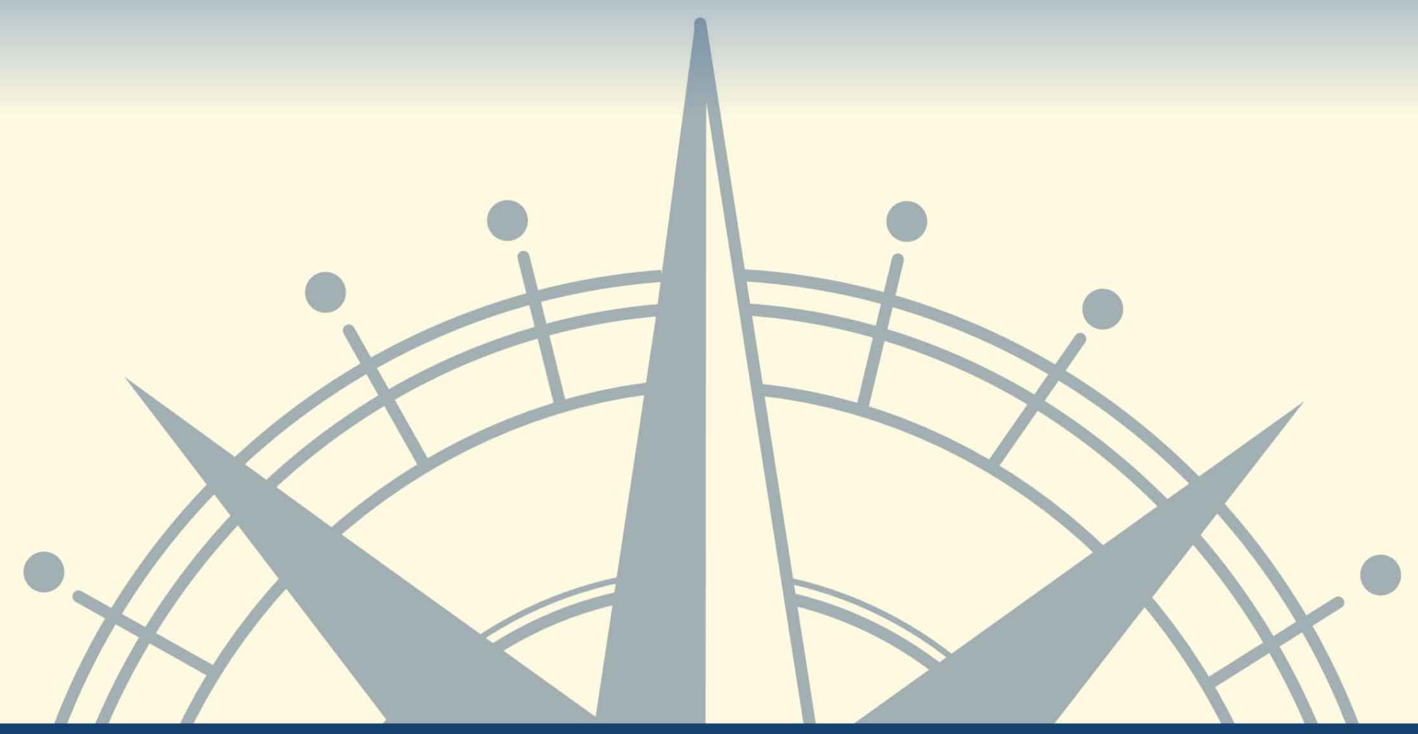
IAS COMPASS OF

ECONOMY

CURRENT AFFAIRS COMPILATION
UPSC CIVIL SERVICES
MAINS EXAM



RAU'S IAS STUDY CIRCLE

Since 1953

Preface

Dear Aspirants,

Indian economy is one of the most dynamic topics of civil services exam syllabus (especially mains). Its syllabus covers a wide variety of topics and needs good understanding of basics as well. It is also seen that most of the aspirants fear this topic, and they keep running from pillar to post to get some clarity and more often than not their struggle continues for 2-3 attempts.

We, at Rau's IAS, understand this problem and hence, we have prepared Economy Mains Compass which delivers EXAM CENTRIC, ISSUE BASED COMPREHENSIVE ANALYSIS which is can be used by aspirants to answer any question on that topic after adjusting the requirement of the question tag.

We have also tried to maintain high level of preciseness/brevity in the content by focusing on point wise approach and covering all dimensions of the topic in one place. This will help you go through the content very fast, and it will be very easy for you to revise everything multiple time before you take the actual examination.

We strongly recommend that you use the Mains Compass of Economy in tandem with Mains QIP and Mains Test Series of Rau's IAS. This will help you to unleash the full potential of this course and we assure you that you will score your best in the mains exam.

All the best!!!

Rau's IAS Team

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1 CHAPTER AGRICULTURE AND ALLIED SECTOR

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ENHANCING INPUT USE EFFICIENCY IN AGRICULTURE

1. *Land*
2. *Water*
3. *Micro-Irrigation- Initiatives, Challenges and Way Forward*
4. *Subsidies vs. Public Investment*
5. *Agricultural Credit*
6. *Critical Analysis of Fertiliser Subsidy Regime*
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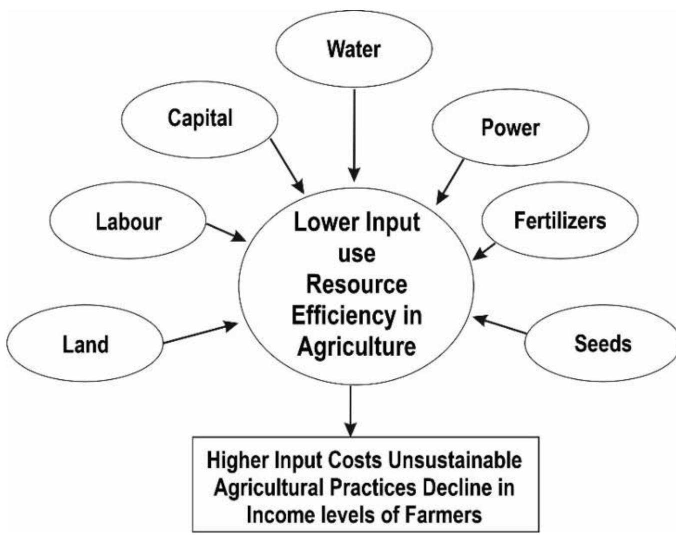
48. *Organic Farming- Status, Initiatives, Challenges and Way Forward*
49. *System of Rice Intensification*
50. *Sahakar-Se-Samriddhi: From Cooperation to Prosperity- Challenges and strategies*

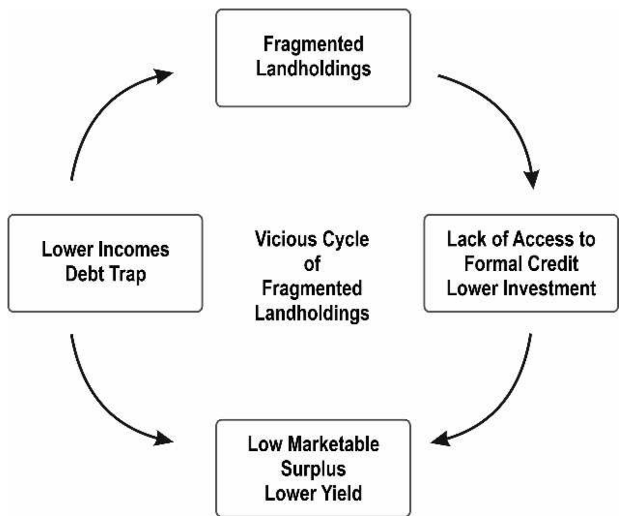
ENHANCING INPUT USE EFFICIENCY IN AGRICULTURE

According to Dalwai Panel, to double farmers' income, agriculture should be treated as an enterprise with focus on 3 aspects- Reducing Input costs, Enhancing Productivity and higher prices. Agricultural inputs need to be efficiently utilized to fulfill dual objectives- Increased income and Sustainable agriculture.



1. LAND

ISSUES: Net sown area is around **141 mha as against total geographical area of 328 mha**. However, the small and marginal farmers accounting for 83% of farmers own 48% of agricultural land. The average size of landholding has consistently reduced to 1.15 ha in 2011. This highlights the high level of fragmentation in the landholdings leading to multiple problems as shown below:



TENANCY IN AGRICULTURAL LAND

Concept of Tenancy: Land Leasing enables the farmers to lease out their agricultural lands to other farmers, landless, sharecroppers, tenants leading to agricultural efficiency, equity, and power reduction.

Background: The land leasing has been an integral part of Land reforms in India. The land Reforms after India's Independence focussed on (i) abolition of intermediaries, (ii) abolition or regulation of tenancy and (iii) imposition of ceilings on land holdings and redistribution of ceiling surplus land. However, the main objective to achieve high levels of efficiency and equity has been achieved only partially.

Present Status: Most state governments have either legally banned or imposed restrictions on agricultural land leasing. Restrictive clauses in the tenancy laws of various states include period of lease, regulation of rent, conditions for termination of lease, conferment of ownership rights on tenants etc.

Case for Legalisation of Land Tenancy: Restrictive land leasing laws have proved to be anti-growth and anti-poor on account of following reasons:

- Informal and Oral Tenancy – Tenants do not have access to institutional credit, insurance etc. and are prone to exploitation.
- Oral and informal tenancy discourages the tenants from making investment in land improvement.
- Reduced the occupational mobility of many landowners who have interest and ability to take up employment outside agriculture and yet are forced to stay in agriculture due to the fear of losing land if they lease out and migrate.
- Many landowners prefer to keep the land fallow due to the fear of losing land rights if they lease out. This leads to underutilisation of land. The lifting of ban or restrictions on leasing will result in better utilization of the available land and labour and increased farm output.
- Higher Equity and Economic justice as the land leasing enables the poor to have access to land and improve their income levels.

NITI Aayog has pointed out that "***Lease farming is an economic necessity and not a symbol of feudalism, as it was thought before*".** Earlier, Ban or restrictions on leasing were imposed to prevent exploitation of tenants. But now the situation has changed. The rural poor have become politically more powerful through panchayat raj institutions. A formal tenancy relationship would not be exploitative, rather it would improve their bargaining power and enable them to get out of poverty trap.

WHAT MUST BE DONE?

- Incentivise states to adopt Model Agricultural Land Lease Act, 2016.
- Modernisation of land records to facilitate land leasing
- Promotion of Contract farming by organising tenant farmers into Farmer Producer Organisations (FPOs)
- Presently, Tenants are not covered under various Government schemes such as PM-KISAN. Hence, states should have a digital database of tenants that can be used to extend benefits under various schemes and programmes.
- Set up of Land Banks at Village level.

2. WATER

PRESENT STATUS: Agriculture accounts for more than 80% of water consumption, out of which share of groundwater is quite high (60%). 52% of area is rain-fed wherein yield is almost 3 times lower.

NEED FOR ENHANCED WATER-USE EFFICIENCY IN AGRICULTURE: According to NITI Aayog's Composite Water Management Index (CMWI) report, India is facing worst water crisis in its history. By end of 2030, demand for drinking water will outstrip the supply. Almost 2.4 lakh people die every year due to lack of access to safe and clean drinking water. Water crisis could potentially lead to economic loss of around 6% of GDP.

PROBLEMS IN CURRENT WATER MANAGEMENT

- **Substantial area under rainfed**: About 72 million hectares (Mha) of net sown area (52%) is still completely dependent on rainfall. Rain-fed agriculture is 3 times less productive.
- **Regional imbalance**: Temporal and spatial variations in rainfall and water availability in the country.
- **Sub-optimal utilization of created facilities**: Wide gap between irrigation potential created (IPC) and irrigation potential utilized (IPU) due to- inadequate maintenance of canal system, lack of participatory management, changing land use pattern, deviation from the designated cropping pattern, soil degradation and delay in command area development.
- **Improper crop and cropping system**: High proportion of cultivated area under water guzzling crops like rice, sugarcane etc. India is net water exporting country as it exports

more water intensive crops like rice, wheat etc. and it import less water intensive crops like pulses (Eco Survey 2015-16)

- **Imbalanced use of ground water:** The Easement Act, 1882, provides every landowner with the right to collect and dispose all water under the land and on the surface. This means that the owner can dig wells and extract water based on his discretion. Additionally, landowners are not legally liable for any damage caused to water resources because of over-extraction.
- **Free power** available to farmers has also led to over-exploitation.
- **Water logging and soil salinity** due to over-use of surface water.

HOW TO ADDRESS THESE PROBLEMS?

- **Enhancing water efficiency in Irrigated areas:** Reduce the difference between IPC and IPU through Proper maintenance of canals, Formation of water user associations, Rationalization of water tariffs, Changes in cropping pattern, micro-irrigation
- **Enhancing water efficiency in rain-fed areas**: Rainwater harvesting- Check Dams, Convergence between MGNREGA and water conservation, Desilting of ponds and water bodies. Conservation agriculture- Artificial and Natural Mulching, Zero Tillage
- **Optimum Utilization of Ground water**:
  - Adoption of Model Bill to Control and regulate the Extraction of Groundwater- Setting up of Groundwater Regulating Authority, Compulsory registration of bore well-owners, Compulsory permission for sinking a new borewell, Restrictions on the depth of borewells etc;
  - Replication of Andhra Pradesh Farmer Managed Groundwater Systems (APFAMGS) - Joint Management of Aquifers, Induce behavioral change, Self-Regulation of groundwater extraction;
  - Rationalization of power subsidies; Separation of feeder lines.
- **Promotion of Micro-Irrigation techniques** such as drip and sprinkler irrigation.

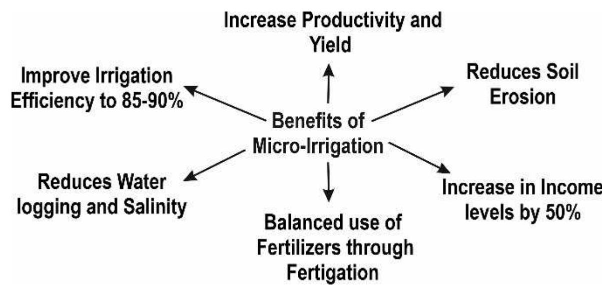
3. MICRO-IRRIGATION- INITIATIVES, CHALLENGES AND WAY FORWARD

Micro irrigation (MI) systems (sprinkler, drip) promote precision farming by making water available to root zone of crops. MI holds immense potential in addressing dual challenges - Sustainability and Declining Income Levels. MI has multi-faceted benefits- Efficient deployment of inputs such as water, electricity, fertilizers, labour, higher crop productivity, better quality of produce etc. resulting in increased income. According to Dalwai Panel, MI can lead to **40% Water Savings, 45% increase in productivity and 50% increase in income.**

GOVERNMENT INITIATIVES

- **Pradhan Mantri Krishi Sinchayee Yojana (PMKSY):**
  - **Har Khet Ko Paani:** Providing end-to-end solutions in Irrigation supply chain.
  - **Per Drop More Crop:** Promotion of Drip Irrigation and Sprinkler Irrigation.
- **Micro-Irrigation Fund (MIF):**
  - Managed by NABARD with corpus of Rs 5000 crore.

- States can avail the fund to in order to subsidise the farmers for adoption of micro-irrigation techniques



MICRO-IRRIGATION IN INDIA	
Challenges	**Strategies**
Area under MI has remained at 10 Mha against the potential of 70 Mha on account of following reasons: • Highly subsidized canal water and electricity • High initial capital and fragmented land holdings • Lower subsidy (55%) for marginal farmers under PMKSY for the adoption of Micro-irrigation. • No Major role of Banks in providing credit • No after-sale services such as removal of clogging in pipes • Frequent power outages • Dismantling of MI structure after every crop damages the equipment • Mainly concentrated in Western and Southern India • Used only for few selected crops	• Implement recommendations of Dalwai panel such as increase in annual coverage by 2.5 Mha, making MI compulsory agenda in all forms of irrigation - flow, lift. Ponds etc. • Educate farmers on highlighting benefits of Micro-irrigation. • Certain states in India have made usage of micro irrigation systems mandatory for water guzzling crops such as sugarcane. This initiative could also be taken up at the national level with the inclusion of other water guzzling crops. • Special scheme to provide loans to small and marginal farmers for the adoption of Micro-Irrigation

4. SUBSIDIES VS. PUBLIC INVESTMENT

Public Investment in agriculture refers to long term investment in agriculture that benefits **all farmers (inclusive), environmentally sustainable, address the structural problems of agriculture** and enhances income of farmers. Examples include expansion of irrigation, investment in marketing infrastructure, Cold chain infrastructure, R&D for improved Seed varieties, technologies etc., financial support to SHGs, Promotion of mechanization etc.

Present Status: Firstly, the total Investment in Agriculture is only around 15% of agricultural GDP. This is much lower as compared to Gross Investment rate of 30% of India's GDP. Secondly, out of total investment of 15% of agricultural GDP, the share of Government Investment is only around 3%, the rest 12% investment comes from farmers and private sector.

Problems: The Government expenditure on agricultural subsidies such as MSP, water, power, fertilizers, loan waivers etc. is as high as 8.2% of Agri-GDP. These Subsidies are

not inclusive (Mainly benefit rich farmers), not environmentally sustainable (Excessive water consumption, imbalanced fertilizer consumption, soil degradation etc.), create distortions (Free power- Huge loss to DISCOMs; MSP- artificial scarcity of food grains, higher focus on cultivation of water-intensive crops, lack of diversification etc.) and do not address the structural problems of Indian agriculture.

What should be done? Rationalize the Agricultural subsidies; Targeting of subsidies through DBT;

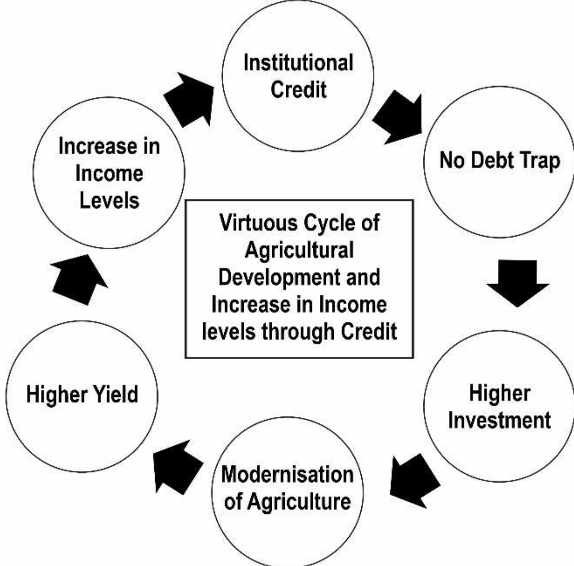
5. AGRICULTURAL CREDIT

Importance: Meet the Credit needs of poor marginal farmers; Prevents Debt Trap; Improves access to agricultural inputs; Enhances Investment in agriculture; Enhances productivity through adoption of new technologies/ mechanisation etc.; Roughly every 1 per cent increase in agricultural credit produces 0.3 per cent increase in agricultural GDP.

INITIATIVES FOR THE PROMOTION OF AGRICULTURAL CREDIT

- Nationalisation of Banks, setting up of Regional Rural Banks and NABARD
- Priority sector lending requirements.
- KISAN Credit card scheme
- Setting up of Rural Infrastructure development Fund (RIDF) with NABARD for funding of rural infrastructure projects
- Ground Level Credit (GLC) policy: Under this policy, Government announces GLC targets for agriculture and allied sector in the Union budget every year which banks are required to achieve during the financial year.
- interest subvention scheme (ISS) for short term crop loans
- On-lending wherein the banks can sanction loans to NBFCs and HFCs, who then would lend these loans to the sectors categorized as Priority sector.

Present Status: 20% growth rate in agriculture credit in the last decade; Percentage of farmer households indebted: 52%; Average loan amount: Rs 47,000; Share of Institutional Credit: 60%.



PROBLEMS IN AGRICULTURAL CREDIT

- **Lower Share of Long-term Credit**: Long term Investment loans (35%) and short-term crop loans (65%). The higher share of crop loans is on account of two reasons- (a)

interest subvention available only on short term crop loans (b) Inability of farmers to provide collateral for long term high value investment loans.

- **Share of Small and Marginal Farmers**: only 60% of the loans due to poor land records and fragmented land holdings.
- **Regional imbalances**: Higher share of southern region
- **Rising NPAs of the Banks**: Low Credit creation
- **Coercive action for repayment** leading to increase in farmer suicide cases.
- **Problems with the Priority sector lending**: Predominance of large value loans which highlights share benefit for richer farmers; concentration of agricultural loans in urban areas; March rush etc.

HOW TO ADDRESS THESE PROBLEMS?

- Set up Credit Guarantee fund trust on the lines of fund set up for MSMEs. This fund should guarantee repayment of the loans taken by farmers for long term Investment loans.
- Strict adherence to PSL guidelines: Out of 18% loans earmarked for agriculture, 10% of the loans should be given to small and marginal farmers according to RBI. A sub-limit for loans to tenant and landless farmers needs to be introduced.
- Digitization of land records to make it easier for farmers to access institutional credit.
- Saturation drives for KCC Scheme
- Mobilization of farmers into FPOs
- Special focus on unbanked regions to correct regional disparity
- Technology driven portal for the banks to facilitate ease of credit to the farmers on the lines of PSBLoansIn59 minutes to MSMEs.

6. CRITICAL ANALYSIS OF FERTILISER SUBSIDY REGIME

PRESENT STATUS OF FERTILISERS IN INDIA

India is the second largest consumer of Fertilisers. The total Fertiliser consumption has increased from 1.1 million tonnes in 1966-67 to 28 MT in 2019-20.

Import Dependence: 10 MT of Urea; 100% import in Potassic sector and 90% in Phosphatic sector in the form of either finished products or its raw material.

NEED FOR FERTILISER SUBSIDY

1. Limited scope for bringing more area under cultivation and hence productivity of existing land should increase should fertilisers.

2. Multi-Nutrition deficiencies

3. Decline in yields of crops.

4. Lower income level of farmers.

PRESENT FERTILISER SUBSIDY

Government has been providing subsidized fertilizers to the farmers since 1970s. Over the period Govt has devised separate mechanisms for Urea(N) Subsidy and Non urea (P, K) fertilizer subsidy

Subsidy mechanism for Urea: Cost-Plus method- Under this method, the MRP of urea is statutorily fixed by the Government and the difference between MRP and Cost of

production is provided to the manufacturing company as subsidy. Different amounts are given to different manufacturers based on their Cost of production.

Subsidy mechanism for Non-urea (P,K) Fertilizers: Nutrient based subsidy- Under the NBS Policy, the Government announces a fixed rate of subsidy (in Rs. per Kg basis), on each nutrient of subsidized P&K fertilizers, namely Nitrogen (N), Phosphate (P), Potash (K) and Sulphur (S). At present, 21 grades of P&K fertilisers such as DAP, MOP etc. are covered under the scheme.

For FY21, the union government fixed the rates at Rs 18 per kg for Nitrogen, Rs 14 per kg for Phosphorus, Rs 10 per kg for Potassium and Rs 2 per kg for Sulphur. Since one tonne of DAP contains 460 kg of Phosphorus and 180 kg of Nitrogen, the corresponding subsidy works out to be Rs 10,000 per tonne or Rs 500 per 50-kg bag.

Freight Subsidy: The government also provides transport subsidy to fertiliser companies. This is done through the Fertiliser (Movement) Control Order, 1973.

PROBLEMS IN FERTILIZER SUBSIDY	INITIATIVES TAKEN
Unsustainable subsidy burden- Rs 2.25 lakh crores in 2022-23. **Encourages inefficient fertiliser manufacturers** as subsidy amount paid by the Government to the fertiliser companies is difference between the cost of manufacturing and market price. The subsidy a firm receives is based on its cost of production. The greater the cost, the larger the subsidy. **Imbalanced use of Fertilisers:** Urea (Source of N) being cheaper as compared to P&K fertilisers has led to over-use of Urea. This has led to imbalanced fertilizer ratio of N:P:K (7:3:1) against the ideal N:P:K ratio of 4:2:1. Leakages: At present, the Centre is following a "no denial" policy which allows anyone to purchase non-subsidised fertilisers. Even though, there is a limit of 100 bags that an individual can purchase at one time, it does not stop anyone from buying multiple times. **Diversion and black marketing:** Urea is used as both fertiliser in agriculture and as raw material in chemical industry, explosives etc. However, Urea is only subsidised for agricultural uses. The cheaper urea available as fertiliser gets diverted towards Industries. For example, 41 per cent of urea is diverted to industry or smuggled across borders. (Eco Survey 2015-16) **Canalisation:** Only three firms are allowed to import urea into India which	**PM-PRANAM** scheme to promote natural / organic farming, alternate fertilizers, innovations like Nano Fertilizers and bio-Fertilizers to restore soil fertility. **Neem-coating of urea** so that it becomes unusable for industrial purposes and hence, diversion would be curbed. **Aadhaar authenticated invoice:** Retailers to generate an Aadhaar authenticated invoice on a point-of-sale (PoS) machine. The manufacturers would get subsidy only on submission of this electronic proof of sale. **Cap on bags per transaction** reduced from 999 bags to 100 bags in 2020. **Introduction of Sulphur coated Urea (Urea Gold)** to address Sulphur deficiency **Strategies needed** **Introduce Direct Benefits transfer** of fertiliser subsidy to the farmers' bank accounts instead of present practice of paying subsidy to fertiliser companies. **Cao on the number of subsidised baes** each household can purchase in the entire season **Decanalisation of imports** to increase the number of importers and allow greater freedom in import decision. **Brine Urea under Nutrient based subsidy** scheme to prevent market distortions. **Promote iudicious use of fertilisers** through Soil Health card and PM-PRANAM Scheme

leads to shortages during the peak demand season. **Lack of emphasis on R&D:** At present, subsidy is Riven on fertilizers depending upon the content of nutrients in the fertilizer. The present subsidy regime does not take in to account the nutrient use efficiency of the fertilizer and hence does not encourage R&D. **Adverse effect on small farmers** as they are forced to buy fertilisers in the black market due to no-denial policy and diversion. **Negative externalities** in the form of declining soil fertility, water pollution etc.	

7. ONE NATION ONE FERTILISER SCHEME

Under the new "One Nation One Fertiliser" scheme, companies are allowed to display their name, brand, logo and other relevant product information only on one-third space of their bags. On the remaining two-thirds space, the "Bharat" brand and Pradhanmantri Bharatiya Jan Urvarak Pariyojana logo will have to be shown. The single brand name for UREA, DAP, MOP and NPK etc. would be BHARAT UREA, BHARAT DAP, BHARAT MOP and BHARAT NPK etc. respectively for all Fertiliser Companies

RATIONALE BEHIND THE NEW SCHEME

Presently, the Government incurs huge expenditure on Fertilizer subsidy. However, the fertilizer companies continue to sell the fertilizers through their own brand names without giving any due credit to the Government. The new scheme will enable the Government to take credit for the fertilizer subsidy.

CRITICISMS AGAINST SCHEME

Quality of Fertilisers: As there is less scope for building unique brand identity, it may disincentivise fertilizer companies from ensuring good quality fertilisers or from undertaking marketing and brand promotion activities. Further, private players would also have little incentive to experiment with customised products or new nutrient combinations

Discourage private sector investment as they would be forced to sell the fertilisers under the common brand name.

Goes against the interest of farmers:

- Violates the right of the farmers to choose the products of their choice.
- Disincentives the fertiliser companies from undertaking extension related activities

8. NANO FERTILISERS: POTENTIAL FOR INDIAN AGRICULTURE

NANO FERTILISERS

Nano fertilizers are nutrients that are encapsulated or coated within nanomaterial in order to enable controlled release, and its subsequent slow diffusion into the soil. The Government has approved the use of Nano Urea and Nano DAP for usage in agriculture.

BENEFITS OF NANO FERTILISERS

1. **Price Advantage** - They cost less than the subsidized conventional fertilizers resulting into lower input cost for the farmers.
2. **Advantage in terms of Logistics and Warehousing** as they are easy to carry and store. A 500 ml bottle of Nano Urea can replace one 45 Kg. bag of conventional urea and thus can curtail the requirement of the same by at least 50 per cent
3. **Fiscal benefits**: Savings of Rs 22,000 crores in terms of reduced subsidy bill.
4. **Increased crop yield** of 8 % which translates into Rs. 2000 to Rs. 5000 per hectare higher income to the farmers (ICAR).
5. **Tool for doubling farmers' income** due to reduced input costs and higher productivity.
6. **Environmental benefits** in terms of better soil health, air and water.

Way forward:

- Bring production of nano fertilizers under the Production Linked Incentive (PLI) scheme.
- Promote use of Nano Fertilizer through awareness camps, field demonstrations and films in regional languages etc.
- Set up Quality testing laboratories to ensure production and sale of quality nano fertilizers.
- Promote use of nano technology based P&K fertilizers including through joint ventures abroad in countries rich in P&K.
- Rationalize/ exempt the basic customs duty on P&K fertilizer raw materials so as to incentivize setting up of nano based production plants.
- Dedicated fund for promoting nanotechnology based research activities.

9. FERTIGATION: NEED AND BENEFITS

FERTIGATION

Fertigation is the technique to apply water soluble solids or liquid fertilizers through the drip irrigation so as to reach each and every plant regularly and uniformly. It is the most effective and convenient means of maintaining optimum fertility level and water supply.

BENEFITS OF FERTIGATION

Higher nutrient use efficiency under fertigation as compared to conventional application of fertilizers to the soil.

Less water pollution: Intensification of agriculture led by the use of irrigation water and indiscriminate use of fertilizers has led to the pollution of surface and ground waters by chemical nutrients. Fertigation helps lessen pollution of water bodies through the leaching of nutrients such as N and potassium (K) out of agricultural fields.

Higher resource conservation: Fertigation helps in saving of water, nutrients, energy, labor and time.

Efficient delivery of micronutrients: Efficient use of compound and ready mix nutrient solutions containing small concentrations of micronutrients, which are otherwise very difficult to apply accurately to the soil when applied alone.

Helps in effective weed management: Fertigation helps to reduce weed menace particularly between the crop rows. Use of plastic mulch along with fertigation through drip system allows effective weed control in widely spaced crops.

10. MECHANISATION OF INDIAN AGRICULTURE

Even though agriculture sector contributes only 16% of GVA, it accounts for almost 45.7% of India's workforce. This shows high level of disguised unemployment and inefficient utilisation of Indian workforce. This needs to be countered through skilling of rural youths and promotion of agricultural mechanisation.

NEED FOR AGRICULTURAL MECHANIZATION

- The agricultural mechanization can reduce the increasing labour costs in the rural areas. It can enable the farmers to grow a greater number of crops in a single year due to reduction in the harvesting time.
- There has been feminization of Indian agriculture with women farmers accounting for almost 1/3 of the total farmers. Mechanization would help address the needs of women farmers.
- According to the Dalwai Committee, the adoption of agricultural mechanization would reduce the input costs by 25%, enhance the productivity by 20% and increase the incomes of the farmers by 25-30%.

PRESENT STATUS OF MECHANISATION

- **Farm Mechanization in India:** 40-25%; Even though India is the largest producer of tractors, a significant share of production is exported.
- **Farm Mechanization in other countries**: USA (95%); Brazil (75%); China (57%).
- **Regional Disparities**: Northern India has higher levels of mechanization compared to other regions. (Rice and Wheat crops having the largest extent of mechanization)

CHALLENGES WITH ADOPTION OF AGRICULTURAL MECHANIZATION

Dominance of Fragmented landholdings: The average landholding size has reduced to 1.23 ha. 83% of the farmers in India are small and marginal and they own around 40% of the agricultural land.

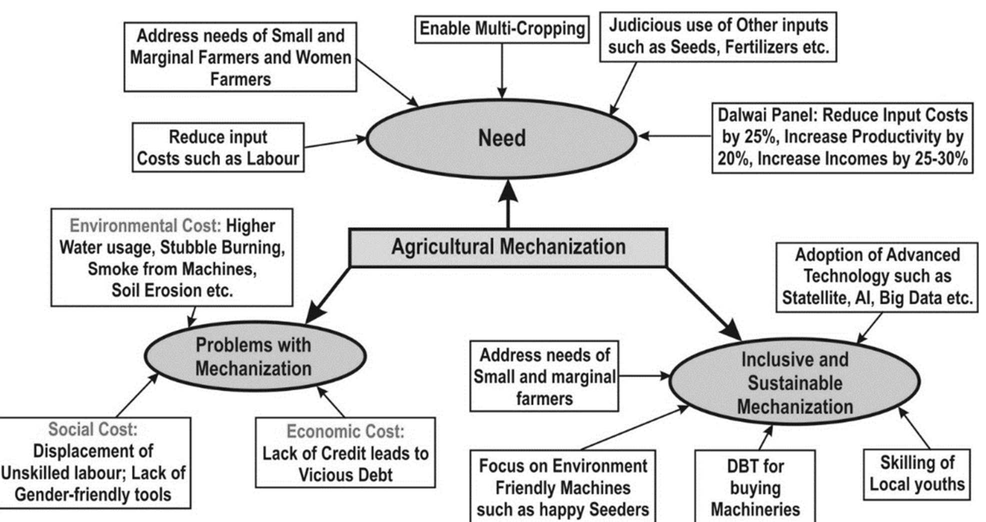
Capital Intensive: The agricultural machinery such as tractors, harvesters etc. are quite costly and hence unaffordable to the vast section of Indian society.

GOVERNMENT INITIATIVES

Sub-Mission on Agricultural Mechanization (2014): Assistance to the Farmers for procurement of agricultural machineries; Custom Hiring Centres; Demonstration of Newly Developed Agricultural/ Horticultural Equipment.

Promotion of Agricultural Mechanisation for in-situ Management of Crop residue: Implemented in Punjab, Haryana, UP and NCT of Delhi; Setting of Custom hiring centres; Financial Assistance to the farmers for buying environment friendly agricultural machinery.

FARMS (Farms Machinery Solutions) Mobile App: Facilitates the farmers to hire agricultural machineries and tools.



11. YIELD GAPS AND TOTAL FACTOR PRODUCTIVITY IN AGRICULTURE

Present Status: There exists large scale yield gaps in the Indian Agriculture. This yield gap exists at two levels — Firstly, between the best scientific practices and the best field practices, and second, between the best field practices to the average farmer practices. These yield gaps exist in almost all crops such as Rice, Wheat, Pulses, Maize, Sugarcane etc. For example, only 2 per cent of paddy and wheat growers use hybrids. These yield gaps can be increased by enhancing Total factor productivity.

Concept of Total Factor Productivity: Total Factor Productivity (TFP) measures the efficiency with which inputs are utilised. An increase in TFP would mean that inputs are more efficiently utilised through innovations and improved management techniques. An increase in TFP is associated with higher efficiency in use of the available inputs, higher output and higher profits.

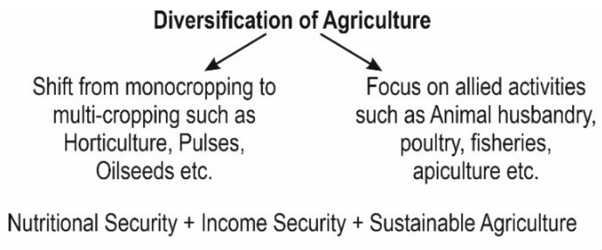
STEPS TO INCREASE TOTAL FACTOR PRODUCTIVITY

- Investment in R&D for the adoption of better technology
- Adoption of high yielding varieties of seeds
- Access to micro-Irrigation techniques
- Focus on extension activities to empower farmers through sharing information, technology, skills, farm management practices
- Balanced utilisation of fertilisers
- Thrust on Agricultural Mechanisation
- Organise farmers into Farmer Producer Organisations (FPOs) to take benefit of economies of scale.
- Improve post-harvesting infrastructure such as collection centres, warehouses, cold chain infrastructure etc.

12. AGRICULTURAL DIVERSIFICATION (RAINBOW REVOLUTION)

The phenomenal increase in production of Food grains after the Green Revolution has not translated into commensurate increase in food security. This is evident in India's poor ranking on global indicators such as Global Hunger Index (GHI). This can be attributed to

lack of diversification in agriculture, which has also led to stagnation in income levels of farmers.



Nutritional security through Diversification: Presently, the production basket of agriculture is dominated by Rice and Wheat. However, there has been shift in consumption pattern towards more protein-based foods such as Pulses, Milk, Egg, Fish, Meat etc. leading to demand-supply mismatch and thus nutritional insecurity. The diversification towards cultivation of other crops and livestock rearing would address the micronutrient deficiencies, Vitamin, iron deficiencies etc.

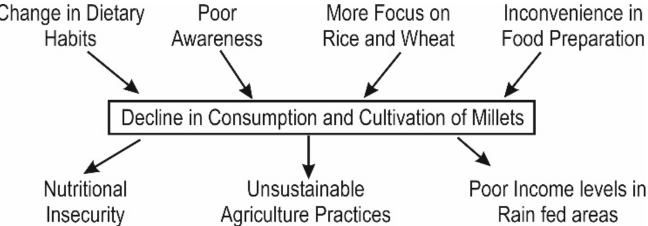
Enhancing Income levels of Farmers through Diversification: According to Dalwai panel, expansion in diversification by 1 ha could increase annual income of farmers by Rs 1 lakh on account of following reasons:

- **Higher Productivity**: The cereal crops occupy 42% of agricultural land but contribute only 20% of agricultural GDP. However, horticultural crops occupy only 14% of agricultural land but contribute 33% of agricultural GDP.
- Agricultural production would be more aligned with demand and hence fetch higher prices.
- Increase in the cropping Intensity due to shorter crop duration in comparison to Rice and wheat
- Reduction in risks and ensure constant flow of income
- Optimum utilization of land

Thus, looking at these benefits, the Government has to now focus on **Rainbow revolution** in order to bring about holistic development of all sectors- horticulture, animal husbandry, poultry, fisheries, food grains etc. This would have multiple benefits- nutritional and food security, income security for farmers and overall make agriculture more inclusive and sustainable.

13. NUTRI-CEREALS/ MILLETS

Millets such as Jowar, Bajra, ragi etc. are **dual purpose, nutrient dense, hardy and low input intensive crops** that have potential to address malnutrition and climate change, while promoting sustainable agriculture.In India, millets are grown on about **17 million ha** with annual production of **18 million tonnes and contribute 10 percent** to the country's food grain basket.



Initiatives taken by Government to address above problems include- **National Year of Millets (2018), NFSM-Coarse Cereals** etc.

HEALTH BENEFITS

- Millets are actually three to five times more nutritious than rice and wheat in terms of proteins, minerals and vitamins. Millets are rich in B vitamins, calcium, iron, potassium, magnesium, zinc, apart from being gluten-free, and low in glycaemic index (GI). These are more suitable for people with gluten allergies or high blood sugar levels.
- Reduction in Cholesterol, Sugar
- FAO has recognised importance of Millets for meeting **SDGs- 2, 3, 12 and 13**

CLIMATE RESILIENCE

- Abiotic (drought, temperature and salinity) and Biotic (pest and disease) stress tolerant
- Integral part of Conservation agriculture
- Climate change mitigation by carbon sequestration

SUSTAINABLE PRODUCTION SYSTEM

- 2.5 times lesser water requirement than rice
- Natural soil conditioner due to powerful root systems
- Multi-purpose: Food, Feed, Fodder, Biofuels and Brewing
- Potential to enhance income in rainfed areas

STRATEGIES TO PROMOTE NUTRI-CEREALS

- **Special Agribusiness Zones (SABZ) for millets**: Focus on development of particular millets which is popularly cultivated in the local areas. Examples: sorghum in Telangana, finger millet in Karnataka, pearl millet in Gujarat, and small millets in Madhya Pradesh. These SABZs can develop around FPOs, farm gate level primary processing facilities, ware housing units and value-added food products.
- **Promoting Organic Millets** to cater to increased demand of the consumers.
- **Explore Trade opportunities:** The export of Indian millets has not been up to the mark as compared to other cereal grains due to poor quality; farmers need to be educated about quality concerns at all stages of production and harvesting.
- **Federating millets farmers** as Farmer Producer Organizations (FPOs)
- **Expanding the coverage** of small millets under MSP.
- Promotion of **Contract farming** for millets

Thus, we need to focus on **supply side factors** (incentive to farmers, high yielding crops) and **demand side factors** (value addition, labelling, awareness generation, inclusion under ICDS, MDM etc.) to ensure success of Millet Revolution.

14. PULSES

India is the world's largest producer of pulses with 23 million tonnes from an acreage of 30 million hectares. The country accounts for 35 per cent global area and 27 per cent of global production. Pulses are commonly grown under rainfed condition all over India (87 per cent rainfed) during two principal seasons of the year, namely, kharif rainy season.

PRODUCTION OF PULSES

Top Pulses: Top six pulses grown in India are chickpeas (chana), pigeon pea (Arhar/tur dal), urad beans (urad dal), mung beans (moong), lentils (masoor) and peas.

Top States: Production of pulses has largely shifted from northern India to central and southern part. More than 90% of total pulses production is realized in 10 states namely, MP, Rajasthan, UP, Karnataka, AP, Gujarat, Jharkhand, CG and Telangana

Net Importer: India accounts for 25% import of Pulses across the world.

Demand-Supply Mismatch: With the rising incomes and fall in the poverty combined with greater health consciousness, the demand for pulses has run ahead of production.

GOVERNMENT INITIATIVES

- National Food Security Mission (NFSM)- Pulses: Aims to Increase Pulses production by 3 Million tonnes
- Increase in MSP
- Price Support Scheme (PSS) under PM-AASHA
- Creation of Buffer Stock of Pulses by NAFED.
- Price Stabilisation Fund Scheme to check volatility in the prices.

STRATEGIES TO BOOST PULSES PRODUCTION

Utilization of potential area of rice-fallow lands: About 30-40 per cent of the area currently left fallow after paddy harvest can be converted into productive farmlands; Additional 3 Mha of pulses and 1 Mha of oilseeds can be brought under cultivation through "Targeting Rice Fallow areas" sub-scheme under RKVY.

CHANGING CROPPING PATTERN

- Diversification: Replacement of less remunerative crops with pulses;
- Promotion of inter-cropping

INCREASING PRODUCTIVITY

- Bridge the yield gap between Pulses and other cereal crops to incentivise farmers to take up Pulses production.
- **Redesign of NFSM-Pulses**: Two categories of districts for coverage under NFSM for pulses - NFSM Pulses for general districts and NFSM Pulses+ for districts where yield levels are lower than state/national averages.
- **Strengthening storage and processing to reduce post-harvest losse**s: Pulses are vulnerable to post harvest loss which has been estimated to be the order of 20 to 30 per cent due to -Traditional dal mills resulting in low dal recovery etc.
- Bringing down duration of pulse crops through Technological interventions

15. OILSEEDS

Despite being the fifth largest oilseed crop producing country in the world, India is also one of the largest importers of vegetable oils. The demand-supply gap in the edible oils has necessitated huge imports accounting for 60 per cent of the country's requirement. For this, government has recently launched National Edible Oil Mission-Oil Palm (NMEO-OP)

IMPORTANT FACTS

Area under Oilseeds: <u>27 Mha (14% of agriculture area)</u>. It has remained almost stagnant (with slight variation) both in terms of absolute area as well as percentage of area under agriculture.

Production of Oilseeds: <u>33 MT (2019-20)</u>. The overall production has neither consistently increased nor decreased in the last decade. It has been fluctuating and has remained around 30 MT in the last decade.

Demand-Supply Mismatch of Edible Oils: Domestic requirements: 25 MT; Domestic Production: 10 MT from primary sources (Soybean, Groundnut, Sunflower etc.) and Secondary sources (Palm oil, coconut, rice bran, cotton seeds etc.). The remaining 60 per cent of requirement is met through imports.

Of imported edible oils, share of palm oil is about 60% followed by soybean oil and sunflower. India has emerged as the largest importer of vegetable oils in the world followed by China & USA.

