments at State and District Level;
    - ✓ Framing of rules under Section 23C of the MMDR Act, 1957; and
    - ✓ Furnishing of quarterly returns on illegal mining for review to the Central Government.

Environmental challenges from Mining
- **Air:** Dust from **blasting operations** in surface mines, release of **methane by coal mines** (a potent greenhouse gas), Release of **SO_2 and other heavy metals** by smelting.
- **Water:** Heavy metals and toxic elements such as **mercury, lead, arsenic** etc. can **leach into groundwater** from mines as well as utilization of large quantities of water.
- **Land:** Pressure on sub-surface rocks by blasting and surface mining, leading to **collapse of material overlying mineral deposit** and even **earthquakes**.
- **Health and safety challenges:** Miners face health hazards like **poor ventilation; low visibility and** accidents leading to death of mineworkers.

7.1.2. CRITICAL MINERALS

Why in news?

Exploration, excavation and setting up critical material value chains through adequate downstream investments have become imperative for India in today's world.

About Critical minerals

- Critical minerals are metals and non-metals that **are considered vital for the economic well-being of the world's major and emerging economies**, yet whose **supply may be at risk** due to geological scarcity, geopolitical issues, trade policy or other factors. There is **no universal classification** of critical materials.
- Some examples include minerals such as - **Rare-earth elements (REE), lithium**, **cobalt**, tungsten, platinum, magnesium, molybdenum, antimony, , vanadium, nickel, chromium, manganese etc.

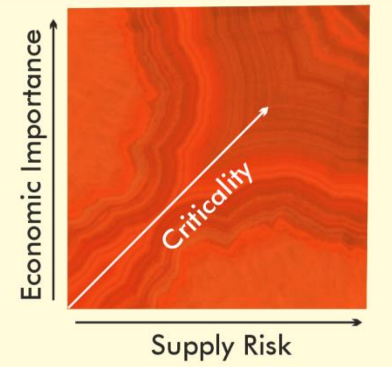
Critical Minerals	Strategic Minerals
1. Beryllium	1. Antimony
2. Germanium	2. Molybdenum
3. Rare earths (heavy and light)	3. Borates
	4. Nickel
4. Rhenium	5. Chromium
5. Tantalum	6. Cobalt
6. Graphite	7. Silver
7. Zirconium	8. Copper
8. Chromium	9. Titanium
9. Limestone	10. Diamond
10. Niobium	11. Tungsten
11. Silicon	12. Germanium
12. Strontium	13. Vanadium
	14. Lithium
	15. Zinc
	16. Rare earths

- Despite having diversity, these minerals are **united by their use in a range of specialised technologies** such as Optics, Medicines, Nuclear technology, defence, renewable energy, electronics etc.

Risks associated with Critical Minerals

- **High geographical concentration:** Production of critical minerals is highly concentrated. E.g., for lithium, cobalt and rare earth elements, the **world's top three producing nations control well over three-quarters of global output**. China alone produces 63 per cent of the world's rare earth elements, including 45 per cent of molybdenum
    - High levels of concentration, compounded by complex supply chains, **increase the risks that arise from** etc. in major producing countries.
- **Market distortion due to government policies:** Governments attempt to capture a greater share of value through distortive policies. These policies include **export prohibitions, special taxes, and other licensing requirements.**
- **Long Project development times:** It takes **16.5 years on average** for mining projects from **discovery to first production**. This poses risk for **ramping up supply** if demand were to pick up.
- **Resource as 'Diplomatic weapon':** It is a form of **economic sanction**, where a **government withholds (or threatens to withhold) supply of a natural resource** to extract some kind of concession from a target. For e.g.: In **2010**, rare earth minerals were subject of **trade conflict between China and Japan**, which had originally begun over disputed **Senkaku/Diaoyu Islands.**
- **Environmental risks:** Production and processing of mineral resources leads to **toxic and radioactive by-products dumped in the environment** that harms flora-fauna and local communities.
- **Declining resource quality:** In recent years **ore quality has continued to fall** across a range of commodities. Extracting metal from lower-grade ores **requires more energy** and leads to **higher production costs, greenhouse gas emissions and waste.**
- **Social challenges:** Most critical materials presently come from countries with poorly-developed political and governance institutions. **Poor labour standards, public health safeguards, sustainable water management and forced labour/child labour** are social challenges present in this industry.
- **Low number of market players:** The complexity of the value chains, high investment overheads for processing and small markets imply only a handful of businesses or countries participate in the critical materials market.

FIGURE 1 CRITICALITY MATRIX FOR DEFINING CRITICAL MATERIALS



Rare Earth Elements (REE) in India

- Rare earth elements (REE) are a set of **seventeen metallic elements.** These include the fifteen lanthanides on the periodic table plus scandium and yttrium.
- These are characterized by **high density, high melting point, high conductivity, and high thermal conductance**.
- They are **considered 'rare'**, because they're scattered in tiny bits all over the planet, not clustered together in veins, like other minerals.
- Rare earth metals and alloys that contain them are **used in many devices that people use every day such as computer memory, DVDs, rechargeable batteries**, cell phones, catalytic converters, magnets, fluorescent lighting etc.
- **China provides more than 85 per cent of the world's rare earths** and it is home to about two-thirds of the global supply of rare metals.

Applications of Critical minerals

- Scientific applications, such as optics, medicine and nuclear technologies
- Digital technologies, including consumer and industrial electronics
- Industrial applications, particularly speciality alloys and composites
- Renewable energy, including batteries, electric motors and generators
- Defence equipment, such as guidance systems, electronic warfare and space technologies

7.1.3. DISTRICT MINERAL FOUNDATION

Why in news?

Recently, Centre took complete control of the **District Mineral Foundation (DMF) funds**, negating states' right to sanction or approve any expenditure out of the funds accrued from mandatory contribution from mining lease holders.

More on News

- **Reasons from Centre:** Instances where a part of the funds of the DMF are being transferred to the treasury/consolidated fund of the state or state level funds, defeating the very purpose of DMF and is **violation of the provision of section 9B of the Act**.

About District Mineral Foundation (DMF) funds

- DMF is conceptualized as a **benefit-sharing mechanism** with mining-affected communities, recognizing them as partners in natural resource-led development.
- It is set up as a **non-profit trust in all mining districts of India**, with objective to 'work for the interest and benefit of people and areas affected by mining', through a participatory process.
- Mandated by the **Mines and Minerals (Development & Regulation) Amendment Act**, (MMDRA) 2015, it is funded through the contributions from miners.
- In 2015, the Government aligned DMF with the **Pradhan Mantri Khanij Kshetra Kalyan Yojana** (PMKKKY) scheme, mandating 60% of the funds to be utilized for high priority areas, such as
  - Drinking water/environment preservation and pollution control/Health care/education/skill development/welfare of women, children, aged and disabled people / sanitation,
  - Rest 40% of the funds to be utilized for other priority - roads & physical infrastructure/ irrigation/watershed development.

7.2. ELECTRONICS INDUSTRY

Why in news?

Ministry of Electronics & Information Technology has released its Vision Document on **"Increasing India's Electronics Exports and Share in Global Value Chains (GVC)"**.

More on news

- It is a part of **MeitY's Vision 1000 Days** that sets a target of achieving **$1 Trillion Digital Economy for AtmaNirbhar Bharat**.
- It focuses on opportunities and key inputs **to increase India's share in the GVC** and **build large-scale manufacturing capabilities** to achieve a **substantial share in global electronics export**.

Overview of Electronics Industry

- Potential of quantum jump in India's GDP by **increasing the share of electronics sector from 2% to 10%**, it can become one of the **top exports of India in the next 3–5 years**.
- **National Policy on Electronics (NPE) 2019** set the target of **$400 billion** turnover by **2025**.
- **Flagship Programs:** Vision set by Government of India under **Digital India** and **Make in India programs** to boost electronics sector.
- **Focus on Infrastructure**: 200 Electronic Manufacturing Clusters (EMCs) are to be setup with world class logistics, Infrastructure.
- **India is emerging as an investment destination** due to rapidly rising cost of manufacturing and labour in China.
- India is considering new markets with huge potential like as North Africa, South America, etc.

7.3. MICRO, SMALL & MEDIUM ENTERPRISES

Why in news?

The government has **announced fresh guidelines to include wholesale and retail trades as micro, small and medium enterprises** (MSMEs).

More on news

- The new guidelines **make wholesale and retail enterprises eligible for registration on Udyam portal.**
    - Udyam portal simplifies the process of registering any enterprise under the MSME category through a single-page registration.
- Wholesale and retail traders will now be **eligible for finance under priority sectors** classified by the Reserve Bank of India (RBI).
    - **No other benefits of small business are extended to wholesale and retail enterprises.**
- In the past, wholesale and retail trading activities were classified as MSMEs, **but were excluded in 2017 as they did not cater to manufacturing activity.**

PREVIOUS MSME CLASSIFICATION:

CRITERIA: INVESTMENT IN PLANT & MACHINERY EQUIPMENT			
Classification	**micro**	**small**	**medium**
Manufacturing Enterprises	Investment <₹25 Lakh	Investment <₹5 Crore	Investment <₹10 Crore
Service Enterprise	Investment <₹10 Lakh	Investment <₹2 Crore	Investment <₹5 Crore

NEW REVISED MSME CLASSIFICATION:

COMPOSITE CRITERIA: INVESTMENT & ANNUAL TURNOVER			
Classification	**micro**	**small**	**medium**
Manufacturing & Services	Investment <₹1 Crore & Turnover <₹5 Crore	Investment <₹10 Crore & Turnover <₹ 50 Crore	Investment <₹20 Crore & Turnover <₹100 Crore

Schemes and programmes taken by the Ministry of MSME for growth and development of MSME Sector

- Credit Linked Capital Subsidy and Technology Upgradation Scheme (CLCS-TUS)
- Credit Guarantee Scheme for Micro and Small Enterprises Cluster Development Programme (MSE-CDP)
- Interest Subvention Scheme for Incremental Credit to MSMEs
- A Scheme for Promoting Innovation, Rural Industry & Entrepreneurship (ASPIRE)
- Scheme of Fund for Regeneration of Traditional Industries (SFURTI)
- Prime Minister's Employment Generation programme (PMEGP)

MSMEs and their Importance in India

- **MSMEs,** introduced by the Government via **Micro, Small & Medium Enterprises Development (MSMED) Act, 2006,** are **entities engaged** in the **production, manufacturing, processing or preservation of goods and commodities** subject to investment limits (refer infographic)**.**
- They contribute to **30% of the country's GDP; 45% of manufacturing output** and about **40% of overall exports.**
- There are approximately **6.3 crore MSMEs employing 110 million people.**

Recent Government Initiatives to support MSMEs

- **New Definition:** In 2020, the **Government has revised the definition of** MSMEs by
    - Eliminating the **distinction between manufacturing and services enterprises,**
    - **Investment criteria** for such enterprises have been **revised upwards**, with introduction of **additional criterion of turnover.**
        - ✓ It will give MSMEs the **confidence to grow** and remove MSMEs fear of losing benefits of MSMEs if they outgrow in size.
- **Improved Credit Access** by extension of the **Emergency Credit Line Guarantee Scheme (ECLGS)**, allowing fully guaranteed and collateral-free additional credit support for Covid-hit MSMEs.
    - Overall cap of admissible guarantee under **ECLGS** is now **expanded** to **₹4.5 lakh crore.**
- **Addressing Delayed Payments** by passing of the **Factoring Regulation (Amendment) Act, 2021** to **help MSMEs** by providing them **added avenues for getting credit facility**, especially through Trade Receivables Discounting System (TReDS).
    - **TReDS** is an **electronic platform** where receivables of MSMEs drawn against buyers (large corporates, PSUs, Government departments) are financed through multiple financiers at competitive rates.
    - It will add to the **MSME Samadhaan Portal** which empowers **micro and small entrepreneurs** to directly register cases relating to delayed payments by **Central Ministries/ Departments/CPSEs/State Governments.**
- **Portal "Champions"** was launched to cover many aspects of e-governance including **grievance redressal and handholding of MSMEs.**

- **Global level market for MSMEs** by the Ministry of MSMEs through its **MSME-Development Institutes** (DI), **facilitating MSMEs to export** from Domestic Tariff Area (DTA) and Special Economic Zone (SEZ).
    - **International Cooperation Scheme** (ICS) is also implemented to **facilitate participation of the MSMEs in International Exhibitions,** Trade Fairs etc. to help them become global.

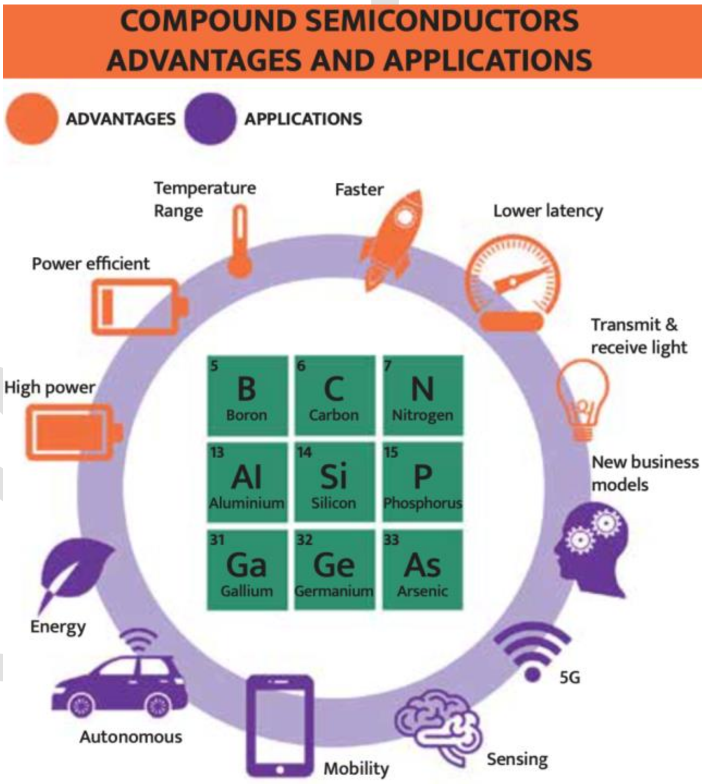
7.4. SEMICONDUCTOR MANUFACTURING IN INDIA

Why in News?

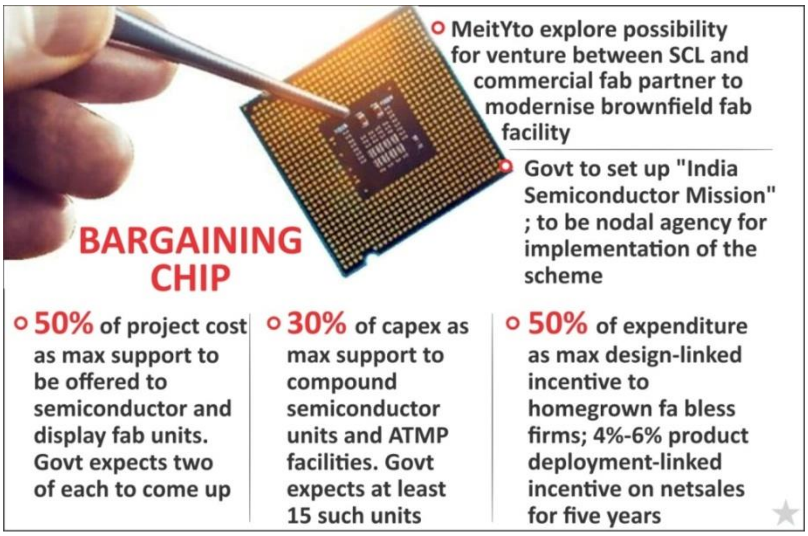
Recently, the central government invited applications from domestic companies, start-ups and MSMEs under its **Design Linked Incentive (DLI) Scheme**.

Moore's Law
- It refers to **Gordon Moore's** prediction on **exponential growth** of number of transistors on a chip, doubling every two years with decrease in relative costs.
- Although the pace has slowed recently, but faster, smaller, and affordable chips are rapidly changing the modern-day electronic industry.

About Semiconductor Industry



- Semiconductor is a **physical substance designed to manage and control the flow of current in electronic devices and equipment**.
- They are the **elemental parts** of integrated circuits, microchips or just chips, and called the brains of **modern electronics**, created using silicon, germanium, or other pure elements.
- Semiconductors are created by adding impurities to the element with conductance or inductance of the element depending on the **type** and **intensity of the added impurities**.
- There are **two basic types of semiconductors**.
    - An **N-type semiconductor** is used when its conductance is higher, or there are a large number of free electrons.
    - A **P-type semiconductor** is used when its inductance is higher, and there are less free electrons.
- **Applications:** They are the **driving force** behind the **next phase of digital transformation** under **Industry 4.0** with Medical devices, communication systems, computing, defense, transportation, clean energy etc. or the future technologies such as artificial intelligence, quantum computing, and advanced wireless networks, all requiring semiconductors.
- **Market Distribution:** It is a **very complex and technology-intensive sector** with dominance of few companies and nations. It is **dominated by the US** followed by **South Korea, Japan and EU, Taiwan** and **China.**
- **Issues:** Demand and supply imbalance, talent shortage etc., leading to global supply chain values with growing moves to **localize the semiconductor industry**.