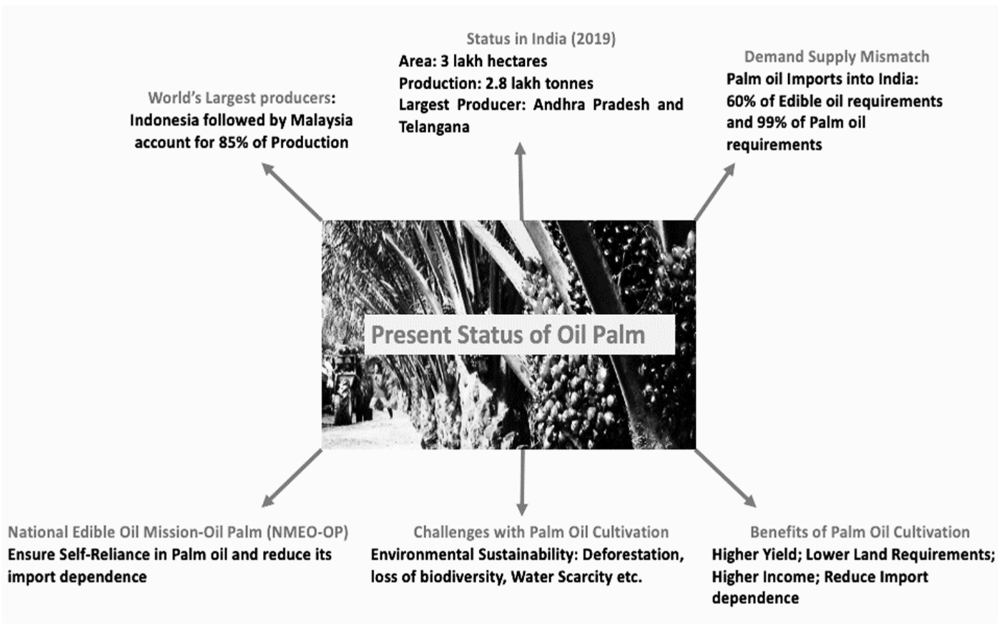
Import bill: Rs 75,000 crore (2020-21). In the current year, the import bill could go up to Rs 1 lakh crores.

INITIATIVES TO BOOST OILSEEDS PRODUCTION

- National Food Security Mission (NFSM)-Oilseeds & Oil Palm: Distribution of quality seeds, improved technologies, Distribution of micronutrients etc.
- Increase in the MSP on Oilseeds
- Guaranteed procurement through PM-AASHA

Targeting Rice Fallow Areas (TRFA) for cultivation of Pulses and Oilseeds. Once the Rice is harvested, residual moisture left in the soil is sufficient to grow Pulses and Oilseeds. Introduction of Pulses and Oilseeds in Rice fallows will not only increase production of Pulses and Oilseeds, but it will also lead to doubling farmers income.

DETAILS ABOUT NATIONAL EDIBLE OIL MISSION-OIL PALM (NMEO-OP)



OBJECTIVES

Increase area and Production: Increase area under Palm Oil cultivation from 3 lakh hectares to an additional 6.5 lakh hectares. Production of Crude Palm Oil (CPO) is expected to increase to 11.20 lakh tonnes by 2025-26.

Focus Areas:

- Price assurance to the farmers to protect them from volatility in the prices of Crude Palm oil
- Assistance to the farmers for buying various inputs such as planting material
- Special emphasis on the North-eastern States and Andaman & Nicobar Islands.

Funding: Centrally sponsored scheme- to be financed by both Centre and States.

WAY FORWARD

STRATEGY TO PROMOTE CULTIVATION OF OILSEEDS (Dalwai Panel Recommendations)

- **Increasing production** through adoption of high yielding varieties of seeds; soil and moisture conservation techniques in rainfed areas; balanced Utilisation of fertilisers; Intercropping of Oilseeds with other crops; Contract farming etc.
- **Encourage Cooperatives and FPOs** and link them to oil processing Industries.
- Reduce per capita consumption of edible oil and minimize import. Campaign for healthy oil consumption.
- **Promotion of Secondary Sources** (rice bran, coconut, cotton seed, oil palm and TBOs)
- **Enhancing capacity utilization** of domestic processing industries
- Promoting **consumption of coconut as edible oil**.

INCREASING PALM OIL CULTIVATION IN INDIA	
Benefits	**Challenges**
Aatma-Nirbhar in edible oils: Palm oil accounts for 60% of import of edible oils. 99% of domestic palm oil requirements met through imports. **Higher yield of edible oils:** One hectare of palm oil cultivation gives about 4000 kg of oil as against 500kg in case of sunflower. **Lower land requirement** as palm oil cultivation gives higher yield of edible oils in comparison to sunflower, groundnut etc. **Low maintenance costs** due to low pest and disease resistance. **Increase in income levels** of the farmers by providing year-round returns. **Boosts job creation and value addition** by giving push to Food processing Industries.	**Longer gestation period** of at least 4-5 years and hence restricts income flow to the farmers during initial years. **Smaller land landholdings:** Small holdings of farmers with limited resources. **Fluctuation in prices** in the international market. **Erratic monsoon** leading to shortage of water. **Competition with other economically** viable crops such as rubber, arecanut, sugarcane, banana, coconut etc. **Environmental damage:** Diversion of forest land, excessive water consumption, loss of biodiversity etc. **International Experience:** IUCN: Oil palm expansion has led to deforestation, degradation of natural habitats in parts of tropical Asia and Central and South America.

16. HORTICULTURE SECTOR- NEED FOR GOLDEN REVOLUTION

The horticultural sector covers six categories, namely pomology (fruits), olericulture (vegetables), floriculture (flowers), plantation crops, spices, aromatics and herbal medicines.

IMPORTANCE

- High value crops due to higher demand from consumers due to greater awareness of nutritional benefits.
- Higher returns per unit of land as compared to cereal crops and hence beneficial for small and marginal farmers. - **Replacing 1 hectare of staple crops with horticultural crops increases annual income by Rs 80,000. (Dalwai Panel)**
- Ensures Nutritional security by overcoming vitamin and micronutrient deficiencies
- Being labour intensive, generates more employment opportunities.

- Boosts secondary agriculture by developing cottage-based Industries.

PRESENT STATUS OF HORTICULTURE: India is the second largest producer of fruits and vegetables globally; second largest producer and exporter of Spices. Occupying only about 14 per cent of agricultural land, horticulture contributes more than 33 per cent to the agricultural GVA.

Area: 25 Mha; Production: 300 MT; Contribution to Agri-GDP: 33%; Productivity: 12.5 tones/ha (Food grains- 2.25 tones/ha)

GOVERNMENT INITIATIVES

Mission for Integrated Development of Horticulture (MIDH): High density plantations, protected cultivation, micro-irrigation, quality planting material, rejuvenation of senile orchards, and post-harvest management and marketing.

CHALLENGES IN HORTICULTURE

- Higher Capital requirements
- Longer sowing to harvest cycle for some of the fruits such as Apple, Guava etc.
- Large scale prevalence of old and senile orchards impacts productivity. Majority of the orchards also have low planting density.
- Availability of quality seed and planting material impacts quality of produce.
- Poor tree canopy management.
- Rainfed cultivation, with majority of the horticultural cultivation having no access to irrigation.
- Initial cost constraints in adoption of improved technologies.
- Facilities for post-harvest management have not kept pace with production growth.
- Unorganised supply chain not suitably integrated for managing perishable produce.
- Lack of appropriately trained extension services for horticulture.

STRATEGY TO BOOST HORTICULTURAL PRODUCTION

- Increasing the output through higher productivity
  - Hybrid technology for high productivity and quality- Hybrids of tomato, chilli, cucumber and muskmelon
  - Quality planting material and seed production- Creation, modernisation and accreditation of nurseries
  - High density planting system- higher yield and net economic returns per unit area, more efficient use of inputs
- Increasing the output through area expansion such as Integrated Farming system approach, Urban & Peri-urban Horticulture
- Resource use efficiency or savings in cost of production through micro-irrigation, fertigation, adoption of mechanisation to reduce labour costs
- Increase in cropping intensity by enhancing Irrigation, Crop Rotation, Mixed Cropping etc.
- Diversification towards high value crops within horticulture such as floriculture, cashew, Cocoa, mushrooms, spice and medicinal plant cultivation
- Improvement in the market access and marketing system
- Creation of near-farm occupations in post-harvest handling facilities

17. HORTICULTURE PLUS

Horticulture is considered as high value agriculture. However, within the horticultural sector, there are specific crops that can be considered as "Horticulture Plus". These include flowers, cashew, cocoa, mushrooms, spices and aromatics, etc.

PRESENT STATUS

Floriculture: Important agribusiness with immense potential for generating self-employment and entrepreneurship among small and marginal farmers in both urban and rural areas. Though, India dominates in terms of area under cultivation, yet India's yield per hectare is low. As a result, India's contribution to the global floricultural export market is very minimal.

Spices: India is the largest producer, consumer and exporter of spices and spice products in the world. As the global demand for the spices grow, farmers should diversify into high-value-plus crops like saffron, cardamom, turmeric, chillies, ginger and vanilla beans.

Cashew and Cocoa: Cashew is grown in number of states such as Kerala, Karnataka, Goa, Maharashtra, Tamil Nadu, Andhra Pradesh etc. Cashew improves the farm income and sustains employment for 1.5 million people in the cashew farming. Cultivation of cocoa is gaining momentum and is grown in states such as Tamil Nadu and Andhra Pradesh. India imports around 60% of the demand for Cocoa.

AGRICULTURE MARKETING

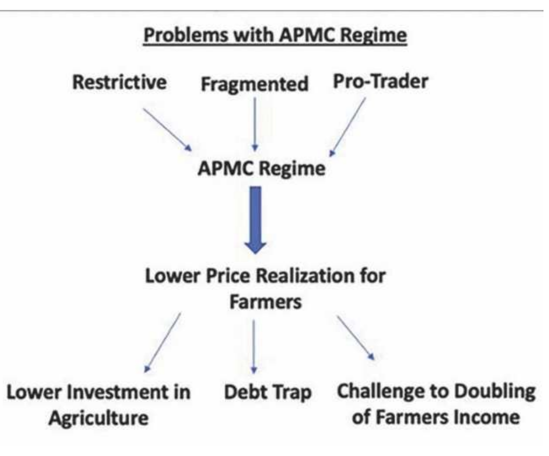
Essentially, the Indian agriculture can be considered as an enterprise with two distinct components- Production and Post-Production activities. With respect to agricultural production, India has not only become self-sufficient in terms of food production, but it has also emerged as a net exporter of agricultural products. However, the post-production activities of Indian agriculture have not kept pace with the production related activities. The quantities of marketable surplus have multiplied by almost 10 times during the last 50 years. However, the agriculture marketing infrastructure continues to remain out-dated.

18. PROBLEMS WITH AGRICULTURAL MARKETING IN INDIA

Most of the State governments enacted the Agricultural Produce Market Regulation Act (APMC Act) which authorizes the States to set up and regulate marketing. Apart from that, there are more than 22,000 Rural Markets or Grameen Haats under the control of local bodies, panchayats, APMCs, etc.

PROBLEMS WITH THE APMC REGIME

RESTRICTIVE REGIME: Under the present APMC Act, farm produce should be sold only at regulated markets through registered intermediaries. Further, the Essential Commodities Act allows central and state governments to place restrictions on the storage and movement of commodities deemed essential by governments.



FRAGMENTED AGRICULTURAL MARKETING_with about 2500 regulated APMCs, 5000 sub-market yards and thousands of Rural Markets or Grameen Haats. Hence, due to this fragmented marketing system the agricultural commodities pass through multiple middlemen and traders leading to escalation in prices and prevents farmers from getting remunerative prices.

LACK OF FREEDOM TO FARMERS to sell their produce to whomsoever and wherever they want.

LACK OF ACCESS TO APMCS: An average APMC in India serves an area of around 450 sq.km as against the recommendation of 80 sq. km. given by M.S. Swaminathan Committee. On account of this, the farmers are forced to sell their produce at lower prices outside the APMCs.

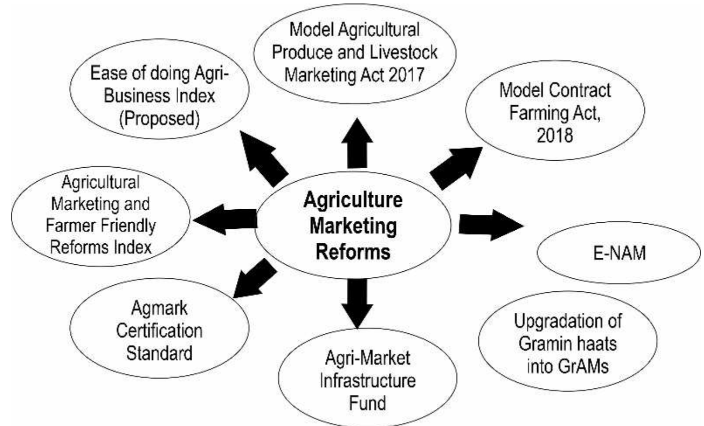
AGAINST INTERESTS OF SMALL AND MARGINAL FARMERS who are forced to sell at lower prices due to their low marketable surplus and poor bargaining power.

POOR INFRASTRUCTURE OF THE APMCs leading to improper storage and consequently higher post-harvest losses; No electronic auction platform

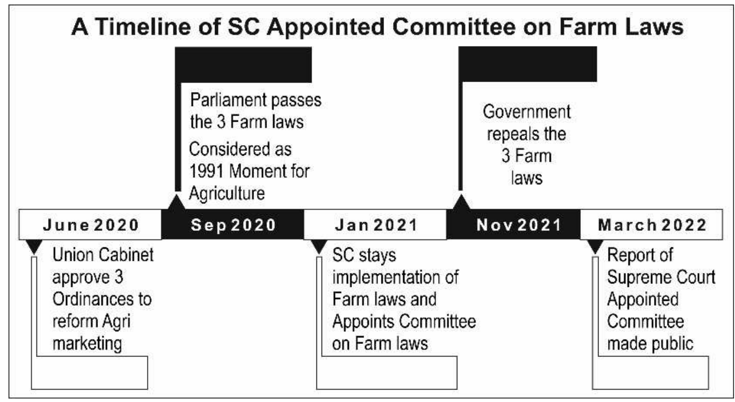
IMPOSITION OF MULTIPLE FEES IN APMCs which is estimated to be around 15% of the value of the agricultural produce; Increased prices and affect food processing Industries

Higher Post-harvest Losses in the range of 20-25% of produce accounting for Rs 92,000 crores loss.

19. ANALYSIS OF GOVERNMENT INITIATIVES



20. REPORT OF SC APPOINTED COMMITTEE ON FARM LAWS



1. FARMERS' PRODUCE TRADE AND COMMERCE (PROMOTION AND FACILITATION) ACT, 2020 (NOW REPEALED)

IMPORTANT PROVISIONS	CONCERNS RAISED
Freedom to the farmers: This act enabled the farmers to sell their agricultural produce outside the APMCs anywhere in India and thus promote barrier free inter-state and intra-state trade. This had the potential to create "One Nation, One Market". **Definition of Trade Area:** The Farmers were Riven freedom to sell their produce in the trade area outside APMCs. The trade Area included (a) farm gates (b) factory premises (c) warehouses (d) silos (e) cold storages etc. located anywhere within India. **No Market fee or cess** to be imposed on the sale of agricultural produce in the APMCs. **Dispute resolution mechanism** to be set up in the form of conciliation board by the sub-divisional magistrate.	• **Autonomy of States:** Agriculture is a State Subject and the Central Acts would override State APMC Acts. • **Exploitative:** Freedom to farmers to sell outside the APMCs would lead to exploitation by private sector. • **Phasing out of MSP:** With the decline of APMCs. the procurement at MSP would be phased out. • **Absence of Price Discovery:** The APMC prices serve as a reference price for price discovery for one's produce. If farmers sell produce outside APMCs, then it is difficult for a farmer to have a benchmark price. • **Loss of Revenues:** Various States raised the concern that mandi revenues will be affected due to lower mandi transactions in APMCs.

OBSERVATIONS OF SC APPOINTED COMMITTEE

Flexibility to the States: State APMC Acts will continue to govern the APMCs/regulated markets under that Act. The Central Acts would provide alternative marketing channels to farmers. So, a farmer would have option to either sell the produce within APMCs regulated through State APMC Act or in the trade area regulated under the Central act.

Redundant APMC Regime:

- Presently, Livestock and fishery form 40 percent of the Gross Value of Agricultural output. This sector is outside the procurement support through MSP. These sectors are also growing much faster than other crops. Hence, the argument that only the APMCs and procurement support through MSP can offer remunerative price to farmers is flawed.
- Even for commodities that come under the purview of MSP, only around 25-30 percent of the production is transacted through the APMCs/regulated mandis. So, already a major chunk of agricultural commodities are sold outside the APMC regime.
- Hence, the Central act seeks to regulate the sale of agriculture produce outside APMCs.

Procurement of Rice and Wheat: Around 90 percent of rice production and 70 percent of wheat production is procured in Punjab and Haryana through the APMCs. This has in turn led to skewed cropping pattern with more emphasis on Rice and wheat and less focus on agricultural diversification in Punjab and Haryana.

Higher Mandi Charges and Cess imposed by the state Governments lead to increase in prices of agricultural commodities.

2. FARMERS (EMPOWERMENT AND PROTECTION) AGREEMENT ON PRICE ASSURANCE AND FARM SERVICES ACT, 2020 (NOW REPEALED)

Important Provisions	Benefits	Potential Problems and Challenges
Objective: Promote Contract Farming between Farmers and other stakeholders such as agri-business firms, processors, wholesalers, exporters or large retailers. **Contract period:** Minimum period of the farming agreement shall be for one crop season and the maximum period shall be five years. Minimum guaranteed price: The price to be paid for the purchase of a farming produce may be determined and mentioned in the farming agreement itself. **Registration of contracts:** A State Government may notify a Registration Authority to provide for electronic registry for that State that provides facilitative framework for registration of farming agreements **Dispute resolution mechanism** to be set up in the form of conciliation board by the sub-divisional magistrate.	**Streamlines the supply chain by** connecting the farmers directly with the buyers and reduce post-harvest losses. **Enhancement of Incomes** by integrating farmers with bulk purchasers such as exporters and food processing industries **Access to Inputs** such as Seeds. Capital. Fertilisers, technology etc. Promote higher Investment by providing price certainty **Address Rural Indebtedness** by reducing dependence of the farmers on moneylenders for meeting their credit needs **Boost to Food Processing** by providing access to good quality raw materials and hence provide greater fillip to the sector.	**Exclusionary in Nature** due to fragmented land holdings and lower marketable surplus of small and marginal farmers; Exclude women farmers. **Exploitation of Farmers** due to lower bargaining power; Could lead to development of Monopsony market (one buyer dealing with multiple sellers and thus benefitting buyer). **Adverse Impact on Environment:** Promote Monoculture farming; Promote harmful agricultural practices such as excessive water usage, fertilizer consumption; Destruction of forests and wildlife etc.

OBSERVATIONS OF SC APPOINTED COMMITTEE

Existing legal framework: All States except Arunachal Pradesh, Meghalaya, Uttar Pradesh, West Bengal, Delhi, Chandigarh and Puducherry already have legal provisions for contract farming in their APMC Acts. Punjab and Tamil Nadu have separate contract farming Acts. Hence, the argument that the Central Act to promote contract farming would be exploitative seems flawed.

Success of Contract farming: Contract farming is not new in India and various variants exist in several sectors. For example, contract farming has transformed the poultry sector from a mere backyard activity into a major organized commercial one with almost 80 percent production coming from organized commercial farms. Similar, NESTLE's contract farming with the dairy farmers in Punjab has led to improvement in livelihood opportunities for the farmers.

3.AMENDMENTS TO ESSENTIAL COMMODITIES ACT (ECA), 1955 (AMENDMENTS- REPEALED)

ESSENTIAL COMMODITIES ACT AND ITS RATIONALE:

Used by the Government to regulate the production, supply and distribution of commodities which are declared as essential under the act. The list of items under the Act includes drugs, fertilizers, pulses and edible oils, and petroleum and petroleum products. The Central Government may add or remove a commodity from the schedule in consultation with the State Governments.

HOW DOES IT WORK?:

If the Centre finds that a certain commodity is in short supply and its price is increasing, it can notify stock-holding limits on it for a specified period. Anybody trading or dealing in a such a commodity, be it wholesalers, retailers or even importers are prevented from stockpiling it beyond a certain quantity. This improves supplies and brings down prices.

HOW ESSENTIAL COMMODITIES ACT HINDERS THE AGRICULTURAL MARKETING?

Fails to realize stocking is essential: The fear of bringing the agricultural commodities under the act has prevented the traders and processors from undertaking bulk procurement of agricultural commodities during bumper harvest season. Further, since almost all crops are seasonal, ensuring round-the-clock supply requires adequate build-up of stocks during the season.

Poor investment in Storage infrastructure: With frequent stock limits, traders have not invested in better storage infrastructure.

Adverse impact on Food Processing Industry since Stock limits curtail their Operations.

Impact on agriculture exports: Whenever the Government declares an agricultural commodity as essential, it imposes a number of restrictions on it including ban of export of such commodities.

Outdated Act: This act was enacted in 1955 when we used to frequently faced shortage of agricultural commodities and hence it required Government to crackdown on black marketing and hoarding and bring down the prices. However, now situation has changed completely. Now, we have surplus production of agricultural production. Hence, accordingly, we must give the necessary freedom to the traders, aggregators and food processing industries to undertake bulk procurement of the agricultural commodities.

AMENDMENTS TO EC ACT, 1955 (REPEALED)

Reduced Scope of ECA, 1955: Agricultural commodities to be outside the purview of Essential commodities Act, 1955. They would be brought out ECA only under exceptional circumstances such as war, famine, extra ordinary price rise, and natural calamity of grave nature .

Stockholding Restrictions: Stockholding restrictions to be based on price rise - 100 percent increase in retail price for horticulture products or 50 percent increase in retail price in case of non-perishable agri products;

Observations of SC Appointed Committee

The Amendment attempts to balance the interests of all stakeholders – farmers, traders, food processors, exporters and consumers – to enable agri-produce to move up the value chain. As agriculture is a seasonal activity, it is essential to store produce for the off-season to ensure smoothened availability of a product at stable prices throughout the year.

BROAD RECOMMENDATIONS OF THE COMMITTEE ON 3 FARM LAWS

Need for Farm laws: A repeal of these Farm Laws would be unfair to the 'silent' majority who support the Farm Laws.

Flexibility to States: States may be allowed some flexibility in implementation and design of the Laws, with the prior approval of the Centre, so that the basic spirit of these Laws for promoting effective competition in agricultural markets and creation of 'one nation, one market' is not violated

Dispute Resolution Mechanism: Alternative mechanisms for dispute settlement, via Civil courts or arbitration mechanism, may be provided to the stakeholders.

High level Coordination body: Agriculture Marketing Council, under the chairpersonship of Union Minister of Agriculture, with all States and UTs as members may be formed on lines of the GST Council to reinforce cooperative efforts to monitor and streamline the implementation of these Acts.

Compensation Mechanism: The implementation of Central Acts would lead to loss of revenues which states earn from APMCs. Hence, to compensate the states for their loss, a compensation mechanism on the lines of GST compensation mechanism may be incorporated.

Essential Commodities Act, 1955: The Government should consider in favour of completely abolishing the ECA Act, 1955 or take steps to substantially liberalize its provisions.

21. NATIONAL AGRICULTURAL MARKET (E-NAM)

Pan-India electronic trading (e-trading) portal which seeks to network the existing APMCs through a virtual platform to create a unified national market for agricultural commodities. It is operated by Small Farmers' Agribusiness Consortium (SFAC).

RECENT DEVELOPMENTS IN 2020

FPO Module on e-NAM: Enables FPOs to upload pictures of their produce directly from collection centres without the need to come to Mandis.

Warehousing based Trading Module: Farmers can sell their produce directly from the warehouses registered under warehousing Development and Regulating Authority (WDRA).

Logistics Module: Link large logistic aggregator platforms with the traders for the seamless transportation of Agri-produce.

Kisan rath application: Mobile application to enable the Farmers and Traders in hiring vehicles for transportation of agri-produce.

Integration with other platforms: e-NAM platform has been made inter operable with ReMS platform of Govt. of Karnataka. Such integration facilitates famers of either platforms to sell their produce in other platform thereby increasing their market access.

Agri-Infrastructure Fund: Financing facility to Primary Agricultural Cooperative Societies, Farmers Producer Organizations, Agriculture entrepreneurs, Start-ups, APMCs etc. to set up collection centres, cold chains, warehousing, assaying, grading and packaging units etc.

BENEFITS	CHALLENGES	WAY FORWARD
Thrust to New Farm Acts: The new farm acts enable the farmers to sell their agricultural produce directly from the trade area- Farm gate, warehouse, factory premises etc. Hence, E-NAM would provide fillip to the implementation of new farm acts. **Efficient Agri-marketing regime**- Single trading license. Single point levy of market fee, e-auction. **Benefits Farmers:** Remunerative prices, reduced transaction costs, more transparency in sale produce and prompt payment of sales proceeds **Boost FPOs:** New E-NAM Trading modules such as FPO Module, Warehousing module would save transportation costs for the FPOs. **Boost Food Processing Sector and Exports** as Processors and Exporters can directly buy the produce from farmers without any hassles **Ensures Quality in procurement** as it provides for assaying and grading of produce. **Streamlines the agricultural supply** chain, reduces logistics cost and reduces post-harvest losses **Induces transparency and competition** and prevents collusion among the traders **Ensures timely payment** directly to the bank accounts of the farmers **Ensures price stability** and prevents inflation in Agri-Commodities.	**Poor Penetration:** Only around 1000 APMCs (14%) have been integrated with e-NAM in last 5 years. In particular, larger APMCs have not been integrated. **Lack of Political will:** Some of the states have not fulfilled the criteria to join E-NAM. This is due to the fear of revenue loss due to single point levy of market fee and single trading license. **Infrastructural gaps:** Inadequate infrastructure such as such as electronic gate pass (entry and exit), quality assaying (QA) labs, electronic weighbridge; Underdeveloped IT Infrastructure; Poor Internet connectivity; Lack of financial inclusion among the farmers; Farmers need cash to meet immediate expenses. **Poor participation of Farmers:** Around 32% of the farmers are still unaware of the E-NAM; Farmers continue to sell the produce directly to traders in the villages due to - (a) Easier Credit provided by Traders (b) APMCs located far way from villages (c) Immediate cash payment **Resistance by Traders and Middlemen** as the online system is more accountable and would bring them under the ambit of tax.	**Conduct awareness programmes** among the farmers to highlight the benefits of E-NAM **Increase Funding:** Presently, Government gives Rs 75 lakh to each mandi for integrating with E-NAM. Need to provide higher funds to the APMCs to plug the infrastructural gaps. **Deploy adequate IT staff** for smooth functioning of e-NAM platform **Improve the coverage of E-NAM** in terms of integration with more APMCs and Warehouses **Reduce the dependence of the farmers** on the middlemen by organising them into FPO, set up collection centres at farm level and link such collection centres with E-NAM **Open Bank branches** on the APMC premises to get instant payments. **Establishment of an Apex Body** is advocated to control and regulate the actives of e-NAM

22. E-NAM: PLATFORM OF PLATFORMS

The Government has launched the Platform of Platforms under the E-NAM portal. The new "Platform of platforms" would enable the farmers and traders to avail various goods and services across the agricultural value chain.

It brings together different service providers on the single platform to streamline the supply chain, reduce post-harvest losses and ensure higher price realisation for farmers. For example, it provides for the following:

FPO Module: Enables FPOs to upload pictures of their produce directly from collection centres without the need to come to Mandis.

Logistics Module: Link large logistic aggregator platforms with the traders for the seamless transportation of Agri-produce.

Warehousing based Trading Module: Farmers can sell their produce directly from the warehouses registered under warehousing Development and Regulating Authority (WDRA).

Fintech Module: A large number of fintech companies can get integrated with the E-NAM to provide for services such as

- Price Information to farmers
- Link Farmers with bulk buyers
- Generate credit score for the farmers
- Link Farmers with the Banks to get credit

Integration with other platforms: Platforms that provide services across the agricultural supply chain can also get integrated with the E-NAM:

- Inputs: Credit, Seeds, Fertilisers, Machineries, Price information etc
- Information Dissemination: Advisory Services, crop forecasting, weather updates, capacity building for farmers etc.
- Post-harvest services: Cleaning, Grading, Sorting & Packaging Service Provider
- E-commerce: Bring together buyers and sellers

BENEFITS

Farmers will be able to sell facilitated to sell the produce outside their state borders. This will increase farmers' digital access to multiple markets, buyers and service providers and bring transparency in business transactions with the aim of improving price search mechanism and quality commensurate price realisation.

23. ROLE OF GRAMIN HAATS IN IMPROVING MARKETING

Gramin Haats are located in rural and interior areas in India and act as focal point for marketing of agricultural produce by the small and marginal farmers. There are around 22,000 rural markets and are known by different names such as rural periodical markets, haats, Rythu bazaar, Rytha santhe etc. in different states. These are owned and managed by different institutions- Panchayats, Urban Local Bodies, APMCs, Trusts etc.

IMPORTANCE OF GRAMIN HAATS

Lack of access to APMCs: An average APMC in India serves an area of around 450 sq.km as against the recommendation of 80 sq. km. given by M.S. Swaminathan Committee. Gramin Haats provide for alternative marketing infrastructure. Around 90 per cent of the total marketable surplus in the remote areas is sold through these markets.

Benefits small and marginal farmers who contribute 40% to the marketable surplus by reducing their transportation cost

Higher price realisation as it enables the farmers to sell the produce directly to end-consumers without the need for middlemen and traders.

Promotes Farm-to-Fork and reduce post-harvest losses as the supply chain from farmers to end-consumers gets streamlined.

Facilitates aggregation of produce at the village level and boost exports.

Strengthen agricultural marketing through hub and spoke model wherein GrAMs can act as feeders to the APMCs.

Offer an integrated platform for purchase of agricultural inputs such as seeds, organic manure etc.

Initiatives: The Government has announced the scheme for upgrading existing 22,000 rural haats into Gramin Agricultural Markets (GrAMs) in Union Budget 2018-19. The infrastructure in these GrAMs would be upgraded through MGNREGA and linked to e-NAM portal. These GrAMs would be exempted from regulations of APMCs.

WAY FORWARD

Only 6% of the target for upgrading 22,000 rural markets into GrAMs has been achieved by 2021. Hence, going forward, there is a need to fast track the implementation of the scheme by utilising funds provided under the Agriculture Infrastructure fund.

24. PM-AASHA SCHEME

The PM-AASHA scheme aims to incentivize the farmers to produce oilseeds and pulses and to wean away the farmers from the cultivation of water-intensive crops such as Rice and Paddy. Components:

Price Support Scheme (PSS): Physical procurement of pulses, oilseeds and Copra

Price Deficiency Payment Scheme (PDPS): Compensate the farmers through DBT if the market price of the notified oilseeds falls below the MSP.

Pilot of Private procurement and stockist scheme (PPPS): Flexibility to rope in the private sector for the physical procurement of the oilseeds.

BENEFITS OF PM-AASHA SCHEME

- Address the flaws in MSP Regime: The MSP regime has been criticized on account of poor coverage in terms of crops, farmers and geography.
- Incentives the farmers to shift from water intensive crops such as Rice and Wheat and instead grow pulses and oilseeds.
- Self-Sufficiency in Pulses and Oilseeds and reduce their imports
- Provides for Mechanism for compensating farmers in the form of DBT in the event of loss.
- Reduces the burden on the Government by roping in Private sector
- Doubling of Farmers' Income by offering guaranteed MSP

CHALLENGES/CONCERNS

- Issues with the Price deficiency Payment System (PDPS): The PDPS is based on the Bhavantar Bhugtan Yojana implemented in the State of Madhya Pradesh. It was found out that in Madhya Pradesh, there was unfair collusion between traders and farmers wherein the traders asked the farmers to sell the agricultural produce below the MSP. The compensation amount given by the Madhya Pradesh government was then shared between the traders and farmers.

- Lack of enthusiasm of the private sector to undertake the procurement.
- PM-AASHA is implemented by undertaking procurement from the APMCs. But, APMCs suffer from inherent flaws such as lack of accessibility, poor infrastructure, lack of warehouses etc.

25. MINIMUM SUPPORT PRICE (MSP) REGIME

The Cabinet Committee on Economic Affairs (CCEA) notifies MSP based on the recommendations of the Commission on Agricultural Costs and Prices (CACP). As of now, CACP recommends MSPs of 22 commodities.

HOW ARE THE MSPS FIXED?

Different methodologies may be used to calculate the MSPs. These are

- **A2 Approach,** which includes cost of inputs such as seeds, fertilizer, labour;
- **A2+FL Approach**, which includes A2 and the implied cost of family labour (FL); and
- **C2 Approach**, which includes the implied rent on land and interest on capital assets and A2+FL.

The National Commission on Farmers led by M.S. Swaminathan had recommended for the adoption of C2 Approach for fixing the MSP. However, presently, the MSPs are fixed at least 50% more than cost of production as calculated according to A2+FL approach.

LIMITATIONS IN THE MSP REGIME

Promoted Cultivation of Water Intensive Crops: Even though, the Government declares MSP for 22 crops, the procurement is quite strong only for Rice and Wheat.

Lack of Safeguards: The present MSP regime is not geared to pay compensation to the farmers when they are forced to sell the commodities below the MSP.

Flawed Approach: Some of the economists have pointed out that the MSP should be declared based on the C2 Approach as recommended by Swaminathan Committee.

Benefitted only Large Farmers: The Shanta Kumar Committee on FCI reforms has highlighted that the MSP procurement has benefitted only 6% of farmers in India.

Undue delay in the announcement of the MSPs have not able to able to send the price signals to the farmers on time.

26. LEGALIZATION OF MSP - CHALLENGES

Present Status of MSP: Presently, MSP does not enjoy statutory recognition. This means that, there is no onus on the private sector to buy at MSP. Legalization of MSP would ensure that private sector would buy commodities at MSP. Failure to do so would attract penalty.

CHALLENGES AND CONCERNS

<u>Goes against Interest of Farmers:</u>

- In the event of bumper harvest, prices of the commodities would fall below MSP. During such times, the private sector may not procure the commodities fearing penalty.
- Higher procurement of Food grains by FCI → Surplus stock → Dumping of surplus in open market → Decrease in prices→ Traders would buy commodities from FCI and not farmers.
- Legalization of MSP→ Encourage over-production of Rice and Wheat→ Environmental cost (such as Decline in Soil fertility, depletion of ground water etc.) → Decline in income levels of farmers.

Adverse Impact on Economy:

- Higher costs of procurement due to a statutory MSP will increase the food prices, leading to inflation in the economy
- Higher prices of commodities would adversely affect exports of agricultural commodities

Financing needs would amount to half of the Government's Budget.

Unsustainable Food grain Management Policy: The Food subsidy bill has already become quite unsustainable at around Rs 2 lakh crores. The excess procurement of food grains by the FCI has led to surplus buffer stocks leading to higher storage costs and wastages. Legalization of MSP would further worsen the scenario.

Administrative Challenge: lack of government machinery to the procure all crops that are under the MSP system.

Violation of WTO Agreement on Agriculture (AoA): Legalization of MSP would further violate the limit on the subsidies under AoA and it can be challenged by other countries. India's quest for Permanent solution on public stockholding could be in jeopardy.

Promote Inequality: Only 6 per cent of farmers are able to benefit from the MSP. Similarly, most of the Rice and Wheat are procurement from states such as Punjab, Haryana, MP etc. Hence, legalisation of MSP could worsen socio-economic inequality and promote regional disparity.

Environmental cost: Encourage farmers to grow more rice and wheat leading to further environmental problems.

27. COUNTERING AGRARIAN CRISIS IN THE GREEN REVOLUTION STATES

The Green Revolution in Punjab and Haryana has led to unintended consequences in the form of - Environmentally unsustainable Rice-Wheat cropping system (more than 80% of area) and decline in the annual growth rate of income levels to below 1% (National -3%). The agricultural income per hectare in Punjab is only around Rs ***1.5 lakhs in comparison to other states Andhra Pradesh and Tamil Nadu (Rs 2.25 lakhs)***. This is clearly on account of 3 reasons- ***Rising input costs, lower productivity and lower prices received by the farmers through the Rice-Wheat Cropping system***.

Punjab and Haryana are blessed with better irrigation facilities (more than 90%), higher average land holding size (3.62 ha), higher fertiliser consumption (212 kgs/ha) accompanied by strong agricultural infrastructure. These opportunities have to be leveraged to address the second-generation problems caused by the Green Revolution and double the income level of the farmers.

RECOMMENDATIONS OF MONTEK SINGH AHLUWALIA COMMITTEE APPOINTED BY PUNJAB GOVERNMENT

- Reduce area under Paddy and diversify towards high-value crops such as fruits and vegetables (Dalwai Panel- Increase in agri. diversification by 1 ha leads to increase in income by Rs 1 lakh).
- Special package from the Centre to compensating any possible loss.
- Focus on Secondary Agriculture- Boost to Food Processing Industries, Employment, Forward-Backward Linkages, Reduce Post-harvest losses.
- Promote cultivation of Pulses and Oilseeds through guaranteed procurement under PM-AASHA.

- Rationalise subsidies and divert the savings towards diversification and improving the supply chain management.

The Government has to now focus on Rainbow revolution - horticulture, animal husbandry, poultry, fisheries, food grains etc. in these states.

28. INVERSE FORK-TO-FARM STRATEGY

To ensure higher prices for the farmers, the Dalwai Panel has recommended that the agricultural marketing should guide the flow of produce from farm-to-fork, through the flow of information from fork-to-farm. Hence, in a way, there is a need to focus on Inverse "Fork-to-Farm" strategy.

	FARM-TO-FORK STRATEGY	FORK-TO-FARM STRATEGY
Approach used	Production led Approach	Market led Approach
Strategy	Sale of agricultural commodities in the market to ensure remunerative prices for farmers	Undertake cultivation of crops based upon prevailing demand.
Flow of Information	From farm to Market (Production related Information)	From Market to Farm (Demand related Information)
Integration of demand with Supply	Poor Integration	Higher Integration. Production based upon demand.
Prices received by Farmer	May be lower	Higher

Hence, Dalwai Committee has recommended adoption of inverse "Fork-to-Farm" strategy to bring about a **strategic shift from production-based push into markets towards a demand-based pull.** This approach focuses on reverse flow of information from markets to farmers would also enable the farmer to take informed decisions about what to market, when to market and to whom.

BENEFITS OF FORK-TO-FARM STRATEGY

This approach focuses on reverse flow of information from markets to farmers would also enable the **farmer to take informed decisions about what to market, when to market and to whom**.

The new strategy would benefit Indian agriculture in a multi-faceted manner:

- Promote diversification of Indian Agriculture towards high value crops and allied sector.
- Enable Agriculture to cater to shift in consumption pattern towards protein-based foods such as Pulses, Egg, Fish, Meat etc.
- Ensure higher prices for the farmers and reduce risk.
- Ensure both Food security as well as nutritional security.
- Prevent Inflation in Agri commodities
- Enable us to boost exports according to international demand and capture newer markets.

29. WORLD'S LARGEST GRAIN STORAGE PLAN UNDER COOPERATIVE SECTOR

To address the challenges of inadequate storage capacity of foodgrains, skewed distribution of godowns across states the Union Cabinet has approved constitution of Inter-Ministerial Committee (under Union Minister for Cooperation) for World's Largest Grain storage plan in cooperative sector:

Modify guidelines of agricultural warehousing schemes of various ministries for facilitating creation of storage infrastructure (godowns) at selected viable PACS.

No extra budget but utilizing available outlays in existing schemes for promoting storage under Ministry of

Agriculture & Farmers Welfare (MIDH, Agriculture Infrastructure Fund etc.), Ministry of Food Processing

Industries (PM Krishi Sampada Yojana, PMFME) & Ministry of Consumer Affairs, Food & Public Distribution (Procurement under Food Security Act and Minimum Support Prices).

BENEFITS OF THE PLAN

- Creation of decentralized storage capacity at local level reducing food waste, ensuring food security and preventing distress sale of produce by farmers and better prices and incomes for farmers.
- Reduced cost of transportation of foodgrains to procurement centres and again transporting stocks back from warehouses to FPS.
- **Benefits to farmers credit cycle**:
  - Farmers can sell their crops to PACS by receiving some advance payment at MSP and get the balance after PACS sells foodgrains in the market.
  - Farmers can store crops in warehouses managed by PACS and get finance for the next crop.
  - Farmers can sell their entire crop to PACS at MSP.
- **Strengthening of Primary Agricultural Credit Societies (PACS):** Not just addresses shortage of agricultural storage infrastructure but would also enables PACS to undertake other activities such as:
  - Functioning as procurement centers for state agencies/FCI.
  - Serving as Fair Price Shops (FPS).
  - Setting up custom hiring centers.
  - Setting up common processing units for agricultural produce.
  - PACS are important pillars of rural economy and this move will enhance incomes of farmer members of PACS and transform them into multipurpose societies.

Thus, the above plan can help address the rural economy, ensure better incomes for farmers and strengthen the cooperative sector.

30. AGRICULTURE STORAGE

A robust end to end and scientific storage infrastructure for Agriculture produce is essential for:

- Reducing food wastage
- Check volatility in prices and food inflation.
- Promote value addition and agri-exports.
- Reduce distress selling by farmers and securing incomes for farmers.

CHALLENGES OF AGRICULTURAL STORAGE

- **Inadequate capacity relative to production:** India has a storage capacity of 47 per cent of its total foodgrains production this leads to large gap between production of agricultural commodities and their safe & scientific storage leading to crop wastage.
- **Skewed regional distribution of storage infrastructure:** At the regional level, only a few southern states have a storage capacity of 90 per cent and above. In northern states like Uttar Pradesh and Bihar, it is below 50 per cent.
- **Lack of adequate cold storage infrastructure:** India is the world's largest producer of perishable commodities like horticultural crops, dairy and meat products. However, India has only about 7 thousand cold storages and about 10,000 reefer vans. Most of these are operated by small cold storage and transport service providers. 60% of cold storage capacity is concentrated in UP and West Bengal and is used for one single product i.e., potatoes), with very low capacity in other states. This leads to damage to perishable food products and resulting inflation.
- **Lack of end-to-end storage infrastructure:** Even the limited Agri-storage infrastructure India has is concentrated near urban and semi-urban areas and not available close to farmgate.
- **Lack of scientific storage:** There is a over-reliance of cover and plinth storage where there is an open storage on a platform covered with tarpaulin. This leads to crop wastage.
- **Governance issues:** Issues like high cost of credit, delay in land procurement, multiplicity of schemes and authorities for incentivising warehousing.
- **Limited coverage of WDRA:** The number of storages under the regulatory ambit of WDRA is limited. WDRA compliance ensures certification of storage capacity and access to Negotiable Warehousing Receipts facility by farmers.

GOVERNMENT INITIATIVES FOR PROMOTING WAREHOUSING

At present, multiple government agencies, like the Food Corporation of India (FCI), Central Warehouse Corporation, Warehouse Development Regulatory Authority, Railways, and the civil supply departments of states are involved in grain management.

WAY FORWARD

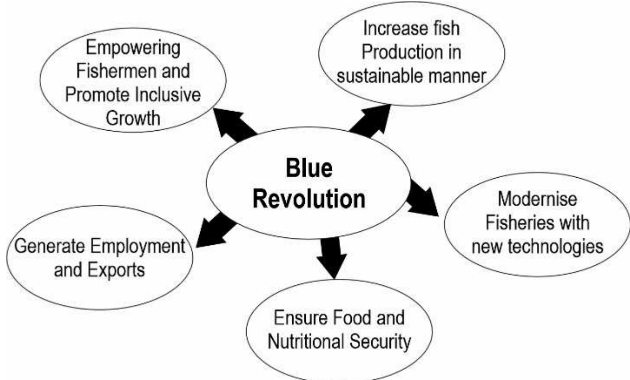
- End-to-End storage & cold chain infrastructure: Incentivising development of storage infrastructure and cold storages near farm-gates by incentivising FPOs, Cooperatives and Panchayats to operate such infrastructure in rural areas.
- Phasing out CAP: There is a need to phase out cover & plinth storage structures and move towards scientific modern infrastructure.
- Technological interventions aimed at modernization of existing stores by introducing temperature-controlled storage, dehumidification of storage infrastructure, access to renewable energy (solar energy) by warehousing sector should be incentivized.
- Development of multipurpose storage infrastructure and not just focused on one commodity.
- Merging various smaller schemes into one comprehensive scheme for warehousing and cold- storage development in India.
- Encouraging private players to invest in warehousing and cold storage space particularly in rural areas.
- Third party assessment of storage infrastructure should be introduced to assess the quality of storage and food wastage.