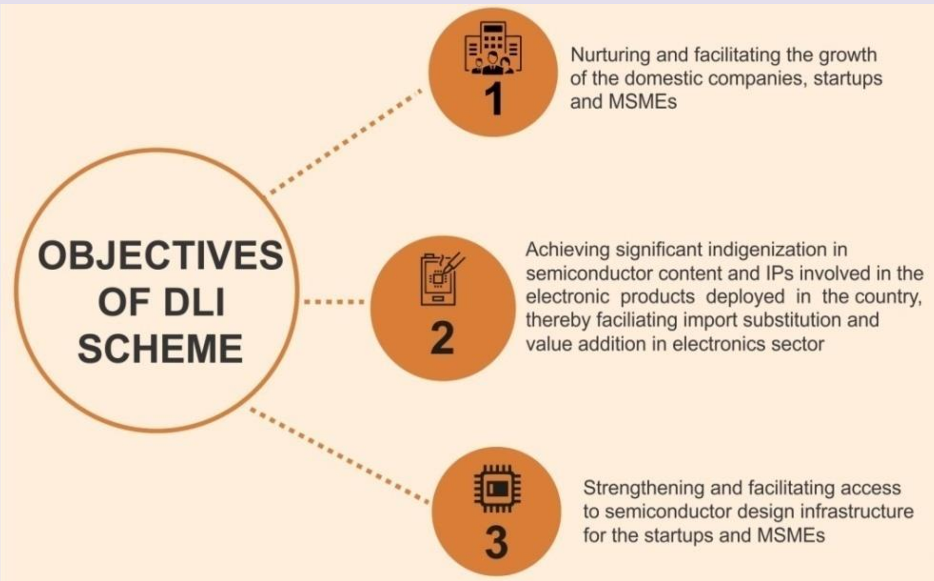
Government Initiative to build Semiconductor Industry in India

- Government has approved Programme for Development of Semiconductors and Display Manufacturing Ecosystem in India with **₹76,000 crore** provisions to give **impetus to semiconductor and display manufacturing**.
- It will facilitate **capital support** and **technological collaborations** for companies engaged in silicon semiconductor fabs, display fabs, compound semiconductors, silicon photonics, sensors fabs, semiconductor packaging and semiconductor design.

Display Device Technologies
- Display device refers to an **output device used for presenting information** in textual, pictorial, or graphical form and has usage in devices such as TVs, PC Monitor and Notebooks, Smartphones & Tablets, and so on.
- They are used in various form factors including flat panel displays, flexible displays, and micro-displays and operate on display technologies such as LED-backlit LCD, OLED, quantum dot, direct-view LED, E-paper (EPD), liquid crystal on silicon (LCoS), digital light processing (DLP), etc.

- It will also **pave the way for India's technological leadership** in areas of strategic importance and economic self-reliance to **usher in a new era in electronics manufacturing in the country.**
- **India Semiconductor Mission (ISM):** It is a specialized and independent business division within the Digital India Corporation.
    - The mission is authorized to negotiate with the applicants under the semiconductor fab scheme and the display fab scheme.
    - This mission has been given the autonomy to decide the appropriate technology mix, applications, node generation, capacity, among others and propose the structure and quantum of fiscal support for the selected applicants.

Related News
Design-Linked Incentive Scheme



- **DLI Scheme is part of Indian semiconductor localization move** announced last year as part of **₹76,000 crore** ($10 billion) **Programme for Development of Semiconductors and Display Manufacturing Ecosystem in India**.
- **DLI aims to nurture at least 20 domestic companies** involved in semiconductor design and facilitating them to achieve turnover of more than **₹1500 Crore** in the next **5 years.**
- **Nodal Agency: C-DAC** (Centre for Development of Advanced Computing).

Three Components of DLI	Support Mechanism
Chip Design Infrastructure Support	**C-DAC** to set up **India Chip Centre** to host the state-of-the-art design infrastructure and facilitate its access to supported companies.
Product Design-linked Incentive	A reimbursement of **up to 50%** of the eligible expenditure, subject to a ceiling of ₹15 crore per application will be provided to the approved semiconductor designing applicants.
Deployment Linked Incentive	An incentive of **6% to 4%** of **net sales turnover** over **5 years**, subject to a ceiling of ₹30 Crore per application will be provided to approved applicants whose semiconductor design for Integrated Circuits (ICs), Chipsets, System on Chips (SoCs), Systems & IP Cores and semiconductor linked design are deployed in electronic products.

7.5. PRODUCTION LINKED INCENTIVE (PLI) SCHEME FOR TEXTILES

Why in news?

Recently, Government approved the **PLI Scheme for Textiles** for man-made fibre (**MMF**) Apparel, MMF Fabrics and 10 segments/ products of Technical Textiles.

Key Features of the scheme

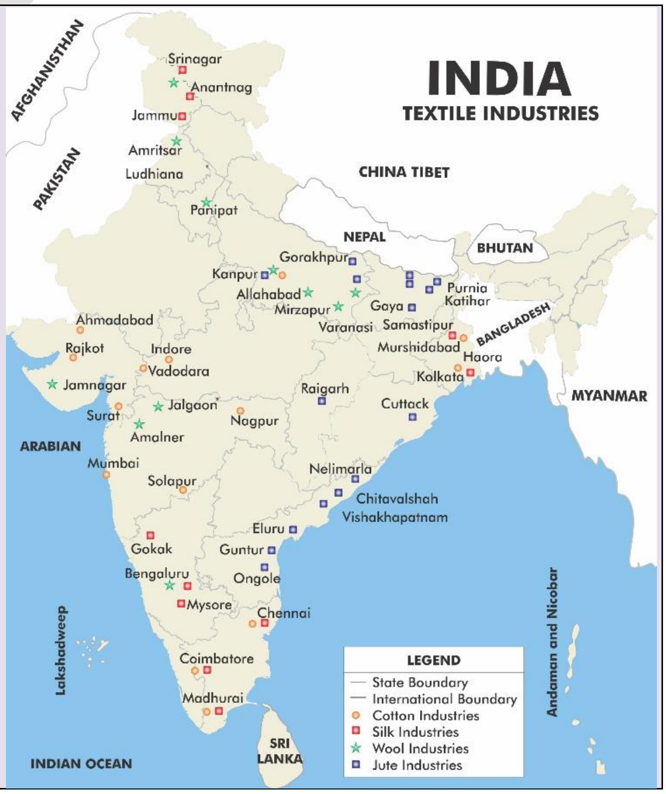
- **Scheme Duration and Budgetary outlay**: 5 years period i.e., during FY 2025-26 to FY 2029-30 with budgetary outlay of **₹10,683 crores.**
- **Incentive structure: Two types of investment** in Plant, Machinery, Equipment and Civil Works (excluding land and administrative building cost) to produce products of Notified lines (MMF Fabrics, Garment) and products of Technical Textiles.
- **Any person/ includes firm / company willing to invest minimum ₹300 Crore** will be eligible to get **15% incentive when they achieve a minimum of ₹600 Crore turnover** by manufacturing and selling the products Notified under this scheme.
- **Any person/ includes firm / company willing to invest minimum ₹100 Crore** will be eligible to get **11% incentive when they achieve a minimum of ₹200 Crore turnover** by manufacturing and selling the products Notified under this scheme.
- Only manufacturing company registered in India will be eligible to participate under the scheme.
- **Higher priority will be given for investment in Aspirational Districts, Tier 3, Tier 4 towns, and rural areas.**

Definitions of key terms

- **Man-made fibres (MMF):** are Textiles artificially made out of synthetic and cellulosic fibres.
  - Synthetic fibres are produced from crude oil and cellulosic fibres are from wood pulp. The main varieties of synthetic staple fibres are polyester, acrylic, and polypropylene.
  - Cellulosic fibre is viscose fibre, modal, etc.
- **Technical textiles:** are textiles materials and products **manufactured primarily for technical performance and functional properties** rather than aesthetic characteristics. They have applications across various industries including automobiles, civil engineering and construction, agriculture, healthcare, industrial safety, personal protection etc.

Overview of Indian textile industry

- Textile sector contributes **2.3% to Indian GDP**, 7% of the Industrial Output, 12% to the export earnings of India.
- India is the **largest producer of cotton & jute in the world**, the second largest producer of silk in the world the **6th largest** producer of Technical Textiles.
- **95% of the world's hand-woven fabric** comes from India.
- India has a share of **5%** of the global trade in textiles and apparel.
- It is the **2nd largest** producer of MMF Fibre after China.
- It provides direct employment of over **45 million people (21 % of total employment)** and source of livelihood for over 100 million people indirectly.



Steps taken by the Government for growth of Textile industry	
Technology Upgradation	• **Amended Technology Fund Uprgradation Scheme (ATUFS)** to upgrade technology/ machineries of textile industry.

Sector specific missions	• **National Handloom Development Programme** to provide basic inputs, looms and accessories, design and development, infrastructure development, marketing of handloom products, etc.
	• **National Technical Textiles Mission** for creation of technical textiles with an total outlay of **₹1480 Crore** with a four-year implementation period from FY 2020-21 to 2023-24.
	  o Technical textiles are textiles materials and products manufactured primarily for technical performance and functional properties rather than aesthetic characteristics.
	  o Depending on application, they are divided into 12 broad categories with India shares nearly 6% of world market size of $250 billion.

Capacity building and social security	• **SAMARTH (Scheme for Capacity Building in Textile Sector)** for skill development in the entire value chain of textiles, excluding Spinning & Weaving in the organized Sector. • **Scheme for Incubation in Apparel Manufacturing (SIAM)** to promote new entrepreneurs in apparel manufacturing. • **Scheme for Textile Industry Workers' Accommodation (STIWA)** to provide safe, adequate and conveniently located accommodation for textile and apparel industry workers in the proximity of areas of high concentration of textile and apparel industries.
Other measures	• **100% FDI (automatic route) in the textile and apparel sector** in India. • **Removal of anti-dumping duty on PTA (Purified Terephtallic Acid),** a key raw material for the manufacture of MMF fibre and yarn to boost exports in MMF sector. • **Sunil Sethi Committee for export promotion of handlooms**: Announced on the occasion of National Handloom Day on 7th August 2021 **for doubling the production and quadrupling the exports of handlooms in a span of 3 years.**

Related News

Ministry of Textiles Release Operational Guidelines for PM Mega Integrated Textile Region and Apparel (PM MITRA) Parks Scheme

- **PM MITRA** aims to **develop integrated large scale and modern industrial infrastructure facilities** for the entire value-chain of the textile industry.
- It will **reduce logistics cost** by housing entire value chain at one location and help achieve **SDG 9 (Build resilient infrastructure, promote sustainable industrialization and foster innovation).**
    - Under it, the **State government** will transfer land to the Special Purpose Vehicle (51% equity of state and 49% of centre).
    - Centre will provide **Competitive Incentive Support (CIS)** of **₹300 crore per park** for incentivizing manufacturing units establishment.
- As per the guidelines, **sites for the parks will be selected on basis of 5 metrics- Connectivity** to site; **Existing ecosystem** for textiles; Availability of **utilities services** at site; **State industrial /textile policy**; and **Environmental and social impact**.

7.6. OTHER DEVELOPMENTS IN THE INDUSTRIAL SECTOR

7.6.1. PRODUCTION LINKED INCENTIVE (PLI) SCHEME FOR SPECIALTY STEEL

- Specialty steel is value added steel wherein **normal finished steel is worked upon by way of coating, plating, heat treatment, etc to convert it into high value-added steel** which can be used in various strategic applications like Defence, Space, etc.
    - Out of total production of 102 million tonnes steel in 2020-21, India produced **only 18 million tonnes value added steel/specialty steel**.
- PLI scheme incentivize companies to enhance their domestic manufacturing as well as focus on reducing import bills and improving the cost competitiveness of local goods.

Features of the Scheme

- **Scheme Duration and Outlay: Five years** (2023-24 to 2027-28) and ₹6322 crores.
- **Three slabs of incentives:** the lowest being 4 % and highest being 12% which has been provided for electrical steel (CRGO).
- **Five categories including coated, high strength, alloy etc.** of specialty steel which have been covered under PLI.

7.6.2. NATIONAL AUTOMOBILE SCRAPPAGE POLICY

- The policy is launched to give a **new identity to the auto sector** and **to mobility of New India.**
- It will help **scrap and phase out unfit and polluting vehicles in an environment friendly manner** to create a viable circular economy (recycle and reuse).
  - Vehicle scrapping is the process **in which End of life – vehicles are disposed off** and its parts are recycled.
  - India has 51 lakh light motor vehicles that are more than 20 years old and 34 lakh over 15 years old.

Key highlights

- **De-registrations of vehicles**
  - **Commercial vehicles: After 15 years** in case of failure to get fitness certificate.
  - **Private Vehicles: After 20 years** if found unfit or failure to renew registration certificate.
  - **All government vehicles:** To be de-registered and scrapped after 15 years from date of registration.
- The policy provides **incentives to owners of old vehicles to scrap unfit vehicles** through registered scrapping centres.
- **Setting up specialized Registered Vehicle Scrapping Facilities (RVSFs)** across India.

7.7. KEY CONCEPTS AND INFORMATION ON INDUSTRY AND ASSOCIATED ISSUES

Govt revises PLI scheme guidelines for white goods	• PLI scheme for white goods **offer an incentive of 4%-6% on incremental sales of goods manufactured in India** to companies engaged in **manufacturing of ACs and LED Lights.** • It was first approved in April, with a **budgetary outlay of Rs 6,238 crore.** **Key revisions –** • **Adds exit provisions**- If a company availing benefits backs out, then they will have to refund incentives taken along with interest. • Allows **inclusion of more LED components** such as resistors, fusers, LED transformers etc.
Production Linked Incentive Scheme (PLI) for IT hardware	• Under this scheme, the **Ministry of Electronics and IT,** recently, approved 14 eligible applicants. o The scheme extends an **incentive of 4% to 2%/1% on net incremental sales** (over the base year of FY 2019-20) of goods under target segments that are manufactured in India to eligible companies, during the FY 2021-22 to FY 2024-25. • The target segments include **Laptops, Tablets, All-in-One Personal Computers (PCs) and Servers.** • It may lead to a **total production of more than INR 1.61 lakh crore.**
Purchasing Managers Index (PMI)	• **Manufacturing PMI of India expanded** for fourth straight month. • PMI is a **survey-based measure that asks the respondents about changes in their perception** of some key business variables from the month before. o It is **calculated separately for manufacturing and services sectors** and then composite index is constructed. o PMI is a number from 0 to 100. PMI **above 50 represents an expansion, under 50 represents a contraction,** and reading at 50 indicates no change. • Earlier compiled by Japanese firm Nikkei, it is **now compiled by IHS Markit** for more than 40 countries including India.
Global Manufacturing Risk Index	• In Cushman & Wakefield's 2021 Global Manufacturing Risk Index, India has overtaken the United States (US) to become the **second-most sought-after manufacturing destination** globally. o **China** remains at number one position. **About Global Manufacturing Risk Index** • The index **assessed the most advantageous locations** for global manufacturing among 47 countries **in Europe, the Americas and Asia-Pacific (APAC).**

	• The ranking in the report is based on a **range of factors** including o Risk and cost factors, o Political and economic risk, o Market conditions and labor costs, o Market Access.
Mandatory Hallmarking of Gold Jewellery	• From 16 June 2021, gold hallmarking is made mandatory in a phased manner and **jewellers are allowed to sell only 14, 18 and 22 carats of gold jewellery** (Although this restriction does not apply on individuals). o Government has exempted mandatory hallmarking gold on watches, fountain pens and special types of jewellery like Kundan, Polki and Jadau. • Gold hallmarking is **a purity certification and has been voluntary in nature** so far. o Bureau of India Standards has been running a hallmarking scheme for gold jewellery since 2000. **Around 40% of gold jewellery is being hallmarked currently.** • **Benefits of hallmarking:** Enhance the credibility of jewellery, protect the public against lower caratage (purity of gold) etc.
Core Sector Industries	• **Eight core sector industries are** (In the order of weightage from highest to lowest): Refinery Products, Electricity, Steel, Coal, Crude Oil, Natural Gas, Cement, Fertilizers. o These account for **40.27% of the weight** of items included in the **Index of Industrial Production (IIP)** (which is released by CSO on monthly basis). • Since these eight industries are the essential basic and/or intermediate ingredient in functioning of the broader economy, **mapping their health provides a fundamental understanding of state of the economy.**
Gold Ore Reserves	• India has **501.83 million tonnes of gold ore reserves** as of April 1, 2015, according to National Mineral Inventory data under the Indian Bureau of Mines. • The largest reserves of gold ores are located in **Bihar (44%), followed by Rajasthan (25%), Karnataka (21%), West Bengal (3%), Andhra Pradesh (3%), Jharkhand (2%).**
Centre Amended Legal Metrology (Packaged Commodities), Rules 2011	To come into effect from 1st April, 2022, it will make • **Mandatory declaration of MRP** in Indian currency inclusive of all taxes on pre packed products. • **Declaration of date of manufacture** on the pre packed commodities is made mandatory for pre packed commodities. • **Unit Sale Price for all pre packed commodities** meant for retail sale is introduced to allow easier comparison of the prices.