- Expanding the number of warehouses under Warehousing Development and Regulatory Authority which give farmers access to e-Negotiable Warehousing Receipts and improve operating cycle of farmers.

ALLIED SECTOR

31. FISHERIES- BLUE REVOLUTION

India is the second largest producer of fish and also second largest aquaculture nation. It employs around 16 million fish farmers at primary level and almost twice the number at higher value chain. Its contribution to GDP has increased from 0.40% in 1950-51 to 1% in 2017-18. However, only 78% of marine and 58% of inland fisheries potential is presently harnessed. In order to realize full potential, Government has launched Blue Revolution with multi-faceted objectives.



CONSTRAINTS IN THE GROWTH OF FISHERIES SECTOR

Marine Capture Fisheries: Limited scope for expansion due to overcapacities in territorial waters, inefficient management and prevalence of traditional fishing practices. Inadequate infrastructure especially fishing harbours, landing centres, cold chain and distribution systems, poor processing and value addition, wastage, traceability and certification, non-availability of skilled manpower, etc.

Inland Capture Fisheries: Seasonal nature of fishing operations, depleted stocks in natural waters, use of obsolete technology for harvesting coupled with low capital infusion

Culture Fisheries: Lack of Species diversification, lack of emphasis on new forms of culture fisheries such as cold water fisheries, ornamental fisheries, rice-cum-fish culture system, waste water aquaculture; Poor physical condition of resources (specially the water quality and quantity), lower productivity, increased incidents of disease, low levels of investment, inadequate access to institutional credit and high cost of credit, inadequate infrastructure for pre-production, production, post-harvest and processing facilities, low adoption of technologies and shortage of skilled manpower in aquaculture and extension services

Details about Pradhan Mantri Matsya Sampada Yojana: Address critical gaps in fish production and productivity, quality, technology, post-harvest infrastructure and management, modernization and strengthening of value chain, traceability, establishing a robust fisheries management framework and fishers' welfare.

STRATEGIES TO BE ADOPTED TO BOOST BLUE REVOLUTION

- **Horizontal Expansion in untapped areas** like Brackish aquaculture, cold water fisheries, Pond aquaculture, Reservoirs, canals, ornamental fisheries, Recreational fisheries.

- **Vertical Expansion** through diversification of culture species; Integrated farming system; rice-cum-fish culture system; wastewater aquaculture system, Organic aquaculture.
- **Restoration of natural productivity and conservation** of indigenous fisheries resources through ecosystem restoration to boost riverine fisheries
- **Address stagnation in Marine fisheries** through deep sea fishing, Mariculture, open-sea cage farming etc.
- **Upgradation** of fishing fleet
- Organize **fishermen into FPOs and fishing village communities into VPOs** to reap economies of scale and promote value-addition
- Address problems of **seed, feed and health.**
- **Enhancing extension** through Sagar Mitras.
- Address **technical and managerial gap** in shrimp farming through FDI
- Development of **fisheries post-harvest infrastructure** especially modern markets, cold storages, processing plants etc. through PPP
- **E-markets and e-trading of fish** and fish products will be encouraged and promoted
- **Ecological certification** of fisheries to boost exports

Fisheries sector has been registering highest growth rates in production and providing livelihood and nutritional security in the country. Hence, it needs to be treated on par with agriculture and should be incentives/ concessions as in agriculture like financial assistance for technological upgradation, power supply, loan facility, Insurance, marketing assistance etc.

32. BEEKEEPING/ SWEET REVOLUTION

The scientific practice of Beekeeping (Apiculture) has the potential to promote eco-friendly and sustainable agriculture along with higher yields leading to increase in income levels of farmers. Hence, just like White Revolution, the Sweet Revolution can act as a major tool to promote socio-economic development.

Beekeeping has great potential for the small and marginal farmers, landless labourers etc. on account of following reasons:

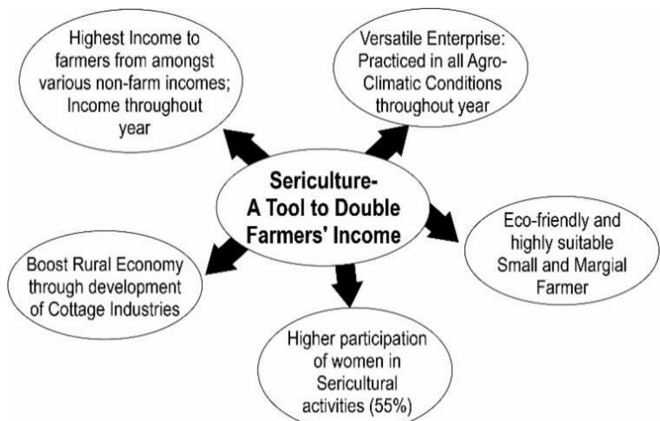
- **Increases crop yields** by 20-30% through cross pollination.
- **Additional source of income** for paid pollination service
- **Less capital Intensive** and hence can be practiced by poor farmers
- Requires **no land** and can be practiced by landless labourers
- **Other products** such as bee pollen, bee-venom costlier than honey
- **Nutritional Security**: more than a third of the global food basket is comprised of bee pollinated crops
- Growing demand for honey in overseas market and hence scope for more **export earnings**

Hence, the Government has launched Honey Mission to harness potential of Sweet Revolution. Going forward, beekeeping should be considered as input of agriculture, which could enhance efficacy of other inputs and accordingly training should be provided to farmers.

33. SERICULTURE

Sericulture is cottage-based Industry which broadly encompasses four Independent activities- Mulberry cultivation, silkworm rearing, silk reeling and weaving, printing and

dying. Being less Capital intensive and more labour Intensive, Sericulture can boost rural economy as shown below:



CURRENT SCENARIO OF SERICULTURE INDUSTRY IN INDIA

Production: India has the unique distinction of being the only country producing all kinds of commercially exploited natural silks namely, Mulberry, Eri, Muga, Oak Tasar and Tropical Tasar. However, mulberry silk is the dominant one and contributes to about 70 per cent of the country's raw silk production. India is the second largest producer of silk in the world after China. China and India together account for about 98 per cent of the global raw silk production.

Challenges: Decline in area under Mulberry cultivation; Irrigation facilities are available only for 50 per cent of mulberry area; Lower yield of Cocoon; Declining organic carbon level with adverse effects of excessive use of chemical fertilizers and pesticides on soil health; Inadequate supply of quality eggs; Emergence of new pest and pathogens; Improper rearing conditions including mounting and post-harvest care ; Non-availability of sufficient automatic reeling units.; Availability of low-cost synthetic textiles; Import of Cheap silk from China, Vietnam etc.

STRATEGIES NEEDED

Expansion of mulberry area to new districts of traditional and non-traditional sericulture states.

Enhancing the egg production capacity: 95% Chinese silk produced from highly productive bivoltine type in comparison to 80% Indian silk produced from low productive cross breed.

Enhancement of Automatic Reeling Capacity: Reeling of Silk through traditional devices results in large variation in quality and uniformity making it unsuitable for power looms.

Diversification of silk into other material uses and new fabrics

R&D into medicinal and other applications of sericulture by-products

Anti-dumping measures need to be maintained

34. ANIMAL HUSBANDRY AND DAIRY

DAIRY SECTOR

India is the largest producer of milk accounting for 24% of the global milk production. The sector accounts for 5% of India's GDP and supports 8 crore families. The total milk production stood at around 220 MT in 2021-22.

CHALLENGES IN DAIRY SECTOR	STRENGTH OF DAIRY SECTOR
Feed and fodder: Even though India accounts for world's largest cattle population, only 4% of the area is used for growing fodder. Concentrates used for fodder include coarse grains, such as maize, sorghum, bajra and other cereal by-products, such as rice bran/polish. Increase in prices of feed and fodder increases the input costs. **Poor extension services** has led to poor artificial Insemination coverage (30%), ineffective cattle and buffalo breeding Programmes, traditional feeding practices that are not based on scientific feeding methods etc. **Poor hygiene and Frequent outbreak of diseases** among the cattle such as Foot and mouth Disease, Lumpy Skin Disease etc. **Limited availability of credit** as there is no separate sub-target for Priority sector lending for allied sector. **Lower yield:** The increase in milk production has been due to increase in number of cattle and not due to increase in yield. According to FAO, average milk yield of Indian cow (4.87 kg) is much lower than global average (7.2 kg). **Dominated by unorganised sector:** Only 34% of milk comes from the organized sector (Cooperatives and private sector). Remaining 66% of milk comes from unorganised sector (Eco Survey 2018-19). The dairy farmers in the unorganized sector are not able to realise fair price due to poor marketing in structure and presence of middlemen. **Limited growth of cooperatives:** The private sector was allowed in the dairy sector only from 2002 when the sector was completely delicensed. However, presently, the share of private sector and cooperatives. In the dairy sector is almost same. This is due to poor governance and lack of participatory character in cooperatives. **Limited Milk processing capacity:** Against the total annual milk production of 220 MT, the total processing capacity is only around 50 MT. Limited processing	**Quantity of output:** Higher growth rate (4%-6%) In comparison to crop sector (1.5%) in last 20 years **Nutritional security**: Per capita milk production has increased to 387 gram per person per day which is higher than average Recommended Dietary Allowance for the country. **Promotes Inclusive growth:** Pro poor and pro women **Less Economic burden on Government:** Unlike Green Revolution, Dairy sector has grown without input subsidies and output price support. **Higher income:** Contributes 25% total income generated in agriculture sector. **Promoted development of cooperatives** such as Nandini. Amul, Mother Dairy etc. and fostered grassroots movement. **Boosts food processing Industries** like Curd, cheese, paneer manufacturing etc. Benefits agriculture through promotion of natural farming and organic farming. **<u>INITIATIVES TAKEN</u>** **Rashtriya Gokul Mission (RGM):** Breed Improvement programme for Indigenous breeds to improve the genetic makeup and increase the milk production. **e-GOPALA app:** Marketplace and information portal for managing livestock including buying and selling of disease-free germplasm in all forms (semen, embryos, etc); **Dairy processing and Infrastructure development Fund (DIDF):** Create/ modernize the milk processing, chilling and value addition Infrastructure **Induction of MAITRIs** (Multi-Purpose AI technicians in Rural India) to meet requirement of AI technicians. **Establishment of Gokul Gram** for conservation and development of indigenous bovine breeds in a scientific and holistic manner. **National Programme for Dairy Development (NPDD):** creating/ strengthening of Infrastructure for production of quality milk. Procurement.

capacity leads to higher losses and low value addition. **Failure to harness consumer preference** such as low cholesterol ghee, low fat butter, flavoured milk etc. **Competition** from alternatives such as Soya milk and Almond milk. **Low share in exports:** Poor Quality of milk and milk products act as barrier for entry into export market, especially EU and USA. ***Hence, even though, India is the world's largest producer of milk. Its share In global exports Is only around 0.62%.***	Processing and Marketing of Milk & Milk Products by the cooperatives. **Animal Husbandry Infrastructure Development (AHIDF):** Encourage entrepreneurs to establish the dairy processing and value addition infrastructure **National Livestock Mission** for sustainable development of livestock sector, focusing on improving availability of quality feed and fodder, risk coverage, effective extension, improved flow of credit and organisation of livestock farmers.

WAY FORWARD

Recently, the Government has highlighted that India should produce 33 percent of the world's milk with about 330 MMT milk production every year by 2033-34. Hence, there is a need for White Revolution 2.0 to capitalise on the benefits of white revolution and address the present problems faced by dairy sector.

35. POULTRY SECTOR

India is the one of the world's largest producer of eggs and broiler meat.Approx. 75 percent of egg production is contributed by commercial poultry farms, remaining comes from household/backyard poultry. Total poultry feed production of the country stands at 22 million tonnes.

CHALLENGES

- Poor infrastructure for export is hindering the export of poultry products.
- Competition from international players on opening up duty-free imports, lifting of trade barriers.
- Increasing propaganda and demonstrations by organizations on promoting vegetarianism and Animal rights.
- Occurrence of Salmonella and other diseases in poultry meat.
- Many countries are dumping their poultry products i.e. exporting eggs at prices lower than production cost.
- Many countries are protecting their poultry industry from foreign competition by protective measures like restricting imports, keeping egg prices at lower level etc.
- Stiff competition from Sri Lanka, Pakistan, Brazil and France, all these countries provide subsidies, export incentives to exporters, and keep their price low.
- High Maize & Soya price fluctuation leading to availability issues of poultry feed at reasonable prices.
- Small farms, losing out on economies of scale and biosecurity.
- Lack or undefined standards leading to impending cheaper imports.
- Avian influenza and other emerging/re-emerging diseases.

RECOMMENDATIONS

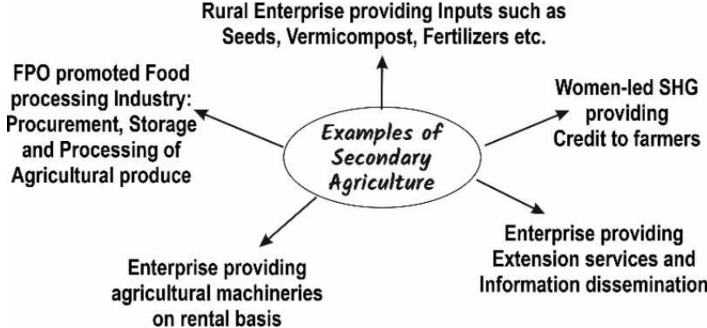
- Processing need to be encouraged as presently only 6% of the poultry products is processed. Block/ District level cold storage needs to be established and cold chain needs to be developed.

- Encourage brand development for certain indigenous poultry like Kadaknath or other birds with some specific attributes.
- Intensify education and awareness about nutritive value of eggs and poultry through various platforms like World Egg Day etc.
- Intensify skill development in the poultry sector and reduce the gap required.
- Develop Marketing Intelligence domestically and internationally in collaboration with ICAR and other Department/ agencies.
- Facilitate Industry- Academia partnership so as to enable transfer of technology at the grassroots level.

IMPORTANT TOPICS

36. NEED TO BOOST SECONDARY AGRICULTURE

According to Dalwai Panel, Secondary agriculture is defined as cottage Industry that (a) utilises agricultural products as raw material (b) deploys locally available skills to produce goods and services; and (c) can be categorised appropriately as MSME.



BENEFITS

Holistic development of rural areas by transforming rural areas from consumers to producers of Goods.

Efficient utilisation of resources such as land and labour through various activities such as honeybee keeping, mushroom cultivation, backyard poultry etc.

Contributes to agriculture by providing Inputs, enhancing productivity and reducing post-harvest losses.

Develop human and capital resources to replicate Start-up India at village level.

SPECIAL SUPPORT NEEDED FOR SECONDARY AGRICULTURE

- Priority sector status for institutional credit.
- Low-cost skilling and knowledge-based exposure.
- Specialised extension services for enterprises owned by females.
- Priority under rural electrification objectives.
- Fast track procedures to avail benefits under ongoing central sector and centrally supported schemes.
- Geographical Indicator labels to products from village scale secondary production.

37. GAP APPROACH IN AGRICULTURE

According to FAO, Good Agricultural Practices (GAP) are "practices that address environmental, economic and social sustainability for on-farm processes, and result in safe and quality food and non-food agricultural products". It involves practices such as Zero tillage, Integrated Watershed Management, Precision farming, Integrated Production and Pest Management (IPPM) etc.

The GAP approach would enable efficient utilisation of agricultural inputs, boost productivity and thus promote environmental sustainability in the following manner:

Soil: Crop rotation, conservation tillage, Mulching, rational application of fertilizers etc.

Water: Techniques to monitor water requirements, rainwater harvesting, aquifer management, micro-irrigation etc.

Animal health: Availability of pasture, promoting animal health through vaccination and treatment of ailments.

Crop Production: Choosing crops according to agro-ecological conditions, market acceptability and nutritional value; Crop rotation, Inter

cropping etc.

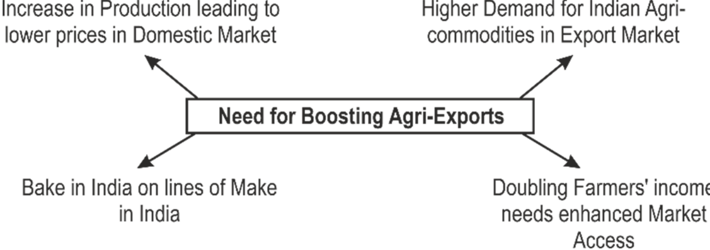
Reducing Post-harvest losses: By storing food products under hygienic conditions.

Energy and waste management: Using alternative energy sources such as solar and wind; recycling of wastes etc.

Hence, there is a need to develop a system of auditing and certification of GAP in India so that it contributes to meeting environment and social development objectives.

38. AGRICULTURAL EXPORTS- A TOOL TO DOUBLE FARMERS' INCOME

The agriculture exports policy, 2018 has emphasized on "Bake in India" i.e., a renewed focus on value addition and on processed agricultural products.



PRESENT STATUS OF AGRI-EXPORTS

1. **Lower share of Global Exports:** In spite of being one of the largest producers of Food grains and Fruits and vegetables, India's share in global export of Agri-commodities stand at merely 2% (9th Rank).
2. **Lack of Diversified Export basket**: India's export basket is basically dominated by Basmati Rice and Marine Products
3. **Low Value addition:** Majority of its exports are low value, raw or semi-processed.

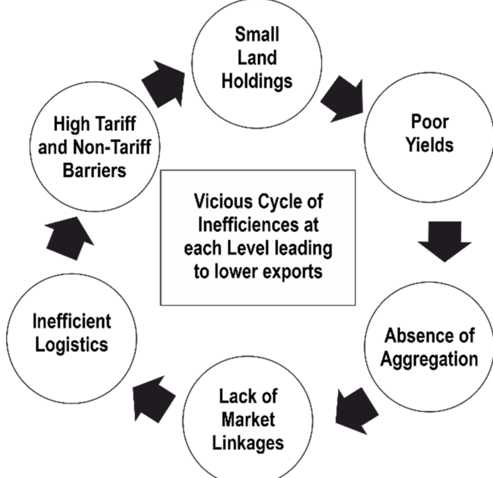
AGRICULTURAL EXPORTS POLICY 2018

- Double agricultural exports from present ~US$ 30+ Billion to ~US$ 60+ Billion by 2022 and reach US$ 100 Billion in the next few years
- Diversify our export basket, destinations and boost high value- and value-added agricultural exports including focus on perishables.

- Promote novel, indigenous, organic, ethnic, traditional and non-traditional Agri products exports.
- Provide an institutional mechanism for pursuing market access, tackling barriers and deal with sanitary and phytosanitary issues.
- Strive to double India's share in world Agri-exports by integrating with global value chain at the earliest.

CONSTRAINTS AND CHALLENGES

The Agricultural Exports Policy 2018 has sought to double agricultural exports from present ~US$ 30+ Billion to ~US$ 60+ Billion by 2022 and reach US$ 100 Billion in the next few years. However, it would face number of challenges



- **Supply-side:**
  - **Lack of stable and reliable export policy**. More focus on price stabilization and food security and not on exports.
  - **Lack of Market Intelligence** related to consumer preference in export markets. For example, higher sweetness in Indian mangoes is not necessarily in demand in many countries.
  - **Identification Challenges:** Absence of state level export data precludes us from identifying potential export clusters within a state to provide suitable incentives.
  - **Lack of aggregation of low marketable surplus** due to significant variation in terms of varieties cultivated.
  - **Training and Skill Development:** Unregulated chemicals usage; Inadequate post-harvest management; Lack of awareness leading to rejection of Indian Products in overseas market.
  - **Fragmented and restrictive APMC** regime
  - **Poor Infrastructure and Logistics** makes Indian products uncompetitive.
  - **Lack of** coordination among multiple agencies involved in export of Agri-commodities such as Ministry of Agriculture, Commerce Ministry, FSSAI etc.
- **Demand-side:**
  - High import duties and Quota limits in export markets
  - Indiscriminate application of sanitary and phytosanitary measures by other countries against Indian products.
  - Surge in agricultural imports after signing of FTAs

Recommendations of the High-Level Expert Group (HLEG) to boost Exports

- State-led Export Plan - Business plan for a crop value chain cluster. Plans should be collaboratively prepared with private sector players and Commodity Boards.
- Focus on 22 crop value chains through a demand driven approach.
- Private sector should play an anchor role in driving outcomes and execution.
- Centre should be an enabler.
- Centre should enable state-led plans
- Robust institutional mechanism to fund and support implementation.
- Funding through convergence of existing schemes, Finance Commission allocation and private sector investment.

39. ZERO BUDGET NATURAL FARMING: PROSPECTS, CHALLENGES AND CONCERNS

The Economic Survey 2018-19 focused on adoption of 'Zero Budget Natural Farming' (ZBNF) in order to double the farmers' income by the end of 2022. However, some of the critics have pointed out that the Government's policy of inclusion of ZBNF is unwise and imprudent.

BASIC PREMISE AND PILLARS OF ZNBF

The ZBNF, put forward by Subhash Palekar, focusses on **farming without credit** (Zero Budget) and **Farming with Nature** without using Chemicals (Natural Farming).

Basic Premise: Soil has all the necessary nutrients which could be made available through the intermediation of microorganisms; Against chemical fertilizers; low cost, low level of inputs and limited reliance on externally purchased inputs.

FOUR PILLARS OF ZBNF

Jivamrita/jeevamrutha: Fermented microbial culture prepared using cow dung and urine to provides nutrients to the soil, acts as a catalytic agent to promote the activity of microorganisms in the soil.

Bijamrita/beejamrutha: Protection of the young roots from various diseases through cow dung and urine.

Mulching: Conservation of the soil moisture by covering the top layer of the soil with dried biomass, organic manure etc.

Moisture: It challenges the basic notion that plants need more amount of water and instead focuses on conservation of soil moisture and promoting less irrigation.

Other important pillars are- Intercropping, Rainwater harvesting, Revival of the soils through earthworms etc.

Government's Initiatives to promote ZBNF: Under the RKVY-RAFTAAR and Paramaparagat Krishi Vikas Yojana, States allowed to use their funds to promote the ZBNF.

BENEFITS

- Reduce the input costs responsible for present agrarian distress.
- Reduce the dependence of the farmers on the credit responsible for the debt trap.
- Enhancement in the soil fertility.
- Optimum utilization of water and reduce water consumption (85%)
- Promote diversification of the agriculture- towards other crops and towards livestock rearing. This can also lead to reduction in the risks and enhance non-farm income.
- Enhance the farmers' income in the long term.

CHALLENGES AND CONCERNS

A group of agricultural experts from the Natural Academy of agricultural sciences (NAAS) have questioned ZBNF on multiple grounds.

Lack of Independent and Scientific studies to validate the claim that the yields through the ZBNF are much higher.

Based on Unscientific Premise since it erroneously assumes that the soils have all the necessary ingredients

One-Size fits all approach: In some regions of the country, the soils are either acidic or saline and, in some regions, the fertility of the soil has reduced due to heavy metal pollution.

Flawed Nutrient Management: The ZBNF believes that plants obtain 98.5% of the nutrients from the air and the remaining 1.5% from the Soil. The nutrients cannot be made available only through cow dung and urine.

Incurs costs: Not essentially "Zero Budget" since some of the inputs need to be purchased. Agricultural inputs which may have implicit cost such as the imputed value of family labour not considered.

According to experts, replacing all farming with ZBNF could decrease crop production by 50% and thus severely affect both **food security as well as income of farmers**. Hence, the Government must adopt evidence-based approach and must not hastily promote ZBNF without multi-agroclimatic location studies, and scientific validation of long-term impact and viability of ZBNF.

40. FARMER PRODUCER ORGANIZATIONS (FPOS)

WHAT IS FARMERS PRODUCER ORGANISATION (FPO)?

A Producer Organisation (PO) is a legal entity formed by primary producers such as farmers, milk producers, fishermen, weavers, rural artisans, craftsmen etc. FPO is a type of PO where the members are farmers. The FPOs can be registered as Cooperatives (under Cooperative Societies Act of the respective State), Farmer Producer Company (Under Companies Act, 2013) or Societies (under Society Registration Act, 1860).

HOW FPCS BENEFIT SMALL AND MARGINAL FARMERS?

- Facilitate land pooling and address problems associated with fragmented landholdings
- Reap economies of scale for buying of inputs and selling the agricultural produce
- Enable sharing of services such as knowledge input, production supervision, storage, transportation, etc and hence reduce the transaction costs
- Create opportunities for farmers to get more involved in value addition activities such as input supply, credit, processing, marketing and distribution.
- Provide interface between the farmer and global market enabling them to export commodities
- Provide access to capital for farmers and manage risk for farmers through diversification
- Promote economic democracy at the grass root level.

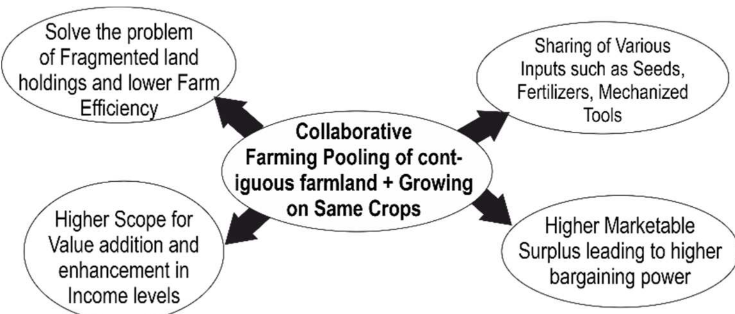
Initiatives for the Promotion of FPOs: The SFAC is the nodal agency at the national level for the creation of FPOs. The SFAC operates a Credit Guarantee Fund to mitigate credit risks of financial institutions which lend to the FPCs without collateral. SFAC also provides matching equity grant up to Rs. 10 lakh to double the share capital of FPCs. NABARD also

provides financial support to the FPOs through two dedicated funds - "Producers Organization Development Fund (PODF)" and PRODUCE Fund (Producers' Organization Development and Upliftment Corpus) to promote new FPOs and support their initial financial requirements.

CHALLENGES AND ISSUES IN BUILDING ROBUST FPOs

In last 8-10 years, 5000 FPOs have been formed through initiatives of SFAC (Nodal Agency), NABARD, Government etc. without much success. Hence, to ensure success of new initiative, the Government needs to acknowledge present weaknesses, analyse their reasons and then take outcome-oriented actions.

Promote Collaborative farming: The FPOs need to be formed on basis of adjoining land holdings and common produce to ensure higher economies of scale and undertake value addition.



Finances: The reluctance of Banks to give loans has to be countered through enhanced credit support from Government agencies. Further, Just like cooperatives, the FPOs also must be given income tax exemption.

Handholding: Need to provide regular training and business level handholding.

Professional Management: It can be improved by enabling the Private sector to invest in FPOs. This will need amendment of Companies Act which currently allows only farmers to be producer members.

Market Linkages: Direct procurement by Government; freight subsidy to wholesale buyers; connecting FPOs to online platforms etc.

Village Producer Organisations (VPOs): The VPOs can be developed as a joint venture of FPOs such that an entire village region is developed for a predetermined set of agricultural produce with post-production activities. For example, a region having strength in producing fibre crops can be developed as a VPO to include small handloom weavers.

WAY FORWARD

The promotion of FPCs should not to be seen as a one-time exercise. Though there is sufficient focus on providing financial assistance to FPCs, there is limited hand-holding subsequent to their formation. In this regard, the Government must provide for sustained and continuous support until the time the FPCs become financially viable and independent.

CRITICAL ANALYSIS OF AGRICULTURAL SCHEMES

41. PM-KISAN

PM-KISAN provides for an assured income support to the farmers. Under this programme, all landholding farmer families, having cultivable land up to 2 hectares, will

be provided direct income support at the rate of Rs. 6,000 per year. This income support is transferred directly into the bank accounts of beneficiary farmers, in three equal instalments of Rs. 2,000 each.

PROBLEMS WITH PM-KISAN

Does not address structural problems such as fragmentation of land holdings, higher dependence on monsoonal rainfall, poor marketing infrastructure (APMCs) etc. and hence PM-KISAN is populist rather than reformist.

Exclusionary: Excludes the landless agricultural workers, tenants and sharecroppers

Lower benefits: Benefit of Rs 6,000 per year is too low; Odisha's Income support scheme provides for interest free crop loan accompanied by Life Insurance support.

Promote Fragmentation of Landholdings: Farming households holding larger land parcels will try to split holdings to try to qualify for the benefits under the scheme.

Absence of land records may lead to exclusion of poor and vulnerable categories of farmers.

42. AGRICULTURE INSURANCE: PMFBY

DETAILS ABOUT PRADHAN MANTRI FASAL BIMA YOJANA (PMFBY)

What it does? It provides insurance coverage to the farmers in the event of failure of any of the notified crop as a result of natural calamities, pests & diseases.

Coverage of Risks- Prevented Sowing/Planting, Yield losses due to non-preventable risks, such as Drought, Dry spell, Flood, Inundation, widespread Pests and Disease attack, post-harvest losses, localised calamities etc.

Note: States may consider providing add-on coverage for crop loss due to attack by wild animals.

Risks not covered: Losses arising out of war and nuclear risks, malicious damage and other preventable risks shall be excluded

Premium: The Premium to be paid by Farmers: Kharif Crops: 2%, Rabi Crops: 1.5%, Commercial and Horticultural Crops: 5%. ***The balance premium is paid equally by Centre and States.***

Coverage*:* Loanee farmers, non-loanee farmers, sharecroppers and tenant farmers (those who farm on rented land).

IMPLEMENTATION CHALLENGES IN PMFBY

Negligible coverage of sharecropper and tenant farmers due to lack of legal recognition of Land leasing.

Mixed cropping and crop diversification discouraged: A limited number of crops are notified by states under PMFBY. Only these crops can avail of insurance.

Poor awareness about PMFBY: Only 30% of the farmers are aware about PMFBY and its benefits.

Inadequate and delayed claim payment to farmers: Only 5-10% of the claims made for crop losses have been paid on time; Many insurance companies cited delay in receiving the state and Central government subsidies as the main reason for delay in reimbursing claims

Very high actuarial premium rates: Insurance companies have charged much higher actuarial premium rates in some states and regions.

Loopholes in assessment of crop loss: PMFBY encourages the use of satellite, remote sensing technology and drones to improve the speed and reliability of the Cost Cutting

Experiments (CCEs); most of the states have been unable to carry out the crop cutting experiments in a reliable and fool proof manner.

RECENT CHANGES INTRODUCED IN MARCH 2020

Limit on the Centre's Premium: The Centre would contribute its share of the premium amount, provided the premium is up to 30% for unirrigated areas/crops and 25% for irrigated areas/crops. If the premium is above the threshold, then the centre would not provide the additional premium amount. So, in that case, the additional premium amount would be borne by the respective state government.

Voluntary enrolment of farmers: Earlier, the scheme was mandatory for the loanee farmers and optional for non-loanee farmers. The recent changes have made the enrolment under the scheme voluntary even for the loanee farmers.

Higher share of centre's contribution in North-Eastern States to 90:10 (earlier 50:50)

Timely payment of Insurance premium by States: States would not to be allowed to implement the Scheme in subsequent Seasons in case of considerable delay in payment of premium in previous season.

IMPLICATIONS OF THE NEW CHANGES

Higher Subsidy burden on the States due to limit on capping on premium contribution by Centre

Increase in the insurance premium: The move to done away with the compulsory enrolment of loanee farmers would lead to decrease in the area as well as the number of farmers covered under the scheme. This is expected to lead to increase in the insurance premium under the scheme.

43. PM-KUSUM SCHEME

KUSUM Scheme seeks to incentivise the farmers to set up solar powered plants in their fields so as to enable them to meet their energy needs and supplement their farm incomes. The idea is enable "Annadata" to become "Urjadata".

3 COMPONENTS

1. **Setting up of 10,000 MW of Grid-Connected Solar and Other Renewable energy plants** on Barren/Uncultivable land) → Sell Power to DISCOMs and earn Income.
2. **Off-Grid Areas**: Replacement of diesel agriculture pump sets with 20 lakh Solar Agriculture Pumps→ Reduce the dependence of farmers on diesel and meet their irrigation needs.
3. **Grid-connected Areas:** Replacement of diesel agriculture pump sets with 15 lakh Solar Agriculture Pumps→ Use the generated solar power to meet the irrigation needs and the excess solar power will be sold to DISCOMs.

BENEFITS

Environmental Benefit: Saving of about 27 million tonnes of CO_2 emission per annum.

Economic Benefit: Reduce financial burden on DISCOMs; Promote Renewable Energy; Reduce import of Crude Oil and improve Trade Deficit.

Social Benefit: Supplement Farm Income; Generate Self-Employment; Empowerment of Farmers.

HOW TO IMPROVE THE DESIGN OF THE PROGRAMME?

Reducing Inter-state Disparity: Chhattisgarh and Rajasthan together account for half of two lakh solar pumps currently deployed in the country; Target linked financial assistance to reduce the disparities.

Reducing Intra-state Disparity: Share of central financial assistance should be appropriated for small and marginal farmers/Women farmers.

Give up One Size Fits-all approach: Small and marginal farmers should be given a higher capital subsidy and long-term loans with interest subsidies.

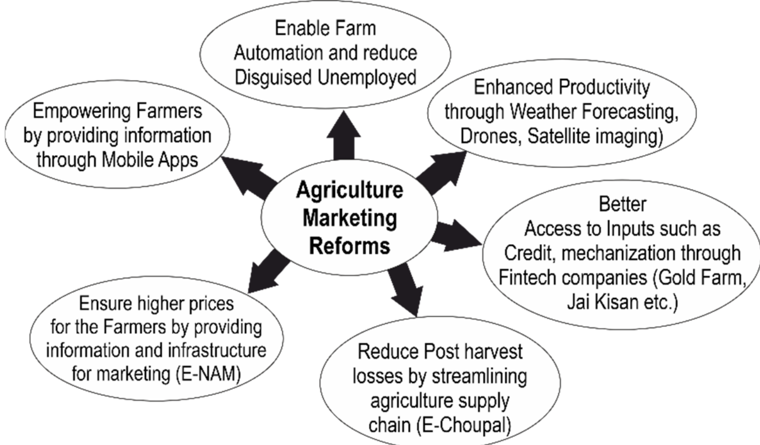
Focus on Efficiency of Pumps: Solarizing grid connected pumps must include replacement of the pump with more energy efficient newer age pumps.

Focus on Post-harvest losses: Use solar power for post-harvesting processes to promote local value addition and enhanced income levels.

44. ROLE OF E-TECHNOLOGY IN AGRICULTURE

Digital Technologies such as ICT, Artificial Intelligence, Big Data, IoT etc. can play a transformative role in modernising agriculture, make it more Industrialised and usher in constructive disruption.

The Government has adopted number of digital initiatives such as **E-NAM, AGMARKNET, ATMA, Kisan Call Centres, Kisan Suvidha app** etc. These initiatives can reduce the input costs, enhance productivity and increase prices received by farmers.



However, adoption of digital technologies faces multi-faceted challenges:

Fragmented landholdings reduce the scope of technology scale up, leading to poor cost effectiveness.

Poor affordability: High-priced technology is unaffordable for small and marginal farmers.

Long gestation period: Adoption and penetration of technology is slow process.

Lack of enabling policy: Adoption of technologies through subsidy is yet to gain momentum.

Poor skill sets among the farmers make adoption of technologies difficult.

Other reasons include **poor extension, lack of access to credit, poor internet penetration** etc.

The Dalwai panel has highlighted Digital technologies as the key enabler for doubling Income levels of the farmers. Going forward, these constraints and challenges should be addressed at the earliest so that Agriculture sector reaps the benefits of ICT.

45. ROLE OF AGRITECH

Agritech is the use of technology in agriculture, horticulture, and aquaculture with the aim of improving yield, efficiency, and profitability. Agritech can be products, services or applications derived from agriculture that improve various input/output processes.

Examples include Mobile applications, weather forecasts, drones, Use of ICT in agriculture etc.

According to NASSCOM, Agritech can bring in innovation in agriculture leading to its comprehensive transformation:

Access to Inputs: E-commerce Mobile apps provide farmers with access to agricultural inputs at doorsteps. Farmers would also understand best input product to increase yield. Example: BharatRohan

Increased Mechanisation through Uber-like apps such as Goldfarm

Access to Loans through apps such as JaiKisan.

Resource Maximization: IoT based platforms such as Fasal use AI and Big data to optimally utilise water, fertilisers etc.

Enhancing Productivity: NITI Aayog's pilot project on Precision Agriculture using AI for increasing crop productivity.

Agricultural Marketing : Apps such as Ninjacart would streamline supply chain by connecting farmers directly with customers.

Keeping in mind these advantages, states such as Maharashtra and Karnataka have set up separate funds to boost agritech sector. There is a need to upscale these efforts at national level to optimally harness agritech.

46. AGRICULTURAL EXTENSION

Agricultural Extension refers to empowering farmers through sharing information, knowledge, technology, skills, farm management practices so as to enable them to realise higher incomes on a sustainable basis. It takes through the Agricultural research Institutes, KVKs, Agricultural Technology Management Agency (ATMA) etc.

Agricultural extension has played a key role in the success of the Green Revolution. However, it has led to Input intensive agriculture. Hence, renewed thrust on knowledge-based extension would modernize agriculture, make it more scientific leading to enhanced income levels.

IMPORTANCE OF EXTENSION

1. Use of outdated and inappropriate technology is the main reason for low productivity of crops and livestock.
2. Empowering farmers with information related to each stage of agricultural cycle- Pre-planting, Seeding, Growing, Harvesting, Post-Harvesting and Marketing.
3. Bridge two gaps- Best scientific practices and best field practices; Best field practices and Average farmer.
4. Extension through Green Revolution has benefitted large farmers. Extension activities have to be more inclusive and hence Focus on empowering the Poor farmers.
5. Enhancing input use efficiency through enhanced knowledge- Soil, water, fertilizer management.
6. Knowledge to make agriculture more climate resilient- ZBNF, Conservation agriculture etc.
7. Huge gap exists between the demand for and supply of skills in agriculture, hindering diversification, adoption of precision agriculture and on farm post-harvest value addition.
8. Providing psychological counselling to farmers to manage distresses
9. Entrepreneurial skills for farmers to manage small scale agri-business;

SUGGESTION FOR REJUVENATION OF AGRICULTURAL EXTENSION IN THE COUNTRY

- Co-opting and converging multiplicity of public, private and not for profit extension services
- Agricultural extension activities to cover "off-farm and non-farm" income generating activities which are critical for doubling farmers' income.
- Leveraging ICT to reach out to farmers will streamline information flow, reduce load on manpower and provide for real time information, among other advantages.
- Revisiting Curriculum in Agriculture Universities:
- Public Private Partnership (PPP) mode through KVKs.
- Agri-business oriented extension system
- Capacity building of extension functionaries

47. CONSERVATION AGRICULTURE

Conservation agriculture is advocated as an alternative to the conventional production system. Soil disturbance regulation, surface residue management and crop rotation are the fundamentals (core pillars) of CA.

KEY ELEMENTS OF TRANSFORMATION

CONVENTIONAL AGRICULTURE	CONSERVATION AGRICULTURE
1. Cultivating land, using science and technology to dominate nature	1. Least interference with natural processes
2. Excessive mechanical tillage and soil erosion	2. No till/drastically reduced tillage (biological tillage)
3. Residue burning or incorporation	3. Surface retention of residues
4. Use of ex-situ FYM/ composts	4. Use of in-situ organics/ composts
5. Green manuring	5. Brown manuring
6. Free wheeling of farm machinery	6. Controlled traffic
7. Crop based management	7. Cropping system based management
8. Single or sole crops	8. Intercropping/relay cropping
9. Uneven field levels	9. Precision laser land levelling

CHALLENGES

- Difficulties in sowing and application of fertilisers and pesticides
- Problems of pest infestation

IMPACT OF CONSERVATION AGRICULTURE

1. **Economic benefits:** Time saving and reduction in labour requirement; Reduction of costs eg fuel, machinery operating costs and maintenance
2. **Agronomic benefits:** Increase in organic matter content of soil, in-situ soil water conservation, improvement of soil structure, and thus rooting zone.

3. **Soil Fertility:** Fertiliser use efficiency, water holding capacity, soil aggregation, rooting environment and nutrient retention.
4. **Environment and social benefits:** Reduced soil erosion, improves water and air quality, increased biodiversity and carbon sequestration.

WAY FORWARD

1. Need to create awareness about Conservation agriculture related strategies among farmers
2. Need to develop farm machinery to facilitate Conservation Agriculture.
3. Integrated weed management involving chemical and non-chemical methods (residue, cover crops, varieties etc.) is essential for success of CA systems in the long run.

48. ORGANIC FARMING- STATUS, INITIATIVES, CHALLENGES AND WAY FORWARD

STATUS OF ORGANIC FARMING IN INDIA

India ranks first in number of organic farmers and ninth in terms of area under organic farming. The total area under organic certification process (registered under National Programme for Organic Production) is 3.67 million Hectare (2019-20). Among all the states, **Madhya Pradesh** has covered largest area under organic certification followed by Rajasthan and Maharashtra.

In 2016, Sikkim became the first State in the world to become fully organic and other States including Tripura and Uttarakhand have set similar targets.

OPPORTUNITIES

- High demand for organic farming food products fetches higher prices for farmers.
- Healthy Foods without any pesticide and insecticide residue.
- Improvement in Soil Quality due to enhanced microbial activity under organic farming
- Increased Crop Productivity and Income
- Low Incidence of Pests due to adoption of bio-control methods.
- Organic farming requires more labour input than the conventional farming system and thus promote more employment opportunities.
- Under severe drought conditions, organically managed farms have frequently been shown to produce higher yields than conventionally managed farms due to the higher water-holding capacity of organically farmed soils.
- Indirect Benefits: Eco-tourism, protection of the ecosystem, flora, fauna and increased biodiversity

INITIATIVES TAKEN BY GOVERNMENT TO PROMOTE ORGANIC FARMING

Standards for Organic Foods: Any organic food manufactured, sold and marketed is regulated as per the provisions of Food Safety and Standards (Organic Food) Regulations, 2017.

India has adopted two Organic Certification:

- **National Programme for Organic Production (NPOP)** for Exports. Under the Ministry of Commerce and Industry. NPOP certification is facilitated by Agriculture Processed Food and Export Development Authority (APEDA).

- **Participatory Guarantee System (PGS)** for Domestic and Local markets. Under the Ministry of Agriculture**.** Implemented by Ministry of Agriculture with National Centre for Organic Farming (NCOF) acting as its secretariat.

Note: The Jaivik Bharat logo for Organic Food is an identity mark to distinguish organic products from non-organic ones.

Paramparagat Krishi Vikas Yojana (PKVY): The scheme promotes cluster based organic farming with **Participatory Guarantee System(**PGS certification). Cluster formation, training, certification and marketing are supported under the scheme.

Mission Organic Value Chain Development for North Eastern Region (MOVCDNER): Development of certified organic production in a value chain mode to link growers with consumers. It provides support for the development of entire value chain starting from inputs, seeds, certification and creation of facilities for collection, aggregation, processing, marketing and brand building initiative.

ISSUES AND CHALLENGES

Even though India accounts for 30% of global organic producers, it accounts for only around 2.5% of the of global area under organic cultivation. Some of the reasons for poor coverage of organic farming include:

Poor Awareness: Use of bio-fertilizers and bio pesticides requires awareness. Farmers lack knowledge of compost making using the modern techniques and its application.

Shortage of Biomass: The crop residues are mainly used as fodder and fuel. The small and marginal cultivators have difficulties in getting the organic manures compared to the chemical fertilizers.

Inadequate Supporting Infrastructure: Poor Certification of Organic products; absence of market for organic products; higher prices of organic products etc.

Higher Input Costs: Costs of the organic inputs are higher than those of industrially produced chemical fertilizers and pesticides. Neem cake, vermi-compost, cow dung etc. which are applied as organic manure are increasingly becoming costly making them unaffordable to the small cultivators.

Transition period: When a farmer shifts to organic farming from conventional farming, yields have been shown to have significant drop. However, yields tend to increase with the number of years under organic management as farmers gain experience and soil improves.

Lack of quality seeds supporting organic agriculture: Hybrid seeds are designed to respond to fertilizers and chemicals.

Inability to meet the export demand: Indian organic exports face different constraints such as high price expectations in relation to quality, chemical residues, time consuming and complicated paperwork etc.

WAY FORWARD

1. Supply of sufficient nutrient through organic management, Promotion of Green manures, vermi-composting
2. Promotion of strategies such as Integrated Organic Farming Systems, Multiple Cropping and crop rotation, Hedge row/alley cropping
3. Biological pest management and biological weed management strategies need to be promoted.
4. Making it easier for farmers to certify their food products and market them.

49. SYSTEM OF RICE INTENSIFICATION

India has the world's largest area under Paddy cultivation and this in turn has led to water crisis. Against this background, the System of Rice Intensification (SRI) provides for an effective strategy to reduce water consumption, increase yields, and thus ensure food security.

ABOUT SRI: The System of Rice Intensification (SRI) is a set of practices for increasing the productivity of irrigated rice. It is a low-water and labor-intensive method that makes use of younger seedlings. The SRI method was initially developed in the 1980s in Madagascar and later adopted in number of countries, including India. SRI practices and concepts have also been successfully adapted to upland rice and to other crops such as wheat, finger millet, and sugarcane.

DIFFERENCE BETWEEN SRI AND CONVENTIONAL METHODS

As can be seen below, SRI method has number of advantages over Conventional Rice management methods:

	Conventional Rice Management	**SRI Method**
Seeds required	50-60 kg/ha	5 kg/ha
Transplanting	Transplant older seedlings	Transplant young seedlings to preserve growth potential
Water Management	Flood Irrigation	Keep only the soil moist but not flooded
Fertilizer Management	Use Chemical fertilizers	Use organic matter as much as possible
Pest and Disease Incidence	Higher	Lower
Availability of Organic Matter	Less	More

BENEFITS OF SRI

- Decrease water consumption by almost 40%
- Increase yields by over 30%
- Potential to double income level of farmers by enhancing input use efficiency and higher productivity
- Can easily be adopted by Small and Marginal farmers who account for 83% of farmers
- Greater tolerance to abiotic (drought, heat waves) and biotic (pest and diseases) stresses
- Promote environment friendly practices such as Organic farming, reduce emission of methane, improvement in soil fertility etc.
- Potential to apply this method for other crops such as Sugarcane, wheat, millet etc.

Although the benefits of SRI have been demonstrated globally, the potential remains untapped. The report "More Rice with Less Water" recommends that India should convert at least 25% of current rice cultivation to SRI. This would not only dramatically reduce the use of water but also improve global food security.

50. SAHAKAR-SE-SAMRIDDHI: FROM COOPERATION TO PROSPERITY-CHALLENGES AND STRATEGIES

The Cooperatives can be defined as "Autonomous and economic institutions of user members united voluntarily to meet their common economic, social, cultural needs and aspirations through a jointly owned and democratically controlled enterprise".

The Cooperative Sector plays a significant role in the overall economic development of the country through bottom-led and grassroots movement. It has the potential to boost GDP growth while ensuring that poor and vulnerable sections contribute to the process of growth itself. Hence, the sector is an integral part of our strategy to promote inclusive growth and development.

FACTS ABOUT COOPERATIVES

- 8.5 lakh registered cooperatives with 30 crore members.
- Cooperatives cover 99% of Indian villages and 71% of rural households.
- 19% of agriculture finance is through cooperative societies.
- 1528 registered societies under the Multi-State Cooperative Societies Act 2002 which include 66 Multi-State Cooperative Banks with deposits of approx. Rs 2.6 lakh crore.

CHALLENGES IN COOPERATIVE SECTOR (SHIVAJI RAO PATIL COMMITTEE ON COOPERATIVES (2019)	INITIATIVES TAKEN
Lack of Participatory character: The success of cooperatives hinges on the active and sustained participation of all the members. However, it has been compromised due to: **Free rider problem** as people usually join cooperatives to obtain benefits such as financial support from government. **Legal loophole:** State cooperative acts allows even the non-active members to participate in meetings, exercise voting rights and to be elected on the Board. Dominated by few rich and powerful members and thus goes against the democratic nature of such institutions. For example, sugarcane cooperatives in Maharashtra are dominated by rich politicians. Restricted Coverage to only one or two villages. As a result, their resources remain limited and hence remain unviable. Restricted role: Most of the societies are single purpose societies with limited roles. For example, Primary agricultural credit cooperative societies (PACS) are involved mainly in giving loans to members and do not take up other roles such as facilitating adoption of mechanisation, buying of inputs in bulk etc. Politicization of cooperatives:	• Enactment of Multi-State Cooperative Societies Act, 2002. • Establishment of Ministry of Cooperation in 2021 • Computerisation of 63,000 functional PACS • Preparation of by-laws for enabling PACS to expand their activities. • Reduction in Minimum Alternate Tax (MAT) rate for cooperative societies from 18.5% to 15% • Cooperative societies to be allowed to register as buyers on the GeM platform. • Preparation of National Co-operative Database • Multi-State Co-operative Societies (Amendment) Bill, 2022 to improve governance. **STRATEGIES NEEDED** **Encourage states to adopt** Model Cooperatives Act proposed by the Choudhary Brahm Perkash Committee. Some of the provisions include prohibiting cooperatives to accept funds in the form of equity

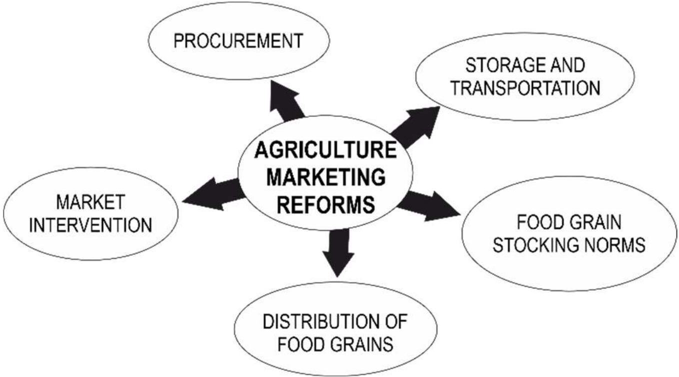
Infusion of share capital by the Government enable it to have control over cooperatives. Further, there have been instances of a political party in power assuming control over large sized cooperatives through methods such as appointing an active member of the party to the position of Chairman, nominating persons, issuing directions to board. **Restrictive state cooperative societies acts** have affected functional autonomy and democratic character of the cooperatives. Some of these provisions include Giving directions to co-operatives "in public interest"; Nomination of persons on the management committee/Board; Postpone elections; Supersede committees/boards, disqualify members Governance related issues such as Poor Regulation and audit by Registrar of cooperative societies, delay and disputes regarding holding elections, financial frauds, corruption. For example, poor governance of Primary Urban Cooperative Banks (UCBS) has led to increase in NPAS. **Absence of skilled professionals:** Most of the states do not have dedicated cadre of officials for management of cooperatives. Quite often, the State Government officials who do not have expertise in management of cooperatives get deputed to the such institutions. Further, these officials changed too frequently resulting in a lack of accountability and thus affecting the business of the cooperatives. **Lack of Adequate Capital:** The amount of capital raised by cooperatives from members if quite low. Further, while corporate entities can raise equity as well as borrow from the market, cooperatives do not have access to capital markets. The poor financial position of rural credit cooperatives has led to its lower share in agricultural finance (19%). Increase in number of sick cooperatives particularly in the processing sector such as sugar, textiles and vegetable oil.	from Govt, prohibiting Government officers from working in cooperatives, limiting the role of Government in issuing directions, clear roles and responsibilities for registrar of cooperative societies etc. **Enhance participatory character** of cooperatives by inserting provision related to active members in the state cooperative societies acts. **Tap enhanced opportunities:** Due to LPG reforms, the role of the Government has substantially reduced. This void can be filled by the cooperatives wherein they can be involved in delivery of services such as Education, Health, Transportation, water, storage of food grains etc. **Promote higher economies of scale** through (a) Doing away with restrictions on area of operations (b) merger of cooperatives (c) Encourage cooperatives to diversify their business. For example, IFFCO has diversified towards microfinance, agri-insurance, food processing, skill development etc. which has enabled it to become world's largest cooperative. **Strengthen access to capital market** by setting up an umbrella organization. For example, Umbrella Organisation is being proposed to be set up for Primary UCBS. The same model can be replicated for other cooperatives as well. **Set up Dedicated fund** for the revival of sick cooperative societies.

2 CHAPTER PUBLIC DISTRIBUTION SYSTEM

TOPICS TO BE COVERED

1. *Various Issues in Public Distribution System (PDS)*
2. *Food Subsidy Bill: Constraints and Strategies*
3. *Flaws in the Open-ended Procurement Policy*

The nodal agency which undertakes procurement and storage of food grain is the Food Corporation of India (FCI). The distribution of food grains is primarily under the National Food Security Act, 2013 (NFSA) and other welfare schemes of the Government and is governed by the scale of allocation and its offtake by the beneficiaries.



VARIOUS COMPONENTS OF FOOD MANAGEMENT

Procurement: The cost incurred by FCI for the procurement of food grains is referred to as Economic Cost of Food grains. It comprises of 3 components - Pooled cost of grains (weighted MSP of stock of food grains), Procurement incidentals (Labour charges, Transport charges, storage cost etc.) and cost of distribution. The States have also been encouraged to undertake the procurement of food grains on their own through the Decentralised procurement scheme. It has been introduced to reduce the transportation and storage costs of FCI.

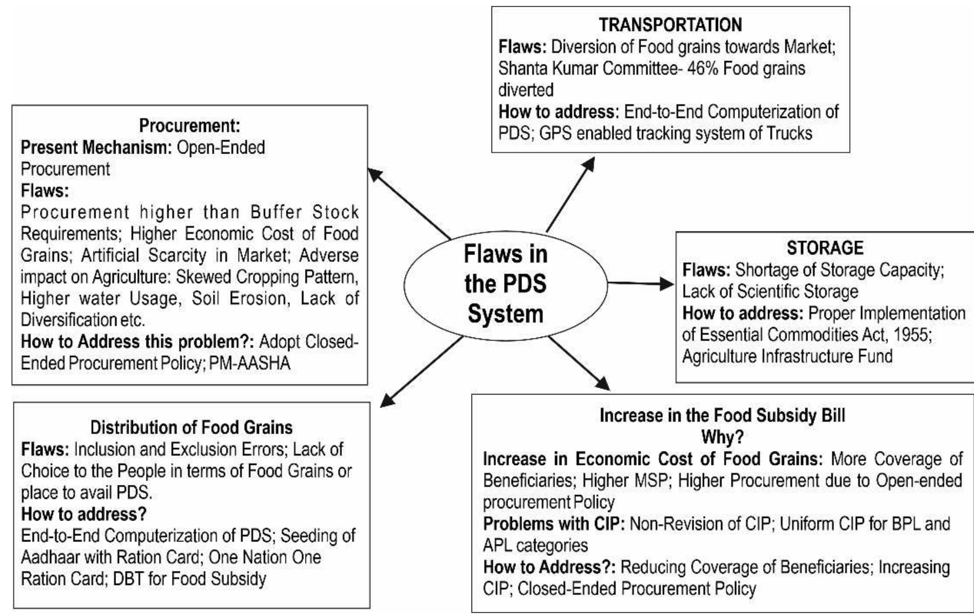
FOOD GRAIN STOCKING NORMS: It has 2 components:

- **Operational Stocks**: For meeting monthly distributional requirement under TPDS and other welfare schemes.
- **Strategic Reserves**: To meet emergency situations.
- Note: The norms are defined for a quarter of financial year i.e., how much buffer has to be maintained for each quarter of financial year.

DISTRIBUTION OF FOOD GRAINS in accordance with National Food Security Act 2013

Note: The Central Issue Price is the price at which centre allocates food grains to the states. It can be considered as the price at which food grains are sold through the network of fair price shops. For instance, it is Rs 1/2/3 per kg for nutri-cereals/wheat/rice respectively. Under the NFSA, the CIP is Rs 200/quintal in case of wheat and Rs 300/quintal in case of rice.

1. VARIOUS ISSUES IN PUBLIC DISTRIBUTION SYSTEM (PDS)



RECOMMENDATIONS OF SHANTA KUMAR COMMITTEE ON PDS REFORMS

- **Need for End to End Computerisation**: Given that leakages in PDS range from 40 to 50 percent, Government should defer implementation of NFSA in states that have not done end to end computerization; have not put the list of beneficiaries online for anyone to verify, and have not set up vigilance committees to check pilferage from PDS.
- **Reducing the Coverage:** Reduce the current coverage of 67% of the population under NFSA to 40% (comfortably cover BPL families and some even above that)
- **Increasing the Food grains**: The amount of food grains should be increased to 7kg/person from the present 5kg grain per person.
- **Pricing:** Antyodaya households can be given grains at Rs 3/2/1/kg for the time being, but pricing for priority households must be linked to MSP, say 50 percent of MSP
- **Timely Allocation**: Targeted beneficiaries should be given 6 months ration immediately after the procurement season ends. This will save the consumers from various hassles of monthly arrivals at FPS and also save on the storage costs of agencies.
- **Cash Transfers**: Gradual introduction of cash transfers in PDS, starting with large cities with more than 1 million population; extending it to grain surplus states, and then giving option to deficit states to opt for cash or physical grain distribution. This would lead to saving of Rs 30,000 crores.
- **Storage, movement and Transport of Food Grains**: FCI should outsource its stocking operations to various agencies such as Central Warehousing Corporation, State Warehousing Corporation to bring down costs of storage. Covered and plinth (CAP) storage should be gradually phased out. The Movement of grains needs to be gradually containerized to reduce transit losses.
- **Buffer Stocks:** During the last five years, on an average, buffer stocks with FCI have been more than double the buffer stocking norms costing the nation thousands of crores of rupees loss without any worthwhile purpose being served. The underlying reasons for this situation are many, starting with export bans to open ended

procurement with distortions. There has to be a comprehensive liquidation policy which gives sufficient amount of flexibility to FCI to either export or sell the surplus stocks in the market.

2. FOOD SUBSIDY BILL: CONSTRAINTS AND STRATEGIES

What constitutes Food subsidy? Food subsidy comprises of (i) subsidy provided to FCI for procurement and distribution of wheat and rice under NFSA and other welfare schemes and for maintaining the strategic reserve of food grains and (ii) subsidy provided to States for undertaking decentralized procurement. The acquisition and distribution costs of food grains for the central pool together constitute the economic cost.

The Food subsidy bill is calculated as the difference between Economic cost of Food grains and Central Issue price (CIP).

Increase in Food Subsidy Bill: The food subsidy bill has increased from 1.2 lakh crores in 2014-15 to 1.7 lakh crores in 2018-19. In order to pay the food subsidy bill, the Government has been borrowing from National Small savings Fund (NSSF) through the issuance of special G-Secs.

REASONS FOR INCREASE IN FOOD SUBSIDY BILL

INCREASE IN ECONOMIC COST OF FOOD GRAINS

- Higher coverage of beneficiaries under NFSA as compared to erstwhile TPDS
- Increase in MSP (Increase of one unit in real MSP leads to 0.48 unit increase in real economic cost procurement)
- Higher procurement of food grains as against the stocking norms (due to Open Ended procurement Policy)
- Increase in storage cost

PROBLEMS WITH CENTRAL ISSUE PRICE (CIP)

- The CIP for NFSA beneficiaries has not been revised from Rs 200/quintal in case of wheat and Rs 300/quintal in case of rice. These rates were fixed under the Act initially for a period of three years from the date of commencement of the Act and thereafter were to be fixed by the Central Government from time to time, while not exceeding the minimum support price. However, it has not been revised since 2013. This has resulted in widening of the gap between the economic cost and CIP
- Uniform CIP for BPL and APL households

RECOMMENDATIONS TO IMPROVE PDS

- **NITI Aayog:** Reduce the percentage of beneficiaries under NFSA in the rural (from 75% to 60%) and urban areas (from 50% to 40%). Accordingly, the number of beneficiaries under the NFSA will drop from 81 crores to 71 crores. This will lead to annual reduction in the Food subsidy bill by Rs 48,000 crores.
- **Shanta Kumar Committee:**
  - **Need for End-to-End Computerization**: Given that leakages in PDS range from 40 to 50 percent, Government should defer implementation of NFSA in states that have not done end to end computerization.
  - **Reducing the Coverage**: Reduce the current coverage of 67% of the population under NFSA to 40% (comfortably cover BPL families and some even above that)
  - **Increasing the Food grains:** The amount of food grains should be increased to 7kg/person from the present 5kg grain per person.

- **Pricing:** Antyodaya households can be given grains at Rs 3/2/1/kg for the time being, but pricing for priority households must be linked to MSP, say 50 percent of MSP
- **Economic Survey 2019-20:** The Central Issue price (CIP) should be revised upwards; Coverage of the beneficiaries under NFSA should be reduced.

3. FLAWS IN THE OPEN-ENDED PROCUREMENT POLICY

Presently, Government is following **open-ended procurement policy** to offer **fair and remunerative prices** to farmers and prevent them from distress sale. However, apart from making **food grain management unsustainable**, this policy has neither benefitted farmers nor agriculture.

Presently, there is **no limit on procurement of food grains** such as Rice and Wheat leading to higher procurement. For instance, **Food grain stock** of Rice and Wheat (65 MT) is almost **110%** more than **buffer stock requirements** (30 MT).

IMPLICATIONS

1. **Higher economic cost** for FCI (Rs 50,000 crores) leading to higher debt burden.
2. **Artificial scarcity of food grains** in open market leading to increase in prices.
3. Higher emphasis on procurement of **water-intensive crops such as Rice and Wheat** is adversely affecting agriculture- **skewed cropping pattern, higher water usage, soil erosion, lack of diversification** etc.

HOW TO ADDRESS THIS PROBLEM?

Closed-Ended Procurement: The procurement system has to be made closed-ended and the FCI should be allowed to procure the commodities only up to a certain higher level over the buffer norms.

Protect the farmers from distress Sale: Government must compensate the farmers for the loss by transferring the difference amount between the MSP and the price at which commodities have been sold.

Strengthen Open Market Sales Scheme: FCI sells surplus stocks of wheat and rice under Open Market Sale Scheme at pre-determined prices through e-auction in the open market from time to time. This scheme has to be effectively used to dispose the surplus buffer stocks.

Strengthen E-NAM: Presently, only around 1000 APMCs (14%) have integrated into E-NAM. There is a need to enhance penetration of E-NAM so that dependence of the farmers on the FCI for procurement reduces.

Encourage Decentralised Procurement: Presently, under Decentralized Procurement Scheme (DCP), food grains are procured and distributed by the State Governments themselves (on behalf of FCI) under Targeted Public Distribution System (TPDS) and other welfare schemes of the Government of India. This scheme enables the FCI to reduce storage and transportation costs. There is a need to encourage more states to adopt this scheme.

Encourage Private Sector Procurement: The Government must encourage the private sector for higher procurement of the agricultural commodities in order to reduce the burden on the FCI.

3 CHAPTER LAND REFORMS

TOPICS TO BE COVERED

1. *Land Reforms in India*
2. *Reorganisation of Agriculture*
3. *Consolidation of Land Holdings*
4. *Impact of Land Reforms on Small & Marginal Farmers*
5. *Reasons For Lack of Success of Land Reforms (Committee on State Agrarian Relations and The Unfinished Task in Land Reforms)*
6. *Land Records Management in India*
7. *Land pooling System (LPS) – Benefits and Challenges*

1. LAND REFORMS IN INDIA

Land reform refers to an institutional measure directed towards altering the existing pattern of ownership, tenancy, leasing and management of land.

The 4 Components of land reforms were (1) the abolition of intermediaries; (2) tenancy reforms; (3) fixing ceilings on land holdings; and (4) consolidation of landholdings.

ABOLITION OF INTERMEDIARIES

This involved abolition of zamindari and other intermediaries and bringing the cultivators in direct contact with the Government. The abolition of intermediaries also involved compensation to the owners of land.

Benefits: This aspect of land reforms was relatively successful in comparison to tenancy reforms and land ceiling laws.

- About 2 crore tenants came into direct contact with the State.
- More lands came under the Government's control for distribution to landless farmers.

Problems:

- Government had to pay compensation to the landowners which resulted in heavy burden on the state exchequer.
- The intermediaries were abolished in 1950s but were allowed to retain possession of lands under their personal cultivation without limit being set, as the ceiling laws were passed only in the1960s. As a result, there was enough time left for the intermediaries to make legal or illegal transfers of land.

TENANCY REFORMS

Tenancy reforms focussed on 3 main aspects: (a) Security of tenure for the tenants (b) Regulation of Rent (c) grant of ownership rights to certain types of tenants.

Critical Analysis of Tenancy reforms: Tenancy legislations in India are not uniform throughout the country. Each state has its own legislation. Most state governments have either legally banned or imposed restrictions on agricultural land leasing. Restrictive clauses in the tenancy laws of various states include period of lease, regulation of rent, conditions for termination of lease, conferment of ownership rights on tenants etc.

Case for Legalisation of Land Tenancy: Restrictive land leasing laws have proved to be anti-growth and antipoor on account of following reasons:

Informal and Oral Tenancy – Tenants do not have access to institutional credit, insurance etc. and are prone to exploitation.

Oral and informal tenancy discourages the tenants from making investment in land improvement

Reduced the occupational mobility of many landowners who have interest and ability to take up employment outside agriculture and yet are forced to stay in agriculture due to the fear of losing land if they lease out and migrate.

Many landowners prefer to keep the land fallow due to the fear of losing land rights if they lease out. This leads to underutilisation of land. The lifting of ban or restrictions on leasing will result in better utilization of the available land and labour and increased farm output.

Higher Equity and Economic justice as the land leasing enables the poor to have access to land and improve their income levels.

2. REORGANISATION OF AGRICULTURE

This involved (a) imposition of ceiling on land holdings that an individual or family can possess (b) acquisition of surplus land and its distribution among the small farmers and landless workers (c) Consolidation of land holdings.

IMPOSITION OF CEILING ON LAND HOLDINGS RATIONALE

Economic Rationale: According to some economists, small farms are more efficient than large farms since they require less capital. Further, small farms provide more employment opportunities.

Social Rationale: Promote justice, equality and prosperity of poor and vulnerable sections.

Unit of application: In the first phase, that is, prior to 1972, the basis of ceiling fixation was an individual as a unit instead of a family. Since 1972, a family has been accepted as the unit of application of ceilings. The family is defined as a unit consisting of husband, wife and children.

Upper limit for land holding: wide variations in the ceilings on land holdings.

Exemptions: Certain types of land were exempted from ceiling laws such as land under personal cultivation, plantations etc.

3. CONSOLIDATION OF LAND HOLDINGS

Consolidation of Holdings means bringing together the various small plots of land of a farmer scattered all over the village as one compact block, either through purchase or exchange of land with others.

ADVANTAGES

Prevents fragmentation of land holdings

Reduces disguised unemployment

Promotes higher economies of scale with respect to access to inputs, higher productivity and access to markets.

Improves the efficiency of farms through better adoption of technology and mechanisation. Problems and Challenges:

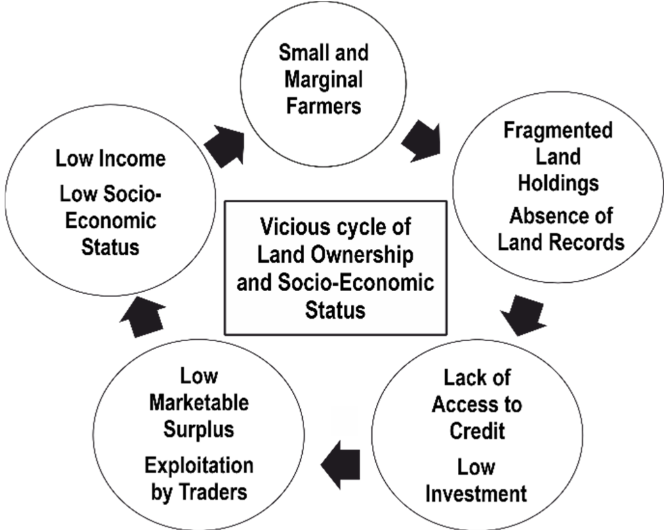
Farmers are attached to their ancestral land and do not want to part with it or exchange for other land.

Fear among the farmers that they may not want equally better quality of land in exchange.

Opposition by rich landlords due to the fear of losing control over the fertile large lands.

4. IMPACT OF LAND REFORMS ON SMALL & MARGINAL FARMERS

Indian agriculture is dominated by small and marginal farmers (86%) accounting for 48% of agricultural land. These farmers are caught in vicious trap due to fragmented landholdings



Successful Land Reforms in states such as Kerala and West Bengal (Operation Barga) have improved socioeconomic condition of marginal and small farmers:

Abolition of intermediaries has addressed historical injustices and move towards egalitarian society.

Land Ceiling Acts and movements such as Bhoodan and Gramdan have promoted equity in land ownership.

Tenancy reforms in states such as TN, AP, WB etc. have enabled marginal farmers to lease in/out land leading to consolidation of land holdings, higher occupational mobility and enhanced agricultural productivity.

Promotion of Cooperative farming through Kudumbashree (Kerala) and Andhra Pradesh Mahila Samatha Society have enabled farmers to reap benefits of higher economies of scale.

Land Records Modernization Programme has reduced litigations and facilitated access to institutional credit.

Land Reforms in other parts of India have not been very successful on account of Benami Transactions, loopholes in Land ceiling acts, slow progress in Digitisation of land records etc.

Hence, going forward, India should focus on Land Reforms 2.0 through transfer of surplus government land, legalising land Leasing, organising farmers into FPOs etc.

5. REASONS FOR LACK OF SUCCESS OF LAND REFORMS (COMMITTEE ON STATE AGRARIAN RELATIONS AND THE UNFINISHED TASK IN LAND REFORMS)

Delay in enacting land laws gave enough time to the landowners to escape the provision on land ceilings through benami transactions and illegal transfer of land to others.

Loopholes in Legal framework: Zamindars were allowed to keep the land under personal cultivation without any limit. However, the term "Personal cultivation" was loosely defined. It enabled even those people who supervised the land personally or through a relative to call themselves as cultivator. The land ceiling acts of the state governments provided number of exemptions on the ceiling such as Plantations and thus enabled the landowners to hold on to the land.

Absence of modernised land records made it difficult for the Government to implement reforms related to land ceiling acts and distribution of surplus land among the landless people.

Optional nature of laws: Most of the laws granting ownership rights to tenants are not mandatory. They are rather optional. The tenants have to move the government for grant of ownership rights.

Lack of social consciousness among the tenants: The small cultivators and the landless were not only unorganised but also ignorant of legal and constitutional process.

Increased Litigations: Faults and defects in laws related to land reforms has resulted in growing number of litigations which has dampen the spirit of reforms

Lack of Political will: Land reforms have been successful in only some of the states such as Kerala and West Bengal (Operation Barga) due to strong political will and enthusiasm.

Corruption & Bureaucratic apathy due to close nexus between lower-level officials and Zamindars.

6. LAND RECORDS MANAGEMENT IN INDIA

POOR LAND RECORD MANAGEMENT IN INDIA

Land titles are presumptive: Registration of land refers to the registration of the transaction, and not the land title. Such registration does not guarantee the title by the government.

Registration of property is not mandatory for all transactions: Under the Registration Act, 1908, registration of property is not mandatory for all transactions. This often leads to litigation related to rightful owner among heirs.

Poor maintenance of land records: Historically, land registration, and the maintenance of records has been done manually. Documents are usually kept with the Revenue Department and are not easily accessible to the public. This makes it difficult and cumbersome to access land related data when trying to engage in a property sale

Multiple entities deal with land registration and records: In the presence of multiple agencies responsible for registration and maintenance of records, it is difficult to ensure that survey maps, textual data, and registration records match with each other and are updated. In addition, citizens have to approach several agencies to get complete information on land records.

REFORMS UNDERTAKEN TO IMPROVE LAND RECORDS

Digital India Land Records Modernization Programme: Seeks to achieve complete computerization of the property registration process and digitization of all land records.

Proposal of Conclusive Titling: In a conclusive titling system, the government provides guaranteed titles, and compensation in case of any ownership disputes. Achieving this will require shifting to a system of registered property titles (as opposed to sale deeds) as the primary evidence of ownership, and having clear and updated land records. However, adopting a conclusive system of titling will require undertaking several measures. All existing land records will have to be updated to ensure that they are free of any encumbrances. Information on land records, which is currently spread across multiple departments, will have to be consolidated. Further, several changes in existing laws that govern registration and transfer of land, and institutional changes in maintenance of land records will also have to be.

7. LAND POOLING SYSTEM (LPS) – BENEFITS AND CHALLENGES

Land Pooling is a form of land procurement where all land parcels in an area are pooled, converted into a layout, infrastructure developed, and a share of the land, in proportion to original ownership, returned as reconstituted parcels.

The LPS is currently employed in India for the implementation of master plans of various cities, such as Amaravati city in Andhra Pradesh (AP), Delhi, Dholera smart city in Gujarat, and Magarpatta township in Pune city

<table>
<tr><th>BENEFITS OF LAND POOLING</th><th>CHALLENGES</th></tr>
<tr><td>Better alternative to Land Acquisition
• More democratic
• Owners need not part with the land
• Lower time and Cost for land Acquisition
• No additional burden on the Government
Benefits to the landowners:
• More Voluntary, Inclusive and humane in comparison to land acquisition wherein people become equal partners in development. (Participatory development)
• Increase In Value of land: change in the land use plan and improvement in the public infrastructure benefits the landowners in terms of higher land prices.
• Non-Dlspladng Strategy as landowners do not get displaced.
• Access to better infrastructure upon completion of project
Benefits to the Government:</td><td>Limited adoption by the state: Only few states such as Maharashtra, Gujarat, Delhi, Haryana, Punjab etc. have adopted the land pooling model. Problems with the current legal framework as it does not provide for discrepancies between plans for an area and its eventual development.
Limited applicability:
• Most appropriate in urban/urban fringes with rising property prices.
• Difficult to implement in areas/projects where land prices are not expected to appreciate much especially in distant rural contexts
Transparency and accountability:
• Lack of adequate information in Public domain about the project, current and future status/values of their property, period for return of reconstituted plots, risks involved, net benefits for a landowner etc.
• Absence of Grievance Redressal mechanism</td></tr>
</table>

• **No upfront costs as the Government need not pay compensation** • **Relatively less Conflict** Ridden Process • **Higher tax base** with increase in property prices	• Absence of institutional framework to monitor and evaluate the implementation of the pooling/development schemes. **Equity and Justice:** Even though the Land Pooling model is projected to be voluntary, land is often acquired forcibly. For example, in case of Amravati, land was acquired through coercion under the threat of land acquisition. **No compensation for the disruption of the livelihood** during the project **Implementation Issues:** Lack of contiguous land parcels for development (Ex: Delhi Land Pooling Policy). To tackle this challenge, DDA is now

EXISTING PROBLEMS	LAND REFORMS 2.0
Limited Success of Land Reforms barring few states such as West Bengal (Operation Barga), Kerala (Kudumbashree) etc. Landlessness among Rural households (56%- SECC 2011), SCs/STs	• Create Land Pool from unutilized Govt. lands, Waste land, Surplus ceiling Lands, Bhoodan Lands etc. • Distribute land among landless Rural households and SCs/STs.
Growing Feminization of Agriculture (30%) without adequate access to land ownership	• Distribution of land to women from the land pool. • Promote collective farming by women through land leasing (Kudumbashree Model)
Poor progress on modernization of land records leading to increased litigations, lack of access to credit and hinder development.	• Complete Modernization of Land Records. • Move from Presumptive Titling to Conclusive Titling.
Fragmented Lands and Restrictive Tenancy laws in states	Encourage states to adopt Model bill on Land Leasing. Set up Land Bank.
Increased demand for land accompanied by conflict prone Land Acquisition	Adopt newer models for infrastructure development such as Land Pooling Model
• Land-State List; Acquisition and Requisition of Property- Concurrent list • Lack of Cooperation between Centre and States in effective management of land	Set up National Land Council on the lines of GST Council for Efficient management of land.

4 CHAPTER INCLUSIVE GROWTH AND DEVELOPMENT

TOPICS TO BE COVERED

1. *Inclusive Growth in India*
2. *Total Factor Productivity of India- Meaning, Significance, Challenges*
3. *Services Sector Led Growth: Reasons, Challenges and Strategies*
4. *Growth of Conglomerates in India*
5. *Silver Economy: Meaning, Scope and Significance*
6. *Poverty line Estimates in India*
7. *GDP Growth Vs Income Inequality: What should India do?*
8. *Critical Analysis of Subsidy Regime in India*
9. *Need for Urban Wage Employment Program*
10. *Reaping the Demographic Transition in India*
11. *Gig Economy- Prospects and Challenges*
12. *Financial Inclusion*
13. *Need for Boosting Innovation in India*
14. *Universal Health Coverage in India- Constraints and Strategies*
15. *Leveraging Structural Transformation in Rural India*
16. *Middle Income Trap: Late Converger Stall*
17. *Debt Sustainability in India: Need for Countercyclical Fiscal Policy*

1. INCLUSIVE GROWTH IN INDIA

Inclusive growth is defined as **"process and outcome where all groups of people have participated in growth and have benefited equitably from it" (UNDP).** Inclusive growth has much wider scope than welfare approach.

Welfare approach focusses on outcomes (Income redistribution) through tax policies and enhanced expenditure for welfare of poor people. However, Inclusive growth focusses on **outcomes (Income redistribution) as well as process (creating opportunities through Job creation, human capital formation etc.) Hence, inclusive growth incorporates sector-specific, people-specific, gender-specific, region-specific policies** to ensure that poor people participate in the growth and get equitably benefit from it.

India has made rapid strides in its economic growth wherein the GDP size has increased from $ 275 bn in 1991 to $ 2.7 trillion in 2019. It is also considered to be the fastest growing major economies across the world. However, such a growth model has failed to promote balanced, equitable and inclusive growth.

REASONS FOR LACK OF BALANCED & INCLUSIVE GROWTH

Problems with Poverty Eradication Programs such as poor identification of beneficiaries, presence of ghost beneficiaries, poor allocation of finances, poor implementation, large scale corruption and lack of transparency and accountability. For instance, according to the NSSO report, around 40-60% of the food grains do not reach the beneficiaries due to diversion of food grains and black marketing.

Employment: The higher economic growth in India has not translated into higher employment opportunities leading to jobless growth. According to various estimates, the employment elasticity in India has remained quite low at 0.1.

Agricultural Development: The increase in the input costs, decrease in the agricultural productivity accompanied by decrease in the prices received by the farmers on the agricultural produce has led to fall in the income levels of the farmers. According to the NSSO estimates, the average monthly income of the agricultural household is around Rs 6500 whereas their average monthly expenditure is around Rs 6250.

Equitable Distribution of Income: As per Credit Suisse, 1% of the wealthiest in India have increased their share in wealth from 40% in 201o to 60% in the last five years.

Provision of basic services: India's expenditure of 3% on education is much below the target of 3%. Similarly, expenditure on health has remained quite lower at 1.3% as against the mandated 3%.

Balanced Regional Development: Some of the states such as Maharashtra, TN, Punjab etc. have made rapid progress on account of historical, geographical and economic factors. However, the states in the Northeast and Eastern India continue to have lower growth rates. Similarly, even within the states, there are certain pockets of underdeveloped regions such as Vidarbha (Maharashtra), Saurashtra (Gujarat), Hyd-Kar region (Karnataka) etc.

Environmental Destruction: The extreme weather events such as cyclones, droughts, floods etc. would have a much higher impact on the poor and vulnerable sections such as SCs, STs, Women etc.

WAY FORWARD

The Government has to realize that "Ease of Living" is much wider and comprehensive as compared to "Ease of Doing Business". Ultimately, Gandhi's philosophy of putting the last man first should be the sole guiding light for the government's policies.

2. TOTAL FACTOR PRODUCTIVITY OF INDIA- MEANING, SIGNIFICANCE, CHALLENGES

The Productivity measures the efficiency with which various inputs such as capital, labour, raw materials etc are utilised. It can measured as (Total Output/Total Inputs). It can be measured as

Total factor Productivity: Can be measured as Total output divided by Total inputs (Capital, Labour, Raw Materials etc). Increase in TFP denotes input use efficiency i.e. how efficiently different inputs are utilised.

Labour Productivity: Can be measured as the ratio of output to number of workers. Increase in Labour Productivity denotes enhanced labour use efficiency i.e. how efficiently workers are utilised.

FACTS ABOUT PRODUCTIVITY IN INDIA (RBI'S KLEMS DATABASE)

- TFP growth accounted for about 20 per cent of India’s aggregate GDP growth between 2011 to 2019.
- TFP growth rate in India slowed from 1.3 per cent (2000 to 2007) to 1.2 per cent (2011 to 2019). However, it is still higher than the global average of 0.1 percent.
- Average Labour Productivity has increased from 2% in 1990s to 4.5% in 2019.

FACTORS AFFECTING TOTAL FACTOR PRODUCTIVITY (TFP)

Capital Deepening: Increase in investment in fixed capital such as Land, Plants, Machinery etc. For example, replacement of handlooms by power looms in textile industries leads to capital deepening and hence enhanced TFP.

Quality of Labour in the form of better Education and health outcomes, higher skill sets, better managerial practices etc. For example, higher skill set of the workers in the services sector has led to higher TFP.

Technological developments through R&D and innovations. For example, introduction of HYV seeds in the agriculture during the Green Revolution led to enhanced TFP.

Input costs: Higher costs of inputs such as land, labour, capital etc. leads to lower TFP. For example, higher logistics costs reduces TFP of manufacturing sector.

Significance of Productivity

Vision of $ 5 trillion economy: Increased productivity enables production of more goods and services by efficiently utilising the available inputs. For example, higher TFP of Indian economy is due to higher TFP in the services sector.

Prevent Middle Income Trap: India moved from a low income to lower middle income country in 2008, and is now attempting to become upper-middle income country. However, unlike other countries such as Argentina and South Africa, India can prevent falling into middle income trap by enhancing TFP.

Double Farmers' income: As highlighted by Dalwai Panel, doubling farmers' income requires enhanced efficiency in utilisation of inputs such as land, water, labour, seeds etc. This can be done through organising farmers into FPOs, micro-irrigation, mechanisation, HYV seeds etc.

Boost Manufacturing Competitiveness: The share of Manufacturing sector to India's GDP has remained stagnant (around 17%) since 1991 reforms. Enhanced TFP would competitiveness of MSMEs and enable higher value addition.

Demographic Transition: The share of working-age population is set to increase only for the next 2 decades. Beyond 2041, there could be fall in working-age population. Increased TFP enables India to enhance labour productivity and continue with high growth phase even beyond 2041.

Win-Win-Win Situation as higher TFP benefits Industries (in the form of higher profits), workers (in the form of higher wages), Government (in the form of higher tax collections)

Ensure Aatma Nirbhar Bharat: Higher TFP enables India to reduce imports, boost domestic manufacturing, attracts investment and get integrated into global value chain.

Self Sustaining Virtuous Cycle: Increase in Investment, greater adoption of technology, higher skill sets of workers etc. leads to higher TFP and higher GDP growth rate. In turn, higher GDP rate facilitates more investment and higher TFP.

CHALLENGES IN IMPROVING TFP

Delay in Implementing Factor Market Reforms:

- **Land:** Limited success of Land Reforms in Agriculture, Absence of legal framework to facilitate Land Leasing in most of the states, Delay in digitisation of land records, conflict prone and cumbersome land acquisition procedure etc.
- **Labour:** Archaic, complex and cumbersome labour laws, Delays in notification of new labour codes, Lack of adequate flexibility to employers in hiring workers etc.
- **Capital:** Higher Dependence on Banking sector, Underdeveloped Bond Market, Limited Private sector investment in PPP etc.
- **Entrepreneurship:** Lack of access to adequate capital, Issues related to Taxation such as Angel Tax, Problem of exit due to Chakravyuha challenge of Indian economy etc.

Lack of adequate investment in Education (3% of GDP), Health (1.5% of GDP) has led to poor education and health outcomes.

Jobless Growth: Increase in labour productivity has led to increase in GDP without commensurate increase in job creation. Hence, there is a need to enhance job creation without affecting labour productivity.

Decline in Female LFPR from 45% in 1990s to 25% in 2019. As per World Economic Forum, increase in female LFPR to match up to male LFPR (75%) can increase India's GDP size by 27%.

Domination of Dwarf firms in Manufacturing: MSMEs account for 45% of manufacturing output. However, majority of the MSMEs are dwarf firms which are more than 10 years old but continue to employ less than 100 people.

Poor Innovation Ecosystem in the form of lower investment in R&D (0.7% of GDP), lower number of Patent filings, delays in issuing Patents etc.

Higher Logistics cost (10-12% of GDP) as compared to global average of 8-10% increases input cost and reduces TFP.

Public Poor Quality of Fiscal deficit as Government spends higher share of borrowings on Revenue Expenditure rather than Capital expenditure.

Higher level of Informalisation reduces TFP due to low adoption of technology, limited use of capital, poor managerial skills etc.

3. SERVICES SECTOR LED GROWTH: REASONS, CHALLENGES AND STRATEGIES

With a share of 55% to GDP and 30% to employment, Services sector remains major driver of Indian Economy. India’s services sector covers a wide variety of activities such as trade, hotel and restaurants, transport, storage and communication, financing, insurance, real estate, professional services, Tourism etc.

Facts:

- Share of Services Sector to India's GDP: 55%
- Share of Services sector to Employment: 30%
- Share of Services in overall Exports: 40%
- Share of Services in overall FDI: 66%

SIGNIFICANCE OF SERVICES SECTOR

- **Major Driver of Indian Economy** as it accounts for 55% of India's GDP.
- **Promotes development of Manufacturing sector** by providing services such as logistics, banking, electricity, communication etc.
- **Promotes development of Agricultural sector** by providing credit, extension services, marketing services etc.
- **Enhances Total factor productivity** of the economy by providing technological services and enhancing efficiency of workers.
- **Promotes Ease of Living by providing services** such as Education, Health, Banking, Insurance, Telecommunication, Transportation etc.
- **Promotes Integration of Indian Economy with Global Economy**: For example, India is among the Top 10 exporter of services with global share of 4%. Similarly, services account for 40% of exports.

REASONS FOR GROWTH IN SERVICES SECTOR

- **Structural Transformation:** India has leap frogged from Agriculture to Services sector. Since 1991, the share of manufacturing sector has remained stagnant at 16-17% of GDP. Hence, decline in share of agriculture sector is accompanied by commensurate increase in share of services sector.
- **LPG Reforms** offered more opportunities for the development of services sector particularly in the field of Banking, Insurance, Telecommunication, Aviation, Transportation etc. For example, sectors that were opened for private sector participation experienced faster growth.
- **Technological Advancements** led to rapid development of IT/ITeS, BPO, Financial services etc. Similarly, Industrial Revolution 4.0 is also based upon adoption of new-age technology such as AI, ML, Big Data etc.
- **Structural changes in Agriculture and Manufacturing** which has led to increased demand for services such as Transport, Storage, Warehousing, Trade, Banking, Insurance etc.
- **Trade Integration** has enabled India to become Top 10 exporter of Services with global share of 4%. Similarly, services account for 40% of exports.
- **Liberalisation of FDI norms** by the Government in the field of E-commerce, Insurance, Telecommunication, Aviation, Real Estate etc. has led to entry of foreign firms and enhanced competition in services sector.
- **Increase in income levels and rapid urbanisation** has led to increased demand for services such as Education, Health, Banking, Insurance etc.
- **Proactive Government policies** such as Services Export from India Scheme, Digital India Program, PMJDY, Ayushman Bharat, PM Kaushal Vikas Yojana, UPI, Open Network for Digital Commerce etc.

CONCERNS AND CHALLENGES

Low Employment Elasticity: The phenomenal growth in the service sector has not been accompanied by growth in employment. The reasons for such a phenomenon can be attributed to:

- **High Labour Productivity**: Increase in contribution of services sector has been due to increase in labour productivity rather than increase in employment. The higher labour productivity in the services sector is due to highly skilled work force, greater adoption of technology and increased use of capital.
- **Decrease in employment elasticity** in sectors that are faster growing sectors such as Financial Services, Professional services, Trade etc.
- **Slow growth of employment generating sectors** such as Tourism, Hotels and Restaurants, Transportation etc.