8. SERVICES SECTOR

8.1. E-COMMERCE

8.1.1. CONSUMER PROTECTION (E-COMMERCE) RULES, 2020

Why in News?

Recently, Department of Consumer Affairs released a draft of proposed amendments to the Consumer Protection (E-commerce) Rules, 2020.

More on News

- Earlier, Government had **notified the Consumer Protection (E-Commerce) Rules, 2020** with effect from 23 July 2020.
- These Rules were framed **under the Consumer Protection Act, 2019** and are intended to complement the said Act by regulating all e-Commerce activities and transactions.

Key provisions in draft amendments

Provision	Proposed Amendment
Definition of e-commerce entity	To be expanded to include not just the entity operating the e-commerce platform but also **"any entity engaged by such person for the purpose of fulfillment of orders placed by a user on its platform** and any 'related party' as defined under Section 2(76) of the Companies Act, 2013". • It does not include sellers offering goods or services for sale on a marketplace e-commerce entity.
Registration of e-commerce entity	Every e-commerce entity which intends to operate in India shall **register itself with the Department for Promotion of Industry and Internal Trade (DPIIT).**
Duties of e-commerce entity	Require the e-commerce entities to mention the **names and details of the importers, identify country of origin, provide a filter mechanism** on their website and display notification regarding the origin of goods at the pre-purchase stage, at the time of goods being viewed for purchase.
Grievance Redressal	**Every e-commerce entity shall appoint** • **Chief Compliance Officer** who shall be responsible for ensuring compliance. • **Nodal contact person** for 24x7 coordination with law enforcement agencies. • **Officers to ensure compliance** to their orders and Resident Grievance Officer for redressing grievances of the consumers.
Check on Mis-selling	"mis-selling" means an e-commerce entity **selling goods or services by deliberate misrepresentation of information** by such entity about such goods or services as suitable for the user who is purchasing it.
Regulation of Cross-selling	Define 'cross-selling' as **sale of related, adjacent, and complementary products/services** with intent to maximize the revenue of the e-commerce entity.
Regulation of Flash sale	Defined as a **sale organized by an e-commerce entity at significantly reduced prices, high discounts** or any other such promotions or attractive offers for a predetermined period of time on selective goods and services or otherwise with an intent to draw large number of consumers.
Complete prohibition on related parties selling on platform	**Prohibit related parties and associated enterprises of the e-commerce entity from enlisting as sellers** on the platform. Prohibit use of information collected on the platform for giving an unfair advantage to the related parties and associated enterprises.

8.1.2. OPEN NETWORK FOR DIGITAL COMMERCE

Why in News?

The **Department for Promotion of Industry and Internal Trade (DPIIT)** in the Ministry of Commerce and Industry is building an Open Network for Digital Commerce (ONDC).

What does open-source mean?

Open-source means- making the **code or the steps of** software or a process **freely available for others to use, redistribute and modify it. E.g.**

- Apple's iPhones — iOS — operating system is closed source, meaning it cannot be legally modified or reverse engineered.
- In comparison, **Google's Android operating system is open-source**, i.e. smartphone manufacturers such as Samsung, Xiaomi, OnePlus, etc. can use and modify it for their hardware.

About ONDC

- **ONDC is envisaged as a neutral platform to set protocols** for cataloguing, vendor match, and price discovery in open source as done by the Unified Payments Interface (UPI).
    - ONDC will enable buyers and sellers to be digitally visible and transact through an open network no matter what platform/application they use.
- **Aim: To democratize digital commerce**, moving from platform-centric models (e.g. Amazon, Flipkart) to an open network.
- **An advisory council on ONDC** has been constituted by the Centre to take over as a guide and mentor for its design, implementation, and national rollout of ONDC.
    - **A private sector-led non-profit unit** will also be set up to fast-track its roll-out.

Key Features of the Proposed ONDC

- **Measures to ensure confidentiality & privacy of data in the network,** including publishing of anonymized aggregate metrics on network performance and comply with IT Act, 2000.
- **Plan for a well-developed Information, Education & Communication campaign** for participants.
- **Special attention to help onboard small and medium players** will be given initially.
- **It will evolve over time as a self-sustaining entity** generating income for its operations and surplus for continuous investment in technology, processes, and network development.

8.2. DEVELOPMENTS RELATED TO INSURANCE SECTOR

About Insurance Regulatory Development Authority of India (IRDAI)

- IRDAI (HQ: **Hyderabad** since 2001, earlier in Delhi) is an **autonomous regulatory body**, established in **1999** through **IRDAI Act of 1999**, with primary aim of protecting the policyholders' interests.
- It was established on the recommendations of the **Malhotra Committee Report**.
- It **manages and regulates the insurance and reinsurance industry in India** along with registering and/or licensing insurance, reinsurance companies and the intermediaries.

IRDAI retains LIC, GIC, New India as Domestic Systemically Important Insurers (D-SIIs)	• Life Insurance Corporation of India (LIC), General Insurance Corporation of India (GIC) and New India have been retained as **D-SIIs for 2021-22.** o **D-SIIs are identified on an annual basis** by Insurance Regulatory and Development Authority of India (IRDAI). • D-SIIs refer to insurers of such size, market importance and domestic and global inter connectedness, **whose distress or failure would cause a significant dislocation in the domestic financial system.** o Their continued functioning is thus critical for the **uninterrupted availability of insurance services** to the national economy. o They are perceived as insurers **'too big or too important to fail'.** • D-SIIs are **subjected to additional regulatory measures** to deal with the systemic risks and moral hazard issues. • **Parameters for identification of D-SIIs** o **Size of operations in terms of total revenue**, including premium underwritten and value of assets under management. o **Global activities** across more than one jurisdiction.
RBI and IRDAI nod must for FDI in bank-led insurers	• The **new Foreign Exchange Management (Second Amendment) Rules, 2021** that amend the Foreign Exchange Management Rules, 2019 have been **notified.** • The **Foreign Exchange Management Act, 1999** provides legal framework for the administration of foreign exchange transactions in India. **Key highlights** • Applications for foreign direct investment in an insurance company promoted by a private bank would be cleared by the **RBI and IRDAI to ensure that the 74% limit of overseas investment is not breached.** o Earlier this limit **was 49% under the 2019 rules.** • **Majority of directors and key management persons should be resident Indian citizens** in a domestic insurance company having foreign investment. • Additionally, at least one of the three key management persons — chairperson, managing director or chief executive — should also be resident Indian citizens.

	• With **insurance penetration of 3.76%** in FY20 (**life insurance at 2.82%** and **non-life insurance at 0.94%**), the amended rules can further help in- ○ Bringing **more FDI** in Insurance Sector. ○ Increase competition with new products to enhance insurance penetration.
Model insurance villages	• IRDAI has come out with **concept of model insurance villages to cover entire population in village areas,** with financial support of various institutions like NABARD and CSR funds. ○ Idea is to offer **comprehensive insurance protection to all the major insurable risks that villagers are exposed** to and make available covers at subsidized cost. • IRDAI suggested to implement it in a **minimum of 500 villages in the first year** and increase to 1,000 villages in subsequent years. ○ It said efforts in selected villages need to be **continued for a minimum of 3 to 5 years** so as to make insurance benefits visible to the community. • **Economic Survey 2020-21** stated that **India's insurance penetration, which was at 2.71% in 2001, has steadily increased to 3.76% in 2019**, but stayed much below the global average of 7.23%. • Insurance (amendment) Act, 2021 enhanced the **FDI limit in the insurance sector to 74%** from the existing 49%. ○ Also, recently, IRDAI advised **all Insurance companies for issuance of Digital Insurance Policies via DigiLocker.**

8.3. KEY CONCEPTS AND INFORMATION ON SERVICES SECTOR

Antitrust	• Apple has asked Competition Commission of India (CCI) to **dismiss a antitrust case alleging abuse of market power in the apps market.** • Antitrust **refers to a field of economic policy and laws dealing with monopoly and monopolistic practices.** • **Competition Act, 2002** which is India's antitrust law **monitors any economic activity that monopolizes competition** within the market. ○ Act **guarantees that no enterprise abuses their 'dominant position' in a market** through the control of supply, manipulating purchase prices, etc. ○ CCI has been setup under 2002 act to **regulate anticompetitive activity in the country.**
Special purpose acquisition companies (SPACs)	• SPACs are **listed shell companies created with sole purpose to acquire unlisted or private companies** and then merge with the latter. • SPACs **don't have business operations of their own** and raise capital through an initial public offering (IPO) to acquire private companies later on. ○ SPACs are currently **not allowed to raise capital through IPO in India.** • These are **also called "blank cheque companies"** as SPAC investors have no idea about where and how their capital will be utilised.
Social commerce	• E-commerce transactions where **buyers and sellers interact social media platform** with each other before concluding a purchase is called as social commerce. • According to a report, social commerce in India (in terms of gross merchandise value) was estimated at ~ **US$ 2 billion in 2020 and is projected to reach US$ 16-20 billion by 2025** and US$ 60-70 billion by 2030.
Competition Commission of India (CCI)	• CCI is a **statutory body** under **the Competition Act, 2002.** • The **duty of the Commission is to eliminate practices** having adverse effects on competition, promote and sustain competition, protect the interests of consumers and ensure freedom of trade in the markets of India.
Special Credit Linked Capital Subsidy Scheme (SCLCSS)	• Union Minister for MSME launched **SCLCSS for services sector** to help them in **meeting the technology related requirements of enterprises** in the services sector. • SCLCSS has a **provision of 25% capital subsidy for procurement of Plant & Machinery and service equipments** through institutional credit to the SC/ST MSEs without any sector specific restrictions on technology upgradation.

9. INFRASTRUCTURE SECTOR

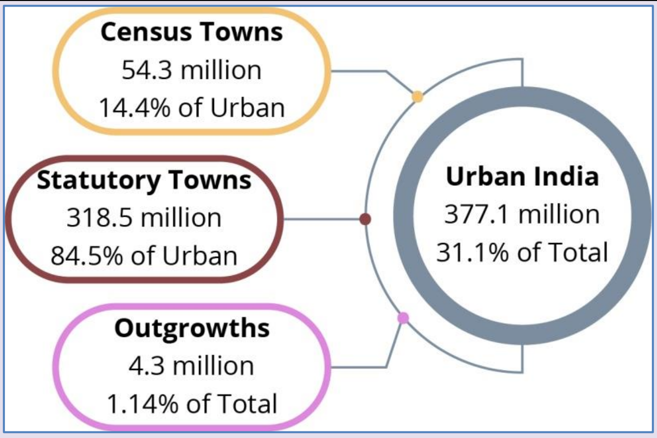
9.1. URBAN INFRASTRUCTURE

Why in news?

NITI Aayog recently launched a report titled **'Reforms in Urban Planning Capacity in India'** on measures to ramp up urban planning capacity in India.

Overview of Urbanization in India

- **Population**: India's urban population stands at around 377 million (Census of India, 2011).
  - During 2011–36, urban growth will be responsible for 73% of the rise in total population (MoHFW, 2019). Earlier estimations indicate that India will be 50% urban by 2050 (UN-Habitat, 2017).
- **Economic contribution:** Urbanization contributes nearly 60% to India's Gross Domestic Product (GDP) and likely to contribute to **70% of India's GDP by 2030**.
- **Geographical share:** Urban land in India is 3.1% of the total land area of the country but contributes significantly to employment and need sustainable development.



Classification of Urban agglomerations:

- **Statutory Towns:** Settlements that are notified under law by the concerned State/UT government and with local bodies such as municipal corporations, municipalities, municipal committees, etc.
- **Census Towns:** Settlements that are classified as urban in the census after they have met a set of criteria like at least 75% of the male 'main workers' engaged in non-agricultural pursuits etc. These are governed as villages and do not necessarily have urban local bodies.
- **Outgrowths:** These are viable units, such as a village, clearly identifiable in terms of their boundaries and locations. Outgrowths possess urban features in terms of infrastructure and amenities, such as pucca roads, electricity, etc., and are physically contiguous with the core town of the urban agglomeration.

9.1.1. URBAN TRANSFORMATION

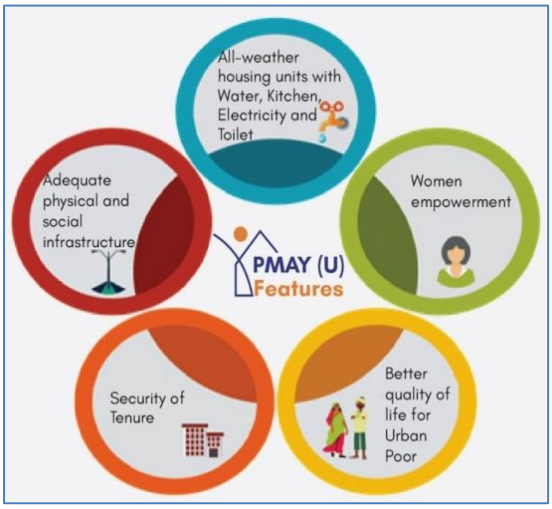
Why in news?

Recently, the **Ministry of Housing and Urban Affairs (MoHUA)** commemorated 6 years of the **three transformative Urban Missions** vis. **Smart Cities Mission (SCM), Atal Mission for Urban Rejuvenation and Urban Transformation (AMRUT)** and **Pradhan Mantri Awas Yojana-Urban (PMAY-U).**

Government Initiatives for Urban Transformation

PMAY-U

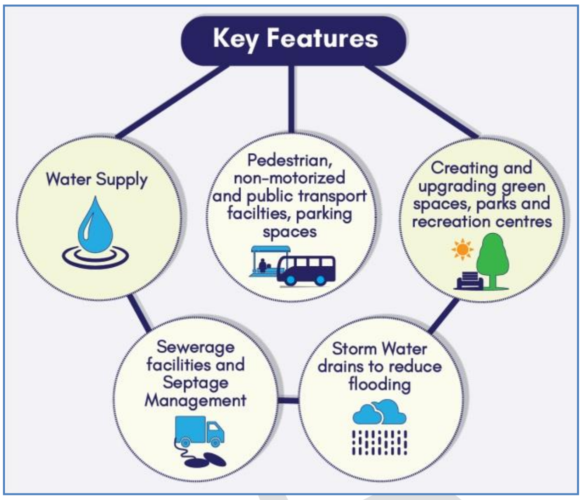
- It **addresses urban housing** shortage among the Economically Weaker Sections (EWS) and Middle Income Group (MIG) categories including the slum dwellers **by ensuring a pucca house to all by 2022.**
- **Components of PMAY-U:**
  - In-situ Slum Redevelopment (ISSR)
  - Credit Linked Subsidy Scheme (CLSS)
  - Affordable Housing in Partnership (AHP)
  - Beneficiary-led Individual House Construction/ Enhancement (BLC).



AMRUT

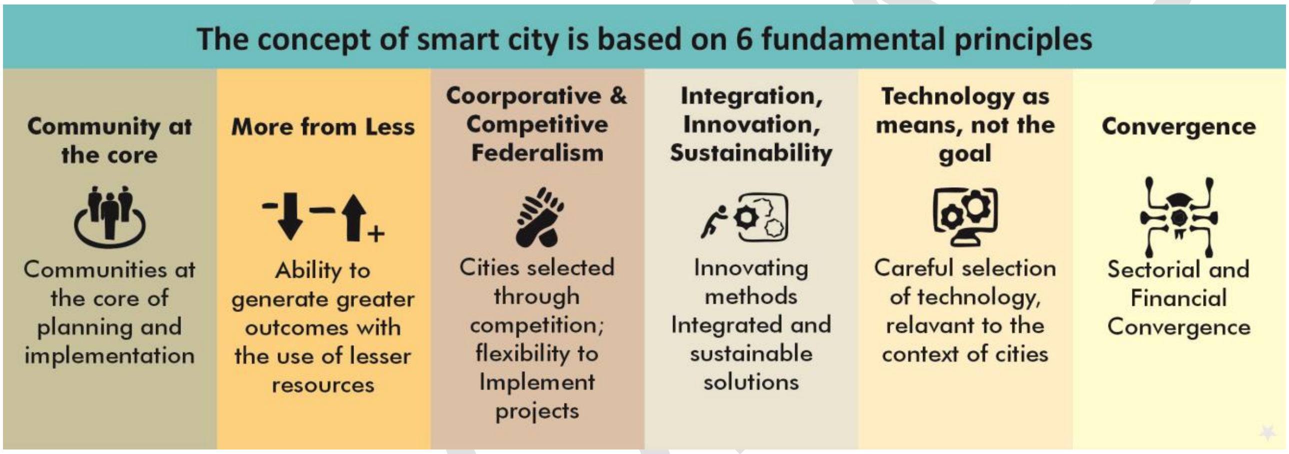
- It is **first focused national water Mission** which aims to **provide basic services like water supply, sewerage, etc. to households and build amenities in cities.**
- 500 cities selected under AMRUT.

- Progress
  - **105 lakh household water tap** and **78 lakh sewer connections** have been provided.
  - **88 lakh streetlights** have been replaced with **energy efficient LED** lights against target of 101 lakh leading to energy savings and reduction in CO_2 emission.



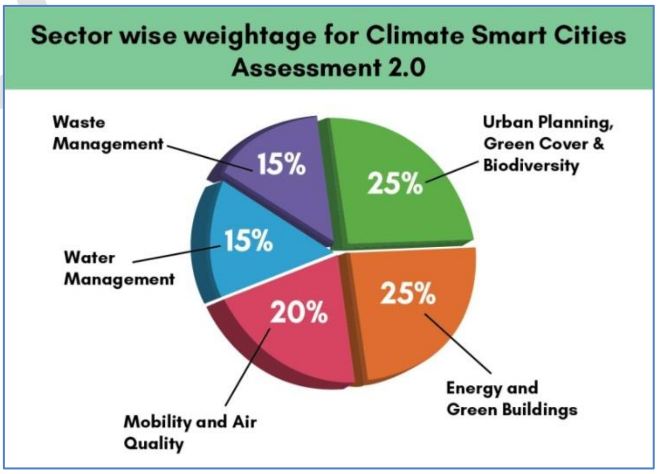
Smart Cities Mission

- It was launched in 2015 as a joint effort of the **Ministry of Housing and Urban Affairs (MoHUA),** and all state and union territory (UT) governments.
- **100 cities and towns in different states and UTs** of India have been selected under the SCM.
- **Objectives:** Promote cities that provide **core infrastructure, clean and sustainable environment and give a decent quality of life** to their citizens through the application of **'smart solutions'**.



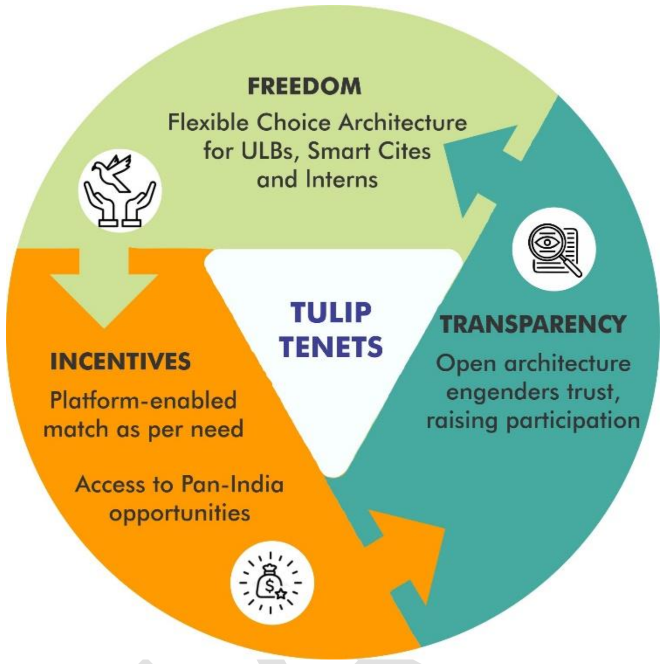
Recent steps to strengthen the missions

- **Climate Smart Cities Assessment Framework (CSCAF) 2.0**: It aims to provide an overarching roadmap to **formulate, implement and monitor urban climate actions** in India.
  - CSCAF 2.0 consists of **28 diverse indicators across five sectors**. (refer infographic)
- **Data Maturity Assessment Framework 2.0**: Every year, the Smart Cities are being ranked so that Urban Local Bodies (ULBs) continue to **invest in developing and strengthening their data ecosystems.**
- It **assess the data readiness of 100 smart cities on the systematic pillars across 5 components** namely policy, people, process, technology and outcomes.



ICT initiatives under Smart Cities

- **ICCC Maturity Assessment framework (IMAF):** It is a **self-assessment tool kit** developed to assess the maturity of Integrated Command and Control Centres (ICCC) across **key aspects of functionality, technology, governance and citizen/stakeholders engagement**. It helps cities identify areas of improvement in their ICCCs to deliver better services to the citizens.
- **Smart City ICT standards:** It facilitates interoperability between products in a multi-vendor, multi-network and multi-service environment that exists in a smart city.
- **India Smart Cities Fellows Report:** It **promotes youth leadership** and usher vibrancy in the design of India's urban future.

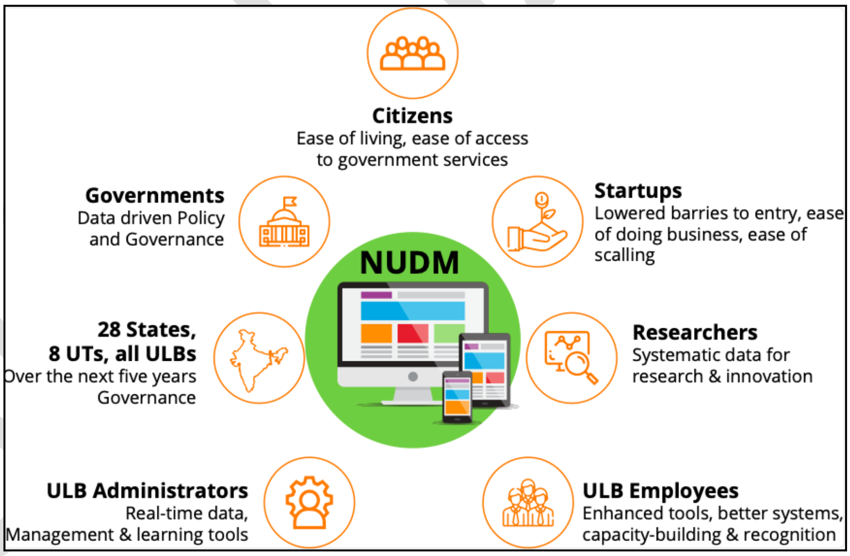


- **TULIP (The Urban Learning Internship Program) Report:** It is a platform to **connect graduates to ULBs and Smart Cities** to co-create new solutions for our cities. It was launched in partnership with All India Council for Technical Education (AICTE).
- **Smart Cities and Academia towards Action & Research (SAAR) Program:** Launched under Smart Cities, the SAAR program will involve 15 premier architecture & planning institutes of the country to **document landmark projects and outcomes of these projects undertaken by the Smart Cities Mission.**
- **Municipal Performance Index (MPI):** This describes the quality of urban governance (the performance of municipalities).
- **Ease of Living Index (EoLI):** Published by the Ministry of Housing and Urban Affairs (MoHUA), it shows gaps in urban policies, planning and implementation initiatives.
    - It promotes competitive spirit among the states to ensure sustainable urbanization.

9.1.2. NATIONAL URBAN DIGITAL MISSION

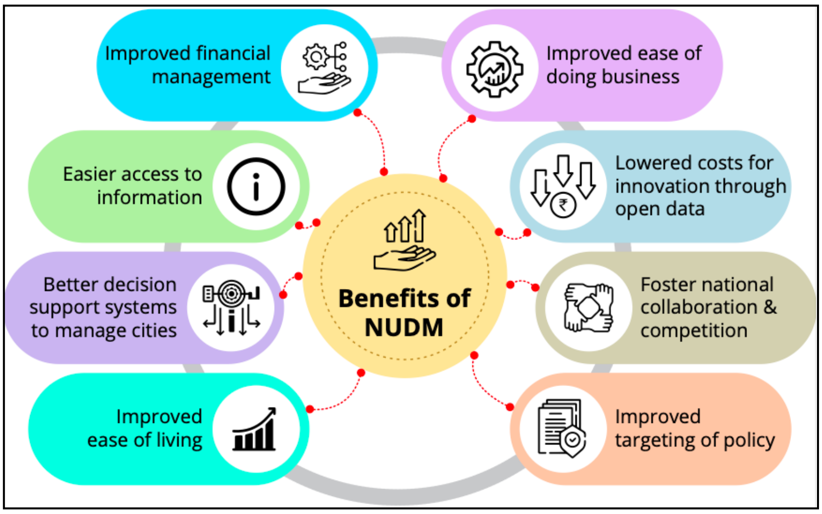
Why in news?

The **MoHUA** along with the **MeitY** has launched **National Urban Digital Mission (NUDM)** to improve urban connectivity that will connect nearly **2,535 cities.**



About National Urban Digital Mission

- NUDM aims to **build the shared digital infrastructure for urban India,** to provide holistic support to cities and towns by working across the **three pillars of People, Processes** and **Platforms.**
- It will institutionalize a **citizen-centric and ecosystem-driven approach** to urban governance and service delivery in cities by 2022 and across all cities and towns in India by 2024.



Objectives of NUDM:

- To **catalyze an urban national open digital ecosystem (u-NODE)** to build new platforms, solutions, and innovations.
- To **create open standards and enforce the adoption of open standards** by all national digital urban stakeholders.

- To **establish registries at appropriate levels** to create single source of truth in respect of urban assets, service delivery, urban data and actors.
- To **promote the development of nationally scalable application systems** with a special focus on achieving SDGs for urban.
- To **adopt the best principles of cooperative federalism** while working with the States, Union Territories and ULBs for the realization of the vision.
- To provide for **enhancing the efficiency and effectiveness of governance** at all levels.

Related News

NIUA (National Institute of Urban Affairs) Knowledge products

- NIUA is an **autonomous body of MoHUA**, tasked to bridge the gap between research and practice on issues related to urbanization.
- **CITIIS (City Investments to Innovate, Integrate and Sustain) Program:** It was launched in partnership with the French Development Agency and the European Union in 2018. It has a novel approach of **developing demonstrative projects** while **furthering the agenda of sustainability and innovation in urban infrastructure**.
- **Handbook of Urban Statistics:** First of its kind document with a **special focus on Persons with Disabilities (PwDs)** in Indian cities. It captures the data related to the nature and cause of disability, the socio-economic condition of PwDs and their access to various physical and social infrastructures.
- **Cities Insights Report:** It investigates **urbanization trends in Indian cities** from the lens of marginalized populations, persons with disabilities, elderly, children and women. This initiative is under the **'Building Accessible Safe Inclusive Indian Cities' (BASIIC) Programme** at the **NIUA, New Delhi.**

9.1.3. OTHER INITIATIVES URBAN/RURAL INFRASTRUCTURE

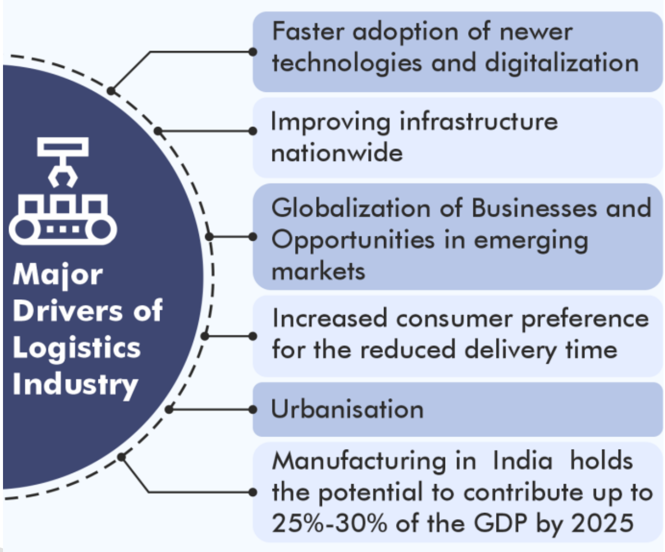
India Urban Data Exchange (IUDX)	Developed by **Smart Cities Mission** and the Indian Institute of Science (IISc), it will **address the problem of data silos**, both within and across cities through- • An **open-source software platform** to facilitate the secure, authenticated, and managed exchange of data amongst various data platforms. • Serve as a **seamless interface for data providers and data users**, including Urban Local Bodies (ULBs), to share, request, and access datasets related to cities, urban governance, and urban service delivery.
Smart Code Platform	It is launched to enable all ecosystem stakeholders to contribute to a repository of open-source code for various solutions and applications for urban governance. • **It addresses the challenges that ULBs face in the development and deployment of digital applications** to address urban challenges, by enabling cities to take advantage of existing codes and customizing them to suit local needs, rather than having to develop new solutions from scratch.
Smart Cities Mission 2.0 website	The website is redesigned to create a **single window hub for Smart Cities Mission** and act as an effective communication and outreach tool. • As part of it, **Geo-Spatial Management Information System** (GMIS) is integrated with this website.
Infrastructure Status for Exhibition and Convention Centres	• Benefits available as 'infrastructure' projects would only be available for projects with a **minimum built-up floor area of 1,00,000 square metres** of exclusive exhibition space or convention space or both combined. **Significance of Infrastructure status** • **Access to cheaper foreign currency funding** through the external commercial borrowing route. • **The sector gets credit at competitive rates and on long-term basis** with enhanced limits.
SWAMIH Fund	• Recently, **Special Window for Affordable and Mid Income Housing (SWAMIH) Fund completed its first residential project, Rivali Park** in suburban Mumbai. **About SWAMIH fund** • Set up by Government of India in **November 2019,** it is an **Alternative Investment Fund to provide priority debt financing** for the **completion of stalled housing projects, brownfield, RERA registered residential developments** that are in the **affordable housing / mid-income category**. • It is a Securities and Exchange Board of India (SEBI)-registered Alternate Investment Fund – II.
Alternate Investment Fund (AIF)	• AIF means any fund established or incorporated in India **which is a privately pooled investment vehicle which collects funds from sophisticated investors, whether Indian or foreign, for investing it in accordance with a defined investment policy** for the benefit of its investors.

	Different categories of AIF • **AIF I:** AIFs which invest in start-up or early-stage ventures or social ventures or SMEs or infrastructure or other sectors or areas which **the government or regulators consider as socially or economically desirable**. • **AIF II:** Various types of funds such as real estate funds, private equity funds (PE funds), **funds for distressed assets, etc.** • **AIF III: Various types of funds such as hedge funds, PIPE Funds, etc.**

9.2. LOGISTICS SECTOR

Why in news?

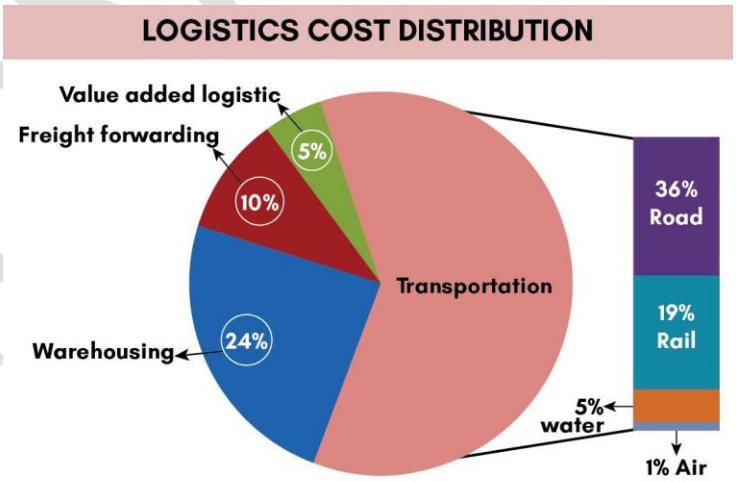
The Logistics Division of the Ministry of Commerce and Industry has unveiled plans for the **'Freight Smart Cities'.**



More about scheme

- To begin with, **10 cities will be developed** as Freight Smart cities. Further, **an institutional mechanism** involving the Government, private stakeholders like logistics services providers, users and citizens **will be set up.**
- **To enhance the urban freight system,** measures have been divided into four categories- vehicle use optimization, infrastructure development, demand and land use planning, and technology adoption.

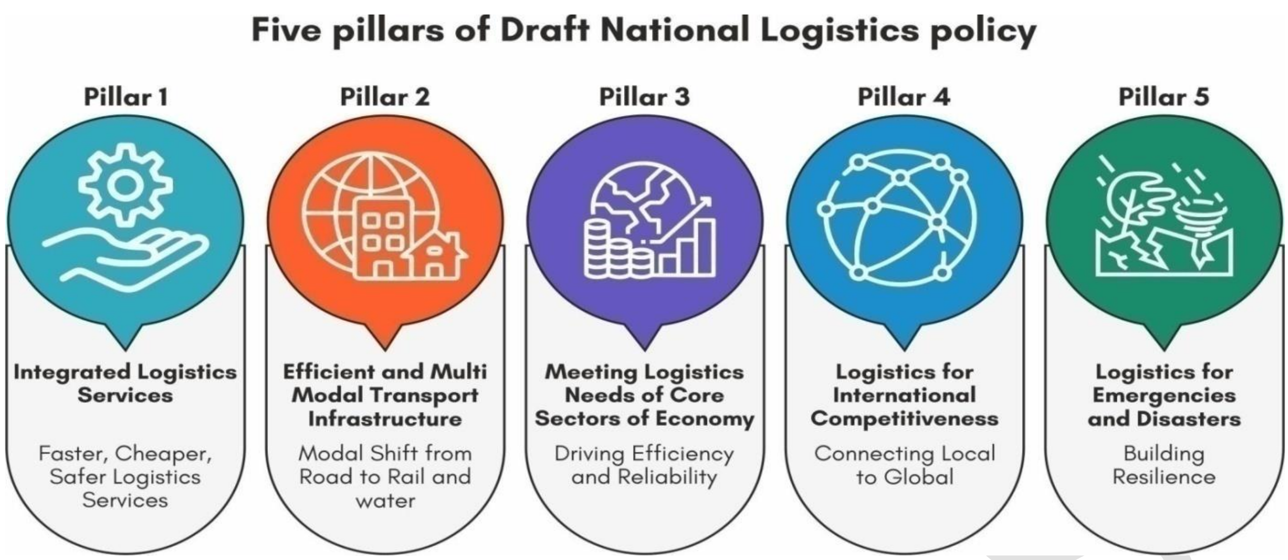
Logistics industry in India



- Broadly defined, logistics covers all aspects of trade, transport and commerce, starting from the **completion of the manufacturing process all the way to delivery for consumption.**
- Currently, **transportation is considered to be most crucial logistics activity** which almost accounts for 50-60% of logistics cost followed by warehousing.
- The Size of Logistics Industry in India is $215 billion, employing **more than 22 million people.**
- Benefits of Efficient Logistics: It will facilitate 10% decrease in indirect logistics cost, leading to **5 to 8% growth in exports.**

Initiatives for the Sector

- **Grant of Infrastructure status to Logistics sector** for easy long-term credit at competitive rates**.**
- **Taxation reforms like GST** and creation of **Logistics Division** in the Department of Commerce.
- **Integrated approach to Logistics infrastructure** under Gati Shakti, development of 35 **Multi Modal Logistics Parks (MMLPs) under Bharatmala Pariyojana**, a number of port connectivity projects under **Sagarmala**, etc.
- **National Logistics Excellence Awards** to catalyse **systematic transformation** in the sector.
- **Proposed National Logistics Law** under consultation with stakeholders to provide an agile regulatory environment through a unified legal framework for **"One Nation-One Contract" paradigm** (single bill of lading across modes) supporting "One **Nation-One Market" agenda.**
- **Draft National Logistics policy** with aim to promote seamless movement of goods across the country and is at the **near-finalization stage.**



9.2.1. GATI SHAKTI

Why in News?