Uneven growth of different sub-sectors: Services sector is mainly dominated by IT-BPM and Financial services, while other sub-sectors such as Tourism, Transportation, Communication have registered lower growth.

Market access barriers imposed by other countries in the form of lack of market access to India's service exports, restrictions on free movement of Indian professionals, Visa restrictions, withdrawal of GSP benefits etc.

Free Trade Agreements (FTAs)/CECAs: As highlighted by Surjit Bhalla Committee on FTAs, India has failed to capitalise on its strengths in services sector to boost exports to FTA partner countries.

Sector specific issues:

- **IT-BPM / Software Sector**: Tightening of Visa regime, Global slowdown, Higher skill sets, Increased competition from Latin American countries etc.
- **Banking**: Dominance of PSBs; Political interference in working of PSBs; High NPAs etc.
- **Real Estate services:** Delay in approvals of permits; high land registration costs including stamp duty; rising debt levels and NPAs; lack of skilled workforce
- **Tourism**: Poor Infrastructure and connectivity, Lack of basic amenities, Safety and security etc.

WAY FORWARD

A 'Services from India" initiative on the lines of 'Make in India' is needed to strengthen our services sector. There is also a need to make the Service Export Promotion Council (SEPC) more active. This council should also network with the Indian missions abroad to boost exports. At the same, India's FTAs need to be renegotiated to its advantage to provide fillip to services sector.

4. GROWTH OF CONGLOMERATES IN INDIA

Conglomerate can be defined as a holding company which controls multiple corporations operating in multiple sectors. Indian economy has come to be dominated by the "Big 5" conglomerates- Tata, Reliance, Adani Group, Aditya Birla and Bharti Airtel. These conglomerates operate in diversified sectors such as Mining, Petroleum Refinery, Retail, Telecommunication, Aviation, Construction and Infrastructure, Chemicals etc.

- Share of Big 5 in Petroleum Refinery (90%), Telecommunication (84%), Retail Trade (65%), Construction (42%)
- Share of Indigo and Tata Group in Aviation is around more than 80%.
- Aditya Birla group dominates the textile sector through its various brands such as Peter England, Louie Phillipe, Van Heusen, Allen Solly, Pantaloons etc.
- Adani Group accounts for 25% of the airport footfalls.

REASONS FOR THE GROWTH OF CONGLOMERATES

LPG Reforms: The void left by the reduced role of the government in sectors such as Telecommunication, Aviation, Construction etc. has been filled in by the rapid growth of conglomerates.

Strategy adopted by Companies: The growth of conglomerates can be traced to their strategy of "Breadth First" and "Depth Next". As "Breadth First", companies diversified their business towards different sectors of the economy. Then as part of "Depth Next" strategy, they focussed on "mergers and acquisitions" leading to increase in their market share.

Proactive Government Policies: The Government's proactive policy of creating "National Champions" in different sectors of the economy has also contributed to development of conglomerates. For example, initiatives under PLI Scheme are limited to companies which can achieve ambitious investment targets set by the Government. The investment targets are too big for small sized companies and hence they become ineligible to get benefits.

BENEFITS FOR THE ECONOMY

Lower Risk of Failure of conglomerates since they operate in diversified sectors. The losses suffered in certain sectors can be cushioned by profits earned by conglomerates in other sectors. This enhances their ability to withstand risks and makes Indian economy more resilient.

Promotes Growth and development through Innovation, job creation and enhancing productivity of economy. For example, Reliance Jio has brought positive disruptions in the Telecom sector leading to digital revolution. Similarly, Tata Group has made rapid advances in the Electric four wheelers segment.

Fosters development of MSME sector through forward-backward linkages. For example, conglomerates procure raw materials from MSMEs. Similarly, they provide MSMEs with their technologically advanced finished goods.

Promotes integration into Global Value Chains (GVCs): The Conglomerates act as lead firms, set up supply chains across the globe and enable integration of Indian economy into global value chains. For example, Tata Motors has become lead firm in Automobile sector.

Ensure Aatma Nirbhar Bharat: Due to higher economies of scale, conglomerates can enhance production, reduce imports, boost exports and ensure Self-Sufficient and Resilient India.

Promote development through Corporate social responsibility such as Nanhi kali for education of girl child (Mahindra Group), SuPoshan for addressing malnutrition (Adani Group), Asman to improve maternal health (Reliance) etc.

Empirical Evidence: Growth of conglomerates in South Korea (Hyundai, Samsung, LG etc) and Japan (Honda, Toshiba, Hitachi etc) have facilitated faster growth in their economies.

PROBLEMS AND CHALLENGES

Too Big to Fail: Higher concentration of market share in the hands of conglomerates increases the risk of collapse of economy. At the same time, due to their operations in multiple sectors, there are chances of domino effects wherein failure of conglomerate in one sector could adversely affect other sectors. For example, South Korean Crisis in 1997 was due to risky investments made by Chaebols (Conglomerates) in South Korea.

Abuse of dominant position: Conglomerates may abuse their dominant position in the market for their own advantage.

Prevents competition: To keep their monopolies intact, the conglomerates focus on mergers and acquisitions of their competitors. Hence, Public sector monopoly before 1991 may get replaced by Private sector oligopoly.

Price Manipulation: Higher concentration of market share in hands of conglomerates enables them to increase the prices of Goods and services. For example, recent increase in airfares.

Risk of Crony Capitalism: Risk of Nexus between Political parties and Conglomerates wherein conglomerates would be involved in political funding, lobbying for favourable policies etc.

5. SILVER ECONOMY: MEANING, SCOPE AND SIGNIFICANCE

The Silver Economy refers to system of production, distribution and consumption of goods and services aimed at utilising the purchasing potential of the ageing populations, as well as satisfying their consumption requirements and living essentials and healthcare needs.

BENEFITS

- Boost Investment and Consumption Expenditure, create more jobs and pursue higher GDP growth model.

- Make life easier for senior citizens and enable them to productively contribute to economic growth.
- **Health Care sector:** Higher focus on senior citizens will lead to (a) Improve health care infrastructure (b) creation of more jobs as doctors, nurses, pharmacists etc.
- **Financial Sector:** Development of financial institutions to cater to Banking, insurance and pension. For example, dedicated MFIs to provide small value loans to senior citizens.
- **Hospitality, Travel & Tourism:** Development of religious tourism circuits for the senior citizens would provide fillip to hospitality industry and benefit local economy.
- **IT Sector:** Development of technological tools such as home automation, Smart Watches, Telemedicine, Database Management (Ayushman Digital Bharat Mission), Home delivery of medicines etc.

STRATEGIES TO PROMOTE SILVER ECONOMY

1. Promoting productive ageing

- Age of retirement should be increased from 60 to 65.
- Finding suitable places where old age can contribute with their experience. These careers can be teaching in schools, acting as consultants in government departments and businesses.
- Create awareness in people in younger age groups about old-age planning, look after health and engage in Yoga etc to have a healthy old age life

2. Health Security

- Improve coverage of Health insurance schemes.
- Enhanced Government's expenditure on healthcare
- National and regional institutes of ageing should be set up to promote geriatric healthcare.

3. Economic Security

- Extension of Pension to certain APL Families to be identified through Socio-Economic Caste Census (SECC)
- Reskilling of Senior Citizens to enhance their employability
- Promote Entrepreneurship through PSL loans for Senior Citizens

4. Incentives to the private sector which specialise in silver economy through Tax exemptions.

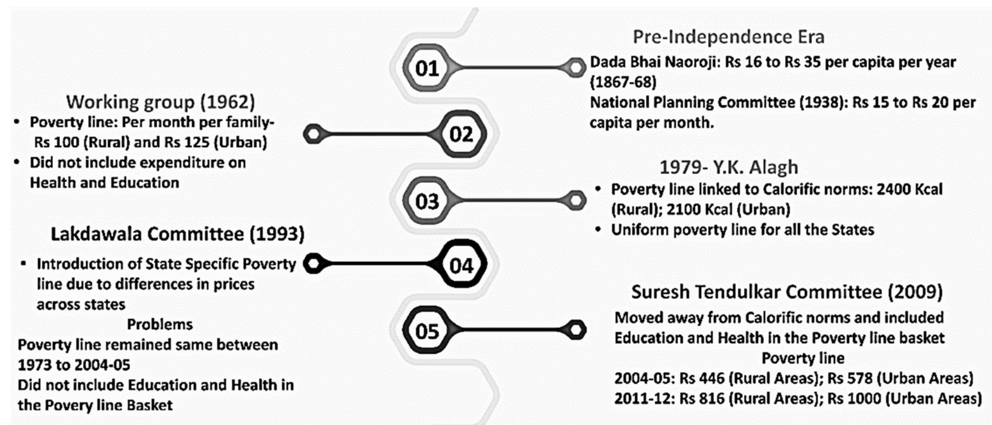
5. Imposition of Separate Cess to spend for the welfare of Senior Citizens.

6. Separate ministry dedicated to the elderly.

7. Inculcate family values of caring for parents by redesigning School Curriculum.

6. POVERTY LINE ESTIMATES IN INDIA

Poverty eradiation remains a major challenge in creating a just and equitable society. The first step towards eradication of poverty is to estimate proportion of people living below the Poverty line. However, there is a considerable debate and controversy surrounding Poverty line estimation. On one hand, successive Governments have highlighted the success of their schemes and programmes in reducing the BPL population. While, on the other hand, it has been highlighted that Poverty line in India is too low and hence India may be underestimating the BPL population.



CONTROVERSY OVER THE LATEST POVERTY LINE ESTIMATES

Presently, the proportion of people living below the Poverty line is estimated based upon the methodology recommended by Suresh Tendulkar Committee.

Poverty Estimation based upon Suresh Tendulkar Committee					
Year	**Poverty line (Rs)**		**Poverty head count ratio**		
	Rural	**Urban**	**Rural**	**Urban**	**All-India**
2004-05	Rs 446	Rs 578	41.8%	25.7%	37.2%
2011-12	Rs 816	Rs 1000	25.7%	13.7%	21.9%

Current Debate about Poverty line Estimation

CONTROVERSY SURROUNDING POVERTY LINE ESTIMATION	
Problems	**Counter Arguments**
1. **Outdated Poverty Line Basket:** Poverty varies across time. As standard of living has improved, the poverty line basket also needs to be updated. Items which were considered as luxury have now become necessity (Mobile, TV, Bank Account etc.). However, these items are not part of poverty line basket. 2. **Poverty line is too low:** Poverty line of Rs 27 in rural areas and Rs 33 in urban areas fails to capture true scenario of poverty in India. Hence, India may be underestimating BPL population. 3. **Flawed Assumption:** Poverty line estimation is based on flawed assumption that if people can meet their basic food needs, they would also be able to meet non-food requirements as well. That is why non-food requirements such as Mobile, TV etc. is not considered. We need to understand that the priority for the people is to meet their food	1. **Official poverty line estimates closer to World Bank's estimates:** World Bank has set International Poverty line at $1.90 a day at 2011 international prices. 22.5% of population live below poverty line (World Bank, 2011). This is comparable to official estimates of 22%. 2. **Poverty line estimation is only for statistical purposes:** Opposition parties highlight that decrease in BPL population due to artificially lower poverty lines would lead to exclusion of the people from beneficiary list in government schemes and programmes. But the Government believes that ***estimation of BPL population and identification of beneficiaries*** are two different things. The identification of beneficiaries for government schemes and

requirements. After meeting their food requirements, they may not have money left for non-food expenses. 4. **No multi-dimensional view of poverty:** Fails to realize that poverty is on account of multiple deprivations such as education, health, housing, sanitation etc. For example, according to Global Multi-dimensional Poverty Index (MPI 2020), 28% of India's population is poor. This is much higher than our official estimates of 22%.	programmes (such as Ayushman Bharat, PM Awas Yojana, PM Ujjwala Yojana etc.) is not just limited to BPL population. It also includes APL population as well. Identification of beneficiaries takes place based upon the Socio-Economic Caste Census (SECC) and hence has no relation to Poverty line estimation. 3. **Frequent updating of Poverty Line Basket (PLB)** would make it difficult to track our progress in poverty alleviation. It would also make it difficult to analyse the impact of government schemes and programmes in eradicating poverty.

WAY FORWARD

Perceptions of what defines basic human needs vary widely. Hence, views on "What should be the Poverty line?" and "What should constitute Poverty line Basket?" vary and likely to give rise to controversy and debate. So, should we do away with the Poverty line altogether??

No, fixing a poverty line (though controversial and debatable) has its own advantages. It helps us track our progress in poverty reduction as enshrined under SDG 1 (Ending Poverty in all its manifestations). It also helps us to analyse the impact of Government schemes, policies and initiatives. In this regard, Arvind Panagariya Taskforce on Elimination of Poverty has outlined the 4 options with respect to Poverty line.

Option 1: Continue with the Tendulkar poverty line

Option 2: Accept the Rangarajan poverty line or higher rural and urban poverty lines

Option 3: Track progress of the bottom 30 of the population

Option 4: Track progress along specific components of poverty such as nutrition, housing, drinking water, sanitation, electricity and connectivity.

(Option 3 and 4 can be complementary to option 1 or 2 but cannot be a substitute for it).

7. GDP GROWTH VS INCOME INEQUALITY: WHAT SHOULD INDIA DO?

In advanced economies, following Global Financial Crisis a conflict came to be seen between economic growth and inequality, with inequality as a feature of capitalism. As Indian economy moves towards a market-based paradigm there is a debate on how to address this conflict. (Eco Survey 2020-21)

Advanced economic have low absolute poverty and low growth rates, however, India has high economic growth rates and high level of absolute poverty. Example: Gini coefficient in US (0.41) is higher than India (0.35) with growth potential of US lower than that of India. Hence, it is prudential for US to target inequality and India to pursue economic growth.

IN INDIAN CONTEXT, DATA SUGGESTS

- Unlike advanced economies, Indian economic growth and inequality converge in terms of their effects on socio-economic indicators.
- Economic growth has far greater impact on poverty alleviation than inequality.

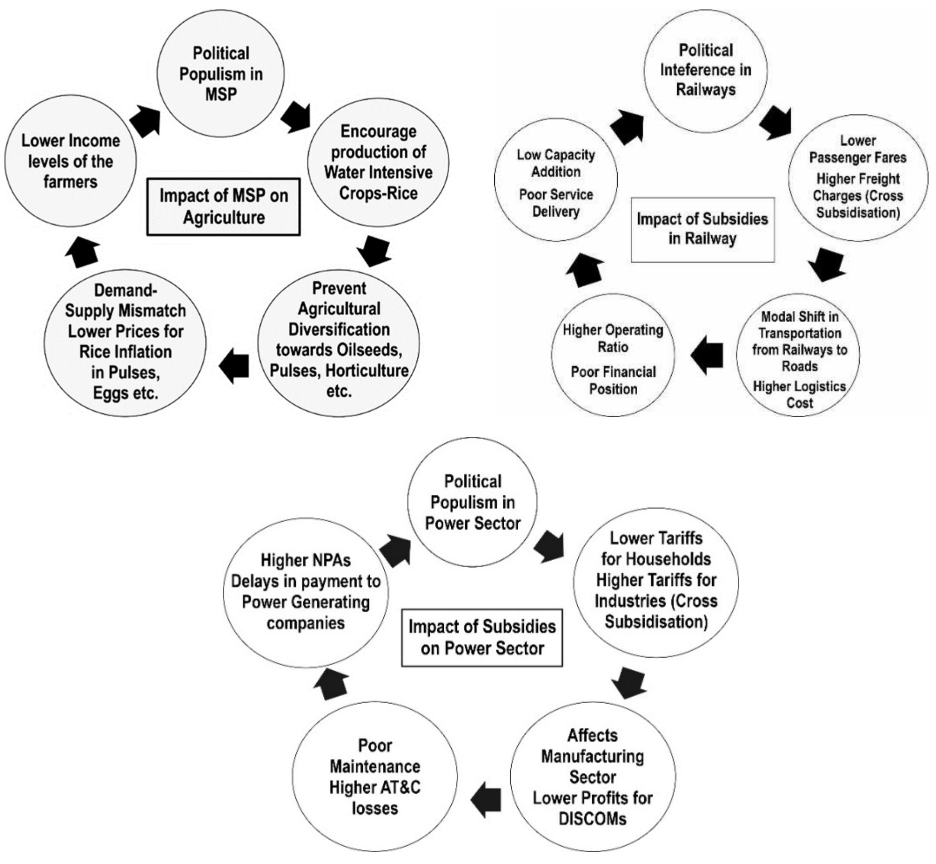
Therefore, given India's stage of development, India must continue to focus on economic growth to lift the poor out of poverty by expanding the overall pie. This does not imply that redistributive objectives are unimportant, but that redistribution is only feasible in a developing economy if the size of economic pie grows.

8. CRITICAL ANALYSIS OF SUBSIDY REGIME IN INDIA

Since 1970s, subsidies have always remained the main plank for poverty eradication in India. Government provides number of subsidies in the form of Food, Fertiliser, Electricity, Water, MSP, railway Passenger fare etc. In 2020-21, Government has spent almost Rs 6.5 lakh crores on subsidies in comparison to defence expenditure of Rs 4.8 lakh crores. So, the question is "Are subsidies best weapon for fighting poverty in India?".

PROBLEMS WITH SUBSIDY REGIME

1. **Price subsidies are often regressive:** Some of the subsidies such as Electricity, Fertilisers, MSP etc. are universal in nature and are given to all the households irrespective of their socio-economic status. Being universal in nature, such subsidies benefit the richer households more than the poor households and hence considered to be regressive in nature.
2. **Leakages & Corruption:** Inclusion and Exclusion Errors; Duplicate and Ghost Beneficiaries; Presence of Middlemen, Poor administrative efficiency etc. Example: 46% leakage in PDS
3. **Subsidies create distortions and ultimately affect poor people:**



AGRICULTURE

Announcement of higher MSP on Rice and Wheat has encouraged cultivation of water-intensive crops and prevented diversification of Indian Agriculture towards Pulses, Oilseeds, Fruits and Vegetables etc. It has impacted the poor people in the following ways:

- **Low Income for Farmers**
- **Inflation in Agri-Commodities:** Lower production of Pulses, Oilseeds, Eggs etc. lead to demand-supply mismatch.
- **Nutritional Insecurity:** Demand-supply mismatch has led to nutritional insecurity leading to micronutrient deficiencies, vitamin, iron deficiencies etc.

RAILWAYS: Cross subsidization of Passenger fares by increasing freight charges→ Higher Operating Ratio (98%) → Lower profits→ Poor service delivery to poor people.

SUBSIDY ON ELECTRICITY: Subsidy on Electricity-->Poor Financial position of DISCOMs--> High AT&C losses--> Inability to provide 24X7 Electricity to poor households

4. Adverse Impact on different sectors of Economy

Banking: Farm loan waivers can have an adverse impact on the credit culture in the country as even those farmers who have the capacity to repay back the loans would default on the anticipation that the loans would be waived off by the government. Similarly, poor financial position of DISCOMs and Power generation companies has led to increase in NPAs.

Power Sector: Poor financial position of DISCOMs; Higher AT&C losses; Inability to pay money to power generating companies; Higher NPAs of Banks

Railways: Higher Operating Ratio; Lower profits; Decrease in capacity addition and Modernization; Higher Logistics Cost

Public Finance: Higher expenditure on subsidies reduces the ability of the government to spend money on creation of assets such as Roads, Railways, ports etc. leading to decline in overall productivity of economy

WAY FORWARD

Eliminating or phasing down subsidies is neither feasible nor desirable unless accompanied by other forms of support to cushion the poor and vulnerable. In this regard, the JAM Number Trinity – Jan Dhan Yojana, Aadhaar and Mobile numbers would be able offer this support in a targeted and less distortive way.

9. NEED FOR URBAN WAGE EMPLOYMENT PROGRAM

The recent Covid-19 crisis has underscored the need for Urban Wage employment programme on the lines of MGNREGA. Such a wage employment programme in the urban areas can not only restore livelihood opportunities of the urban migrants, but it can also help us ramp up our urban infrastructure.

DESIGN OF THE PROGRAMME

Legal Sanctity: This programme should have a strong legal basis in the form of a National Urban Employment Guarantee Act which provides a statutory right to employment at specified wage rates and number of days.

Coverage: Cater both to urban informal workers and educated youths.

- **Informal workers** should be guaranteed 100 days of wage employment. These workers should be involved in public works such as building and maintenance of roads, parks etc.
- **Educated youths** Skill development and entrepreneurship. For example, the educated youths can get training through apprenticeship in municipal office, schools, hospitals.

Nature of Work:

- Public works such as construction of buildings, roads, Restoration of urban commons like water bodies, wetlands, parks etc.
- Engagement of apprentices in municipal offices, schools, Hospitals etc.

Implementation:

- Program should be implemented by Urban Local bodies (ULBs).
- Finalisation of works should be done in a participative manner through regular consultation with ward sabhas.
- Mandatory social audit and public hearings
- Time bound Grievance redressal mechanism

RATIONALE AND BENEFITS

Absence of Wage-employment Program in Urban Areas: Swarna Jayanti Shahari Rozgar Yojana (SJSRY) launched in 1997 has been replaced by National Urban Livelihoods Mission (NULM) in 2013. The NULM lays more emphasis on self-employment and entrepreneurship rather than on wage employment.

Boost Demand & Employment Creation: As per the PLFS 2017-2018, open unemployment stands at a historic high of 6.1 per cent, and unemployment among educated youth has reached 20 per cent. Unemployment in urban areas is higher than the unemployment rate in rural areas.

Increased Urbanisation: By 2030, it is estimated that around 42% of India's population would be urbanised from the current 31%. Plugging deficiency in infrastructure will smoothen the process of urbanisation by promoting ease of living and facilitating economic activity.

Changing Demography in India: Economic survey 2018-19 has highlighted that the share of working of working-age population would increase from 50% (2011) to 59% (2041), while the share of senior citizens would increase from 8% (2011) to 16% (2041). The changed demography will need the converged development of a host of infrastructure facilities such as housing, water sanitation services, digital and transportation needs.

Climate change & disaster resilience: Building Climate Resilient infrastructure is critical for people's well-being, quality of life, and economic prospects. The recent disasters indicate that up to 66% of total public sector losses in weather and climate related extreme events are related to infrastructure damage.

Expansion of Constitutional Rights: An employment guarantee programme also strengthens the 'Right to Life' enshrined under Article 21 of the Constitution of India.

10. REAPING THE DEMOGRAPHIC TRANSITION IN INDIA

India is said to witness a rapid demographic transition in the next 2 decades with demographic dividend expected to peak by 2041. Coupled with the declining share of young and increasing old age population, India will need to reorient its socio-economic policies in accordance with the changing demography as shown below.

Population (Age-Group)	2011	2041
0-19	41%	25%
20-59	51%	59%
Greater than 60	8%	16%

Focus of job creation: While 60% of India is projected to be in the working age (20-59) the labour force participation today is at meagre 53%. Thus, we need to have a sustainable long-term vision for job creation which includes a 360-degree approach of generating jobs, producing job creators and empowering the labour force.

Skilling and Reskilling: Being at the cusp of 4th industrial revolution the 21st century jobs require skilling and reskilling. Thus social-economic policies targeting skill development should be designed such that they are in a continuum with education that focuses on enhancement of learning capabilities.

Consolidation of schools: With decline in share of young (0-19) to about 1/4th, policies targeting consolidation of schools need to be promoted without affecting access.

Upgradation of health facilities: With an abysmal hospital beds per 1000 population of 0.7, India needs to upgrade health care facilities particularly in the tertiary sector that is linked with life-style disorders.

Retirement Age: Given the increase in healthy life expectancy beyond 60, India should increase its retirement age at least up till 65 as has been contemplated by developed countries.

Thus, in order to become a $5 trillion economy, India needs to employ an inclusive approach that focuses on each section of the population structure that is witnessing a change.

11. GIG ECONOMY- PROSPECTS AND CHALLENGES

A gig economy is a free market system in which the organisations employ contractual, non-permanent employees for short-term engagements. The Global Gig Economy Index report has ranked India among the top 10 countries.

Gig Economy in India: It is estimated that out of 21 lakh jobs that will be created in the metros in 2019-20, 14 lakh jobs will be created in Gig Economy. Food and e-commerce companies account for the major share of job creation in the Gig Economy.

REASONS FOR THE DEVELOPMENT OF GIG ECONOMY

- Rapid growth of the digital communication wherein the workforce is highly mobile, and work can be done from anywhere without any geographical barriers.
- Adoption of Gig Economy reduces the operating costs of the firms since the companies would not be liable to pay pension and other social security benefits.
- Flexibility to the workers wherein they can switch jobs frequently and choose work which suits their area of interest.
- Recent slowdown in the formal employment creation has also boosted the development of Gig Economy.

CONCERNS WITH GIG ECONOMY IN INDIA

- It leads to creation of informal sector jobs and thus hinder the optimum utilization of demographic dividend.
- Current Indian labour laws do not explicitly consider gig workers. Acts like maternity benefit, sexual harassment at workplace etc are silent or unclear.
- Absence of social security benefits such as insurance, pension, provident fund etc.
- Lack of Job Security and presence of workers from across weakens the bargaining power.
- Temporary nature of transactions undermines the need to build long-term relationships between buyers and sellers

PROTECTION PROVIDED TO GIG WORKERS UNDER LABOUR CODES

Labour Codes that seek to introduce Labour Reforms in India have legally acknowledged the presence of Gig Workers in the economy. For example, the Code on Social Security, 2020 provides for the registration of all the Gig workers. It calls upon the Central and State Governments to formulate schemes to ensure social security benefits such as Insurance for the Gig workers. It also empowers the Government to set up Social Security Funds for their benefit. The contribution to these funds may be funded from contributions of Centre, State and aggregator platforms such as Uber, Zomato etc.

CONCERNS/ CHALLENGES

Lack of Labour Rights: Platform workers often have limited control over their work (for instance, in some cases they cannot set prices, they are required to wear uniforms, they cannot choose the order of their tasks, etc.). This in turn makes them prone to the exploitation of the platform-based companies.

Greater control by Employees: It is being said that the Gig/Platform workers enjoy higher level of freedom and flexibility in their work. However, these advantages get over-shadowed by their higher dependence on the platforms. Take for instance, if a person wants to work a cab driver or food delivery agent, he needs to own vehicle. Since poor people do not have access to loans, they come to be dependent on the platforms for the loans provided by them. This in turn reduces the flexibility associated with the Gig Economy. The Workers would have to work according to the needs and requirements of the Platform companies.

No Guaranteed Benefits: Industrial workers are automatically guaranteed social security benefits such as Provident Funds, Insurance, Maternity benefits etc. However, such benefits are not automatically extended to Gig Workers. The Central and State Governments are required to come up with schemes to provide these benefits. So, the social security benefits for the Gig Workers depend upon the political will of the Government.

No Guaranteed Contribution by Aggregator Platforms: Code on Social security mandates industries employing workers above a certain threshold level to compulsorily contribute towards social security benefits such as Provident Fund and Insurance. However, as far as Gig Workers is concerned, the language in the code does not provide for compulsory contribution by the aggregator platforms. Hence, it is left open to the Government whether to seek contribution from the aggregator platforms or not.

No legal Rights for Gig Workers: Industrial workers are given legal rights over the various aspects of work such as Payment of Minimum wages, safe working conditions, right to strike, right to form trade Unions etc. However, such rights have not been recognised in case of Gig workers.

12. FINANCIAL INCLUSION

The promotion of financial inclusion is essential to promote economic growth and development across the world. Access to formal finance can boost **job creation, reduce vulnerability to economic shocks and increase investments in human capital.** Seven of the United Nations Sustainable Development Goals (SDG) of 2030 view financial inclusion as a key enabler for achieving sustainable development worldwide.

FINANCIAL INCLUSION IN INDIA

Definition: According to Raghuram Rajan Committee on Financial Sector reforms, Financial Inclusion refers to universal access to a wide range of financial services at a reasonable cost. These include not only banking products but also other financial services such as insurance and equity product.

Importance of Financial Inclusion: Financial Inclusion has multiplier effect in boosting economic output, reducing poverty and income inequality. Financial inclusion of women is important to promote gender equality and women empowerment.

Extent of Financial Inclusion: As per census 2011, only 58% of households are availing banking services in the country. However, as compared with previous census 2001, availing of banking services increased significantly largely on account of increase in banking services in rural areas.

Causes of Financial Exclusion: Lack of Financial Literacy; Dominance of Bank Branches in Urban Areas; lack of requisite documents to open Bank accounts; Lack of awareness about Insurance products; Lack of Surplus Income; Poor quality of services rendered.

Important Measures to promote Financial Inclusion: Nationalisation of Banks (1969 and 1980); Setting up of Regional Rural Banks (RRBs); Priority sector lending norms; Opening of Basic Savings Bank Accounts (BSBA); PM Jan Dhan Yojana; Setting up of Payment banks and Small Finance Banks; Launch of UPI, BHIM app etc.

STRATEGY FOR FINANCIAL INCLUSION

The RBI believes that the Financial Inclusion depends upon 3 parameters**- Financial Inclusion policies, Financial Literacy and Consumer trust**. The Consumer confidence and trust can be strengthened by providing for effective Grievance redressal mechanism. Accordingly, based on such a strategy, the RBI has identified certain pillars to promote financial inclusion.

STRATEGIC PILLARS FOR FINANCIAL INCLUSION

Universal Access to Financial Services: Digital financial infrastructure should be set up by all the banks as well as other non-bank entities to promote efficiency and transparency in the services offered to customers.

Providing Basic Bouquet of Financial Services that include a Basic Savings Bank Deposit Account, credit, a micro life and non-life insurance product, a pension product and a suitable investment product.

Access to Livelihood and Skill Development: The new entrants into the financial inclusion must be must aware of the government initiatives to promote skill building such as National Rural Livelihood Mission (NRLM), PM Kaushal Vikas Yojana (PMKVY) etc.

Financial Literacy and Education: Financial literacy modules with specific target audience orientation (e.g., children, young adults, women, retired employees etc.). These modules can be in the forms of Audio-Video/ booklets and should be made available for understanding the product and processes involved.

Customer Protection and Grievance Redressal by setting up effective grievance redressal mechanism at different levels.

Effective Co-ordination between the key stakeholders i.e. Government, the Regulators, financial service providers, Telecom Service Regulators, Skills Training institutes etc. to make sure that the customers are able to use the services in a sustained manner.

13. NEED FOR BOOSTING INNOVATION IN INDIA

PRESENT STATUS OF R&D IN INDIA: The Gross expenditure on R&D (GERD) in the country has been consistently increasing over the years and has nearly tripled from Rs. 40,000 crores in 2007- 08 to Rs. 1.2 lakh crores crore in 2018-19. India’s per capita R&D expenditure has increased to PPP $ 47.2 in 2017-18 from PPP $ 29.2 in 2007-08.

CONCERNS WITH R&D ECOSYSTEM IN INDIA

The Economic Survey 2017-18 in its chapter "Transforming Science and Technology" has highlighted number of problems with R&D ecosystem in India. Some of the concerns are as highlighted below:

Stagnation in R&D expenditure as percentage of GDP: Even though the R&D expenditure has increased in terms of absolute value, the R&D Expenditure as % of GDP at 0.7% has remained stagnant in the last 2 decades.

- Lower Expenditure on R&D: India's spending on R&D is well below that in major countries such as the US (2.8), China (2.1), Israel (4.6) and South Korea (4.6).
- Lower Share of Private Sector Investment: Unlike developed economies, the R&D expenditure in India is mainly driven by public sector.
- Lower R&D investment in Health: The Public Sector investment in R&D is mainly driven by Defence, Space and Atomic Energy. The amount of investment in critical sector such as Health (R&D investment by ICMR) is too low.
- Role of Universities in India: Universities in many countries play a critical role in both creating the talent pool for research as well generating high quality research output. However, the Universities in India have largely focussed only on teaching.

RECOMMENDATIONS TO IMPROVE R&D ECOSYSTEM IN INDIA

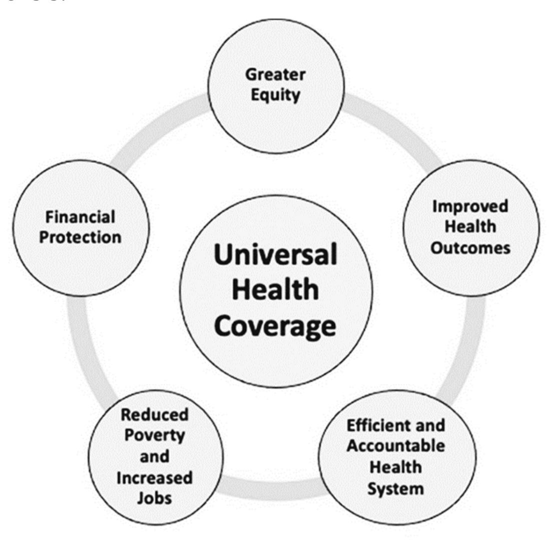
- Improve Math and Cognitive Skills at the school level. (Unless the foundation of Primary Education is strong, the superstructure of R&D cannot be strengthened)
- Encourage Investigator-led Research: Provide necessary funding and support to the researchers to take up research.
- Increase funding by Private Sector and State Governments.
- Leverage scientific diaspora: There are today more than 100,000 people with PhDs, who were born in India but are now living and working outside India. There is a need to attract these scientists back to India.
- Improve the culture of Research in Universities.

14. UNIVERSAL HEALTH COVERAGE IN INDIA-CONSTRAINTS AND STRATEGIES

Recent COVID-19 pandemic has underscored the importance of healthcare system and its key linkages to other sectors. It has clearly highlighted that a healthcare crisis can transform into an economic and social crisis.

DEFINING UNIVERSAL HEALTH COVERAGE (UHC)

UHC can be defined as ensuring equitable access for all Indian citizens quality health care which encompasses promotive, preventive, curative and rehabilitative care. It should be based upon 4 A's - Availability, Accessibility, Affordability and Accountability. The Universal Health coverage should be provided by both Government and Private sector. To facilitate the private sector to provide UHC, the Government should act as an enabler and facilitator.



PROBLEMS IN ENSURING UHC IN INDIA

Lower Expenditure on Health: Combined expenditure of Centre and States on Health is around 1.5% of India's GDP, which translates into Rs 3 per person per day. It is much below the target of 2.5% as set under National Health Policy, 2017. Countries such as Bhutan (2.5%) and Sri Lanka (1.6%) spend more money on health as compared to us.

Low Insurance Penetration: 86% of people in rural areas and 82% in urban areas do not have access to insurance coverage. Problems- Forced to use their meagre savings, borrow money, or delay the treatment. Implications:

(a) perpetuate vicious cycle of poverty (poor people remain poor due to higher health costs)

(b) Push the above poverty line people back to BPL. (Drives 55 million Indians into poverty, more than the population of South Korea (51.1 million))

Out-of-pocket expenditure on Health: In case of India, Government spends only 35% of healthcare expenditure, while the major chunk 65% of expenditure is incurred by people themselves. At the global level, the average out-of-pocket expenditure is hardly around 18%.

Lack of Accessibility: Most secondary and tertiary care hospitals are in Tier-1 and Tier-2 Cities. Similarly, most of the doctors are unwilling to practice in Rural areas.

Lack of Affordability: Contribution of private sector in healthcare expenditure in India is around 80 percent while the rest 20 percent is contributed by Public Sector. The private sector also provides for 58 percent of the hospitals and 81 percent of the doctors in India. However, since the private sector hospitals work on the profit motive and charge high fees, the private sector hospitals do not address the needs of the poor patients.

CRITICAL ANALYSIS OF AYUSHMAN BHARAT SCHEME

Details: Ayushman Bharat seeks to provide for Universal health coverage (UHC) by adopting two approaches (a) Creation of 1.5 lakh Health and Wellness centres (HWCs) and Pradhan Mantri Jan Arogya Yojana (PM-JAY). The PM-JAY aims at providing a health insurance cover of Rs. 5 lakhs per family per year for secondary and tertiary care hospitalization.

COVERAGE: 50 crore people who belong to bottom 40% of India's population. Beneficiaries are identified through socio-economic caste census (SECC).

ACHIEVEMENTS

The Economic Survey 2020-21 has highlighted the achievements of PM-JAY by considering two important aspects:

- PM-JAY was implemented in 2018. Hence, health indicators measured by National Family Health Surveys 4 (in 2015-16) and 5 (in 2019-20) can be compared to understand the impact of this scheme.
- Some of the states such as West Bengal, Odisha, Telangana etc. are not implementing the PM-JAY scheme. Hence, to analyse the impact of PM-JAY scheme, the health outcomes in these states can be compared with rest of India.

BENEFITS

Improvement in Health Insurance: The proportion of households covered under health insurance increased by 54 per cent from NFHS 4 to NFHS 5 in the states that adopted PMJAY. However, it decreased by 10 per cent in the states that did not adopt PMJAY.

Improvement in Health Outcomes (such as IMR, MMR, Access to Family Planning, Institutional births etc) in the states that have adopted PMJAY.

CONCERNS AND CHALLENGES

- **Low package rates:** The government has published the rates that insurance companies would pay hospitals for around 1500 procedures covered under the scheme. These rates have become a sticking point for hospitals, which have criticised them as arbitrary and low. For example, the price of Caesarean section, at Rs 9,000 for five days of hospital stay, food and consultation. Implications- Reduce the quality of healthcare or make it unviable for private hospitals.
- **Frauds:** Under the scheme, though the card is issued to the head of the family, any number of family members may be enrolled to avail benefits under the programme. As such, people who do not meet the eligibility criteria for Ayushman Bharat may either get false poverty certificates to get a card themselves or claim false relationships to people who have these cards.
- **Politicisation of Scheme:** Some of the states such as West Bengal, Odisha, Telangana etc. have decided not to implement PM-JAY Scheme.
- **Budget allocation** for PM-JAY has stagnated at Rs 6,400 crore. (Needed amount- around Rs 1 lakh crores on annual basis)
- **Low Coverage** of beneficiaries
- **Absence of Private healthcare facilities** in backward states.
- **Unethical practices** by private sector wherein hospitals are performing unnecessary procedures (for example, Caesarean operation instead of normal delivery)

STRATEGIES TO ENSURE UNIVERSAL HEALTH COVERAGE IN INDIA

We can learn from countries such as South Korea, Singapore, Thailand, Switzerland, Sri Lanka etc. which have provided for universal health care. This can be done through

(a) Steadily increasing the public expenditure on health

(b) Enhancing the capacity of the public healthcare facilities to utilize funds efficiently.

(c) Expanding the coverage of Healthcare Insurance

(d) Government acting as enabler and facilitator to enable private sector to provide affordable healthcare.

Declaration of Right to Health as Fundamental Right: Presently, the Right to health is not explicitly included under the Indian constitution as Fundamental right. To ensure greater commitment of the government towards health, there is a need to include health as a constitutional and fundamental right as provided under Brazilian constitution.

Reducing Information Asymmetry in Private healthcare: The Economic Survey 2020-21 has highlighted the problem of Information asymmetry in the private healthcare system leading to exploitation of the patients, higher costs and poor-quality delivery. Hence, there is a need to set up Information Utilities that would give ratings to the private hospitals and doctors based upon the quality of healthcare delivery. Such a rating mechanism would enable the people to choose the best doctors (or hospitals), reduce the information asymmetry and force the private healthcare system to be cost-efficient and provide high quality service delivery.

Devising Universal Health Coverage: National Health Policy 2017 seeks to progressively achieve the Universal health coverage by enhancing the public health expenditure to 2.5% of the GDP in a time bound manner. The Srinath Reddy Committee which submitted its recommendations in 2010 has highlighted as to how the Universal Health coverage can be achieved in India. This can be done in the following manner:

- Both Central and State Governments should increase public expenditures on health to at least 3% of GDP by 2022. The increase in the public expenditure can be possible by increasing the Tax-to-GDP ratio of the Government.

- The Government must ensure availability of free essential medicines by increasing public spending on drug procurement.
- Since the primary health care forms the foundation of the health care system, the Government must spend at least 70% of its fund for improving the primary health care system.

15. LEVERAGING STRUCTURAL TRANSFORMATION IN RURAL INDIA

The Rural India is undergoing structural transformation and diversification towards other sectors of the economy. However, this structural transformation is not accompanied by employment creation. In fact, the rural India is witnessing negative Employment growth rate since 2004-05.

PRESENT STATUS OF RURAL ECONOMY

Share of Population: As per the 2011 Census, **68.8% of India's population and 72% of workforce** resided in rural areas.

Structural Transformation: Rural areas account for **95% of agriculture output, 50% of manufacturing output and 25% of service sector output.** The factors responsible for growth of Rural Non-Farm Economy (RNFE) is, **lower productivity of farms, sluggish growth rate of agriculture, shrinking farm size, increasing cultivation cost, increased wage rates in non-farm sector** etc.

Jobless Growth: Despite structural transformation, the overall employment has not even doubled. In fact, between 2005-12, the rural India witnessed negative employment growth rate of -2.8%.

Defeminisation of Rural workforce: Between 2004-05 to 2011-12, almost 33 million workers left agriculture. Out of which, 27 million were females (81%) and 6 million were males (19%). Thus, clearly shows that contrary to a common perception, a greater number of females have left workforce in the rural areas. Some of the reasons for the defeminisation include

- Increased enrolment in education
- Increase in household income which reduced the need for the females to work to support the household income
- lack of skill to get well paid non-farm job
- Manufacturing jobs away from the place of the habitation

LEVERAGING STRUCTURAL TRANSFORMATION THROUGH SECONDARY AGRICULTURE

The Dalwai panel has recommended boosting Secondary Agriculture to leverage structural transformation, create employment opportunities and boost rural economy.

BENEFITS

- **Holistic development of rural areas** by transforming rural areas from consumers to producers of Goods.
- **Efficient utilisation of resources such as land and labour** through various activities such as honeybee keeping, mushroom cultivation, backyard poultry etc.
- **Contributes to agriculture** by providing Inputs, enhancing productivity and reducing post-harvest losses.
- **Develop human and capital resources** to replicate Start-up India at village level.

16. MIDDLE INCOME TRAP: LATE CONVERGER STALL

- **Late Convergence Stall** refers to phenomenon wherein middle-income country that hopes to grow into high-income country fails to achieve its goal. Instead, it gets trapped in middle income status. (Middle Income Trap).
- India moved from a low income to lower middle-income country in 2008 and is now attempting to become upper-middle income country. However, this convergence may slow down for the late convergers like India, particularly after the global financial crisis (GFC).

The Economic Survey 2018-19 has highlighted four challenges:

- **Backlash against Globalisation:** Early convergers like Japan and South Korea posted higher growth rates during their periods of convergence due to export-led growth. However, adoption of protectionist policies by advanced economies post GFC makes convergence difficult for India.
- **Thwarted structural transformation:** Development entails shifting resources from low productivity (Agriculture) to high productivity sectors (Manufacturing) and from informal to formal sectors. However, share of manufacturing sector to India's GDP has remained stagnant since 1991. Similarly, 90% of workers are employed as informal workers.
- **Human Capital Regression:** India underspends on Education, Health etc. which in turn adversely affects human capital formation. This makes it difficult for us to leverage disruptive technologies and focus on Industrial Revolution 4.0.
- **Climate-Induced stress:** Successful economic transformation takes place when resources move from agriculture to other sectors. This is possible only when agricultural productivity is higher. However, productivity of agriculture has remained quite lower. Going forward, climate change would further worsen the condition.

Indeed, India has registered higher growth rates in recent past. But this fast growth has occurred with limited transfer of labour from low productivity to high productivity sectors. As of now India may not be faced with a "Late Converger Stall" but need to act in time to avoid it.

17. DEBT SUSTAINABILITY IN INDIA: NEED FOR COUNTERCYCLICAL FISCAL POLICY

COVID-19 pandemic caused unprecedented economic crisis for India resulting in decline of government revenues as economic activity halted, however, government expenditure had to be stepped up to protect lives and livelihoods. This has increased general government debt to around 85% of GDP.

Government in the budget has called for an expansionary fiscal policy for sustainable long-term growth with fiscal deficit estimated to be 6.8%. This has raised concerns over sustainability of India's debt.