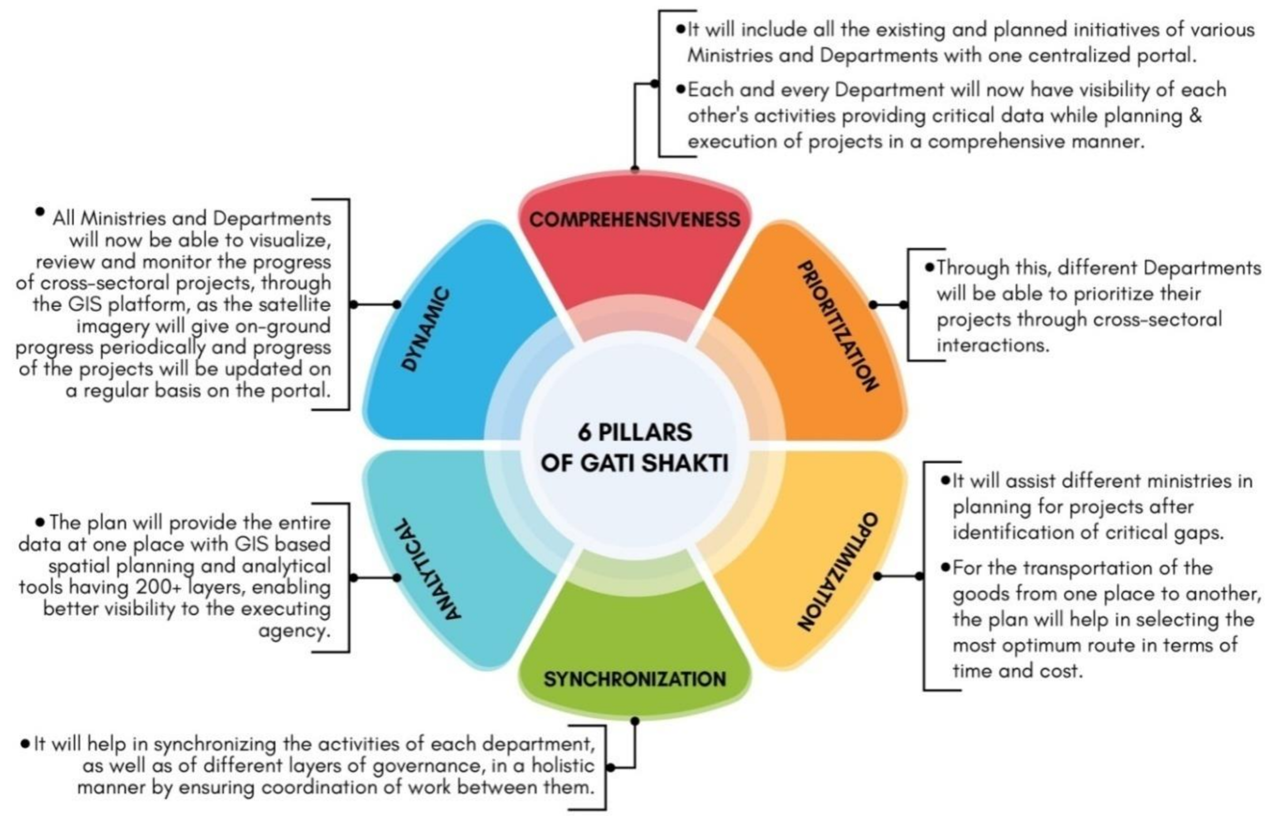
Recently, the Prime Minister launched the ₹100-trillion Gati Shakti or the National Master Plan for multimodal connectivity **to expedite infrastructure project implementation in India.**

About Bhaskaracharya National Institute for Space Applications and Geoinformatics (BISAG)

- It is a Gandhinagar-based autonomous scientific society **under the Ministry of Electronics & Information Technology**.
- It undertakes projects in satellite communication, geo-informatics and geo-spatial technologies.

About Gati Shakti

- It is essentially a **digital platform to bring 16 Ministries together** (including Railways and Roadways) for **integrated planning and coordinated implementation of infrastructure connectivity projects.**
- An integrated multimodal Network Planning Group (NPG) will be responsible for unified planning and integration of proposals.
- This entire platform has been developed by the **Bhaskaracharya National Institute for Space Applications and Geoinformatics (BISAG).**



		Aid provided by Gati Shakti
Siloed Structure	• **Lack of coordination** between Individual Ministries and Departments in planning and implementation of the project.	• The master plan will ensure that projects will be **designed and executed with a common vision across various** ministries and will improve coordination among them.
Time and cost overruns	• The infrastructure schemes of various Ministries and State Governments like **Bharatmala, Sagarmala,** etc. suffer from **slow pace of completion due issues like time-taking approval process, multiplicity of regulatory clearances etc.**	• The initiative, with its technology platform for **real-time monitoring and coordination mechanisms** is expected to prioritize timely approval of such projects.
Lack of common vision	• **Isolated projects lack clear vision** and objectives which leads to non-optimum usage of resources.	• Projects will be **designed and executed with a common vision** across various ministries.
Wasteful expenditure	• The **lack of long term and holistic planning,** coupled with poor communication between different Departments not only causes great inconvenience but leads to wasteful expenditure. o For example, once a road was constructed, other agencies dug up the constructed road again for activities like laying of underground cables, gas pipelines etc.	• The initiative helps to address these issues through **institutionalizing holistic planning for stakeholders for major infrastructure** projects.

9.2.2. OTHER INITIATIVES FOR THE LOGISTICS SECTOR

9.2.2.1. LEADS (LOGISTICS EASE ACROSS DIFFERENT STATES) 2021 REPORT

- Launched in **2018**, the **Ministry of Commerce and Industry** unveiled third LEADS report 2021.
- The main objective of LEADS index is of **ranking States and UTs on the efficiency** of their logistics ecosystem.
- It aims to enhance focus on **improving logistics performance** across states which is key to improving the **country's trade and reducing transaction cost.**
- Similar to "LEADS 2019", the 2021 edition focuses on **both international and domestic trade**. No report was **released in 2020.**
    - However, while LEADS 2018 and 2019 editions were **perception-based**, 2021 report has introduced **objective parameters** in the index formulation by engaging **with all the 36 States/UTs for the first time.**
- **The 2021 index** is based on **twenty-one indicators** including seventeen perception indicators and four objective indicators
- Perception indicators are structured along the **three dimensions** of- **Infrastructure** (Road, rail, unimodal, multimodal, warehousing); **Services** (Quality, timeliness, Capability of Logistics Service Providers, Safety and Security etc.); and **Operating and Regulatory Environment** (Facilitation, Ease of Obtaining Approvals and Efficiency of Regulatory Services).

9.2.2.2. COMMERCE MINISTRY UNVEILS PLANS FOR 'FREIGHT SMART CITIES'

- Freight Smart Cities initiative will help in improving the **efficiency** of urban freight and create an opportunity for **reduction in the logistics costs.**

Key highlights

- **State Governments will identify ten cities to be developed as Freight Smart Cities**. List will be further expanded to include 75 cities.
- **City-level logistics committees would be formed** including government department and private sector.
- These committees would **co-create City Logistics Plans** to implement performance improvement measures locally.

- Focus will be on **developing peri-urban freight centers, developing truck routes, using Intelligent Transportation Systems & modern technologies, Promoting electrification of urban freight, Parcel delivery terminals etc.**
- **Commerce ministry has collaborated with GIZ (Germany) under Indo-German Development Cooperation**, Rocky Mountain Institute (RMI) and RMI India for the development of freight smart cities.

9.2.3. INFRASTRUCTURE FINANCING MODELS

Special purpose vehicle (SPV) model	• **Special purpose vehicle (SPV) model of National Highways Authority of India (NHAI)** will replace build-operate-transfer (BOT) mode for some projects.
	• SPV is a **legal entity that is formed for a well-defined, sole and narrow purpose.**
	  o They are generally formed to isolate a company's assets or activities.
	  o The activities or assets are distanced into the new entity, i.e., the SPV and so investors or lenders feel more comfortable.
	• **Significance:** It is a means to separate the risk and free up capital

Toll-operate-transfer (TOT) model	• In TOT Model, the right of collection and appropriation of Fees for projects constructed through **public funding shall be assigned for a pre-determined concession** period to concessionaires (developers/investors) against upfront payment to NHAI. • **Operation & Maintenance (O&M) obligations** are with the **concessionaire till the completion of concession period.**
Build-Operate-Transfer (BOT)	• Under BOT, **a private entity is responsible for building, designing, and operating the road and transferring it back to the government.** • Recently, NHAI **revised model concession agreement (MCA)** under which revenue potential of a project would be reassessed in every five years during the concession period as against every 10 years now.
Engineering, Procurement, Construction (EPC) model	• The engineering and construction **contractor will carry out the detailed engineering design of the project, procure all the equipment and materials necessary, and then construct to deliver** a functioning facility or asset to their clients.
Hybrid Annuity Model (HAM)	• **40% the Project Cost is to be provided by the Government** as Construction Support during the construction period and the balance **60% as annuity payments over the operations period along with interest thereon to the concessionaire.** • It is a hybrid of EPC and BOT models. • **Toll fee collection** is the Government's responsibility.
Build Lease Transfer (BLT)	• It involves **building a facility, leasing it to the Government and transferring the facility after recovery of investment.**
Lease Develop Operate Transfer (LDOT)	• Here, **assets are leased out to the private sector under specific terms, to operate and maintain the asset for the term of the concession period**, after which the assets are transferred to the authority.

9.3. RAILWAYS

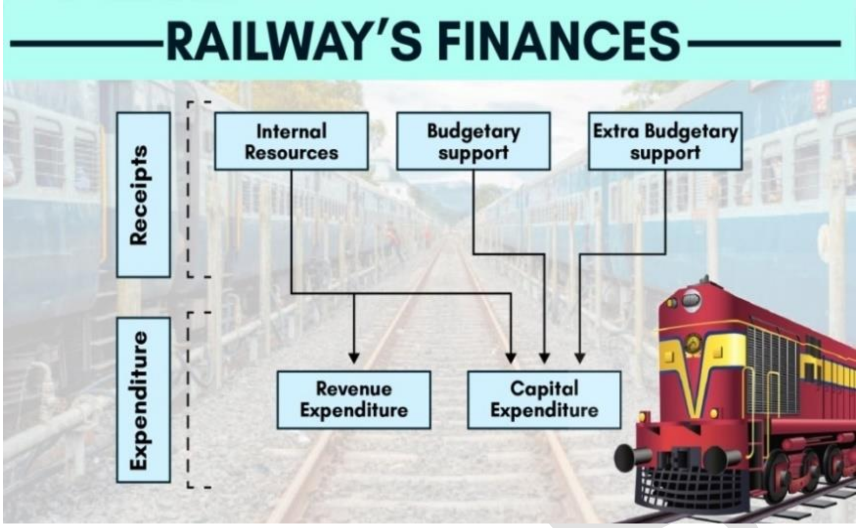
9.3.1. COMPTROLLER AND AUDITOR GENERAL (CAG) REPORT ON INDIAN RAILWAYS

Why in news?

Recently, CAG report on the Indian Railways' (IR) finances tabled in Parliament paints a grim picture based on earnings, expenditure, reserves and operational efficiency.

Key Highlights of the report

- **Decrease in total receipts by 8.30% in 2019-20** as compared to 6.47% increase in 2018-19.
- **Cross-Subsidization** by utilizing profits from freight traffic to compensate for the loss on operation of passenger and other coaching services.
- **Heavy dependence of railways for transportation of coal**, constituting around **49% of the total freight earnings** during 2019-20.
- **Operating Ratio (OR) deteriorating to 98.36% in 2019-20** from 97.29% in 2018-19.
  - **OR** is the **ratio of the working expenditure** (expenses arising from day-to-day operations of Railways) **to the revenue earned from traffic.**
  - A higher ratio indicates a **poorer ability to generate surplus** that can be used for capital investments.



- **Capital Output Ratio (COR)** increased in 2019-20, indicating decrease in physical performance of the IR as compared to capital employed.
  - COR indicates the **amount of capital employed to produce one unit of output.**
- **Decline in internal resources** contribution for **capital projects** resulting in greater dependence on Gross Budgetary support (GBS) and extra budgetary resources (EBR). IR has **three primary sources of revenue**:
  - **GBS** is the sum it gets from the Central Government's budget allocation each year.
  - **Internal Resources** includes freight and passenger revenue and leasing of railway land.
  - **EBR** includes borrowings, earnings through partnerships and institutional finance.
- **Deterioration of Staff productivity** in 2019-20 due to decline in freight carried (tonnage) and passenger originating (total distance carried/ travelled).

9.3.2. RAILWAY SAFETY

Why in News?

After a recent train accident in West Bengal killing at least 9 people, the Railway Board Chairman asked for a thorough probe to identify all aspects related to the accident.

Safety issues at Indian Railways

With fast, safe, and secure mobility being a key concern over such a long network, a number of committees and subsequent initiatives are taken by Indian Railways.

This includes dedicated **Committees on Safety** as well as other committees making recommendations to ensure safe and secure travel such as:

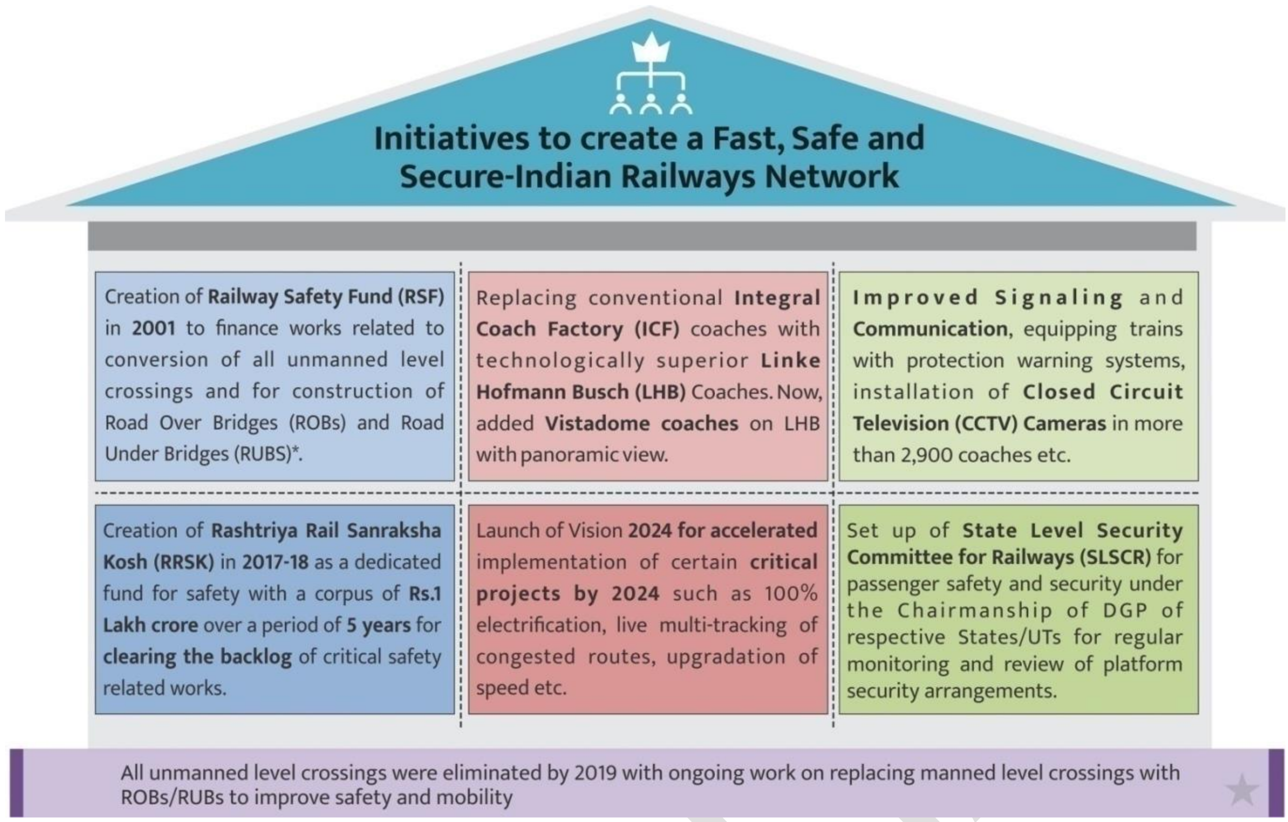
- **Railway Safety Review Committee** (Khanna Committee) in 1998,
- **High Level Safety Review Committee** (Kakodkar Committee) in 2012
- **Expert Group for Modernization of Indian Railways** (Pitroda Committee) in 2012,
- **Committee for Mobilization of Resources for Major Railway Projects and Restructuring of Railway Ministry and Railway Board** (Debroy Committee) in 2015.

Commission of Railway Safety
- It is a **statutory body** (HQ: **Lucknow**) established under the **Railways Act, 1989.**
- It deals with matters pertaining to safety of rail travel and train operation including investigation on serious rail accidents.
- **Parent agency** of this commission is **Ministry of Civil Aviation.**

Presently, review/approval of safety aspects in railways is done by the **Commission of Railway Safety**, an independent institution under the Ministry of Civil Aviation.

Safety Status of Railways

- **Train Collisions and Derailments:** Between **2014-15** and **2019-20**, the number of such accidents and number of deaths reduced from **135 to 55** and from **292 to 5** respectively.
- **Passenger Safety:** As per NCRB, as compared to **27,987 accidents** in **2019**, **13,018** accidents happened in **2020** leading to death of nearly **12,000** railway passengers.
- **Road Users Safety:** Around **1,014 accidents** reported at various railway crossings **with 1,185 deaths.**
- **Rescue from Human Trafficking:** Over **2,000 women** and children during 2017-21
  - Indian Railways launched **'Operation AAHT'**, a nationwide operation to curb **human trafficking** (with traffickers often using Indian Railways network).



Other reforms in Railways

- **National Rail Plan (NRP)**: Based on the NRP, a **Vision 2024 document** has been prepared to develop infrastructure by 2024 to **enhance modal share of Railways in freight transportation to more than 40 per cent** and to cater to the traffic requirements up to 2030.
  - **Planned projects under it include: Multi tracking of 14,000 Km route, electrification of entire Railway network,** upgrading the speed potential of important routes to 130 KMPH and 160 KMPH (present speed potential 110 KMPH), completion of important **coal connectivity and port connectivity**.
- **Improved Project execution and Organizational efficiency** through prioritized fund allocation and introduction of **E-work contract management system, E-Shramik Kalyan Portal, and a single Central Payment System** (in collaboration with State Bank of India).
- **Speeding Electrification of Railways and Mission Greening: 66% of track length has been electrified** by November 2020. Railways aim to complete electrification of its entire broad-gauge network by 2023.
  - Once completed, IR will achieve a unique feat among the major railways in the **world to run trains fully with indigenously produced power** without dependence on imported fossil fuel.
  - After 100% electrification, estimated **saving on fuel/energy bill** for IR would be about Rs.**14,500 Cr per annum.**
  - Indian Railways have fixed itself a stiff target of being a **net-zero emitter of carbon by 2030.**
- **High Speed Rail:** At present **Mumbai-Ahmedabad High Speed Rail (MAHSR)** project is the only sanctioned project of High-Speed Rail (HSR) in the country. It is under execution with the **financial and technical assistance from Government of Japan**.
  - A Special Purpose Vehicle (SPV), namely **National High Speed Rail Corporation Limited (NHSRCL)** has been formed to implement the Project.
- **Rail Development Authority (RDA):** Centre approved setting up RDA, an independent regulator **to recommend passenger and freight fares and set service level benchmarks.**
- **Dedicated Freight Corridors (DFCs):** To faster transportation of goods and reduced logistic cost and improved supply chain efficiency.
- **Bharat Gaurav Trains scheme:** To showcase the country's rich cultural heritage as well as magnificent historical places to the public.

9.4. CIVIL AVIATION SECTOR

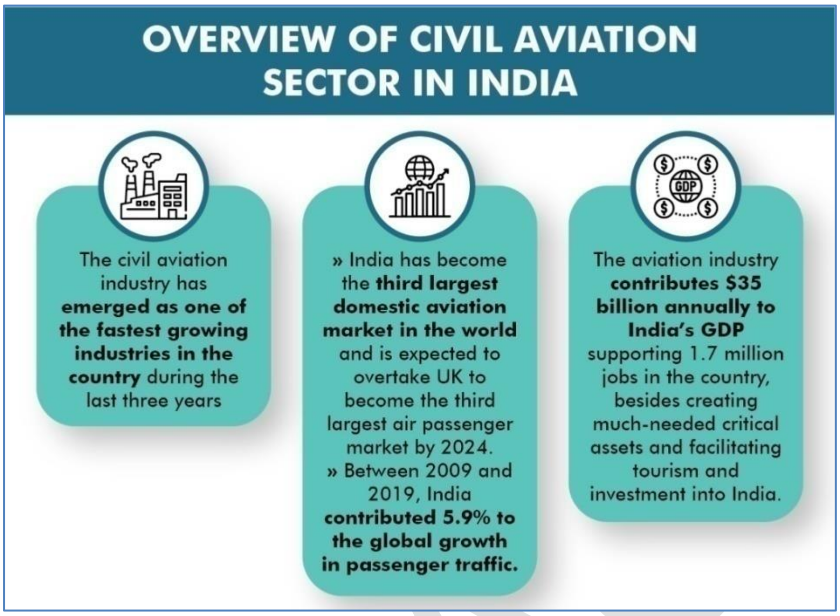
Why in news?

Civil Aviation Ministry announced a 100-day development plan to boost the civil aviation sector.

More on news

- Adversely impacted by the coronavirus pandemic, the sector is slowly coming on the recovery path.

- The 100- days plan aims to give the much-needed fillip to sector by focusing on **three main** areas which are **infrastructure, policy targets** and **reforms initiative.**
  - Under this, **four new airports at Agartala, Kushinagar, Jewar in Greater Noida,** and a **second terminal building at Dehradun** — will be constructed in the next 100 days.
  - **Six heliports** in Uttarakhand and Himachal Pradesh **and commissioning of 50 new commercial routes** under the UDAN scheme too will be developed.



  - A **new policy for Maintenance, Repair and Overhaul (MRO) services** has been announced.

Maintenance, Repair, Overhaul (MRO) Services saga

- MRO in aviation is the **repair, service**, or **inspection** of an aircraft or aircraft component to ensure safety and airworthiness of all aircrafts by international standards.
- It became a **viable business in aviation** because **Airframe Original Equipment Manufacturers (OEMs) would mainly focus on development and production**, and not the aftermarket.
- Despite labour advantages, a qualified talent pool and exponential growth in airline fleets, Indian MROs continued to be unviable and **90% of India's MRO works are done outside the country that ultimately increases the operational cost. The new policy provides for:**
  - **Leasing of land** through open tenders and abolishing royalty charged by the AAI.
  - **Land allotment** for entities setting up MRO facilities through open tenders and for 30 years instead of the current short term period of 3 to 5 years.
  - **Discussions** for having military and civil convergence with respect to MRO activities.
- The ministry has identified **eight airports** for **attracting investments** to set up MRO facilities**.** These are at Begumpet, Bhopal, Chennai, Chandigarh, Delhi, Juhu, Kolkata and Tirupati.

Factors behind growth of the sector

- **National Civil Aviation Policy, 2016-** relaxing FDI norms and focus on regional connectivity through **UDAN Scheme-** creating favorable environment for the aviation sector. As a result,
  - Out of 53 Regional Connectivity Scheme (RCS) airports, **22 airports have been operationalized in the underserved and unserved areas**
  - According to International Air Transport Association (IATA) Report, the **average domestic fares in India have fell by 70%** from their 2005 levels.

RELATED FACTS

Entry 29, List I, VII Schedule read with Art. 246 of the Indian Constitution vests the Parliament of India with the exclusive jurisdiction to legislate in relation to 'Airports; aircraft and air navigation; provision of aerodromes; regulation and organisation of air traffic and of aerodromes.

REGULATORS IN THE SECTOR:

REGULATOR	FUNCTION
Airport Authority of India (AAI)	Regulates Construction and Management of Airports
Directorate General of Civil Aviation (DGCA)	Regulates Safety & Operations of Aircrafts
Bureau of Civil Aviation Security (BCAS)	Regulates airport and airline security standards
Airports Economic Regulates Authority (AERA)	Regulates tariffs and fees

DEVELOPMENT POLICY FRAMEWORK

PPP Policy: This has been undertaken through Public Private Partnership (PPP) in major Metro airports viz. Delhi, Mumbai, Bangalore and Hyderabad.

FDI Policy:

» 100% FDI is permissible for existing airports but beyond 74%, Foreign Investment Promotion Board (FIPB) approval is required.

» 100% FDI under automatic route is permissible for Greenfield airports.

» 49% FDI is permissible in domestic airlines under the automatic route but this cannot come from foreign airline companies.

- India’s ranking in Travel and Tourism Competitiveness Index has improved from 52nd in 2015 to 34th in 2019.

- **Economic factors** like increasing size of India’s middle class, growth in cross-border trade, development of world class airports, capacity expansion of low-cost carriers (LCCs) etc.

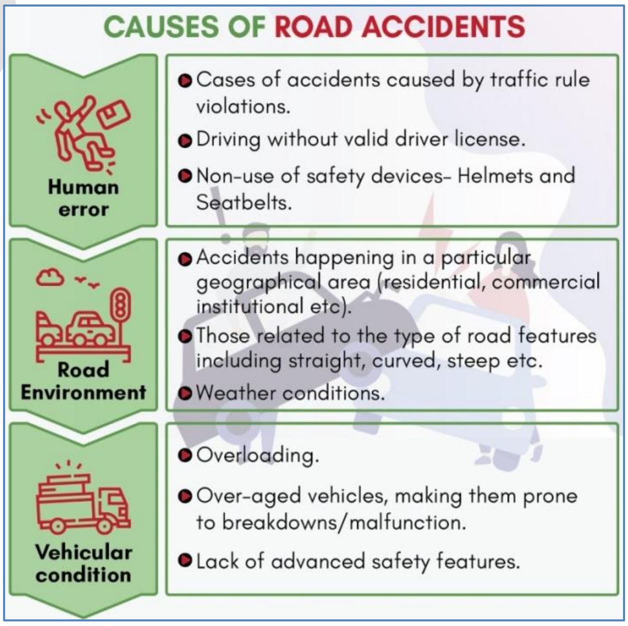
Related News	
Airport Economic Regulatory Authority of India (Amendment) Act, 2021	• It **amends the Airports Economic Regulatory Authority of India Act, 2008,** which established the Airport Economic Regulatory Authority (AERA). ○ **AERA regulates tariffs** and other charges for **aeronautical services rendered at major airports in India.** **Major provisions** • **Extend the definition of “major airports”**, empowering the government to designate any airport as a major airport by a notification. ○ The **2008 Act** designates an airport as a major airport if it has annual passenger traffic of at least 35 lakh. • **Grouping of airports and notify the group as a major airport** to group profitable airports with non-profitable ones, which could be offered in public-private partnership (PPP) mode as a package to the prospective bidders.
India’s airspace map for drone operations released	• Released by **Ministry of Civil Aviation** and is available publicly on **digital sky platform.** ○ Drone airspace map comes as a **follow-through of the liberalized Drone Rules, 2021.** It has interactive map of airspace marked into three zones • **Green zones, no permission** is required for operating drones with an all-up weight upto**500 kg**. • **Red Zone - It is the 'no-drone zone'** within which drones can be operated **only after permission from the Central Government.** • **Yellow zone is the airspace above 400 feet** in a designated green zone. Drone operations in yellow zone require permission from the concerned **air traffic control authority.**

9.5. ROADWAYS

9.5.1. ROAD SAFETY

Why in news?

Ministry of Road Transport & Highways (MoRTH) has notified constitution of the **National Road Safety Board.**



About National Road Safety Board

- It shall consist of the **Chairman and not less than three**, but not exceeding seven Members, to be **appointed by the Central Government.**
- The **functions of the board**, inter alia, are:
  - Formulate **specific standards** for road safety, traffic management and road construction for hilly region and guidelines for **capacity building** of traffic police, highway authorities etc.
  - Formulate Guidelines for **establishing and operating** trauma facilities and para-medical facilities, for consideration by the Central Government.
  - Provide **technical advice** and assistance, promote **good Samaritans** and good practices and **conduct research** for road safety and traffic management.
  - **Promote consistency** between international and domestic technical standards.

The problem of Road Accidents: Globally and in India

- As per World Bank report (2021), road accidents globally **injure over 3000 persons every day**.

- Road Traffic Injuries (RTIs) are the **8th leading cause of death globally** with **road crash risk in low-income countries being three times higher** in comparison to high-income countries.
  - India **tops the world in road crash deaths** (WHO, 2018), with more than 400 fatalities per day.
- According to **MoRTH**, Road accidents in India kill almost **1.5 lakh people annually**. India has 1% **of the world's vehicles** but accounts for **11% of all** road accident **deaths.**
  - In the last decade, road crashes have **killed 1.3 million** and injured over 5 million in India.
- Of the total number of accidents in 2019, **Minor injuries accounted for the largest share** of about 35%, followed by **fatal accidents** of about 31% with Grievous injuries accounting for another 28%.
- Road crash and serious injury cost **estimate at 7.5 per cent of India's GDP for 2016** (World Bank report, 2019).

Measures taken by MoRTH to improve road safety and ameliorate the impact of road accidents

VISION ZERO	
• **National Road Safety Strategy** to address road safety issue through **National collaboration** framework on road safety improvement and allow for a **move towards VISION ZERO.** o It covers **themes on Education, Publicity and awareness campaigns, Engineering (both of roads and vehicles), Enforcement and Emergency Care.**	
Research oriented	
Integrated Road Accident Database (IRAD)	IRAD is a **robust system** to enable the States and Centre to: • **Comprehend the information** related to road accidents, • **Analyses the root cause** of road accidents and • To develop and implement **'data-led' road safety interventions**
Research in Road Safety	• It encourages **increased activity in programmes of road safety research** by identifying **priority areas**, funding etc. • Establishing **centres of excellence** in research and academic institutions.
Behavioral change	
Improved road use behavior	• Guidelines for the "Scheme for setting up of **Driving Training Centres (DTC)** • Establishment of **Institute of Driving Training and Research (IDTR) and Regional Driving Training Centre (RDTC)**
Publicity and awareness campaigns	• **Spreading Awareness** through TV, Films, Radio Spots and Print media; • Road Safety **Awareness Workshops** Conducted in States; • Involvement of **NGOs and other Stakeholders.**
Changing Transit Systems	
Engineering (both of roads and vehicles) measures	**For road:** • Identification and rectification of accident **black spots,** Road Safety **Audits;** • Traffic Calming Measures and Installation of **crash barriers**; **For Vehicles:** • **Mandated 'Automatic Headlamp On' (AHO)** in two wheelers; • **Crash tests** for all the light motor vehicles have been notified by the Ministry for implementation; • Notified **bus body code and truck body code**; • **Speed Alert System** in Cars; • **Compulsory Anti-lock Braking System (ABS)** in new vehicles from 2018.
Promoting Intelligent Transport System (ITS)	• E-Challan and M-Parivahan (to access various transport related services); • **Transport Mission Mode Project** (VAHAN for vehicle registration and SARATHI for driver license); • **Electronic Monitoring** and Enforcement of Road Safety.
Enforcement measures	
Motor Vehicle Amendment Act (MVAA), 2019	• It has provisions related to vehicle scrapping policy, vehicle **recall** system, national register for vehicle registration, driving license and **electronics surveillance & monitoring**, etc.
Emergency (Post-crash response and Trauma care)	• Effective Trauma Care and **Good Samaritan** Guidelines; • Motor Vehicle Accident **Fund, Cashless Treatment** during Golden Hour; • **Compensation payable** to road accident victims.

Way Forward

As a signatory to the **Stockholm declaration,** India has a committed to **bringing down fatalities** from road accidents **by 50 percent by 2030**. To achieve this goal and **make every road safer for everyone at all times**, all areas will have to be explored from technological, institutional to psychological perspective.