REASONS FOR SUSTAINABILITY OF INDIA'S DEBT

1. For India, GDP growth rates regularly were more than interest rates. The interest rate growth differential (IRGD) is expected to remain negative for India in foreseeable future.
2. India's public debt to GDP has been significantly low compared to high global debt levels.
3. Public debt for India has declined since 2003 and has been stable since 2011.

4. External debt is only 2.7% of GDP thus low foreign exchange risk. India has fifth largest forex reserves.
5. 70% of total public debt is with Central Government which is desirable.
6. Public debt has long maturity profile tends to limit rollover risk and insulates debt portfolio from interest rate volatility.

COVID-19 pandemic has led to a demand shock. An expansionary and countercyclical fiscal policy during this time will help by:

1. Multipliers of fiscal spending are disproportionately higher during economic crisis that economic booms
2. Boost potential growth with public investment that raises productivity. Ex. Infrastructure
3. When private sector is risk averse, public investment can lead to virtuous cycle of investment

Thus, India should pursue countercyclical fiscal policy and take up debt in times of crisis to boost economic growth in a sustainable manner.

5 CHAPTER BANKING AND FINANCE

TOPICS TO BE COVERED

1. *Bad Bank- Pros and Cons*
2. *NaBFID- Development Bank in India: Opportunities and Challenges*
3. *Privatization of Public Sector Banks (PSB)*
4. *Central Bank Digital Currency*
5. *Challenges associated with Inflation Targeting*
6. *Developing Corporate Bond Market in India*
7. *Appraisal of Insolvency and Bankruptcy Code*
8. *Fintech Sector- Opportunities, Challenges and Strategies*

1. BAD BANK- PROS AND CONS

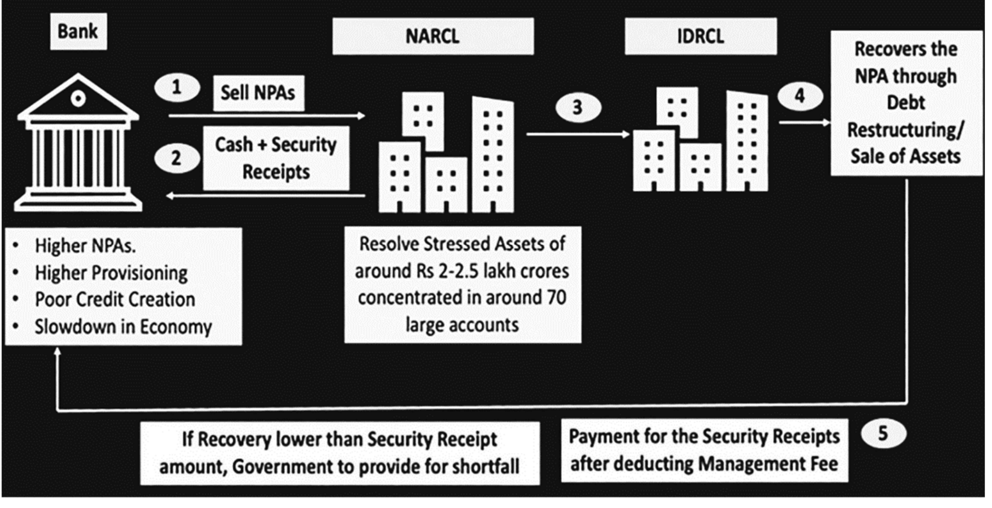
Government has announced the formation of "National Asset Reconstruction Company Limited (NARCL)" and "India Debt Resolution Company Ltd. (IDRCL)" as a Bad Bank to deal with the problem of NPAs.

IDEA OF BAD BANK

Global Examples: Early adopter in 1990s- US (Melon Bank) and Sweden (Securum). Similarly, other countries such as Malaysia, Finland, Belgium, Indonesia etc. have set up Bad Banks.

India: Economic Survey 2016-17 had proposed to set up Bad Bank, which should be called as Public Asset Rehabilitation Agency (PARA). The PARA should be funded and owned by the Government of India. Such a proposal was also put forward by the Indian Banks Association (IBA) recently in June 2020.

HOW BAD LOANS WILL BE RESOLVED THROUGH ASSET RECONSTRUCTION COMPANIES?



Step 1: ARC would buy NPAs from the Banks. The Money is paid to the Banks in the form of Cash and Security Receipts. 15% of money is paid in form of Cash and 85% in form of Security Receipts (SR). The SARFAESI Act provides for the issuance of Security Receipts.

Step 2: Decrease in NPAs on Banks' Balance Sheets--> Lower Provisioning--> Capital gets unlocked--> Increase in Credit Creation--> Economic growth.

Step 3: ARC recovers the NPA either through Debt restructuring or sale of mortgaged assets.

Step 4: ARC makes the payment for the security receipts after deducting its management fee.

ROLE OF THE GOVERNMENT

The Government has decided to give guarantee worth Rs 30,000 crores on the payment of security receipts by the NARCL. If the NARCL is unable to sell the bad loan, or sold it at a loss, then the government guarantee will be invoked and the difference between what the bank was supposed to get and what the NARCL was able to raise will be paid from the Rs 30,000 crore that has been provided by the government.

PROS AND CONS OF BAD BANK

BAD BANK- PROS AND CONS	
Arguments in Favour	**Arguments against**
Improvement in the balance Sheet of the Banks due to decrease in the NPAs.	The Bad Bank stands ready to buy NPAs from the Banks. Hence, this would discourage the Banks from exercising due caution in lending loans (Moral Hazard)
Unlocking of the capital that was earlier locked up as provisioning requirements. This would lead to increase in the credit creation.	According to Ex-RBI Governor Raghuram Rajan, the Setting up of Bad Bank would merely lead to transfer of Assets from one entity to another
Enable the Bank to focus on their core areas of accepting deposits and lending loans. The function of recovery of bad loans gets transferred to the specialist Bad Bank.	The NPAs of Banks has increased on account of number of reasons such as Political interference in working of Banks, Increase in willful defaulters, poor recovery process etc. Hence, Bad Bank does not solve the core underlying reasons which led to increase in NPAs in the first instance. The Bad Bank is thus considered to be superficial solution to the underlying problem of NPAs.
Most of the NPAs are concentrated in the larger borrowers who have taken loans from multiple banks. Presently, such Banks come together to form Committee of Creditors (CoC) and formulate a resolution plan to recover the NPAs. However, such a mechanism is presently facing problem of coordination and delays in the recovery of NPAs. Setting up of Bad Bank would enable the multiple Banks to transfer their NPAs simultaneously to Bad Bank and improve their balance sheets	Dilemma over pricing of NPAs Higher pricing of Loans→ Loss to ARC Lower pricing of Loans→ Loss to Banks
	Delays in recovery of NPAs by the ARCs.

WAY FORWARD

Based upon the Global experiences in countries such as US, China, Sweden etc., we need to adopt following strategies to ensure success of NARCL:

Well-Capitalised NARCL: Successful Bad Banks across the world were well-capitalised, which in turn enabled them to take up on the NPAs. Hence, NARCL needs to be well-capitalised to take over NPAs worth Rs 2 lakh crores.

Finite Tenure: Once it is set up, bad bank should have finite tenure within which it should be able to resolve the NPAs. If it continues to exist in perpetuity, it will discourage Banks from exercising due caution in giving loans (Moral Hazard).

Realistic valuation of NPAs: Usually, Banks recover only around 10-15% of the fully provisioned loans and haircuts is as high as 85-90%. Hence, Banks should transfer NPAs to NARCL at realistic value.

Time Bound Resolution of NPAs: Delays in recovery of NPAs would lead to delay in payment of Security Receipts to the Banks and hence adversely affect their financial position.

Professional Expertise: Because most of the private ARCs have remained unsuccessful, the NARCL and IDRCL need to have highest level of professional expertise and calibre to solve NPA mess in a time bound and efficient manner.

Reforms in PSBs: The setting up of Bad Bank without focussing on reforms in PSBs would mean that the fundamental problems that led to NPAs in first place continue to remain. Hence, recommendations of P.J. Nayak Committee on setting up of Banking Investment Committee has to be expedited.

2. NABFID- DEVELOPMENT BANK IN INDIA: OPPORTUNITIES AND CHALLENGES

Union Budget 2021-22 has proposed to set up development Bank in the form of NaBFID **as <u>financer, enabler and catalyst</u>** for the National Infrastructure pipeline. NaBFID is expected to **<u>reduce pressure on banks, lower the cost of capital and meet investment</u>** needs of $ 5 trillion economy.

Global Examples: China (China Development Bank), UK (Green Investment Bank), Germany (KfW)

Indian Examples: NABARD (Agriculture and Rural Development), Industrial Finance Corporation of India (Industrial Development), SIDBI and MUDRA (MSME Development), EXIM Bank (Trade Development), National Housing Bank (Housing Infrastructure).

Note: IFCI was the first ever development bank that was established in 1948. Even, ICICI and IDBI Banks were initially set up as Development Banks but were later converted into Commercial banks based upon the recommendations of Narasimhan Committee.

ASSISTANCE PROVIDED BY DEVELOPMENT BANKS

The Development Banks may offer the following kinds of assistance to the companies:

- Extend long term finance at concessional rates to the companies.
- Subscribe/buy the shares of the companies which are involved in financing of infrastructure, industrial or housing projects
- Partial Credit Guarantee on the repayment of the bonds issued by the companies.

HOW THE SETTING UP OF NABFID WOULD BENEFIT INDIAN ECONOMY?

Meet Investment Needs to realise $ 5 trillion by the end of 2024-25.

Reduce Pressure on Commercial Banks: Banks have mainly relied on short-term deposits for lending to long term infrastructural projects leading to Asset-Liability Mismatch and higher NPAs.

Lower Cost of Capital: Credit enhancement provided by the development Banks would enable the companies to raise loans at lower rates of interest leading to decrease in the cost of capital.

Reduce Foreign Currency Exposures: Presently, some of the Infrastructural and housing finance companies borrow loans from overseas market. The depreciation in the value of Rupee may put additional burden on them and exposure them to fluctuations in the exchange rate.

STRATEGIES NEEDED TO ENSURE SUCCESS OF NaBFID

India's experience with the Development Banks has so far been a mixed bag. On one hand, some of the development banks were embroiled in controversies (National Housing Bank was involved in Harshad Mehta Scam). While on the other hand, some of the development banks such as the one established by Karnataka Government provided necessary funding to Infosys company during its initial days, which in turn enabled Infosys to become a global giant. Hence, India has to learn from its past experiences in order to ensure the success of NaBFID.

Independence and Autonomy: Ensure professionalism, autonomy and effective control and audit mechanism. Otherwise, NaBFID's performance would be lacklustre and similar to that of Public Sector Banks.

Enhance Access to Long-term Capital: Budget 2021-22 has allocated only around Rs 20,000 crores, which is too little for our mammoth infrastructure needs. Enhanced financing can be provided by:

1. Long-term credit from RBI to NaBFID through Long-term Repo Operations (LTROs).
2. Declaration of Bonds issued by NaBFID as eligible securities for meeting SLR requirements of the Banks. (Encourage the Banks to buy Bonds issued by NaBFID → Enable NaBFID to raise money from Banks)
3. Enable NaBFID to borrow money from International Institutions such as World Bank, ADB etc.

Infuse Competition: Monopoly by NaBFID in infrastructure financing may lead to operational inefficiencies; need to encourage private sector to establish Development Banks so as to infuse competition.

Enhancing Investor base: Make it easier for the pension fund companies, Insurance companies, mutual fund companies to invest in bonds issued by NaBFID; Tax incentives to the individuals upon investing in bonds issued by NaBFID etc.

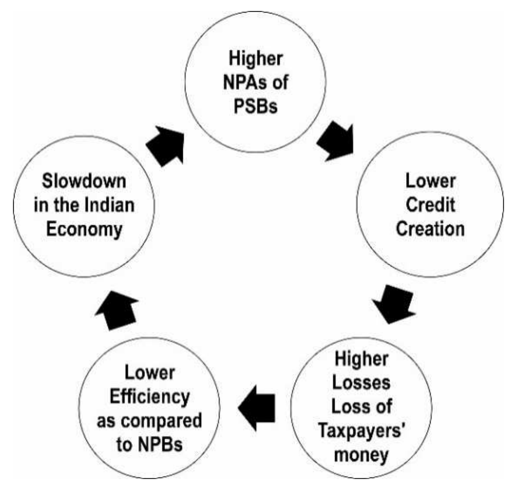
Hence, setting of NaBFID is indeed a welcome move. However, in order to enable it to become a game changer, we must learn from our past mistakes and create conducive ecosystem to ensure its success.

3. PRIVATIZATION OF PUBLIC SECTOR BANKS (PSB)

Presently, there is a speculation that Government is likely to designate banking as a strategic sector. This will allow government to own a maximum of four public sector banks (PSBs), and thus, some PSBs which have not been included in the already completed consolidation process would either be privatised or merged into larger PSBs.

PRESENT STATUS OF PUBLIC SECTOR BANKS (PSBs)

As of March 2019, PSBs had Rs 80 lakh crore in deposits and gave loans of Rs 58 lakh crore, accounting for almost 70% of the market share in the Banking sector. However, the performance of the Public Sector Banks has been quite poor as compared to new private Banks (NPBs).



1. PSBs account for **80% of overall NPAs** of the Banking sector.
2. **Slower Credit Growth** of hardly around 4% in comparison to 15-30% registered by New private Banks (NPBs)
3. **Higher Losses** of around Rs 66,000 crores. This is almost equal to the budgetary allocation for the Primary Education in India.
4. **Higher Banking Frauds** accounting for 93% of total frauds.
5. **Loss of Taxpayers' money:** According to the Economic Survey 2019-20, every rupee of the taxpayers' money which is invested in PSBs fetches a market value of 71 paise. On the other hand, every rupee invested in NPBs fetches a market value of Rs 3.70 i.e., more than five times as much value as that of a rupee invested in PSBs. This shows that the taxpayers' money is inefficiently deployed in the public sector Banks which in turn is leading to loss of both the Government as well as the taxpayers.
6. **Lower Efficiency** in the form of lower Return on Assets, Return on equity and indicators like capital adequacy ratio.

CHALLENGES OF PSBs

1. PSBs enjoy less strategic and operating freedom because of majority government ownership.
2. Government exercises significant control over all aspects of PSBs operations ranging from policies on recruitment and pay to investments and financing and bank governance including board and top management appointments.
3. Implicit promise of bailout of bank liabilities which is an implicit cost to the taxpayer.
4. PSB officers are subjected to extra scrutiny by the Central Vigilance Commission and CAG. Officers are wary of taking risks in lending or in renegotiating bad debt, due to fears of harassment under the veil of vigilance investigations.
5. High operating costs
6. Recruitment processes of PSBs hinder them from campus hiring.

CASE FOR PRIVATISATION OF EXISTING PUBLIC SECTOR BANKS (PSBs)

Improve overall efficiency of banking Sector: Even though, the PSBs and NPBs are operating in the same domestic market, the PSBs are considered to be less efficient and thus leading to loss of taxpayers' money.

Increased Competition leading to development of large-sized banks: India's banking sector is disproportionately under-developed given the size of its economy.

Government's Monopoly: Government ownership in the PSBs, which account for almost 70% of the Banking assets has led to a kind of virtual monopoly which is reducing the competition, breeds inefficiency and thus hurts the overall growth of the Banking Sector.

Previous Experience: Strategic disinvestment has led to increase in overall efficiency gains which later translated into higher returns for the shareholders.

Possibility of Leveraging MFIs and NPBs for Social causes such as DBT, MGNREGA Wages, Pradhan Mantri Jan Dhan Yojana etc.

Reduce the Burden on Government by doing away with the need for undertaking their recapitalisation to comply with the higher BASEL III requirements.

ARGUMENTS AGAINST PRIVATISATION OF PSBs

Improve Governance framework of PSBs: Main reason for the lower efficiency of the PSBs is actually the Government's political intervention in the functioning of the PSBs, which is in turn leading to lack of autonomy and freedom to the PSBs and thus hurting their revenues. **So, according to experts, solution to improve efficiency of PSBs is not privatisation, rather a complete overhaul of Governance framework**. Some external constraints faced by PSBs which is leading to their poor efficiency include:

1. **Dual regulation by Finance Ministry and RBI:** The Finance Ministry's directives could be both explicit (through the issue of guidelines) and through undocumented suasion. However, the Private sector banks are free from dual regulation.
2. **Board constitution:** The appointment to the Boards of the Banks is mainly based on Political considerations without giving due emphasis on merit. Average tenures of Chairmen and Executive Directors are short, all of which lead to the weak empowerment of boards.
3. **External vigilance enforcement** through the CVC and CBI inhibits the PSBs from taking commercial risks which are otherwise deemed acceptable. Further, there is higher focus on adherence to procedures and rules rather than outcomes leading to red-tapism and slow decision making.

Privatisation may not solve Problems: We must realise that even all the new private banks (NPBs) are not efficient. The balance sheets of the existing NPBs are as poor as the PSBs. The case in the point is the recent Yes Bank Crisis. Similarly, number of Banking frauds of much higher value have become known even in the NPBs as well. So, it is not the ownership structure that determines the efficiency levels of the Banks. Rather, it is the quality of Governance framework and effective regulation which is a key to promote efficiency of the PSBs.

Accordingly, the Government must implement the recommendations of the P.J. Nayak Committee to improve the Governance of the PSBs. One of the most important recommendations given by this committee was related to the setting up of Banking Investment Company (BIC). The committee had recommended the Government to set up BIC as a holding company and transfer all its shares in the PSBs to BIC. The BIC would then exercise its control over the PSBs and make appointments of the Board of Directors leading to lack of political interference in the working of PSBs.

4. CENTRAL BANK DIGITAL CURRENCY

WHAT IS CENTRAL BANK DIGITAL CURRENCY (CBDC)?

- Digital currency backed by the Central bank of a country. Just like currency notes issued by the Central Bank, the CDBC is a legal tender and accepted for the payment of various transactions within a country.
- Unlike the cryptocurrencies, the CBDC is backed by the Central Bank and hence enjoy more amount of stability and less volatility.
- Also called as "Programmable money" as it can be programmed for certain selected users or within specific region of a country.

- Types of CBDC
  - Retail CBDC: CBDC that can be used for people for day-to-day transactions.
  - Wholesale CBDC: CBDC that can be used only by financial institutions such as Banks, NBFCs etc.

	Fiat Currency	CBDC	Cryptocurrency	Stable Coin
Issuer	Central Bank	Central Bank	Private Entity	Private Entity
Value	Derives its value from the guarantee provided by Central Bank	Derives its value from the guarantee provided by Central Bank	None	Value pegged to other currency such as Diem, TruelNR (***Refer to Budget Video for more details)***
Legal Tender	Yes	Yes	May be given status of Legal Tender Example: El Salvador	May be given status of Legal Tender
Medium of Payment	Yes	Yes	May be allowed	May be allowed.
Examples	Physical Currency Notes	eDINAR, Sistema, Petro, e-krona etc.	Bitcoin, Ethereum, dogecoin etc.	Diem, TruelNR, Tether etc.

EXPERIMENTS OF CBDC IN OTHER COUNTRIES

Tunisia: eDinar; Ecuador: SISTEMA; Venezuela: Petro; Sweden: e-Krona; China: Digital Yuan

LEGAL FRAMEWORK FOR ISSUANCE OF CBDC

Presently, the RBI Act 1934 empowers the RBI to be the sole authority to issue currency notes. The Finance Bill 2020 has introduced amendments to the section 22 of the RBI Act, 1934.

Under the new amendments, currency would include both physical and digital currency issued by the RBI.

BENEFITS OF CBDC

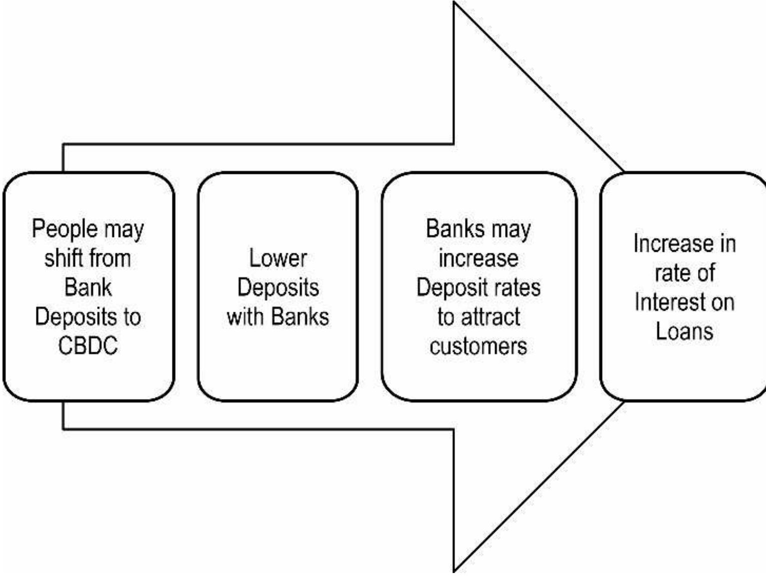
The Subhash Chandra Garg Committee (2019) has recommended a ban on private cryptocurrencies on account of concerns such as volatility, instability, security risk and risk of funding illegal activities. However, the committee has highlighted that an official digital currency can have number of advantages such as

- Promote cashless economy by reducing Cash-to-GDP ratio.
- Increase in Financial Inclusion
- Stability and Resilience of payment system since CBDC would promote competition in the payment system and ensures that no single company dominates the payment ecosystem
- Counter the Stable coins such as Diem which could be used for making payments.
- Increase in effectiveness of Monetary Policy

- Push to development of Fintech sector
- Provide a real time picture of economic activity and hence better GDP estimates and efficient monetary policy formulation.
- Traceability of transactions would crack down on corruption and money laundering.

CHALLENGES AND CONCERNS

Potential Disintermediation of Banks:



Accelerate Bank runs: By providing depositors a safe and liquid alternative to bank deposits, CBDCs may accelerate bank runs during a period of financial stress.

Security risks and financial system abuses: CBDC may be susceptible to cyber-attacks and other security breaches. Such attacks or breaches may be committed to misuse the CBDC for illicit activities.

Competition to private payment service providers: Introduction of CBDC could lead to direct competition with private payment providers (such as Paytm, Google pay etc). This may reduce their incentives to invest in innovation.

Higher Burden on the RBI may lead to neglect of its core activities.

Reputation risk: Security breaches on the CBDC may dent public confidence on the RBI.

Data privacy issues: Traceability feature of CBDC would have impact on Right to Privacy of the Individuals. Hence, need for strong data regulation law in India.

5. CHALLENGES ASSOCIATED WITH INFLATION TARGETING

Inflation Targeting is monetary policy framework wherein Central Bank of a country focuses only on maintaining rate of Inflation within a targeted range.

In case of India, Inflation targeting was introduced through Monetary Policy Framework Agreement signed between RBI and Government in 2015.

As per terms of the agreement, RBI's primary objective would be to maintain price stability, while keeping in mind the objective of growth. RBI is required to maintain rate of inflation of 4% with a deviation of 2% i.e., inflation has to be maintained between 2% to 6%.

BENEFITS OF INFLATION TARGETING

Enhanced Transparency: Explicitly mandated Inflation targets brings in more amount of clarity and predictability with respect to rate of Inflation and monetary policy formulation.

Promote Growth: A high rate of inflation leads to decrease in purchasing power of currency, reduces savings and investment rate, increases unemployment and leads to overall decrease in the GDP growth rate. Further, high rate of inflation is accompanied by higher levels of Fiscal Deficit and Current Account Deficit leading to an adverse impact on the macro-economic stability of the country. Hence, low and moderate level of inflation would incentivise the investors to undertake investment in the economy leading to promotion of higher growth and development.

Autonomy and Accountability of RBI: As per monetary policy framework agreement, RBI has been given complete autonomy in maintaining rate of inflation within mandated targets. If RBI fails to maintain Inflation within the target, then it would be required to submit in writing, the reasons for its failure.

Empirical Evidence: Inflation targeting has been quite successful in some advanced economies such as UK, New Zealand etc. These advanced economies have been able to maintain moderate rate of inflation for a much longer time leading to increased macro-economic stability.

CHALLENGES WITH INFLATION TARGETING

Disregards multi-faceted role of RBI: In a developing country like India, it is not practical for central bank to focus exclusively on inflation without taking into account the larger development context. RBI needs to balance between growth, price stability and financial stability.

No Clear link between Price Stability & Financial Stability: Prior to 2008 Global Financial Crisis, advanced economies were able to maintain moderate rate of inflation for a long term mainly due to adoption of Inflation Targeting. However, 2008 Global Financial Crisis has clearly proved that price stability alone cannot lead to financial stability and excessive focus of Central banks on the price stability may lead to neglect of other crucial functions such as regulation leading to the economic crisis.

Empirical Evidence against Inflation Targeting in India: RBI has been able to maintain stable rate of Inflation within mandated range since last 2-3 years. However, despite stable rate of Inflation, Indian economy is facing challenges on multiple fronts.

Poor Monetary Policy Transmission: Inflation targeting is more suited to developed economies since monetary policy transmission in such economies is quite efficient. However, in case of India, monetary policy transmission is quite inefficient, and this can in turn reduce effectiveness of Inflation Targeting.

Hinder GDP Growth: To contain Inflation, RBI would be required to increase the rate of Interest by following contractionary monetary policy. However, such a policy would lead to increase in rate of interest on loans leading to decrease in investment and consumption expenditure leading to decline in GDP growth rates.

Does not address Supply Side Inflation: Government of India would be required to address supply side disruptions to moderate the prices of such commodities.

6. DEVELOPING CORPORATE BOND MARKET IN INDIA

Corporate bonds are debt securities issued by private and public corporations. Companies issue corporate bonds to raise money for a variety of purposes, such as building a new plant, purchasing equipment, or growing business.

NEED FOR DEVELOPING CORPORATE BOND MARKET

Meet Investment needs: Economic Survey 2018-19 has highlighted that India needs to shift gears from consumption-driven economy to investment-led economy wherein private sector investment has to become key driver of Indian Economy. The development of corporate bond market can significantly enhance investment rates and enable India to become $5 trillion economy by end of 2024-25.

Reduce pressure on Government and Banks: In most international markets such as USA, corporate bond market is well developed, and this enables companies to raise funds across different maturities including for infrastructure projects with long gestation periods. In India, given the absence of a well-functioning corporate bond market, the burden of financing infrastructure projects such as roads, ports, and airports are more on banks and the government.

Asset-Liability Mismatch in financial sector: Banks use short term deposits (3-5 years maturity period) to fund long term infrastructure projects with long gestation period leading to asset-liability mismatch. Thus, an active corporate bond market helps in the diversification of risks in the financial system.

Lower cost of capital: Corporate bond markets can help borrowers reduce their financing costs in two ways. First, they enable the corporates to borrow money directly from the investors and facilitate bank disintermediation, thus removing the "middleman" and related costs. Second, by issuing corporate bonds, firms may tailor their asset and liability profiles to reduce the risk of maturity and currency mismatch on their balance sheet, thus reducing the overall cost of capital.

Reduce Foreign currency exposures: Corporate bond market enables firms to borrow for longer maturity periods in local currency to meet their investment needs and avoid foreign currency exposures.

Provide long term financial assets: An active corporate bond market could provide institutional investors such as insurance companies and provident and pension funds with quality long term financial assets, helping them in matching their assets and liabilities.

<u>Present Status of Corporate Bond Market in India:</u> Corporate debt to GDP ratio in India stood at around 17% in 2017 as compared to 123% in US and 19% in the case of China. The proportion of firms using banks as the primary source of working capital is higher than most developing countries. Further, most corporate bond sales in India occur through private placement route, with share of such issues in total standing at around 95% in recent years.

REASONS FOR UNDERDEVELOPED BOND MARKET IN INDIA

Narrow Investor Base: Demand for corporate bond as an investment is mostly confined to institutional investors with retail investors accounting for only 3% of outstanding issuances.

Dominance of Government securities: Central and State Government securities constituted almost half of the total investment in Bond Market.

Constraints on Foreign Investors: Investment limit for FPIs in corporate bond has been enhanced along with a reduction in the withholding tax. However, FPIs are not fully utilizing enhanced limits due to limited liquidity in the market.

Higher rated Companies dominate corporate issuance: In Indian corporate bond markets almost 70% of bonds outstanding by value are rated AAA. This indicates that the number of sub investment grade issues is minimal and the proportion below AAA is small.

Private Placement issues: In India, over 95% of issuances are through private placements. Small & medium corporate issuers generally raise resources through private placement route given cost considerations, ease of issuance, greater institutional demand and less retail interest.

Absence of Longer maturity Bonds: Corporate Bond market is basically dominated by bonds with average maturity period of 2-5 years. Corporate bond market has not been able to cater to the needs of long-term investors such as pension and insurance fund companies through issuance of long-term maturity bonds.

Lack of Risk management market: Absence of interest rate/ credit derivatives which can efficiently transfer the risks arising out of interest rate movements and default probabilities.

Taxation Structure: Stamp duties on corporate bonds across various states have not been standardised.

WAY FORWARD

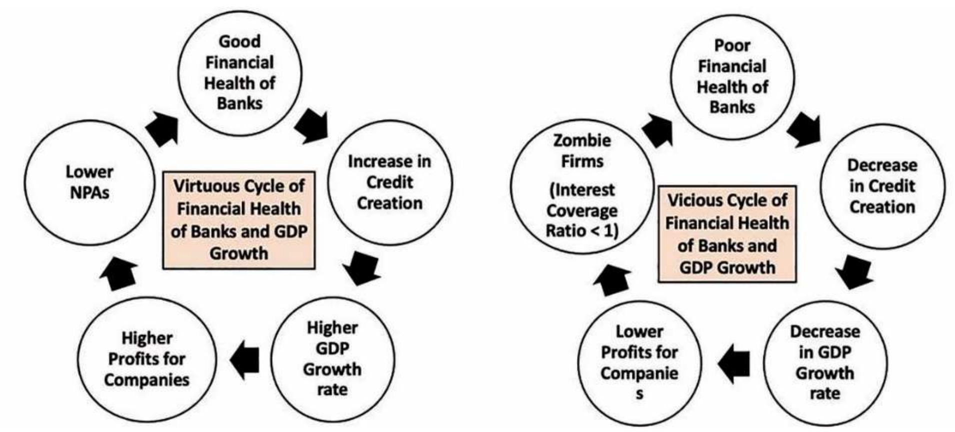
Several reports by expert committees on development of corporate bond markets in India such as R. H. Patil Committee (2005), High Powered Expert Committee on Making Mumbai an International Financial Centre in 2007 (Percy Mistry Committee), H.R Khan Committee on Corporate Bond Market. Important Recommendations:

- **Enhancing Issuer Base:** To incentivise corporates to raise a part of their requirements through bonds, time and cost for public issuance and disclosure and listing requirements should be reduced and made simpler.
- **Enhancing Investor Base:**
  - The scope of investment by provident/pension/ gratuity funds and insurance companies in corporate bonds should be enhanced.
  - Retail investors should be encouraged to participate in the market through stock exchanges. Such investors should also be encouraged to participate in the corporate bond market through mutual fund.
  - Investment in corporate bonds should be considered as part of total bank credit while computing credit deposit ratio by banks
- **Bonds Primary Issuance Database:** A centralized database of all bonds issued by corporates; made available free of cost to all the investors.
- **Acceptance of corporate bonds under LAF repo of RBI:** Encourage Banks to invest in Corporate Bonds and then use them to borrow loans from RBI through Repos.
- **Debt Market Index:** Though equity indices such as Nifty 50 and BSE Sensex serve as popular benchmarks for equities, designing debt indices has posed challenges in India as the market lacks breadth and depth.
- **Credit enhancements of bonds** by setting up of Credit Guarantee Enhancement corporation.
- **Strengthening of Credit Default Swaps (CDS):** A credit default swap (CDS) is a financial swap agreement that the seller of the CDS will compensate the buyer in the event of a debt default (by the debtor)

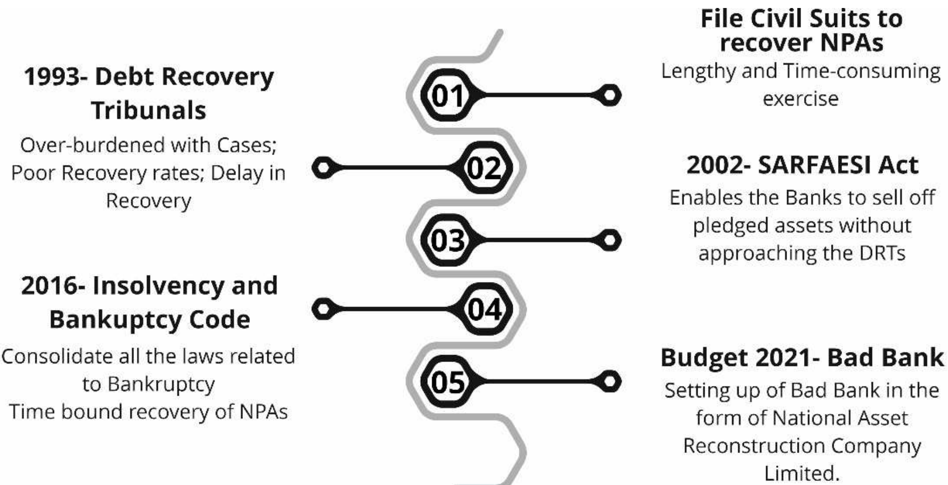
- **Municipal Bond Market:** Municipal bonds may be given some fiscal support in the form of bond insurance or providing credit enhancement so that municipalities are encouraged to issue such bonds.

7. APPRAISAL OF INSOLVENCY AND BANKRUPTCY CODE

The year 2021 marked 5 years of completion of Insolvency and Bankruptcy code (IBC).



EVOLUTION IN THE FRAMEWORK FOR THE RESOLUTION OF NPAs



SARFAESI ACT,2002: Empowers banks to directly auction residential or commercial properties that have been pledged with them to recover loans from borrowers. As per the SARFAESI Act, if a borrower defaults on a loan, the Banks can give a notice period of 60 days to the borrower to repay the loans. If the borrower fails to repay within 60 days, the Banks can take the following actions:

1. Take possession of the pledged assets and then lease or sell it off to recover the loan amount.
2. Take over the management of the business of the borrower.
3. Appoint a person to manage the assets.

DIFFERENCE BETWEEN SARFAESI ACT AND IBC, 2016

1. SARFAESI- Applicable only for secured financial creditors; IBC- Applicable for both secured and unsecured financial creditors.
2. Unlike IBC, SARFAESI is not applicable to Operational Creditors.

3. The minimum threshold for invoking IBC: Individuals (Rs 1000); Companies (Rs 1 crore); Minimum threshold for SARFAESI: Rs 1 lakh.

HITS AND MISSES OF IBC, 2016

HITS	MISSES
1. **Higher Recovery rate** of 45% in comparison to recovery rate of 26% in the earlier regime. 2. **Time taken to close the cases:** Around 1 year in comparison to 3-4 years earlier. 3. Improvement in **Ease of Doing Business** 4. Addresses the **Chakravyuha challenge** of Indian Economy: • 1991 LPG Reforms has enabled easier entry of private sector but made the exit difficult. • Old Inefficient firms continue to operate with highly efficient firms leading to misallocation of factors of production • IBC has enabled faster exit of old inefficient firms **5. Behavioral Change** 1. Fear of losing control of the company forces the promoters to operate at highest level of efficiency. 2. Encourages the borrowers to settle dues at the earliest.	1. **Case Closure:** Only 60% of the cases closed. 2. **Mode of Case Closure**: Majority of cases closed through liquidation; Few cases closed due to Resolution. 3. **Recovery rates:** Exclusion of large recovery cases such as Bhushan Steel, Essar Steel etc. would lead to recovery rate of around 35-36%. 4. **Delay** in admission of Applications and Approval of Resolution plans 5. **Infrastructural issues:** Less number of NCLTs; Delay in appointments; Higher vacancies etc.

8. FINTECH SECTOR- OPPORTUNITIES, CHALLENGES AND STRATEGIES

UNDERSTANDING FINTECH

Fintech can be defined as **designing and provisioning of financial services by using new technological innovations**. Basically, fintech comprises of technology-based businesses that compete against, enable and/or collaborate with financial institutions. Examples: Paytm, MobiKwik, Policy Bazaar, Phonepe, Googlepay etc.

Growth drivers: Rapid increase in the use of smartphones, internet connectivity, online shopping; Younger population; Advancements in technology such as Big data, AI etc; Improvement in Financial Inclusion; Launch of payment systems such as UPI; Regulatory support given by RBI etc.

Present Status: India is among the world's fastest growing fintech market with 6,600 FinTech start-ups. Indian FinTech industry's market size is $30 Bn in 2021 and has the highest FinTech adoption rate at 87 per cent.

Examples of Innovative Products of the Fintech Companies

- **Crowd funding** is a way of raising debt or equity from multiple investors via an internet-based platform. Example: Kickstarter, FuelAdream etc.
- **Peer-to-peer (P2P)** lenders connect lenders and borrowers via an internet-based platform. Example: Faircent, Lendenclub etc.
- **E-Aggregators** to compare the prices and features of a financial products. Example: Policy Bazaar

- **Account Aggregators**: An individual may have investments in fixed deposits with ABC Bank which comes under the purview of RBI, mutual fund investments with XYZ AMC which comes under the purview of SEBI and life insurance cover with DEF Insurance Corporation (which comes under the purview of IRDAI). Gathering and consolidating all the scattered data while applying for a loan may prove to be time-consuming. Hence, Individuals can authorize NBFC-aggregators to do this job and provide the information to Banks.

HOW FINTECH COMPANIES CAN BENEFIT THE INDIAN ECONOMY?

- **Increase in digital payments**
- **Improvement in Lending and Investment** through innovative tools such as Peer to Peer (P2P) lending, crowd funding etc.
- **Provide finances to the MSMEs** for trading of their invoices Example: TReDS Platform
- **Provide Insurance and advisory services**
- **Improvement in Credit Creation through the Account aggregator services**

RECOMMENDATIONS OF SUBHASH CHANDRA GARG COMMITTEE ON FINTECH SECTOR (2019)

Virtual banking: RBI should examine the suitability of 'virtual banking system' where banks do not need to set up branches and yet deliver the full scale banking services ranging from extending loans, savings accounts, issuing cards and offering payment services through their app or website

Fintech for Cyber Security: The fintech firms specialising in field of cyber security should be encouraged to set up their businesses in India and provided necessary regulatory approvals for expanding their services in the country.

Flow-based lending to MSMEs: The GSTN data integrated with TReDS exchanges should form the basis of a flow-based lending system for MSMEs by banks and NBFCs. In cash flow lending , a financial institution grants a loan that is backed by the recipient's past and future cash flows.There is a need to develop fintech solutions to track the cash flows of the MSMEs.

Reforming P2P markets: The credit needs of MSMEs, households and individuals can be taken care of by creating a marketplace model of debt financing where savers, non-banks and banks are all permitted to lend. The Ministry of Finance should develop a marketplace model of debt financing in India.

Remote Sensing and Drone Tech for Credit and Insurance: Insurance Companies and Lending agencies in Agri sector should be encouraged to use drone and remote sensing technology for crop area, damage and location assessments to support risk reduction in insurance/lending business.

Digitisation of Land Records: The Government should take up modernisation and standardisation of land records in the country on a war footing and complete such an exercise within 3 years.

Legal Framework for Customer Protection: A legal framework for consumer protection should be put in place keeping in mind the rise of fintech and digital services.

Development of Regulation Technology (RegTech): Regtech is a new field within the financial technology industry that utilizes information technology to enhance regulatory processes. It puts a particular emphasis on regulatory monitoring, reporting and compliance. The financial sector regulators (RBI, SEBI, IRDAI, and PFRDA) must develop standards for RegTech by financial sector service providers to make compliance with regulations easier, quicker and more automated for regulated entities.

6 CHAPTER BUDGET & TAXATION

TOPICS TO BE COVERED

1. *Basics of Government's Budgeting*
2. *Major reforms in Budget*
3. *Role of FRBM Act in ensuring Fiscal Discipline*
4. *Taxation of Virtual Digital Assets (VDAs)*
5. *Gender Budgeting*
6. *15th Finance Commission*
7. *OECD Tax Proposals & Implications for India*
8. *Concerns with Off-Budget Financing*
9. *FISCAL COUNCIL IN INDIA*
10. *STRENGTHENING FISCAL FEDERALISM*
11. *Tensions in Fiscal Federalism: Poor finances of states*
12. *Performance Analysis of Goods and Services Tax (GST)*
13. *LIMITS ON FISCAL DEFICIT- A CONSTRAINT ON BOOSTING ECONOMIC GROWTH?*
14. *Disinvestment Policy in India- Privatisation and Wealth Creation*
15. *Equalisation Levy*
16. *Public Financial Management System (PFMS)*

1. BASICS OF GOVERNMENT'S BUDGETING

Article 112 of Constitution requires the Government to present Annual Financial Statement (AFS) before the Parliament every financial year. The AFS should distinguish the expenditure on the revenue account from other expenditures.

Revenue Budget include Current Receipts and expenditure that can be met from these receipts. On the other hand, Capital Budget includes Assets and Liabilities.

CRITERIA	REVENUE BUDGET	CAPITAL BUDGET
Receipts	Non-redeemable receipts	Receipts which create liability or reduce financial assets.
Examples of Receipts	Tax Revenue (Direct and Indirect Taxes): GST, Income Tax, Corporate Tax, Excise Duty, Customs duty (In Declining Order) Non-Tax Revenue: Interest Receipts, Dividends and Profits of PSUs, User Charges, External Grants etc.	Debt Receipts: Market Borrowings. Non-Debt Receipts: Disinvestment, Recovery of Loans

Expenditure	Recurring: Incurred for purposes other than creation of Assets	Non-Recurring: Incurred for Asset creation
Examples of Expenditure	Interest Payments, Subsidies, Salaries and Pensions, Defence, Grants to the States for creation of Assets etc.	Creation of Roads, railways etc. and loans to States.

2. MAJOR REFORMS IN BUDGET

Shifting the date of the Budget: The date of the Budget was advanced to 1 February from the Budget FY18. The advancement of Budget presentation by a month has paved the way for early completion of the Budget cycle. It has also enabled the Ministries to ensure better planning and execution of schemes from the beginning of the financial year.

Merger of railway Budget with the Main Budget: The railway budget was merged with the Union Budget from FY18. The reform gave a holistic picture of the government's financial position. The initiative envisaged facilitating multimodal transport planning between highways, railways and inland waterways, which has been strengthened in the subsequent years through Gatishakti.

Discontinuation of Plan-Non plan classification: The Budget FY18 discontinued having Plan and Non-Plan classifications of Government expenditure. The reform gave a greater emphasis to the Revenue and Capital classification of Government expenditure. Over the years, a broad understanding had been that Plan expenditures were good and Non-Plan expenditures were bad, resulting in skewed allocations in the Budget. The reform enabled effective planning and allocation of resources in the Budget.

IMPROVED FISCAL TRANSPARENCY AND REALISTIC REVENUE ASSUMPTIONS IN THE BUDGET

- The Government has been presenting statement highlighting the extent of off budget financing along with the Budget documents.
- Budget 2022 based its revenue projections on realistic assumptions, thus providing a buffer to the government in an uncertain global environment. These measures credibly demonstrate the government's commitment to sound fiscal management and provide an adequate buffer to deal with global challenges.

3. ROLE OF FRBM ACT IN ENSURING FISCAL DISCIPLINE

The FRBM Act, 2003 has been formulated in accordance with Article 292 to improve the Public Financial management. The FRBM Act seeks to limit Fiscal Deficit to 3% of GDP by end of 2022 and Combined debt of Centre and States to 60% of GDP by end of 2024-25. similar fiscal responsibility laws were adopted in most states, with the states being given various incentives to adhere to these laws.

According to Economic Survey 2016-17, introduction of FRBM rules helped a great deal in consolidating the finances of both central government and the states. The combined debt of the centre and states declined from 83% of GDP in FY2004 to 66% in FY2016. Similarly, fiscal deficit declined from 8.3% of GDP in FY2004 to 7% in FY2016.

BENEFITS

Ensure Fiscal discipline:

- Limit on Expenditure through targets on Fiscal Deficit and Public Debt
- Restricts Direct Monetisation of Government's deficit through RBI's borrowing
- Higher Revenue mobilisation through rolling targets in form of Tax-to-GDP ratio

Ensure Transparency and accountability

- Submission of Reports by the Government to Parliament
- Audit of compliance of FRBM Provisions by CAG

Ensure Intergenerational equity by preventing short-sighted expansionary fiscal policies and overaccumulation of debt

Greater coordination between Monetary Policy (Inflation Targeting) and Fiscal Policy (FRBM Act)

Ensure Macro-economic stability and promote GDP growth

CHALLENGES

Problems with the Targets:

- Focusses only on Quantity and Quality of Fiscal Deficit
- Does not target to eliminate Effective Revenue Deficit
- Does not target to keep Capital Expenditure at a certain level

Lack of Flexibility: Fiscal rules need to be cyclically adjusted rather than being fixed. For example, during high growth phase, the Fiscal deficit should reduce by much higher margin in comparison to normal times. Similarly, adherence to fixed Fiscal deficit target during recession would prevent the Government from following counter-cyclical fiscal policy.

Lack of Well-Defined Escape Clause: The FRBM Act has also been criticized because of incorporating imprecisely defined fiscal deficit escape clauses such as collapse of agriculture, structural reforms etc.

Circumvention of Fiscal Deficit target through Off budget financing

Poor enforcement as the FRBM laws: No legal sanctions or penalties for breach of targets by the Centre. For example, In the case of the states, Article 293 clause (3) of the Constitution requires them to seek central government permission to raise loans so long as they have outstanding liabilities to the central government

Limited accountability in the event of missed targets: Lack of independent fiscal institutions to monitor compliance

WAY FORWARD

The FRBM Review committee headed by N.K Singh recommended the creation of independent Fiscal council in order to ensure effective implementation of FRBM Act.

4. TAXATION OF VIRTUAL DIGITAL ASSETS (VDAS)

The Union Budget 2021-22 has sought to impose taxation on Virtual Digital Assets (VDAs) such as Bitcoin, Ethereum, Dogecoin etc.

FEATURES OF TAXATION PROPOSALS

Definition of Virtual Digital Asset (VDA): Any information, code, number, or token generated by way of cryptographic or other means and (a) has inherent value or (b) Act

as Unit of account or (c) Act as store of value. Hence, it includes all the crypto assets, Stable coins, Non-Fungible Token (NFT) etc.

Mechanism of Taxation:

1. The profits earned from transfer of a virtual digital asset shall be taxable at 30%.
2. Loss from any other source of income shall not be set off against the income from virtual digital assets. Similarly, loss from the sale of VDAs shall not be set off against income from any other source.
3. Gifting of virtual digital assets has been brought under the ambit of taxation.
4. Deduction of 1% of the payment amount at source and deposition of the same with the government.

BENEFITS

Wider and Encompassing definition which would bring all form of private cryptocurrencies within the ambit of tax. The definition is broad enough to cover cryptocurrencies as we know them today and also accounts for future developments in the crypto ecosystem by not restricting itself to just tokens.

Provide more clarity on taxation on Virtual Digital Assets (VDAs): Even prior to the introduction of VDAs, the individuals were already filing tax on income earned from VDAs. However, there was considerable amount of confusion and uncertainty. The new scheme of taxation would provide guidance to the investors on their investment in cryptocurrencies.

Taxation on VDAs move towards effective regulation: As of now, Cryptocurrencies are neither considered as legal nor illegal. They operate in regulatory and legal vacuum. Taxation of VDAs is a first step towards effective regulation.

Curb Volatility: High tax rate on VDAs accompanied by TDS of 1% would discourage investors looking for short term returns. Instead, it would attract long term investors who look at VDAs as an assets and hence provide more stability in the market.

Tackle Black Money: Usually, tax evaders have been using crypto transactions to park their black money abroad and fund criminal activities, terrorism, etc.

PROBLEMS

Lack of clarity on legality of cryptocurrencies: Taxation of Virtual Digital Assets have led to a clarity on the issue of taxability of cryptocurrency, however, it is still very unclear whether the government is going to ban the currency or legalise it by regulating it.

Punitive Taxation: While taxation brings legitimacy to the industry, the high tax rate is discouraging.

Negative impact on the crypto industry including crypto exchanges, miners, traders and investors.

One Size Fits all approach: All the investors would be subject to the same tax rate irrespective of the period of holding units of cryptocurrency.

Lack of Clarity:

- Uncertainty about the Reward points earned on Debit/Credit card transactions generated through electronic means.
- Lack of clarity as to whether mining would include transfer of VDAs. This is so because in the case of mining or staking, a reward is paid to the miners and stakers. The coins are not paid by an entity but are won on the network. Hence, there is no transfer per se. Therefore, there is a lack of clarity whether the term 'transfer' would include the activity of mining and staking cryptocurrency.

WAY FORWARD

The trade in Virtual Digital Assets such as cryptocurrency and NFTs is increasing at a rapid pace. There was a requirement for clarifying the position on taxability of digital virtual assets. The proposals have surely brought a clarity on some issues.

5. GENDER BUDGETING

Gender Budgeting is a tool for gender mainstreaming which uses Budget as an entry point to apply gender lens to the entire policy process. It is concerned with gender-sensitive formulation of legislation, policies, plans, programmes and schemes; allocation and collection of resources; implementation and execution; monitoring, review, audit and impact assessment of programmes and schemes; and follow-up corrective action to address gender disparities. In a nutshell, Gender Budgeting covers analysing various economic policies of the Government from a gender perspective.

FIVE-STEP FRAMEWORK FOR GENDER BUDGETING

Step 1: An analysis of the situation for women and men

Step 2: Analysis of present policies and schemes

Step 3: Find out adequacy of the budget allocations to implement the gender-sensitive policies and programmes

Step 4: Monitor whether the money was spent as per the requirements.

Step 5: An assessment of the impact of the policy/ programme/scheme and the extent to which the gender gap has been addressed

PRESENT STATUS IN INDIA

It has been introduced in India in 2005. All the ministries and Departments have been mandated to set up Gender Budgeting Cells as focal points for mainstreaming gender through the tool of Gender Budgeting. Further, the Ministry of Women and Child Development developed a Gender Budgeting Handbook and a Manual in 2007 for training the officers of these Gender Budgeting Cells.

Several State Governments have also implemented Gender Budgeting with significant success. States such as Karnataka, Kerala, Gujarat, Rajasthan, Madhya Pradesh, Chhattisgarh and many others have taken significant steps to institutionalise Gender Budgeting to address gender gaps.

PROCESS OF GENDER BUDGETING IN INDIA

The Budget Circular issued by the Ministry of Finance requires Ministries and Departments to review all ongoing schemes to determine their relevance, prioritise their activities and schemes and furnish estimates of expenditure. Additionally, all Ministries/ Departments are required to prepare a Gender Budget Statement. The Gender Budget Statement presents information regarding programmes/schemes that are:

(a) women-specific (in which 100% of allocation is earmarked for women) and

(b) pro-women (in which at least 30% provision is for women).

RATIONALE BEHIND GENDER BUDGETING

- Promote Gender Equality through positive discrimination in favour of women.
- Promote higher efficiency through adequate provisions for women.
- Needs and requirements of Genders differ. Gender neutral budgets ignore the gender specific impacts of Budgets.

IMPORTANCE OF GENDER BUDGETING IN ADDRESSING GENDER GAP

- Identification of the needs of women and reprioritising/increasing expenditure to meet these needs
- Not only ensures higher budgetary allocation, but also ensures that efficient utilisation of resources
- Participatory and inclusive as it involves inputs from stakeholders such as women groups and NGOs in identification of problem, allocation of resources, social audit of schemes and policies etc.
- Formulation of Taxation policies to address gender inequalities in property ownership, unequal contribution to unpaid labour within the household, gender differentials in wages, etc. Examples include Sukanya Samridhi Account, Lower stamp duty for registration of property in the name of females etc.
- Leads to formulation of special programmes for the benefit of women
- Higher transparency and accountability

6. 15TH FINANCE COMMISSION

15th Finance Commission headed by Mr. N.K. Singh submitted its recommendations. Usually, Finance Commission recommendations are valid for a period of 5 years. However, 15th Finance Commission recommendations would be valid for a period of 6 years. Earlier, 15th Finance Commission had submitted its first set of recommendations which were applicable for the financial year 2020-21. Now, commission has submitted its second report, whose recommendations will be applicable for the next 5 years i.e., 2021-2026.

RECOMMENDATIONS OF 15TH FINANCE COMMISSION

Vertical Devolution of Taxes: Share of states in central taxes for the 2021-26 period is recommended to be 41%, same as that for 2020-21. This is less than 42% share recommended by 14the Finance Commission for 2015-20 period. The adjustment of 1% is to provide for the newly formed UT of Jammu and Kashmir, and Ladakh from resources of Centre.

Criteria for Horizontal distribution of taxes among States

Criteria	14th Finance Commission	15th Finance Commission
Income Distance	50	45
Population (1971 Census)	17.5	Not Considered
Population (2011 census)	10	15
Demographic Performance	Not Considered	12.5
Forest Cover	7.5	Not Considered
Forest and Ecology	Not Considered	10
Area	15	15
Tax Effort	Not considered	2.5
Total	100	100

ANALYSIS OF CRITERIA USED BY 15TH FINANCE COMMISSION

Earlier, 15th Finance Commission has asked to explore the possibility of using the Population of 2011 census instead of 1971 census for the devolution of taxes. However, this was opposed by the Southern states.

These states have taken substantial efforts to reduce Population growth rates by undertaking Family planning programs since 1970s. So, naturally, if the criteria of 2011 census were to be used, this would lead to loss in the share of their taxes. Here, the Finance Commission has done a fine balancing between the directions issued by Centre and concerns raised by Southern states.

It has used the Population of 2011 census and done away with Population of 1971 census. However, keeping in mind, concerns raised by Southern states, it has introduced new criteria of **Demographic performance**. Demographic performance indicator looks at the Fertility rate in a state. If the fertility rate in a particular state is lower, it would mean that such a state has taken substantial efforts to reduce its population growth rate and accordingly it would get a higher share. Since fertility rate in southern states is much lower, introduction of such an indicator is likely to reduce the impact caused by using the criteria of 2011 census instead of 1971 census.

GRANTS-IN-AID

Revenue Deficit Grants worth Rs 74,000 crore to these 14 states.

Grants to local bodies: Total grants to local bodies for 2020-21 has been fixed at Rs 90,000 crore. This allocation is 4.31% of the divisible pool. This is an increase over the grants for local bodies in 2019-20, which amounted to 3.54% of the divisible pool. The grants will be divided between states based on population and area in the ratio 90:10. The grants will be made available to all three tiers of Panchayat- village, block, and district.

Disaster risk management: Commission recommended setting up National and State Disaster Management Funds (NDMF and SDMF) for the promotion of local-level mitigation activities.

Centrally Sponsored Schemes (CSS)

Present Status: Union Budget 2020- 21 shows that fifteen of thirty umbrella CSS account for about 90% of total allocation under CSS. Many umbrella schemes have, within them, several small schemes, some of them with negligible allocations.

Recommendations: It is important to gradually stop funding for those CSS and their subcomponents which have either outlived their utility or have insignificant budgetary outlays not commensurate to a national programme. There should also be a minimum threshold funding size for the approval of a CSS. Below stipulated threshold, administrating department should justify need for continuity of the scheme. Third-party evaluation of all CSS should be completed within a stipulated timeframe.

FUNDING OF DEFENCE AND INTERNAL SECURITY

Present Status: Defence expenditure has been characterised by a higher share of revenue expenditure, huge pension bills and lower capital expenditure with high dependence on import of defence equipment.

Recommendations: A dedicated non-lapsable fund called the Modernisation Fund for Defence and Internal Security (MFDIS) should be constituted under Public Account for capital expenditure in defence and internal security. The fund will be funded through (a) Transfers from the Consolidated Fund of India (b) Disinvestment of defence PSUs (c) Monetisation of defence lands.

7. OECD TAX PROPOSALS & IMPLICATIONS FOR INDIA

Several multinational companies usually shift their profits from high tax jurisdiction to tax haven countries such as Mauritius, Singapore, Hongkong, Cayman Islands, Panama, Bermuda etc. through "Base Erosion profit Shifting" (BEPS). Hence, to prevent BEPS, recently, India has joined the OECD Inclusive framework on BEPS. Under the OECD"G20 Inclusive Framework on BEPS, 140 countries (including India) are collaborating to put an end to tax avoidance strategies of the MNCs.

PILLAR 1 OF OECD: ALLOCATION OF PROFITS OF MNCS AMONG THE COUNTRIES

Present Status: Existing tax norms have been framed keeping in mind the brick-and-mortar business models. Hence, these tax norms are not suitable to tax internet-based companies such as Google, Amazon, Microsoft etc. These digital MNCs do not pay tax in the country in which they earn profits. This is because they may operate business without establishing any physical presence.

Implications: This leads to revenue loss of around $ 100 bn on an annual basis for the countries across the world.

Example: While Facebook has users in every country, it doesn't have physical operations in every country. A country like India might have millions of Facebook users and Facebook is earning huge profits from those users. However, since Facebook has no physical presence in India, the company does not pay tax here.

Proposal: Pillar One addresses **nexus rules (or where tax will be paid) and new profit-allocation rules (or what portion of a MNCs profits will be taxable).** The idea here is to ensure that the MNCs should pay fair share of tax wherever they operate. It would ensure that the certain profits of the MNCs would be shared between the countries where the MNC has significant economic presence. So, in future, the profits of these companies would be shared among countries in which they operate.

APPLICABILITY

Which MNCs would be covered? MNCs which have global annual revenues of above 20 billion euros and profit margin of more than 10%. MNCs which do not fulfil this criterion will not be required to pay tax.

What will the tax rate? 20-30% of the *residual profits* earned by the MNCs. The residual profit is computed as profit more than a certain profitability threshold percentage (in this case, it is 10%).

For example, let's say a particular MNC has global revenues of around $ 100bn and overall profits of $ 15 bn. So, its profit margin is 15%. Its residual profits would be profits more than threshold of 10% i.e., 5% ($ 5 bn). Accordingly, 20-30% of the Residual profits ($ 5 bn) would be imposed as tax on such an MNC.

Which all countries would be allocated tax? A country would get its share of tax if a particular MNC (which fulfils the above criteria) earns at least 1 million euros in revenue in that country.

On what basis will profit be allocated to different countries? Based on the share of revenue earned by MNC in that country. For example, if a MNC earns 10% of its revenue in country "X", then the country "X" would get 10% of the share of the profits which are allocated between different countries.

Example: For ex., let's say a particular MNC has residual profit of $ 100bn. 20-30% of the residual profit would be shared among the countries. Let's consider this as $ 20bn (20%

of Residual profit of $ 100bn). So, in this case, the above country "X" would get 10% of the share of $ 20bn i.e., $ 2bn.

PILLAR 2: GLOBAL MINIMUM CORPORATE TAX

Proposal: All countries across the world need to impose minimum corporate tax of 15%, which is the minimum corporate tax which should be applicable. The countries would have complete flexibility to fix corporate tax rates above 15%. Ideally, no country should have corporate tax rates below 15%.

Working Mechanism: If any country adopts corporate tax below 15%, then in that case, a particular MNC would pay the lower corporate tax to such a country and the remaining tax amount (Minimum Corporate Tax amount of 15% - Prevailing tax rate in a particular country) would be paid to the country to which the company originally belongs.

All the countries agree to impose minimum corporate tax at 15% Countries to have flexibility to fix corporate tax above 15% If any country fixes the corporate tax below 15%, then the difference tax amount to be paid to be country to which the company originally belongs.

Different Scenarios	Tax Rates		Tax Paid	
	USA	Country XYZ	USA	Country XYZ
Scenario 1 • US based Company operating in country XYZ (India) • Annual Profits: $100bn • Minimum Tax liability: $15 bn	28%	15%	0	$15bn
Scenario 2 • US based Company operating in country XYZ (Mauritius- Tax Haven) • Annual Profits: $100bn • Minimum Tax liability: $15bn	28%	10%	$5bn	$10bn
Scenario 3 • US based Company operating in country XYZ (China) • Annual Profits: $100bn • Minimum Tax liability: $15bn	28%	25%	0	$25bn

GLOBAL MINIMUM CORPORATE TAX	
Rationale	**Challenges**
Proposed Tax hikes in USA: During Trump's Presidency, corporate tax rates in US were reduced from 35% to 21%. Now, Joe Biden Administration seeks to increase the corporate tax rate from 21% to 35% to raise revenue and provide stimulus measures. However, the proposal to increase the tax rates might prompt the US based companies to shift their bases	**Mainly serves Interests of USA:** Proposal put forward to finance $2 trillion spending program; 30% of Forbes 2000 MNCs American based and hence US government would be the ultimate beneficiary.

to other low tax jurisdictions. Hence, the idea is to prevent the US based companies from shifting their bases to low tax authority countries. **Target Low Tax Jurisdictions:** According to research by the Tax Justice Network campaign group, total revenue lost at the global level on an annual basis due to BEPS is as high as $ 427bn. India's annual tax losses due to corporate tax abuse are estimated at over $10 billion. Almost $8.7 trillion of global wealth is stored in these low-tax jurisdictions. **Target Technological companies** such as GAFAM which end up paying lower taxes due to BEPS. **Prevent "Race to the Bottom":** According to OECD, countries across the world are locked in intense competition to attract foreign investment by reducing the corporate tax rates. The average corporate tax rate has fallen from 32% in 2000 to 23% in 2018. **Compulsions before US Government** to reduce FD, higher Debt levels and finance $ 2 trillion spending program.	**Against Interests of Poor and developing countries** which uses lower tax rates as a tool to attract foreign investment and boost GDP growth. **Difficult to achieve consensus** among multiple countries at international level. **Goes against Principle of Sovereignty** as the country would lose their freedom to fix low tax rates.

IMPLICATION OF PILLAR 1 AND PILLAR 2 ON INDIA

The OECD is set to finalize the proposals on both Pillar 1 and Pillar 2 by the end of October 2021. Let's understand its implications on India and what should be India's stand.

Revenue Implications: Since India has a large consumer base for companies such as Facebook, Google, Amazon etc., India would be able to get a bigger share of their profits as compared to other countries. However, as of now, it is difficult to quantify the amount of taxes which would flow to India.

Doing Away with Equalization levy: India has unilaterally imposed Equalization levy to bring digital companies under the ambit of tax. The finalization of OECD deal would mean that India would have to do away with Equalization levy. India needs to be cautious here. It needs to ensure that the revenue gains from the OECD deal is much higher than the revenue earned through Equalization levy.

Expansion in scope of MNCs covered: Pillar 1 covers only those MNCs which have global annual revenues of above 20 billion euros and profit margin of more than 10%. This criterion would include only the bigger MNCs (such as Google, Apple, Facebook etc) and leaves out smaller MNCs. Hence, India needs to argue for lowering criteria and bring even smaller companies under the tax bracket.

Tax Rates: Pillar 1 proposes tax rate which ranges between 20% to 30% of residual profits above 10% profit margin. The developed economies have argued for a lower tax rate of 20%, while India has demanded for the tax rate to be at higher end of 30%. India needs to ensure its interests and concerns are taken into consideration.

Indian IT Companies: Indian IT companies with a global footprint in business will have to evaluate their current business models and how the OECD proposals would impact them.

Global Minimum Corporate Tax rates: India has brought down the corporate tax rate to 15% for the domestic manufacturing companies, which is on par with the OECD proposal. The adoption of Global minimum corporate tax would put a dent in the appeal of low-tax jurisdiction countries and can help India to attract foreign companies to set up

their bases here. Similarly, it would discourage the Indian companies from setting up bases in tax havens solely for the purpose of tax avoidance.

8. CONCERNS WITH OFF-BUDGET FINANCING

Off-Budget Financing refers to expenditure undertaken by PSUs through market borrowings based upon guarantee of repayment of loans given by Government. For example, let's say government needs to invest in Railways. It may ask Indian Railway Finance Corporation (IRFC) to borrow money from market and finance railway projects. However, Government guarantees the repayment of principal and interest for the money borrowed by Indian Railway Finance Corporation in case it fails to repay the borrowed money.

CONCERNS WITH OFF-BUDGET FINANCING

According to various Estimates put forward by Subhash Chandra Garg, Off-budget Expenditure accounts for at least 1% of India's GDP, which is quite huge. The same concern was raised even by Comptroller and Auditor General (CAG) in 2019.

Decrease in Government's Financial Accountability: The Government's strategy to meet capital expenditure through off-budget financing provides flexibility in meeting requirement of capital-intensive projects. However, such financing **remains outside budgetary control** of the Parliament.

Decrease in Fiscal discipline: Increase in off-budget expenditure highlights that the Government has not been able to manage its finances efficiently and thus there is greater level of fiscal indiscipline.

Enhanced Financial Risk: Increase in off-budget financing poses enhanced risk for Government, particularly when Government agencies which borrow money from market based on government guarantee fails to repay such loans. Under such circumstances, the Government would be required to pitch in and fulfill its obligations.

Reduced Sanctity of Government's Finances: Ideally, the Government guarantee on repayment of bonds should be accounted under Debt and Liabilities so as to provide correct picture about its finances. However, since it is not accounted, it would lead to **understating of Government's borrowings** and do not present correct picture related to fiscal indicators such as Fiscal Deficit and Revenue Deficit.

HOW TO ADDRESS THIS PROBLEM?

CAG has given recommendations to tackle the problem of off-budget financing. They are**:**

- Government of India must put in place policy framework for off-budget financing to provide for enhanced disclosure to Indian parliament. Such a policy framework must mandate Government to highlight rationale and objective of undertaking off-budget financing.
- Government must come out with quantum of off-budget financing and way it has been undertaken every year.
- Government must disclose all details about off-budget financing through disclosure statements in Budget.

9. FISCAL COUNCIL IN INDIA

Chairman of 15th Finance Commission, NK Singh has recommended setting up of institutional mechanism like a 'Fiscal Council' to fill major institutional gap in India's Fiscal System.

ABOUT FISCAL COUNCIL

A fiscal council is an independent and non-partisan agency set up to publicly assesses government's fiscal performance against its stated objectives. Fiscal Councils can serve both ex-ante and ex-post functions such as

- Producing independent forecasts related to GDP growth, tax buoyancy, inflation rate.
- Review the government's forecasts and assumptions related to tax collections, Fiscal Deficit, GDP Growth etc (an ex-ante function).
- Monitoring governments' fiscal performance including adherence to fiscal rules (an ex post function)

International Experience with Fiscal Council: Fiscal councils can improve fiscal outcomes and accuracy related to government's forecasts related to fiscal parameters. Example: United Kingdom (Office of Budget Responsibility), USA (Congressional Budget Office)

Committees related to Fiscal Council: FRBM Review committee headed by N.K Singh and D.K. Srivastava Committee on Fiscal Statistics have proposed to set up independent Fiscal Council in India.

NEED FOR FISCAL COUNCIL IN INDIA

- Promotes coordination among multiple agencies involved in collection of the fiscal data.
- Produce Independent forecasts related to various parameters such as GDP, Tax collection, Deficits etc.
- Advise the Government on the formulation of Budget.
- Monitor Government's fiscal performance to FRBM Targets
- Ensure greater accountability of the Government to the Parliament.
- Act as counterpart to the Monetary Policy Committee
- Address the problem of Off Budget Financing.

ROLE OF FISCAL COUNCIL IN INDIA

- **Fiscal Data Coordinator:** As a fiscal data coordinator, Fiscal Council should have responsibility of compiling and collating centre, state, and local government fiscal data and provide individual and consolidated fiscal accounts of governments in India on a timely basis and make such data accessible to governments and public.
- **Fiscal Data Analyst:** Utilize compiled fiscal data to provide valuable insights into the underlying fiscal trends and highlight their policy significance.
- **Fiscal Consolidation Path Monitor:** Central and state governments follow their respective fiscal consolidation paths according to targets set under their FRBM Acts. Fiscal Council should monitor compliance of these targets by Central and State Governments. It should highlight deviations in targets by publishing quarterly and annual reports.
- **Fiscal Policy Advisor:** Fiscal Council should provide guidance to central and state governments on appropriate fiscal policy interventions aimed at improving growth and macro-stabilization outcomes.

10. STRENGTHENING FISCAL FEDERALISM

UNDERSTANDING FISCAL FEDERALISM

Fiscal federalism is economic counterpart of Political Federalism. Fiscal Federalism consists of 2 aspects:

- Assignment of functions to different levels of Governments
- Allocation of financial powers

NEED TO HAVE PERMANENT FINANCE COMMISSION

- Finance Commissions have adopted different approaches with regard to principles of tax devolution, grants to be given to states and fiscal consolidation issues.
- Even though, there has to be freedom for fresh & innovative thinking by every Finance Commission; at another level, there is a need for broad consistency between Finance Commissions so that there is some degree of certainty in flow of funds to states.
- For example, 14th Finance Commission has provided for tax devolution of 42% as compared to 32% provided by 13th Finance Commission. Further, 14th Finance Commission has added parameters of Area under Forests and Demographic Change (2011 census) for the horizontal tax devolution. Fiscal discipline parameter used by 13th Finance Commission has been done away with by 14th Finance commission.)

NEED TO STRENGTHEN NITI AAYOG

Vijay Kelkar is of opinion that the present mechanism of setting up of Finance Commission every 5 years is working perfectly fine. However, there is a need to strengthen fiscal Federalism by empowering NITI Aayog with transfer of finances.

Rationale

- Planning Commission was involved with transfer of finances to the states which to a certain extent were able to reduce the regional imbalances existing among different states in India. However, Planning Commission was replaced by NITI Aayog, which acts more like a think tank without power of transferring finances.
- Two problems have arisen with this. Firstly, **India's Fiscal Federalism stands only on one pillar**, viz., Union Finance Commission. This is a serious weakness of our present Fiscal Federalism and needs to be corrected.
- Secondly, India has been experiencing process of **"Conditional Convergence"** amongst different States wherein poorer states have been growing more rapidly than richer states leading to reduction in income inequality. Such conditional convergence has been possible on account of transfer of finances by Planning Commission.
- Thus, there is a strong case for strengthening the role of NITI Aayog with powers of allocating finances to states. To make the new NITI Aayog more effective, it is essential to ensure that the institution is at the "High Table" of decision making of the Government. This means the Vice Chairman of the new NITI Aayog will need to be a permanent invitee of the Cabinet Committee on Economic Affairs. Thus, new NITI Aayog will make available to the highest level of policy making knowledge-based advice and provide national and long-term perspective on the policy proposals.

11. TENSIONS IN FISCAL FEDERALISM: POOR FINANCES OF STATES

EROSION OF FISCAL AUTONOMY OF STATES UNDER GST REGIME

- With the advent of the GST regime, States surrendered the power to levy many taxes. Ex: state sales tax, octroi, Entertainment tax etc.
- State governments cannot change the rates of GST on their own according to their fiscal needs.
- Loss of revenue to the manufacturing states since GST is a destination-based tax.

Decline in the share of own tax revenue from 69% in 1955-56 to 38% in 2019-20.

Delay in payment of GST compensation to states.

States share in overall tax revenues has stagnated because the non-divisible pool of cesses and surcharges has been increasing.

Union government lays down several conditions to increase the borrowing limits of the state governments.

Lack of financial and operational autonomy in implementing Centrally sponsored schemes.

STEPS TO STRENGTHEN FISCAL FEDERALISM

Flexibility should be given to the states to increase tax during crisis. Ex: Kerala government was allowed to levy 1% Calamity cess on GST to reverse the devastation caused by the floods

Flexible borrowing limits for fiscally prudent states, which have not breached FRBM limits and managed overall debt at sustainable levels.

12. PERFORMANCE ANALYSIS OF GOODS AND SERVICES TAX (GST)

New GST system was implemented from July 2017 to replace several central and state taxes on same base with a country-wide common framework. As each State levied its own VAT, tax system was fragmented with different rates being applied for comparable sales of goods.

OUTLINE OF GST SYSTEM

Legal Framework: Legal regime of GST includes four Central laws (Central Goods and Services Tax (CGST) Act, Integrated Goods and Services Tax (IGST) Act, Union Territories Goods and Services Tax (UTGST) Act and Goods and Services (Compensation to States) Act along with twenty-four state laws, relevant State Goods and Services Tax (SGST) Act

Policy Framework: GST system is based on a system of multiple rates to various categories of sales (0%, 5%, 12%, 18%, 28% and additionally 0.25% for precious stones and 3% for gold).

Tax Administrative Framework: Administration of GST is done in parallel by Central and State GST administrations with powers to audit and administer shared. To support the administration of taxpayers, a common nation-wide IT backbone called the GST Network (GSTN) has been put in place through which all tax returns are required to be filed.

POSITIVES: Done away with Cascading effect of Tax on Tax + One Nation One Tax + Improved Tax Compliance + Increase in number of registered taxpayers + Lower cost of Goods and Services + Improvement in Ease of Doing Business

ISSUES IN GST IMPLEMENTATION AND FUNCTIONING

15th Finance Commission has highlighted some challenges with the implementation of the Goods and Services Tax (GST). These include:

Stagnation in Revenue: Monthly GST collections crossed Rs 1 lakh crore in April 2018 and since then have remained stagnant.

Inverted Duty Structure refers to a situation where the rate of tax on inputs purchased (i.e., GST Rate paid on inputs) is more than the GST rate on finished goods. The inverted duty structure leads to higher input tax credits and hence lower tax collection for the Government.

Complexity: GST was introduced to simplify the tax structure and improve the tax compliance. However, the existing GST regime has multiple rates: 0, 0.25, 1, 3, 5, 12, 18 and 28%.

Coverage: Petroleum crude, petrol, high speed diesel, Aviation Turbine Fuel (ATF), Natural gas etc. are still outside GST.

Issues in Refunds: Delays in GST refunds, recent unearthing of fake invoices and fraudulent practices to corner input tax credit.

Anti-profiteering framework: Need to evolve clear guidelines on anti-profiteering mechanism.

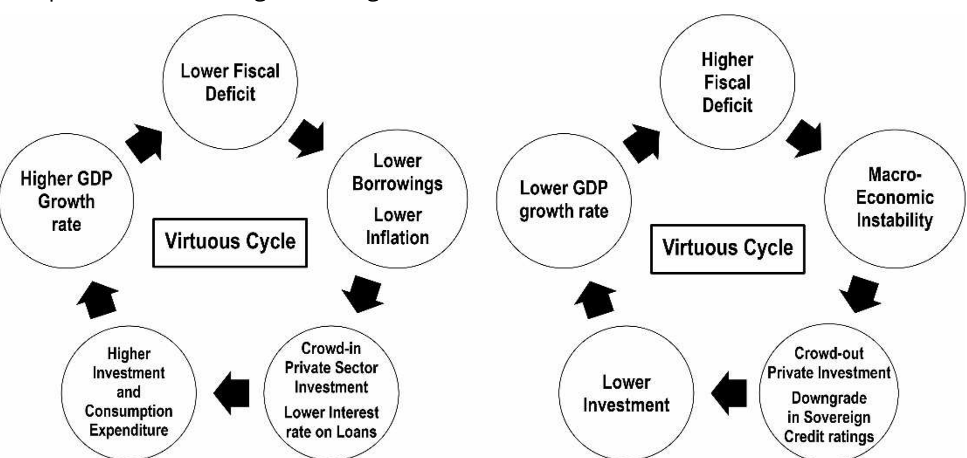
Shortfall in GST Compensation CSS: Almost 21 states still depend upon Centre for the GST compensation.

Lack of Revenue Neutrality: A change in tax structure is revenue neutral if the modified tax is able to realize revenue comparable to the original tax regime. In this sense, the much-needed revenue neutrality of GST stands compromised. The Share of General Government's revenue from taxes subsumed under GST was 6.3% of GDP in 2016-17. However, collections under GST were 5.7% of GDP in 2018-19 and 5.6% in 2019-20.

13. LIMITS ON FISCAL DEFICIT- A CONSTRAINT ON BOOSTING ECONOMIC GROWTH?

The FRBM Act, 2003 requires the Government to maintain FD target of 3% to ensure fiscal discipline. However, during exceptional times such as Covid-19, such reasonable targets can force the government to adopt pro-cyclical fiscal policy and hence prolong economic revival.

As seen below, reasonable restriction on FD is extremely critical to promote higher Tax-GDP ratio, rationalization of expenditure, ensure inter-generational equity and fiscal discipline and hence higher GDP growth rate.



However, during abnormal times such as Covid-19, the Government needs to adopt counter cyclical fiscal policy and hence such restrictions on FD can hinder economic revival. Thus, even though, increase in Fiscal deficit can have long term adverse consequences, the current economic scenario requires us to deviate from FD targets on account of following reasons:

Unprecedented Times: The Covid-19 has led to twin shocks leading to a record GDP contraction of -7.5% in 2020-21. Deviation of 0.5% in FD which is allowed under FRBM act is not sufficient. Unprecedented times call for unprecedented measures.

Sticking to FD Limit- Counter-Productive: Sticking to FD Limit → Cutting down on Expenditure and Increasing the tax rates → Decline in Investment and Consumption

expenditure → Decline in Employment → Decline in GDP growth rates and Income levels (Pro-cyclical Fiscal Policy)

Key to Economic Revival: Both Investment and Consumption expenditure affected and unlikely to increase due to economic uncertainty. Hence, need for increasing Government expenditure (GFCE).

Increase in GFCE → Creation of Infrastructure → Crowd-in Private sector Investment → Boost Demand in the economy → Address Twin Shocks → Boost GDP growth rate.

HIGHER FD- NOT A MATTER OF CONCERN

- Lower absolute debt
- Negative IRGD- Higher Debt Sustainability
- Long term maturity profile of India's Debt
- Adequacy of forex Reserves
- Downgrade in Sovereign Credit Ratings--> Minimal impact on India's GDP growth rate

Hence, as rightly pointed out by Economic Survey 2020-21, the Government need not be worried out higher FD to provide fiscal stimulus to deal with present economic scenario. However, at the same time, there is a need to ensure higher quality of Fiscal deficit by increasing the share of Capital expenditure and reducing share of revenue expenditure. Necessary amendments would have to be introduced in the FRBM Act, 2003.

14. DISINVESTMENT POLICY IN INDIA- PRIVATISATION AND WEALTH CREATION

EVOLUTION OF DISINVESTMENT POLICY

The liberalization reforms undertaken in 1991 ushered in an increased demand for privatization/ disinvestment of PSUs.

- **First Phase:** Sale of minority stake in bundles through auction.
- **Second Phase:** Separate Sale of each PSU
- **Third Phase**:
    - Strategic Disinvestment- Sale of substantial portion of Government shareholding in identified Central PSEs (CPSEs) up to 50 per cent or more, along with transfer of management control.
    - Launch of exchange traded funds (ETFs) - an equity instrument that tracks a particular index.
    - Monetization of select assets of CPSEs.

STRATEGIC PUBLIC SECTOR ENTERPRISE POLICY

Under the new "Public Sector Enterprise" policy, various sectors will be classified as strategic and non-strategic sectors. The policy has identified 4 sectors as strategic sectors: i) Atomic energy, Space and Defence ii) Transport and Telecommunications iii) Power, Petroleum, Coal and other minerals iv) Banking, Insurance and financial services.

In strategic sectors, there will be bare minimum presence of the public sector enterprises. The remaining CPSEs in the strategic sector will be privatised or merged with other CPSEs. In non-strategic sectors, CPSEs will be privatised, otherwise shall be closed.

BENEFITS OF PRIVATISATION

- Strong positive effect of labour productivity and overall efficiency of PSUs in India: Post-privatization, the performance of the privatized entity improves significantly in terms of net worth, net profit, return on assets (ROA), return on equity (ROE), gross revenue
- Improved capital allocation and economic efficiency

- Cost reductions
- Privatisation has multiplier effect on other sectors of the economy.
- Enhanced Competitiveness
- Professionalism in management of CPSEs

WAY FORWARD

Privatisation or disinvestment program should aim at maximisation of Government's equity stake value. The learning from the experience of Temasek Holdings Company in Singapore may be useful in this context. The Government can transfer its stake in the listed CPSEs to a separate corporate Entity. This entity would be managed by an independent board and would be mandated to divest the Government stake in these CPSEs over a period of time. This will lend professionalism and autonomy to the disinvestment program.

15. EQUALISATION LEVY

RATIONALE BEHIND INTRODUCTION OF DIGITAL TAXES

The existing tax norms have been framed keeping in mind the brick-and-mortar business models. However, these norms are not suitable to regulate online services. With rapid advancements in the field of big data and AI, the digital companies have been able to harness the user generated data enabling them to earn huge revenues through digital advertisements. In spite of the fact that these companies earn revenue by harnessing the data generated in a particular country, these companies are not obliged to pay adequate taxes in source country. Hence, Equalization Levy has been introduced in the Union Budget 2016 in order to bring such Internet based companies within the ambit of tax.

DETAILS ABOUT EQUALIZATION LEVY

The equalization levy of 6% is applicable to the income accruing to a foreign E-commerce company which is not a resident of India. Any person or entity in India which makes a payment exceeding Rs 1 lakh in a financial year to a non-resident technology company (such as Google) for some B2B (Business to Business) transactions needs to withhold 6% of the gross amount to be paid as

equalization levy.

Two conditions to be met to be liable to equalization levy:

- The payment should be made to a non-resident service provider.
- The annual payment made to the service provider should exceed Rs. 1 lakh in one financial year.

EXPANSION OF EQUALISATION LEVY IN UNION BUDGET 2020

The Finance Act, 2020 has inserted a provision to impose Equalisation levy of 2% on the revenues generated through the online sale of goods and services by non-resident e-commerce companies. The Equalisation levy would be applicable only if the aggregate revenues for a non-resident e-commerce companies exceed a threshold of Rs 2 crores.

APPLICABILITY: PAYMENT MADE BY INDIANS TO THE FOREIGN COMPANIES NON-RESIDENT IN INDIA		
	Earlier Regime	**Present Regime post 2020**
Companies Covered	Foreign Companies which provide Digital Advertisements such as Google, Facebook, Twitter etc.	All the Foreign Companies with an annual turnover of Rs 2 crores and above. Amazon, Netflix, Trivago etc.

Goods and Services covered	Only Digital Advertisements	Payment for Digital Advertisements to Foreign Companies + Payment for buying Goods and Services online. Applicable to companies such as Amazon, Flipkart, Netflix, Trivago etc.
Tax Rate	6% of the total payment made for Digital Ads	**Digital Ads:** 6% of the total payment + **Payment for buying Goods and Services online:** *2%* of the payment received.

The new modification introduced in the Finance Act, 2020 has been opposed by the foreign e-commerce companies on account of following reasons:

WIDER APPLICATION OF TAXATION REGIME: Earlier, the Equalisation levy was applicable only on the advertising revenue of non-resident companies. Now, this would be applicable on the all the revenue earned through the online sale of goods and services by non-resident e-commerce companies. The scope of the application of Equalisation levy is so wide that it will bring almost all the foreign based technological companies under the tax bracket. This includes e-commerce companies such as Amazon; online streaming/ content service providers such as Netflix, Amazon Prime; online travel aggregators such as Trivago, TripAdvisor etc.

HIGHER TAX BURDEN: Earlier equalisation levy was applicable only on B2B transactions. But now, the new equalisation levy would be applicable on every transaction undertaken by non-resident e-commerce companies which includes both B2B as well as B2C transactions.

LACK OF DISTINCTION BETWEEN DIGITAL SERVICES AND GOODS/ SERVICES PROVIDED THROUGH DIGITAL MODE: If you watch a movie online on a digital platform such as Amazon Prime, Netflix etc., then it can be considered as Digital service. On the other hand, if you book a movie ticket online through a platform (such as Book My Show) and then watch it in a multiplex, then it cannot be considered as completely Digital Service. Here, the booking platform is providing you with the service of booking a movie ticket through the Digital mode. It is not providing movie as a Digital service.

Hence, such booking platforms are quite distinct from streaming services such as Amazon Prime, Netflix etc.

Accordingly, some of the companies have pointed out that it would be unfair to tax the companies that provide Goods/services through Digital mode on par with companies that provide Digital Services. Hence, even though, the Government's idea is to tax e-commerce transactions, but it may end up taxing even those transactions where Internet is just a medium.

16. PUBLIC FINANCIAL MANAGEMENT SYSTEM (PFMS)

The Public Financial Management System (PFMS) is a web-based online software application designed, developed, owned and implemented by the Office of the Controller General of Accounts. It has been started with the objective of tracking funds released

under all Plan schemes of Government of India, and real time reporting of expenditure at all levels of Programme implementation. Subsequently, the scope was enlarged to cover direct payment to beneficiaries under all Schemes.

Functions of PFMS:

- Transfer the funds under various Government schemes to the implementation agencies
- Track the usage of funds by various implementation agencies
- Enable Implementing Agencies to transfer funds to lower-level agencies.
- Make e-payments to vendors, employees, and beneficiaries.
- Facilitating direct benefits transfer to beneficiaries under Government schemes such as MGNREGA, National Social Assistance Program (NSAP)
- Linking PFMS with State Treasury systems
- Enabling collection of Non-Tax Receipts
- Interface with the Banks for effective payments and reporting to scheme/ program managers.

BENEFITS OF PFMS

- Establishes a common electronic platform for comprehensive tracking of fund flows from the Central Government to a large number of programs implementing agencies, both under the central government and the state governments, till it reaches the final intended beneficiaries.
- Ensures timely release of funds to the implementation agencies and thus help in effective financial management
- Accountability to show the utilization of public funds
- Transparency for ready access to reliable and comprehensive information
- By facilitating DBT, PFMS has plugged leakages and eliminated ghost beneficiaries.

SINGLE NODAL AGENCY (SNA) MODEL

The Centrally sponsored schemes (CSS) account for around 20% fiscal transfers from centre to states. The SNA Model has been introduced as part of PFMS in 2021 for the better management of CSS funds. Under the SNA Model, each State is required to identify and designate a SNA for every centrally sponsored scheme. All funds for that State in a particular scheme are credited in this bank account, and all expenses are made by all other Implementing Agencies involved from this account.

The SNA Dashboard depicts releases made to different States by Ministries, further releases made by State Treasuries to the SNA accounts, expenditure reported by the agencies, interest paid by banks to SNA accounts etc.

HOW HAS SNA MODULE IMPROVED PUBLIC FINANCIAL MANAGEMENT?

Time bound transfer of funds: Earlier, there was no time limit for the transfer of funds by the concerned state governments to the implementation agencies. However, under the SNA Module, a time limit has been prescribed for transfer of the state's share.

Ensures Transparency and accountability: Earlier, the states used to spend money for all the centrally sponsored schemes (CSS) from a single account and hence it was not possible to track utilisation of funds. However, under the SNA model, for each and every CSS, a single nodal agency is to be designated. This enhances transparency and accountability.

7 CHAPTER INDUSTRIAL POLICY AND LPG

TOPICS TO BE COVERED

1. *Failure of Manufacturing Sector- Reason & Suggestions*
2. *Analysis of PLI Scheme*
3. *Analysis of Special Economic Zones*
4. *Issues with MSME Sector*
5. *Defence Manufacturing- Initiatives, Prospects and Challenges*

1. FAILURE OF MANUFACTURING SECTOR- REASON & SUGGESTIONS

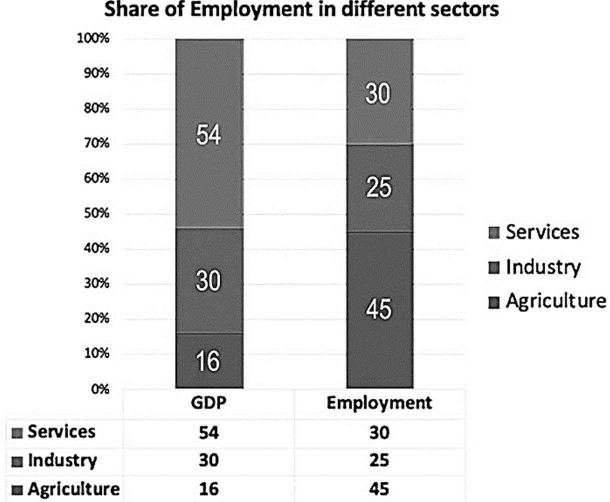
Countries across the World have relied upon 3 modes of Escape- Geography, Geology and Jeans to promote Economic growth and development. Countries such as Switzerland, Mauritius etc. have focused on promotion of Tourism (Geography). Countries such as Saudi Arabia, Australia, Canada etc. have relied on their rich natural resources (Geology). Countries such as Singapore, Thailand, South Korea, China etc. have relied on low-cost manufacturing by making optimum utilization of their human resources (Jeans).