9.6. KEY CONCEPTS ON INFRASTRUCTURE

National Bank for Financing Infrastructure and Development (NBFID)	• Government has appointed **KV Kamath as the chairperson of NBFID.** • NBFID was established as the **principal development financial institution (DFIs) for infrastructure financing.** o DFIs **provide long-term finance for segments where the risks involved are beyond acceptable limits of commercial banks** and other ordinary financial institutions. • NBFID was set up as **a corporate body with authorised share capital of one lakh crore rupees.** It has **both financial as well as developmental objectives.** • **No investigation can be initiated** against employees of NBFID **without the prior sanction of central government** (for chairperson or other directors) **and managing director** (in case of other employees).

SAROD-Ports (Society for Affordable Redressal of Disputes-Ports)	• It will help in settlement of **disputes through arbitrations in maritime sector,** including ports and shipping sector in Major Port Trusts, Non-major Ports, including private ports, jetties, terminals and harbours.
	• It is **established under Societies Registration Act, 1860** with following objectives:
	  o **Affordable and timely resolution of disputes** in fair manner.
	  o **Enrichment of Dispute Resolution Mechanism** with panel of technical experts as arbitrators.
	• It will also cover disputes between granting authority and Licensee/ Concessionaire/ Contractor and also disputes between Licensee/Concessionaire and their contractors

Inland Vessels Act, 2021	• It will **replace the Inland Vessels Act, 1917** to provide for a **uniform regulatory framework** for Inland vessel navigation across the country. o In India, only **0.5% modal share of transportation** is done through **Inland waterways** as compared to **42% in Netherlands, 8.7% in China**. **Major Provisions** • The Government will prescribe classification, standards of design, construction and crew accommodation, and type and periodicity of surveys, for **mechanically propelled inland vessels.** • Mandatory **certificate of survey**, **registration** and **insurance policy** for vessels before operation. • Ensure **safe carriage of goods and passengers** through- **Navigation safety standards; Pollution standards** on discharge; and Fix **manning requirements** with **inquiry into all accidents.** • Central Government will maintain **electronic database on Inland Vessels.** • **A Development Fund** for emergency preparedness, containment of pollution and boosting Inland navigation.

10. ENERGY SECTOR

10.1. POWER SECTOR REFORMS

Why in News?

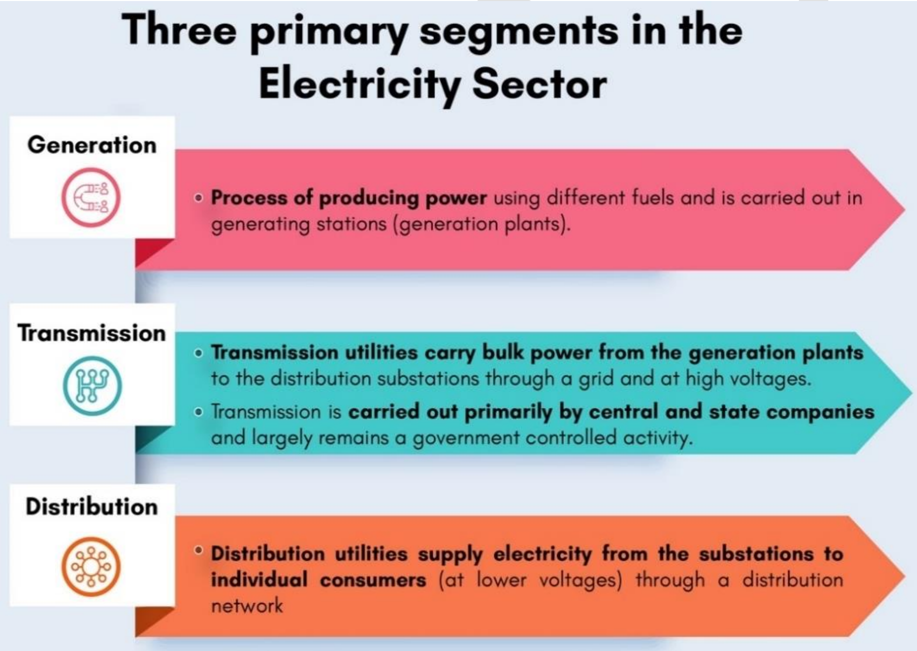
Recently, Central government has decided to roll back several proposals introduced in the draft Electricity Bill, 2020.

More on News

- Government has decided to **take back several proposals including:**
  - **Creation of the Electricity Contract Enforcement Authority** (ECEA) for resolving any matter relating to contracts of sale, purchase, and transmission of power between two or more parties.
  - **Abolition of electricity subsidies.**
  - Change in **process of selection of chairman and members** of State Electricity Regulatory Commissions

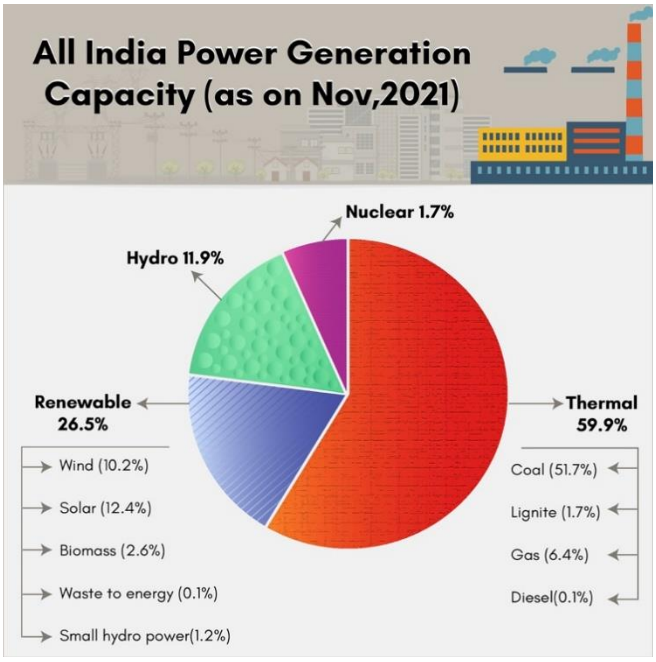
About Draft Electricity (Amendment) Bill, 2020

- It **seeks to amend the Electricity Act, 2003** and seeks to address critical issues which have weakened commercial and investment activities in the electricity sector
- **Key Highlights of the Draft Bill**
  - Provides for the constitution of **ECEA as sole authority to adjudicate upon specified contract-related disputes** in the electricity sector.
  - **Common selection committee will be constituted** to select the chairperson and members of the Appellate Tribunal (APTEL), the central and state regulatory commissions (CERC, SERCs), and ECEA.
  - **SERCs to adhere to the National Electricity Tariff Policy** while determining the cross-subsidy.
  - **Empowers the central government to notify a National Renewable Energy Policy** in consultation with state governments and prescribe minimum renewable and hydro purchase obligation.

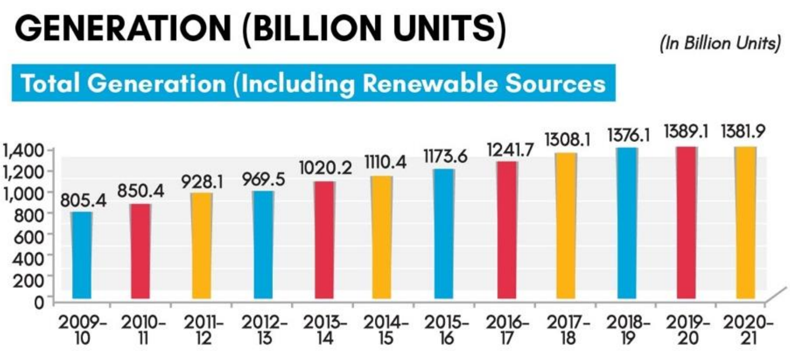


Overview of the Power sector

- In June 2017, the Minister of Power announced that **India has become a power surplus country,** with no shortage of electricity or coal.
  - The **installed generation capacity is around 392 Giga Watt** (November 2021), adequate to serve the electricity peak demand.
- Currently, **India produces a majority of its energy from thermal sources.**
- However, with the commitment to the Paris Agreement (on climate change), **there has been a push towards increasing the renewable energy (RE) generation capacity** in the country.
  - RE sources include **wind, solar, bio power, and small hydro power** and could either be connected to the grid or be off-grid systems.



- Off-grid systems help in **meeting the energy requirements of remote areas,** and areas which are not likely to be electrified in the near future.
  - ✓ **Examples of off-grid systems** include biomass-based heat and power projects, industrial waste-to-energy projects, and solar roof-top systems.



10.1.1. GENERAL NETWORK ACCESS (GNA)

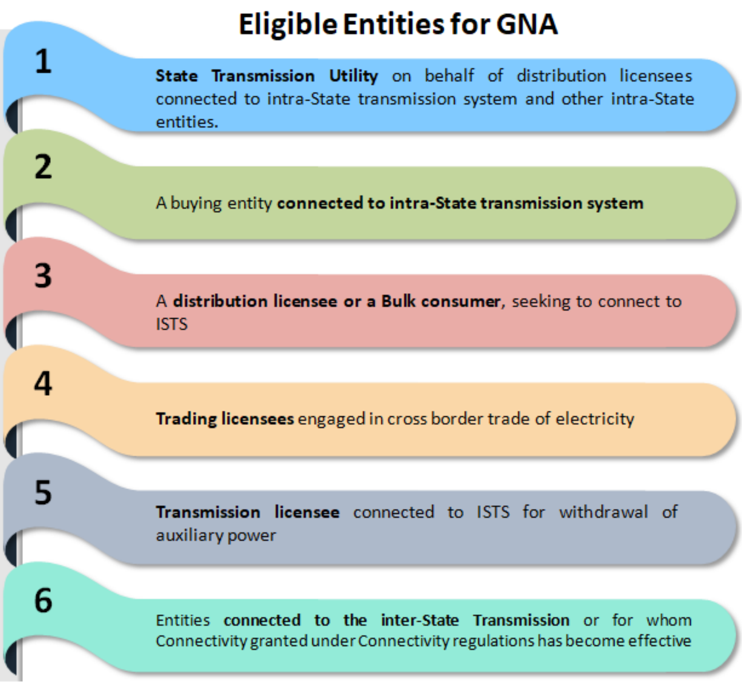
Why in news?

Central Electricity Regulatory Commission issued draft Connectivity and **General Network Access** to the inter-State Transmission System Regulations, 2021.

What is General Network Access (GNA)?

- GNA means **open and non-discriminatory access** to the inter-State transmission system.
- Keeping with the concept of **"one nation, one grid"**, it does away with **unnecessary contracts** between power **producers and the bulk consumers** for delivery of power.
- The producer will have right to access to any consumer as far as the quantum contracted is met.
- Central Electricity Authority initiated the **idea of GNA** for:
  - **Proper planning** of transmission system and
  - Assured recovery of **transmission charges** from the applicant.

About the Regulations



- **Regulations** provide for a **regulatory framework** to facilitate **non-discriminatory open access** to licensees or generating companies or consumers for use of **inter-State transmission system** (ISTS) through General Network Access and **consolidate the related regulations**.
  - These regulations will be notified by **the Central Commission**.
- **Entities eligible for connecting to ISTS:** Types of **Generating stations, Captive generating plants, Standalone Energy Storage Systems (ESS)** and **Renewable Power Park Developer.**
- **Dedicated transmission lines** by entities if connectivity is granted to a **generating station or a captive generating project, or a standalone ESS**.
  - In the case of a renewable power park developer, the dedicated transmission lines will be **developed, owned, and operated by the developer.**
- **Grant of GNA to entities other than STU:** Entities granted c**onnectivity to ISTS will be deemed to have been granted GNA**, equal to the quantum of connectivity from the start date of connectivity.
- **Temporary GNA (T-GNA):** Certain entities like Distribution licensee or Bulk consumer directly connected to ISTS, Captive generating plant etc are eligible to apply for T-GNA to ISTS.

Benefits of GNA

- **Help power generators** to focus only on producing power and remove **Consumers** worry about **where the supply will come from and what energy source** it will come from.
- **Support Renewable Energy programme** by overcoming transmission constraints.
- **Encourage investments in transmission segment** through **hassle-free access to the ISTS** network to renewable energy generators.
- Ensure **reliable transmission access** to power utilities; Empower state power distribution and transmission companies to **determine their transmission requirements and build them**; **Optimize States power purchase costs**; and Enable **development of deeper power markets.**

Challenges in utilizing the GNA

- **Difficulties to forecast demand** because of **uncertainty in the assessment of demand.**
- **Emerging areas of demand:** A growing trend towards the **electrification of transport, agriculture and cooking** is further likely to **increase demand uncertainty** in the coming years.
- **Variability in consumer's choice** and Variability of supply **due to the growth of renewable**.

Related news

Cabinet has approved ₹12,000-cr for second phase of Green Energy Corridor (GEC) for Intra-State Transmission System (InSTS)

- GEC project **aims at synchronizing electricity produced from renewable sources,** such as solar and wind, **with conventional power stations** in the grid.
  - Purpose is **to evacuate large-scale renewable power**, by installing transmission lines and substations and improvement of grid in implementing states.
- **GEC- Phase II will help supply 20 GW** of renewable energy (RE) to national grid from Gujarat, Himachal Pradesh, Karnataka, Kerala, Rajasthan, Tamil Nadu and Uttar Pradesh.
  - **GEC- Phase I**, under implementation in 8 states (Andhra Pradesh, Gujarat, Himachal Pradesh, Karnataka, Madhya Pradesh, Maharashtra, Rajasthan and Tamil Nadu), **will help supply around 24GW of RE by 2022.**

Significance

With India already **achieving its 2030 milestone** (Committed at COP-21 in Paris) of **40% installed capacity of RE (157.32 GW out of 392.01 GW)**, the GEC will help India to-

- **Achieve 450 GW installed RE capacity by 2030** and **long-term energy security** through promotion of **ecologically sustainable growth** by **reducing carbon footprint.**
- Generate jobs for both **skilled and unskilled personnel** in power and related sectors.
- **Ensure huge injection of electricity into the national grid** from intermittent RE sources doesn't threaten the grid.

10.1.2. REFORMS-BASED AND RESULTS-LINKED, REVAMPED DISTRIBUTION SECTOR SCHEME

Why in News?

Recently, the Union Cabinet has approved a Reforms-based and Results-linked, Revamped Distribution Sector Scheme.

About the Scheme

- **Aim:** To **improve the operational efficiencies and financial sustainability** of all DISCOMs/ Power Departments **excluding Private Sector DISCOMs.**
- It will provide **conditional financial assistance to DISCOMs** for strengthening of supply infrastructure.
- **Eligibility for Funding:** DISCOMs have to score a minimum of 60% of marks and clear a minimum bar in respect to certain performance parameters like:
  - aggregate technical and commercial (AT&C) losses;
  - average cost of supply (ACS)-average revenue realised (ARR) gap;
  - infrastructure upgrade performance; consumer services;
  - hours of supply;

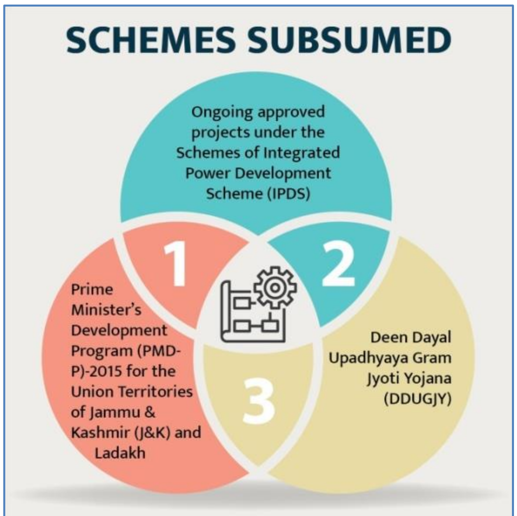
OBJECTIVES OF SCHEME

- Reduction of AT&C losses to pan-India levels of 12-15% by 2024-25.
- Reduction of ACS-ARR gap to zero by 2024-25.
- Improvement in the quality, reliability, and affordability of power supply to consumers through a financially sustainable and operationally efficient Distribution Sector.
- Developing Institutional Capabilities for Modern DISCOMs

Aggregate Technical and Commercial Losses (AT&C)

- Technical losses represent the power that goes to waste during transmission and distribution with theft also playing a part.
- Commercial losses include the failure to realise revenues due to inefficient billing and collection and payment defaults.

- Corporate governance, etc.
- **Time period**: The Scheme would be available till the year **2025-26.**
- **Nodal agencies for implementation of the scheme**: REC Limited (formerly Rural Electrification Corporation Limited) and Power Finance Corporation (PFC).
- **Financial Outlay:** ₹3,03,758 crore with an estimated **Gross Budgetary Support (GBS) from Central Government** of ₹97,631 crore.



* The funds for identified and approved ongoing projects under these Schemes would be available till 31 March, 2023.

Financial assistance

- **Prepaid Smart metering:** Grant of ₹900 or 15% (whichever is lower) of the cost per consumer meter for the whole project (₹1350 or 22.5% for Special Category States or SCS).
- **Works other than Smart metering:** Maximum financial assistance of 60% of the approved cost for DISCOMs (90% for SCS).
  - DISCOMs can also avail of an additional special incentive of 50% of the aforementioned grants if they install the targeted number of Smart meters by December 2023.

Components of the scheme

Components	Provisions
Consumer Meters and System Meters	• **Prepaid Smart Meters for all consumers** except Agricultural consumers • **Prioritizing of urban areas, UTs, AMRUT cities, Government offices and High Loss areas** for prepaid Smart metering • **Communicable AMI (Advanced Metering Infrastructure) meters** proposed for all Feeders and Distribution Transformers **Potential Benefits:** • Enables **energy accounting for DISCOMs** leading to **better planning for loss reduction.** • Strengthen DISCOMs to provide better service to consumers and cover **~25 crore consumers** to be covered under prepaid Smart metering. • Allows consumers to **monitor their electricity consumption** on a routine basis instead of monthly basis.
Feeder Segregation	• **Focus on funding for feeder segregation for un-segregated feeders.** • Convergence with the Pradhan Mantri Kisan Urja Suraksha Evem Utthan Mahabhiyan (PM-KUSUM) Scheme to solarise all feeders. **Potential Benefits:** • Solarization of feeders will lead to cheap/ free day time power for irrigation and **additional income for the farmers.**
Modernization of Distribution system in urban areas	• Supervisory Control and Data Acquisition (SCADA) in all urban areas • Distribution management system (DMS) in 100 urban centers **Potential Benefits:** • **AI would be leveraged** to analyze data to enable DISCOMs to take informed decisions on loss reduction, demand forecasting, Time of Day (ToD) tariff, Renewable Energy (RE) Integration and for other predictive analysis.

10.1.3. SMART METERS

Why in News?

Recently, State Electricity Regulators decided to mandate deployment of **prepaid smart meters** by DISCOMs.

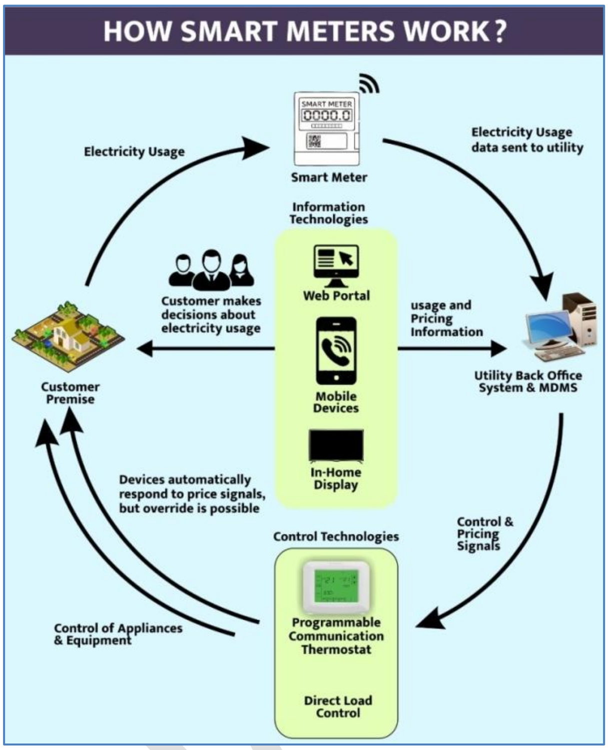
More on News

- Aimed at **bringing down electricity losses**, the DISCOMs will deploy prepaid smart meters for below mentioned consumers by **December 2023**-
  - All UTs, electrical divisions with above 50% consumers in urban areas with power losses above **15%** in FY19-20 and other electrical division with above 25% losses in FY19-20.
  - In all **government offices at block and above level** and **all industrial and commercial consumers.**
- **In all other areas** (except for agriculturalists), the deadline has been set as **March 2025.**

- Also, all feeders will be provided with meters having **Automatic Meter Reading (AMR) facility by December 2022.**

About Smart Meters

- Smart meter is a digital meter with ability to **track and control energy consumption.**
- **Advanced Metering Infrastructure (AMI)** is one of the key essentialities for implementing Smart Metering.
- Smart Meters also enable the idea of Net Metering.
  - **Net Metering** refers to a system where one can produce and sell the electricity to the grid and buy the same from the grid when needed (a prosumer). Here Net metering implies that one only pays for the net consumed electricity.



Smart Meter National Programme (SMNP)

- The **Energy Efficiency Services Limited (EESL),** established in **2009** as a **JV** between **four CPSUs** (**NTPC, REC, PFC,** and **Power Grid**) is implementing the **Smart Meter National Programme** (SMNP) in India.
- **Aim:** Replace **25 crore** conventional meters with smart meters by **2022** at **₹3 lakh crore** cost.
- All Capital and Operational expenditure for SMNP is done by **EESL** upfront (through **Build-Own-Operate-Transfer Model**), which is to be recovered from DISCOMs over a period.

About Advanced Metering Infrastructure (AMI)

- It is an **integrated system of various hardware and software components** like Smart Meters, Communication Network, Meter Data Acquisition System and Meter Data Management System, for two-way communication between utilities and customers.
- It offers **operational** and **financial benefits** like:
  - Ability to **automatically and remotely measure** electricity use in real time, connect and disconnect service.
  - **Enhanced monitoring** to detect tampering, mitigate potential cyber threat to grid.
  - **Identify and isolate outages** for faster service restoration.
- It also enables utilities to offer new **time-based rates** and **incentives-based programs** that encourage customers to reduce peak demand and manage energy consumption and costs.

10.2. COAL, OIL AND GAS

10.2.1. STRATEGIC OIL RESERVES

Why in News?

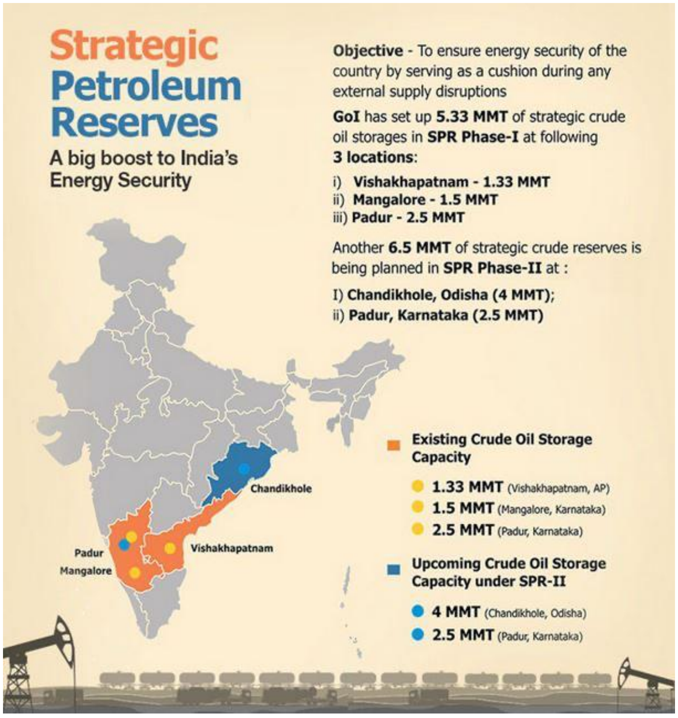
Government introduced PPP mode in Strategic Oil Reserve.

More on News

- To leverage private sector resources, a private firm or consortium will run two new underground crude oil storage facilities under Phase II of **Indian Strategic Petroleum Reserve Program (ISPRP).**

About ISPRP

- India is the 3rd **largest consumer** of energy and also 3rd **largest importer** of crude oil in the world.



- The nodal body for it is the Indian Strategic Petroleum Reserve Limited (ISPRL)
- It will help India to move towards **90 days** mandated storage by **International Energy Agency** for member countries and **mitigate supply side disruptions**.
- Under **Phase-I**, Strategic Petroleum Reserves facilities of crude oil at 3 locations- Visakhapatnam, Mangaluru and Padur have been established.
    - **Abu Dhabi National Oil Company** and **National Oil Company** from UAE joined Phase-I to store its oil in Mangalore
- Under **Phase-II**, **Chandikhol in Odisha** and **Padur in Karnataka** will have two additional SPR facilities.

About ISPRL

- It is a **Special Purpose Vehicle** created in **2004**, wholly-owned subsidiary of Oil Industry Development Board (OIDB), under the **Ministry of Petroleum and Natural Gas.**

10.3. KEY CONCEPTS AND INFORMATION FOR ENERGY SECTOR

District-Level Power Committees	• **District-level committees (DLCs)** will be set up by **Ministry of Power (MoP)** that will **oversee all power-related schemes of the union government.** o Committee will comprise **members of Parliament** (MP) in district as **Chairperson**, other MPs in the district as **Co-chairpersons**, district collector as Member Secretary, among others. o **All the States/UTs have to notify and ensure establishment** of District Electricity Committees, under intimation to MoP. • It is done to **ensure the involvement and oversight of the people** in the process of power sector reforms, and their implementation, in the country.
Market-based economic dispatch (MBED)	• To create a win-win for **both the distribution companies and the generators** with **economic savings for consumers**, the Ministry of power has circulated a discussion Paper on **Market Based Economic Dispatch (MBED)**. • MBED **is electricity market operations reform and a step towards a "One Nation, One Grid, One Frequency, One Price" framework.** • MBED model would function on **a day-ahead time horizon and schedule and dispatch** all **generation purely** on **economic principles,** subject to technical constraints**.**

11. MISCELLENEOUS

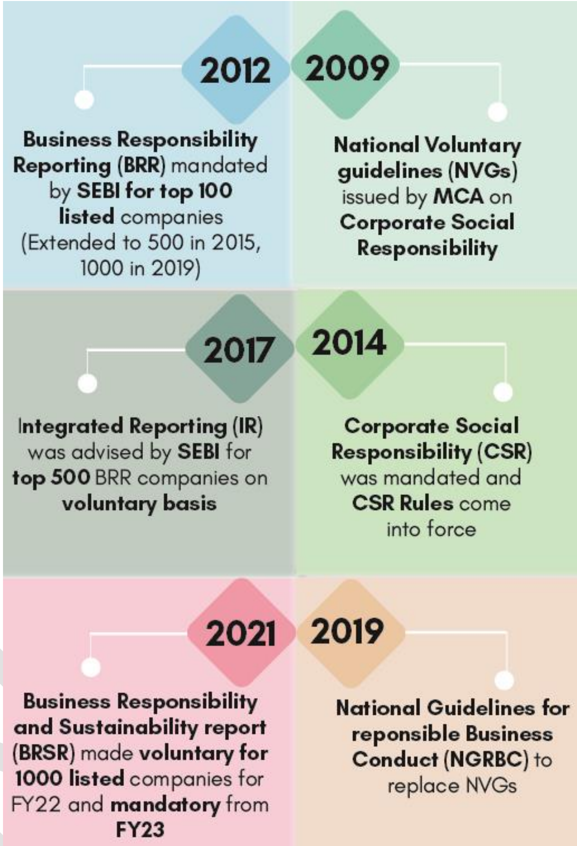
11.1. SUSTAINABLE BUSINESS PRACTICES

Why in News?

Recently, the **Federation of Indian Chambers of Commerce and Industry (FICCI)** organized an event on the role of '**Business Responsibility and Sustainability Report' (BRSR)** in driving climate actions in India at the **CoP26 (Glasgow).**

About Business Responsibility and Sustainability Reporting

- Increased **global push** from **investors** has lead to **mandating companies** to report their **sustainability performance** globally from regulators.
- BRSR is Indian version of **Sustainability performance**, or **ESG disclosures** introduced by **SEBI** in **May 2021** to push for disclosures on **non-financial parameters** from listed companies along with **mandatory financial disclosures**.



What is BRSR and its principles?

- BRSR includes **essential (mandatory) and leadership (voluntary)** disclosures related to **Environment, Social and Governance (ESG)** under the **SEBI (Listing Obligations and Disclosure Requirements) Regulations, 2015.**
  - Presently, it is reported **voluntarily by few companies.**
- It is segregated into three sections- **General disclosures, Management disclosures** and **Principle-wise performance disclosures,** with **nine principles,** to measure the impact of companies on **economy, environment and people** using some **key performance indicators.**

KEY PERFORMANCE INDICATORS

ENVIRONMENTAL	SOCIAL	CORPORATE GOVERNANCE
GHG Emissions	CEO Pay Ratio	Board Diversity
Energy and Emission Intensity	Gender Diversity	Board Dependence
Waste management	Gender Pay Ratio	Ethics and Anti-Corruption
Water Usage	Global Health and Safety	Data Privacy
Climate Risk Mitigation etc.	Human Rights etc.	Disclosure practices etc.

Major Global standards on Reporting of Sustainability

- **GRI Standards** by Global Reporting Initiative (GRI), an independent, international organization,
- **Sustainability Accounting Standards Board (SASB),** also by Value Reporting Foundation, a global nonprofit organization,
- **ISO 26000 Standards** on social responsibility by International Organization for Standardization, an independent, non-governmental international organization.
- **United Nations Global Compact,** world's largest voluntary corporate sustainability initiative based on universal sustainability principles.

11.2. NOBEL PRIZE IN ECONOMICS

Why in News?

This year's **Sveriges Riksbank Prize in Economic Sciences 2021** was given to three economists for two ground-breaking works using 'natural experiments' by the Royal Swedish Academy of Sciences.

More on news

- One half of the Prize was given to **David Card** "for his empirical contributions to labour economics" and
- Other half was jointly given to **Joshua D. Angrist and Guido W. Imbens** "for their methodological contributions to the analysis of causal relationships".

About the prize winning research

- David Card used **"natural experiments" (situations arising in real life that resemble randomised experiments)** to analyse the labour market effects of minimum wages, immigration and education; giving results as:
  - Increasing the minimum wage does **not necessarily lead to fewer jobs.**
  - Incomes of people who were born in **a country can benefit from new immigration,** while people who immigrated at an earlier time risk being negatively affected.
  - **Resources in schools are far more important for students'** future labour market success than previously thought.
- The **methodology to interpret data** and draw conclusions from natural experiments was given by **Joshua Angrist and Guido Imbens.**

About Sveriges Riksbank Prize

- It was established in **1968** by the **Central Bank of Sweden - Sveriges Riksbank**, in memory of **Alfred Nobel**, founder of the Nobel Prize
- The Prize is based on a **donation received by the Nobel Foundation** in 1968 from Sveriges Riksbank on the occasion of the Bank's 300th anniversary.
- In 1969, first prize in economic sciences was awarded to **Ragnar Frisch** and **Jan Tinbergen**.

11.3. ONE NATION ONE STANDARD

Why in News?

Recently, Research Design and Standards Organisation (RDSO) of Indian Railways has become the **first Institution to be declared Standard Developing Organization (SDO)** under "One Nation One Standard" mission of BIS (Bureau of Indian Standards).

About WTO-Technical Barriers to Trade (WTO-TBT)

- **India is a signatory to WTO-TBT Agreement** under which it is to be ensured that the Central Government, State Government and non-Governmental Standardisation Bodies operating within India as well as regional standardisation bodies within India accept and comply to the Code of Good Practice for the Preparation, Adoption and Application of Standards provided in the Annex 3 of the WTO-TBT Agreement.

More on News

- Partnership will help RDSO, the sole R&D wing of the railway ministry, to realign its **standard formulation procedures** as per the **code of good practices mentioned under the WTO-Technical Barriers to Trade (WTO-TBT).**
- RDSO took the initiative to seek recognition as a SDO **under the BIS SDO Recognition Scheme.**
  - Under the scheme, BIS envisages the recognition of the other SDOs **for attaining the vision of "One Nation One Standard".**

Initiatives taken for standardisation in India

- **Indian National Strategy for Standardization:** It considers the current state of development across sectors, the existing quality infrastructure and the policy directions in relation to domestic economic developments and for trade in goods and services.
- **Formulation of Indian Standards is one of the core activities of BIS.** The activity is done through 17 Division Councils representing diverse areas of economy and technology such as Civil engineering, Electrotechnical, chemical, services etc.
- **Pahchan Initiative:** To organize and standardize the Indian Handicrafts, Government has registered approximately 22.85 lakhs artisans under Pahchan initiative.
- **Quality Control Orders (QCOs**): For ensuring availability of quality products to consumers, QCOs are issued by various Ministries/Departments.

About One Nation, One Standard (ONOS)

- Aim is to synergize standards adopted by various SDOs in the country. The idea is **to develop one template of standard for one given product instead of having multiple agencies set it.**
- Currently, **BIS is the only national body that frames standards.** But different Institutions and PSUs also develop standards in their specific domains.
  - For example, the Food Safety and Standards Authority (FSSAI) set standards on food, while Automobile Research Organisation of India makes standards for the automobile sector.

Some standards applied in India

Mark	Certifying Agency	Description
ISI mark	BIS	It is mandatory for a number of products, especially electronic goods. But in cases of other manufactured products, it is voluntary.
BIS Hallmark	BIS	It verifies that the jewellery conforms to the standards which are set by BIS.
Fruit Products Order (FPO) mark	Ministry of Food Processing Industries	It is a certification mark mandatory on all processed fruit products sold in India following the Food Safety and Standards Act of 2006.
Indian Organic certification	Agricultural and Processed Food Products Export Development Authority (APEDA).	It is a certification mark for organically farmed food products manufactured in India.
Agricultural Marketing (AGMARK)	Directorate of Marketing and Inspection	It is legally enforced in India by the Agricultural Produce (Grading and Marking) Act of 1937 (and amended in 1986).