In spite of having world's second largest Population, India has failed to capitalize on Jeans and promote low-cost manufacturing.

In this context, the Indian manufacturing sector exhibits many peculiarities: first, it contributes small and stagnant share to GDP (17%) ; second, its composition is more skewed towards skill and capital intensive activities; third, only a small share of employment in manufacturing is in organized manufacturing (the unorganized manufacturing sector accounted for almost 70 per cent of total manufacturing employment); and fourth, employment is heavily concentrated in small firms.

GOVERNMENT INITIATIVES TO BOOST MANUFACTURING

- **Make in India Action Plan:** Increasing the manufacturing sector's contribution to 25 per cent of GDP by 2020
- **National Manufacturing Policy 2011:** Create 100 million additional jobs by 2022
- **Infrastructure:** National Investment and Manufacturing Zones (NIMZs), Special Economic Zones (SEZs), Industrial Corridors, Dedicated Freight Corridors, Sagarmala, Bharatmala etc.
- **Policy Initiatives:** Recent changes in definition of MSMEs; Consolidation of labour laws into 4 Labour Codes; Reduction in Corporate tax rates; Increase in FDI limits on various sectors such as Defence, Public Procurement Policy etc.
- **Aatma Nirbhar Bharat:** Vocal for Local and protection to domestic Industries through tariffs.
- **Schemes:** Production Linked Incentive (PLI) Scheme, Start-up India, Stand-up India, MUDRA, Schemes for development of MSMEs etc- National Manufacturing Competitiveness Program (NMCP), Zero Defect, Zero Effect etc.



ANALYSIS OF THE "MAKE IN INDIA" CAMPAIGN

The success of the "Make in India" campaign can be analyzed from three important economic parameters- Investment rates, Output Growth and employment growth.

Investment rates: There has been decline in the overall capital investments in the manufacturing sector in the last 5 years. The investment rate within the Indian Economy has reduced from 31.3% in 2013-14 to 28.6% in 2017-18.

Output Growth: The output growth of the manufacturing sector can be analyzed by looking at high frequency indicators such as Index of Industrial production. The IIP has registered double-digit growth rates only on two occasions between 2012 to 2019. The share of Manufacturing sector to GDP has also remained stagnant.

Employment Growth: The Unemployment within India has increased to 45-year high of 6.1% as highlighted by PLFS Report.

REASONS FOR THE FAILURE OF 'MAKE IN INDIA'

Poor Condition of the Financial Sector: The NPAs of the Indian banks and liquidity crunch faced by the NBFCs has led to reduced credit creation within the Indian Economy.

Archaic labour laws: The archaic and outdated labour laws have led to higher compliance burden on the firms and disincentivized the private sector from investing in the manufacturing sector.

Problem of Missing Middle: The Manufacturing sector is basically dominated by a large number of small enterprises and a relatively less number of large-scale manufacturing enterprises. There is almost near absence of mid-sized firms. Such a peculiar scenario is referred to as "Problem of Missing Middle". This is basically attributed to the Government incentive structure and policies.

Skilled Human Resources: As per census 2011, India has almost 53% of the population in the working-age group. However, in order to optimally utilize the demographic dividend, we need skilled human resources. The lack of availability of skilled human resources is considered to be a constraint for the manufacturing sector.

Logistics cost: The Logistics cost account for almost 12-14% of India's GDP as compared to 8-9% in other countries.

Impact of FTAs: The FTAs signed by India with the developed economies such as Japan, South Korea etc. have led to import of cheaper foreign goods and hence adversely impacted the domestic manufacturing.

High Taxation: The Corporate tax rates within India was considered to be at least 50% higher as compared to other emerging economies. It was only recently that the

Government has decided to reduce the corporate tax rates and bring them on par with the tax rates prevailing in other countries.

Technology adoption: The adoption of new technologies like artificial intelligence, data analytics, machine-to-machine communications, robotics and related technologies, collectively called "Industry 4.0", are a bigger challenge for SMEs than for organized large-scale manufacturing.

Other important reasons that could be attributed to the failure of "Make in India" are **cumbersome land acquisition procedure, poor ease of doing business, greater amount of policy uncertainty, poor infrastructure** etc.

BROAD CONTOURS OF NEW MANUFACTURING POLICY

- **Focus on Coastal Economic zones (CEZs):** Port-led Industrialisation by fast tracking implementation of CEZs. Setting up of Coastal SEZs in China such as Shenzhen enabled it to attract manufacturing companies from Taiwan and Hongkong; Need to replicate the same to attract the companies from China now.
- **Focus on Sunrise Sectors** based on new-age technologies such as blockchain, robotics, machine learning, big data, AI etc to leverage opportunities created by Industrial Revolution 4.0.
- **Boosting Innovation through Start-Ups:** Conducive ecosystem for nurturing and promoting start-ups through access to finance, handholding, tax incentives, access to market etc.
- **Attracting foreign Investment though Plug and Play Model**: Under the plug-and-play model, the investors are provided with land at affordable cost with all the necessary pre-clearances including Environmental clearances. It would provide in-built office spaces and all the basic facilities such as Electricity, water etc. One of the biggest advantages of such a model is that it kickstarts the production as early as possible without any hurdles. Some of the States such as Maharashtra, Haryana etc. have decided to adopt such a model to boost foreign Investment. This model needs to be replicated by the other states as well.
- **Facilitate Investment:** Reforms in Public Sector Banks to enhance credit creation; Strengthen corporate Bond market; Improve financial position of NBFCs.
- Government's financial support to manufacturing **clusters** and provide single window clearances to entrepreneurs and investors.
- Extend **Product Linked Incentive (PLI) scheme** to other sectors.
- Focus on **Quality standards to boost exports:** Task the Bureau of Indian Standards and Quality Council of India with assessing the improvements in standards and productivity required to achieve global standards.
- **Renegotiate FTAs** to India's advantage and address inverted duty structure.
- **Skilling India:** Greater connect between government-industry-academia is required to identify the changing requirements in manufacturing and prepare an employable workforce. In the context of employability of engineers, there is a need for thorough review of standards of engineering education and its linkages with industry.

2. ANALYSIS OF PLI SCHEME

To become $ 5 trillion economy and realize the vision of Aatma Nirbhar Bharat, there is a need to enhance investment in the Manufacturing sector. Hence, as part of Aatma Nirbhar Bharat Package, the Government has approved PLI schemes for almost 13 sectors such as Mobile Manufacturing, Pharmaceutical Industry, Textile, Automobiles, Specialty steel, Solar PV Modules etc.

DETAILS ABOUT PLI SCHEME

Objective: Boost domestic manufacturing and attract large investments in domestic manufacturing

Strategy: Offer companies incentives on incremental sales of products manufactured in India. The scheme also invites foreign companies to set up units in India and avail benefits.

Incentives: Extend an incentive of 4% to 7% on incremental sales (over base year of 2019-20) of goods manufactured in India for a period of 5 years.

Eligibility: Incentives are provided under the scheme to only those companies which cross the threshold level in terms of incremental sale of Manufactured Goods and Incremental investment over the base year.

Tenure of Scheme: 5 years

BENEFITS OF PLI SCHEME

The PLI scheme would help us achieve ***import substitution, export promotion, cost-competitive and efficient manufacturing, economies of scale, increased contribution in global value chains and higher market share in the champion sectors***.

1. **Linking Incentives to Output:** Unlike previous schemes which focusses on Inputs (such as increase in customs duty under the Phased Manufacturing Programme), the PLI scheme focusses on outputs as it encourages the companies to increase both investment and production of Goods.
2. **Outcome-based and result-oriented:** This means that incentives will be disbursed only after production has taken place in the country. ***PLI scheme is likely to boost India's manufacturing output by Rs.37 lakh crores crore (US$ 520 billion) in five years.***
3. **Easy to Administer:** The incentives are available based upon fulfilment of objective criteria and hence easy to implement.
4. **Creating 'champions' to integrate into Global Value Chains (GVCs)**: The scheme focuses on size and scale by selecting those players who can deliver on volumes. This would enable nurturing of lead firms which can help set up Global Value chains (GVCs)
5. **Technology Adoption**: PLI Scheme focusses more on incentivising adoption of advanced technology. For example, PLI scheme for Automobile sector focusses on manufacturing of advanced Batteries and Electric Vehicles. This would encourage industries to give up obsolete technology, adopt cutting edge technology and become globally competitive.
6. **Linkages with MSMEs**: PLI scheme will establish backward linkages with the MSME sector which in turn will lead to more inclusive growth and create huge employment opportunities.
7. **Ensure Self-Reliance**: Even today, India is critically dependent on import of critical products such as Telecom, Active Pharmaceutical Ingredients (APIs), Mobile phones, Electronic Goods, Advanced Batteries etc. By boosting production of these critical goods, the scheme not only ensures self-reliance, but also positions India to become major exporter.
8. **Employment Creation:** Generate large-scale employment by incentivizing the development of traditional, labour-intensive sectors like food processing and textiles.
9. **Attract foreign companies exiting China:** Presently, very few foreign companies which are exiting from China have established their base in India. These companies are establishing their bases in other economies such as Vietnam. PLI Scheme would help us attract these foreign companies.

CHALLENGES

Higher Manufacturing Cost: Manufacturing sector has remained stagnant due to poor access to factors of production such as Land, capital, poor labour productivity, poor ease in doing business, higher logistics cost etc. Because of these factors, the cost of manufacturing is quite high in comparison to our competitors. So, despite PLI scheme, foreign companies may prefer other investment destinations such as China, Vietnam etc.

May Go against Domestic Companies: Incentives are uniformly applicable to both domestic companies and foreign companies incorporated in India. Deep pocketed foreign companies may be able to reap higher benefits in comparison to domestic companies and thus domestic companies may get adversely affected.

Limit on Incentives: The incentives given to a company is based on the incremental production. That is, greater the production, the higher the incentives. However, the incentives cannot be claimed beyond the financial outlay proposed by the Government. Hence, an over-performing company may not be reap the benefits under the scheme in absolute terms.

Limited Applicability:

- Applicable to only certain sectors. Important labour-intensive sectors such as Leather have been left out.
- Applicable to only selected few big companies. For example, only 10 companies have been chosen for mobile phone manufacturing.

Promote rent-seeking tendencies among private sector: Experience of the pre-liberalization period shows that schemes such as these are prone to create rent seeking tendencies among the private sectors. For example, foreign companies such as Samsung, Wistron and Foxconn have already approached the government to delay the starting of the first-year conditions on additional sales and investments.

Inward Oriented and Protectionist Policies: To ensure success of PLI scheme, the Government has increased customs duty on number of goods such as electronic and electric goods, Electric cars etc. Protection to selected industries both through subsidies and customs duties would lead to the problem of protectionism and reduction in competition.

WAY FORWARD

Subsidies and incentives can be a game-changer only when we are able to address structural problems of the manufacturing sector. PLI is a game-changer to transform the manufacturing landscape of the country. However, its success hinges on supporting reforms that realise the full potential of the economy.

3. ANALYSIS OF SPECIAL ECONOMIC ZONES

SPECIAL ECONOMIC ZONES SEZs is a geographical area that has economic laws different for a country's general economic laws. They are delineated duty-free enclaves and shall be deemed to be foreign territory for the purpose of trade, duties and tariffs. India enacted **Special Economic Zones, 2005 Act** which provided for the establishment, development and management of the SEZs. The SEZ law also provides for establishment of International Financial Services Centre and Free Trade and Warehousing Zones. GIFT city in Gujarat has been established under this law.

OBJECTIVES

- Generation of additional economic activity
- Promotion of exports of goods and services

- Promotion of investment from domestic and foreign sources
- Creation of employment opportunities
- Development of infrastructure facilities
- Provide globally competitive and hassle-free environment for companies engaged in exports for goods and services

BENEFITS TO SEZS INCLUDE

- Tax holidays
- Exemption from import duties
- Single window clearance for central and state approvals

EVALUATION OF SEZS IN INDIA

Department of Commerce has granted approval for setting up of 417 SEZs, out of which 349 have been notified. The exports from SEZs over the past 14 years (2005-06 to 2018-19) has increased by over 30 times. Almost 20 million employment opportunities have been created in SEZs since 2006.

- Though SEZs were envisaged to promote manufacturing led exports, however, SEZs policy has been leveraged well by companies in the Services sector. Manufacturing sector has been unable to replicate similar export led growth.
- Regional disparity
- Value of exports from SEZs have been rising.
- Investments in SEZs have also been rising though its rate of growth has been decelerating.
- Complexity in undertaking domestic and international business through same units impacting viability of SEZs for manufacturing.
- Uncertainty in government policies ex. Withdrawal of Minimum Alternate Tax and Dividend Distribution tax exemptions, announcement of sunset date etc.
- Multiple regulatory stakeholders (Direct tax, indirect tax, exchange controls, State Governments and SEZ authorities) need not necessarily always aligned.
- Procedural delays and infrastructural bottlenecks.

'SEZ EXPERIENCE IN OTHER COUNTRIES

China: Focussed on enabling a limited number of zones, large size to achieve agglomeration benefits and maintained long-term focus on these zones.

RECOMMENDATIONS OF BABA KALYANI COMMITTEE

The committee advocated for a strategic shift in purpose and principles of the SEZs in India with the objective of moving from ***islands of exports to catalysts of economic and employment growth***.

Framework shift from export growth to broad-based Employment and Economic Growth (Employment and Economic Enclaves-3Es): SEZs to be renamed as 3 E's-Employment and Economic Enclaves. Today, SEZs are viewed as zones promoting only exporters with special privileges; change in nomenclature will bring together all the categories of Investors that enable economic activity and boost employment creation.

- Promote Investment that create economic activities and job creation and do not limit to promoting exports.
- Quantum of Incentives to be based on certain parameters and delinked from exports
  - Investment committed
  - Job Creation
  - Inclusivity- Jobs for Women

- Value Addition
- Technology Adoption
- Priority Industry

Shift from supply driven to demand driven approach

- Beyond Private sector driven enclaves, the Government could focus on few but large zones as future zones of excellence (Similar to Institutes of eminence in Education sector)
- Develop SEZs close to ports
- Focus on developing SEZs in key manufacturing hubs such as Industrial Corridors etc.
- Priority focus on certain SEZs so that they become successful.

Shift from trade competitiveness to manufacturing competitiveness: Government should increase the competitiveness of the 3Es by enabling link infrastructure by funding high speed multi modal connectivity, business services and utility infrastructure

Enabling framework for Ease of Doing Business (EoDB): Integrated online portal for new investments, easier operational requirements and exits related matters.

Enhance competitiveness by enabling ecosystem development by funding high speed multi modal connectivity, business services and utility infrastructure. Critical to provide support to create high quality infrastructure either within or linked to the zones e.g., High Speed Rail, Express roadways, Passenger/Cargo airports, shipping ports, warehouses etc.

Promote integrated industrial and urban development- walk to work zones, States and center to coordinate on the framework development to bring linkages between all initiatives.

Unified regulator for IFSC.

Export duty should not be levied on goods supplied to developers and used in manufacture of goods exported.

Infrastructure status to improve access to finance and enable long term borrowing.

Promote MSME participation in 3Es and enable manufacturing enabling service players to locate in 3E.

Dispute resolution through arbitration and commercial courts.

Formulation of separate rules and procedures for manufacturing and service SEZs.

4. ISSUES WITH MSME SECTOR

MSME sector employs around 111 million people and is second largest employer after agriculture. It contributes 28% of India's GDP and 45% of our manufacturing output. However, MSMEs continue to face challenges of formalization, access to technology, access to timely & adequate finance, improving competitiveness, availability of skilled manpower, access to latest technology & marketing. MSME sector is yet to benefit from advances in digitization, which can substantially reduce cost and time. The sector was also affected in the recent past due to structural changes in the economy such as implementation of GST and demonetisation.

GOVERNMENT INITIATIVES FOR MSMEs

- **Prime Minister Employment Generation Programme (PMEGP): Financial** Support for setting up of new MSMEs; Maximum Cost of project: Rs 25 lakhs
- **ZED Certification Scheme:** Financial support for manufacturing products which have Zero Defect and Zero Effect on Environment.

- **Credit Guarantee Trust Fund for Micro & Small Enterprises (CGTSME):** Collateral free loan up to a limit of Rs 1 crore is available for individual MSE on payment of guarantee fee to bank by the MSE.
- **A Scheme for promoting Innovation, Rural Industry & Entrepreneurship (ASPIRE):** One-time grant of 100% of the project cost or Rs 1 crore (whichever is lower) for promotion of innovation and entrepreneurship
- **National Manufacturing Competitiveness Programme (NMCP):** Credit Linked Capital Subsidy for Technology Upgradation (CLCSS); Lean Manufacturing Competitiveness for MSMEs
- **MSME SAMADHAAN:** Portal to monitor the delays in the payments
- **MSME-SAMBANDH:** Portal to monitor public procurement policy
- **TReDS Platform:** Discounting of invoices for MSMEs from corporate buyers through multiple financiers.

NEW DEFINITION OF MSME

Problems with existing Definition of MSME: Definition of MSMEs has been provided under MSMED Act, 2006. Presently, MSMEs are defined in terms of their investment in plant and machinery or equipment as shown below. There are a number of problems with the existing definition of the MSMEs.

1. Definitions based on investment limits in plant and machinery/ equipment were decided when the Act was formulated in 2006 and does not reflect the current increase in price index of plant and machinery / equipment.
2. MSMEs due to their informal and small scale of operations often do not maintain proper books of accounts and hence find it difficult to get classified as MSMEs as per the current definition.
3. Presently, the MSMEs get number of benefits from the government such as collateral free loans, tax concessions etc. Hence, if they lose the status of MSME, then they would no longer be able to avail these benefits. Hence, in order to avoid losing the status of MSME, the industries deliberately keep their investment levels below the threshold mentioned in the MSMED act.

Hence, in a way, the existing definition has incentivised the MSMEs to remain smaller rather than incentivising them to grow bigger and create more number of jobs.

<table>
<tr><th colspan="4">EXISTING MSME CLASSIFICATION</th></tr>
<tr><th colspan="4">Criteria: Investment in Plant & Manufacturing or Equipment</th></tr>
<tr><th>Classification</th><th>Micro</th><th>Small</th><th>Medium</th></tr>
<tr><td>Manufacturing Enterprises</td><td>Investment < Rs 25 lakh</td><td>Investment < Rs 5 crore</td><td>Investment < Rs 10 crore</td></tr>
<tr><td>Service Enterprises</td><td>Investment < Rs 10 lakh</td><td>Investment < Rs 2 crore</td><td>Investment < Rs 5 crore</td></tr>
<tr><th colspan="4">REVISED MSME CLASSIFICATION</th></tr>
<tr><th colspan="4">Composite Criteria: Investment and Annual Turnover</th></tr>
<tr><th>Classification</th><th>Micro</th><th>Small</th><th>Medium</th></tr>
<tr><td>Manufacturing Enterprises</td><td rowspan="2">Investment < Rs 1 crore
And</td><td rowspan="2">Investment < Rs 10 crore
And</td><td rowspan="2">Investment < Rs 50 crore
And</td></tr>
<tr><td>Service Enterprises</td></tr>
</table>

	Turnover < Rs 5 crores	Turnover < Rs 50 crores	Turnover < Rs 250 crore

New Definition: Three important changes have been introduced in the new definition of MSMEs:

1. Investment limit has been increased.
2. An additional criterion of annual turnover has been introduced.
3. Distinction in definition of Manufacturing and Service sector enterprises has been done away with.

U.K. SINHA COMMITTEE RECOMMENDATIONS FOR MSME

Institutional Framework: For convergence of various MSME related policies, **National Council for MSMEs** should be set up at apex level under Chairmanship of Prime Minister. States should have a similar **State Council for MSMEs,** for better co-ordination of developmental initiatives. Further, Ministry of MSME may consider setting up of a **Non-Profit Special Purpose Vehicle (SPV)** to support crowd sourcing of investments by various agencies particularly for conducive business ecosystem for MSMEs.

Addressing delays in Payments to MSMEs by setting up a monitoring authority under the Development Commissioner, MSME. Majority of States have only one **MSE Facilitation Council (MSEFC)** which is not adequate to cater to delayed payment cases arising in the entire State. Hence, there is a need to increase the number of Facilitation Councils particularly in larger States.

Expanding scope of GeM Portal: Government should make it mandatory for PSUs/ Government Department to procure from MSEs up to the mandated target of 25% through the GeM portal only. Further, the portal can be developed as a full-fledged marketplace enabling MSE sellers to procure raw material as well.

Improving Ease of Doing Business: Presently, MSMEs must do multiple registrations with various entities such as Udyog Aadhaar portal, GSTN, National State Insurance Corporation (NSIC) etc. These needs to be replaced by making PAN as a Unique Enterprise Identifier (UEI) and the same should be used for various purposes.

Capacity Building: Proposal to establish **Enterprise Development Centers (EDCs) within District Industries Centers (DICs)** has to be expedited; Provide handholding support to entrepreneurs in various aspects such as technical know-how, managerial skill, filling up of knowledge gap, etc.

Focusing on MSME Clusters: MSME clusters should collaborate with companies having innovation infrastructure, R&D institutions and universities that specialize in a specific industry or knowledge area.

Distressed Asset Fund: Assist units in clusters where a change in external environment, e.g., a ban on plastics or 'dumping' has led several MSMEs becoming NPA.

ACCESS TO FINANCE

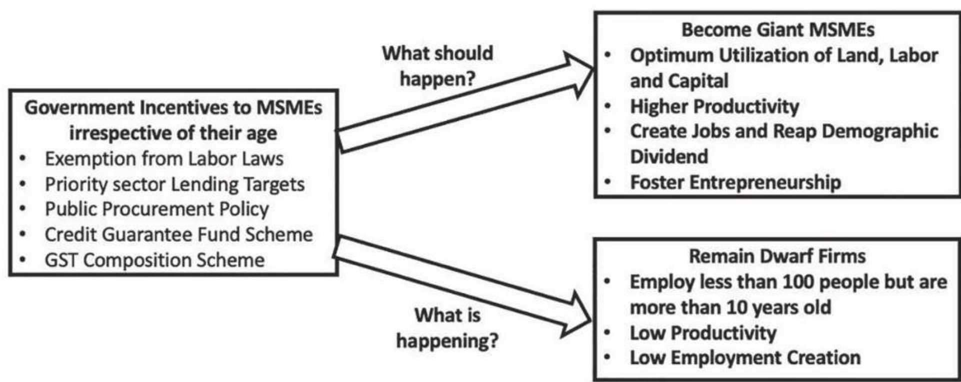
- **PSBLoansIn59Minutes portal** caters only to existing entrepreneurs having information required for in-principle approval such as GSTIN, Income Tax returns, bank statement, etc; Portal should also cater to new entrepreneurs, who may not necessarily have such information, including those applying under PMMY loan and Stand-up India.
- **Priority sector lending (PSL)** guidelines apply uniformly to all lenders and mandate specific targets to banks to lend to priority sectors, i.e., agriculture, small and marginal farmers, micro enterprises, weaker sections, etc. At present, overall target for universal bank is 40% and target for small finance bank is 75%. The committee has

recommended that for banks that wish to specialize in MSME lending, requirement to do agricultural lending under PSL can be waived provided they achieve 50% PSL lending target to MSMEs in case of Universal Banks and 80% in case of Small Finance Banks.

- RBI should increase the **limit for non-collateralised loans** to Rs 20 Lakh from the present limit of Rs 10 Lakh. This limit of Rs 20 lakh should also be applicable to the loans provided under the MUDRA scheme.
- **Loan Service Providers:** RBI should create a new category of Loan Service Providers (LSPs). LSPs would act as agents of borrowers (MSMEs) and offer individualised advice to them catering to all the aspects of finance.
- **Development service providers:** MSMEs lack expertise in product development, technology adoption and marketing strategy. Government should build networks of development service providers that can provide customized solutions to MSMEs in the area of technology, product development and marketing techniques; Need for strengthening of MSME Export Promotion Council.
- **Insurance:** Government should take active efforts to provide insurance coverage to MSME employees on the lines of PMSBY and PMJJBY schemes.
- **Fund-of-Funds:** Government sponsored Fund of Funds (FoF) to support VC/PE firms investing in the MSME sector.

RECOMMENDATIONS OF ECONOMIC SURVEY 2018-19 FOR MSMEs

The Government provides a number of incentives so as to nurture **Infant MSMEs** to grow into **large sized giants** and ensure optimum **utilization of factors of production, higher productivity and job creation**. However, the Government policies as shown below create perverse incentives for firms to remain small rather than grow bigger.



The above-mentioned problem has led to dominance of dwarf MSMEs firms which are more than 10 years old but yet continue to employ less than 100 people. These firms account for more than **half of all firms in manufacturing by number, but their contribution to employment is only around 14%.** This clearly shows that these firms are reluctant to grow bigger due to the fear of losing out on the benefits enjoyed by MSMEs.

The dominance of dwarf firms has led to a number of problems- **Stagnation in Share of Manufacturing Sector (17%), Problem of Missing Middle, lower employment elasticity, Informalization of jobs** etc.

In this regard, the Economic Survey 2018-19 has given the following recommendations:

Incentivizing 'infant' firms rather than 'small' firms: Provision of incentives to firms irrespective of their age has led to dwarf firms. Hence, incentives should be limited to initial 5-7 years only.

Re-orientation of PSL: Under MSME's PSL targets, it is necessary to prioritize start-ups and infants.

Focus on High Employment elastic sectors such as Textiles, leather etc.

Deregulating labour law restrictions can create significantly more jobs, as seen by the recent labor reforms introduced in states such as Rajasthan.

MSMEs that grow not only create greater profits but also contribute to job creation and productivity in the economy. Hence, the Government policies must, therefore, focus on enabling MSMEs to grow by unshackling them.

5. DEFENCE MANUFACTURING- INITIATIVES, PROSPECTS AND CHALLENGES

India is the world's second largest arms importer, accounting for about 12% of global arms imports. This external dependence for Defence Goods not only poses security risk, but it is also a challenge to Aatma Nirbhar Bharat.

OBJECTIVES OF DEFENCE PRODUCTION & EXPORT PROMOTION POLICY (DPEPP) 2020

- Achieve a turnover of **Rs 1,75,000 Crores (US$ 25Bn) including export of Rs 35,000 Crore (US$ 5 Bn)** in Aerospace and Defence goods and services by 2025.
- To reduce dependence on imports and take forward "Make in India" initiatives through domestic design and development.
- To promote export of defence products and become part of the global defence value chains.

STEPS TAKEN BY THE GOVERNMENT TO BOOST INDIGENIZATION OF DEFENCE INDUSTRY

The size of the Defence Industry, including Aerospace and Naval Shipbuilding Industry, is currently estimated to be about Rs 80,000 Cr in 2019-20. While the contribution of Public Sector is estimated to be Rs 63,000 crores, the share of Private Sector has steadily grown to Rs 17,000 crores over the years.

Defence Procurement Procedure (DPP): A new category of capital procurement 'Buy Indian-IDDM' (Indigenously Designed, Developed and Manufactured has been introduced in Defence Procurement Procedure (DPP) to promote indigenous design and development of defence equipment. Under this, highest priority would be given to procurement of Defence Goods which are indigenously designed, developed and manufactured within India.

Defence Offset Policy: Persuade foreign vendors to outsource orders, transfer technologies to Indian companies and invest in India.

Import Bans: Under 'Aatmanirbhar Bharat', a list of 101 items has been prepared for which there would be an embargo on the import.

Innovations for Defence Excellence (iDEX): iDEX is aimed at creation of an ecosystem to foster innovation and technology development in Defence and Aerospace by engaging Industries including MSMEs and Start-ups.

Strategic Partnership Model (2017): Indian companies can seek technology transfers from MNCs to set up domestic manufacturing infrastructure and supply chains.

Policy for indigenisation of components and spares used in Defence Platforms (2019): To indigenize the imported components and sub-assemblies for defence equipment and platform manufactured in India.

Defence Corridors: In Feb 2018, Government decided to establish two defence industrial corridors (One in UP and another in Tamil Nadu) to promote growth of defence industrial base in India.

Public Procurement Order: Department of Defence Production has notified list of 24 items for which there is local capacity and completion and procurement of these items shall be done from local suppliers only irrespective of the purchase value.

CONSTRAINTS AND CHALLENGES IN BOOSTING DEFENCE MANUFACTURING

Lack of Independence and autonomy of Ordnance factory Board (OFB): This has been addressed recently through the Aatma Nirbhar Bharat Package through the decision of Corporatisation of OFB.

Higher Preference to Defence PSUs: The Government tends to give higher preference to Defence PSUs which in turn constraints the growth of Private sector.

Delays in procurement of Defence Goods

Failure in Defence Offset Policy wherein the CAG has recently highlighted that most of the time foreign vendors give commitment for offsets in order to win the tender, but later on do not fulfil their commitments.

Lack of Investment in R&D which is around 0.7% of India's GDP

Failure to attract FDI in Defence manufacturing due to over-dependence on Defence PSUs, Poor Ease of Doing Business etc.

STRATEGIES TO BOOST DEFENCE MANUFACTURING

- Set up **Project Management Unit (PMU)** that should be able to provide clear picture of future requirements of Armed Forces to Industries. It should also support the acquisition process and facilitate management of the contracts.
- **List of Defence Goods whose import is banned** should be reviewed and updated regularly.
- Need to move away from **licensed production to Design, Develop and produce** wherein the India should own the Design Rights and Intellectual property rights.
- **Procurement of indigenously developed products/systems** involves conducting a number of tests and trials and consumes a considerable amount of time as a result of which placement of orders is delayed. This needs to be streamlined and expedited.
- **Set up Indigenisation porta**l to provide necessary support to MSMEs/ Start-ups for import substitution.
- Need to have a **distinct budget head for domestic capital procurement.**
- Tap growing o**pportunities in Aerospace Industry such as Aircraft MRO, Unmanned Aerial Vehicles (UAVs)** etc.
- **Enhance Investment in R&D** and convert the **prototypes into commercially useful products**.
- **Promote export of domestically manufactured** defence products through Govt-to-Govt agreements and Lines of Credit/Funding.

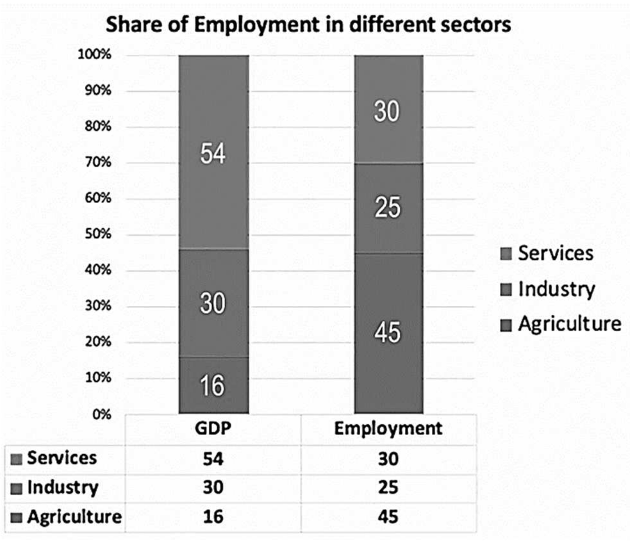
8 CHAPTER EMPLOYMENT, SKILLS & LABOUR REFORMS

TOPICS TO BE COVERED

1. *Jobless Growth in India*
2. *Analysis of Labour Codes*
3. *Decline in Female Labour Force Participation rate (LFPR)*
4. *Skilling India: Prospects, challenges and Way forward*
5. *Apprenticeship Training Program*
6. *Critical Analysis of PM Kaushal Vikas Yojana*
7. *Entrepreneurship Development in India*

1. JOBLESS GROWTH IN INDIA

EMPLOYMENT SITUATION IN INDIA



	GDP	Employment
Services	54	30
Industry	30	25
Agriculture	16	45

Jobless Growth: Stagnation in share of Manufacturing Sector to India's GDP at 17% since 1991 reforms, Dominance of small-sized firms, Complexity in labor laws and land acquisition, lack of skill sets etc.

Nature of Jobs: Jobs created in Indian Economy have been concentrated in low-paying, low-productivity informal sectors such as Construction, Small-sized enterprises. Informal workers account for almost 90% of India's workforce. Thus, concerns have been raised over not just over number of Jobs created, but also over nature of Jobs.

Growing Informalisation of Workforce: Share of contractual workers increased from 12% of all registered manufacturing workers in 1999 to over 25% in 2010. Informal workers are paid almost 20 times less wages as compared to formal workers and lack social security.

Working Poors: Informal workers face number of vulnerabilities such as Poor wages, lack of access to social security benefits, poor skill sets, lack effective representation through trade Unions, lack of access to basic facilities such as housing, sanitation etc.

Decline in Female LFPR: India exhibits a low and declining female labour force participation rate. Female labour force participation rate in India was 23.7% in 2011-12 compared to 61% in China, 56% in United States.

Protection and social security: Several workers that are engaged in unorganized sector is not covered by labour regulations and social security.

Skills-Set: According to India Skill Report 2018, only 47% of those coming out of higher educational institutions are employable.

REASONS FOR JOBLESS GROWTH IN INDIA

- **Focus on Capital Intensive Industries**
    - **Accidental Impact of Government Policies:** Both at central and state levels, there are fiscal and monetary incentives (e.g., capital investment subsidy, interest subsidy, export promotion capital goods scheme, credit-linked capital subsidy for technology upgrading of small-scale industries, etc.) that provide support for capital to various Industries. An indirect effect of such measures has been to decrease cost of capital and enhance cost of labour. This has incentivised Industries to be more capital Intensive and less labour Intensive.
    - **Nature of Demand:** Since 1991 LPG reforms, demand for manufactured commodities has increased substantially. These manufactured commodities are more capital intensive and less labour intensive. This in has implications for technology choice and employment generation
- **Presence of Dwarf Firms in MSME Sector:** Government provides a number of incentives to nurture **Infant MSMEs** to grow into **large sized giants** and ensure optimum **utilization of factors of production, higher productivity & job creation**. However, Government policies as shown below create perverse incentives for firms to remain small rather than grow bigger.
- Poor Implementation of Labour Reforms
- Stagnation in the share of Manufacturing sector
- Need for high skill sets in Services sector such as IT and BPM, Telecommunication etc.
- Disguised unemployment in agriculture accompanied by poor skill sets hindering job creation.
- Employment data. We currently lack timely and periodic estimates of the work force. This lack of data prevents us from rigorously monitoring the employment situation and assessing the impact of various interventions to create jobs.

STRATEGIES TO PROMOTE JOB CREATION

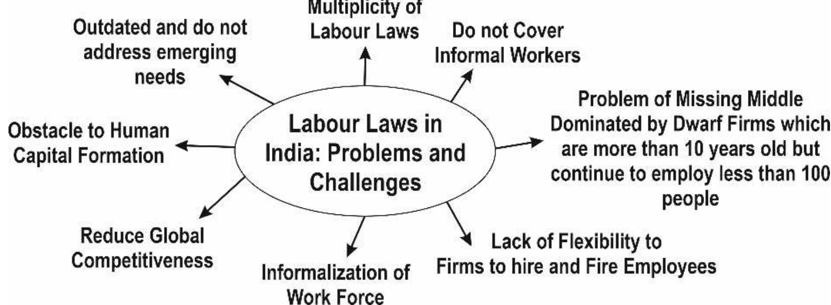
- **Focus on Labour Intensive** industries such as Textile and Leather
- **Exploring Tourism Potential:** potential to create more than 40 million new jobs in the next 5 years.
- **Smart Farming:** should be explored from inherent strengths in the agriculture sector to shift disguised unemployment from the traditional agriculture to the agro and food processing exports.
- **Focus on Assemble in India:** By integrating “Assemble in India for the world” into Make in India, India would create about 4 crore well-paid jobs by 2025 and about 8 crores by 2030.
- **Incentivizing ‘infant’ MSME firms rather than dwarf firms:** Provision of incentives to firms irrespective of their age has led to dwarf firms. Hence, incentives should be limited to initial 5-7 years only.

- **Change in Orientation of SEZs:** SEZs to be renamed as 3 E's- Employment and Economic Enclaves. Today, SEZs are viewed as zones promoting only exporters with special privileges; change in nomenclature will bring together all the categories of Investors that enable economic activity and boost employment creation. (*Discussed separately under the Topic of SEZs*).
- **Effective Implementation of Labour Reforms**, including promotion of Fixed term Employment.
- **Promotion of secondary Agriculture** in rural areas to boost non-farm employment.
- **Making investment subsidies conditional** on realizing a targeted level of employment per unit of investment.
- **Enhance female labour force participation** by ensuring the implementation of and employers' adherence to the recently passed Maternity Benefit (Amendment) Act, 2017, and the Sexual Harassment of Women at Workplace (Prevention, Prohibition and Redressal) Act. It is also important to ensure implementation of these legislations in the informal sector

2. ANALYSIS OF LABOUR CODES

PROBLEMS WITH LABOUR LAWS IN INDIA

Labour laws are under concurrent list. Currently, there are 44 labour laws under the purview of Central Government and more than 100 under State Governments, which deal with a host of labour issues.



Low Employment Elasticity: Even though, Indian Economy has grown rapidly, it has failed to create enough jobs leading to low employment elasticity.

Archaic Labour Laws: Labour Laws need to be reoriented to address the emerging needs of the service sector and the new technology intensive manufacturing sector.

Multiplicity of Labour Laws: This not only leads to significant increase in the compliance costs for the firms and gives scope for corruption and harassment.

Poor Coverage of workers: Cover only around 10% of workforce employed as Formal Workers; Remaining 90% Informal workers face significant challenges in terms of poor wages, working environment and lack of social security benefits.

Problem of Missing Middle: Labour law imposes compliance costs on the mid-sized and large firms and incentives the small firms to stay smaller. This in turn adversely affects the job creation in the Indian Economy.

Lack of Flexibility to Firms: Labour laws fail to provide necessary flexibility to the firms. For example: Industrial Disputes Act (IDA) requires firms employing more than 100 workers to seek permission from their respective state governments to retrench or lay off workers.

Obstacle to Human Capital Formation: Industries play crucial role in skill development. However, as stated before, labour laws discourage firms from employing a large number of permanent workers and steer them towards employing more casual or contract

workers. The firms do not invest in upgrading the skills of the informal workers leading to lack of human capital formation.

Reduce Global Competitiveness: Labour-intensive industries such as Textile and Leather have remained mainly informal in nature due to labour policies.

DETAILS ABOUT THE 4 LABOUR CODES

1. CODE ON WAGES 2019

MINIMUM WAGES ACT, 1948	
Provisions	**Problems**
Centre and State required to bring different forms of employment under the act Covered around 1900 Scheduled Employment	Did not automatically extend to new forms of Employment. Did not cover l/3rd of India's workforce.
Included workers in both Organized sector and certain categories of workers in Unorganized Sector	Did not explicitly include vast majority of workers in the Unorganized Sector
Wages fixed based upon the Subsistence Level/Poverty Lines	Low Level of Minimum wages
Minimum Wages varied across Employments, Within States and across States.	Variation across Employments → Gender Bias → Minimum wage for Security Guards (men) higher than that of Domestic workers (Women) Variation within States → Wage Disparities between different forms of Employment. Variation across States → Region-wise Discrimination

PROVISIONS OF CODE ON WAGES

Objective: Regulate wage and bonus payments. The Code replaces the following four laws: (i) the Payment of Wages Act, 1936, (ii) the Minimum Wages Act, 1948, (iii) the Payment of Bonus Act, 1965, and (iv) the Equal Remuneration Act, 1976.

Coverage: Applicable to all employees, central government will make wage-related decisions for employments such as railways, mines, and oil fields, among others. State governments will make decisions for all other employments.

Floor wage: Central government will fix a floor wage, considering living standards of workers. Further, it may set different floor wages for different geographical areas. Minimum wages decided by central or state governments must be higher than floor wage.

Fixing minimum wage: Code prohibits employers from paying wages less than minimum wages. Minimum wages will be notified by central or state governments. While fixing minimum wages, central or state governments may consider factors such as: (i) skill of workers, and (ii) difficulty of work.

HOW THE CODE ON WAGES WOULD BENEFIT?

- Expansion in coverage of Employees covers both formal and informal workers.
- Unlike Minimum wages Act, 1948, there is no need to explicitly bring different forms of employments.

- Introduction of National Minimum Wage to address regional disparities.
- Addresses gender disparity by ensuring equal remuneration for men and women.
- Reduced Compliance burden since 4 laws have been subsumed into a single code.
- Ease of Doing Business- Replaces inspector with inspector cum facilitators to handle inspections. The Code also provides for inspection, which is web based and automatic, thereby eliminating any corrupt practices which were earlier carried by the Inspectors.

CONCERNS WITH CODE ON WAGES 2019

Lack of Methodology for Fixing Minimum Wages: The Code does not outline methodology for fixing an adequate minimum wage. It completely ignores the formula, which was unanimously recommended by Indian Labour Conference (ILC) as well as Supreme Court ruling in Raptakos Brett case of 1992. According to this formula, wages should be set by considering expenses on food, clothing, fuel and lighting, education and healthcare as well as social costs such as marriages, festivals etc. This methodology prioritised needs of workers, rather than viewing them merely as factors of production.

Lower National Level Minimum Floor wages: Anoop Satpathy committee (2019) recommended the government increase the national minimum wage to Rs 375 per day. However, as of now, the minimum wages are still lower at just Rs 178 per day.

Delay in implementation: Even after more than 2 years, Code on wages along with labour codes have not been notified by Government. Government was expected to implement labour reforms from April 2021, but it has been delayed further.

Prompt race to bottom: State Governments can compete to lower minimum wages to attract private sector investment. This goes against interests of the workers.

Poor Consolidation of Labour Laws: Earlier, number of provisions were incorporated in the act itself, but now under Code on wages 2019, these provisions have been converted into rules to be formulated by Government. Hence, if we combine Code of wages 2019 along with rules formulated under it, it would be much bulkier and more complex as compared to previous 4 laws.

Discretionary powers: Minimum wage will be determined according to the skill of employee, difficulty of work, geographical location etc. This strengthens discretionary powers of the administrators.

Employer Friendly rather than Worker Friendly: Penalties/fines imposed under Code on wages, 2019 are quite meagre and hence may not be sufficient to discourage firms from violation of law. Hence, law can be considered to be mere paper tiger.

Grievance Redressal Mechanism: Wage Code takes away jurisdiction of courts in providing justice to workers who have faced violations with respect to their wages. This means that workers can no longer access courts, but can only approach the quasi-judicial body and appellate authority set up under the provisions of the Wage Code

2. INDUSTRIAL RELATIONS (IR) CODE

The Code provides for the recognition of trade unions, notice periods for strikes and lockouts, standing orders, and resolution of industrial disputes. It subsumes and replaces three labour laws: the Industrial Disputes Act, 1947; the Trade Unions Act, 1926; and the Industrial Employment (Standing Orders) Act, 1946.

PROVISIONS ON FIXED TERM EMPLOYMENT

Provision: Introduces provisions on fixed term employment. Fixed term employment refers to workers employed for a fixed duration based on a contract signed between the worker and the employer.

FEATURE	FIXED TERM EMPLOYEE	PERMANENT EMPLOYEE	CONTACT LABOUR
Type of employment	• Employment under written contract. • No contractor or agency is involved. • On the payroll of the establishment.	• Employment directly under a written contract. • On the payroll of the establishment.	• Engaged in an establishment through a contractor or agency. • Not on the payroll of the establishment.
Term	• Stipulated fixed term. • Employment lapses on completion of term, unless renewed.	• Employed on a permanent basis • Notice must be given for termination of employment.	Based on terms negotiated with the contractor.
Nature of work	Not specified.	Hired for routine work.	Employment may be prohibited in certain cases, e.g., if similar work is carried out by regular workmen.

BENEFITS OF FIXED TERM EMPLOYMENT

- Allow employers flexibility to hire workers for a fixed duration and for work that may not be permanent in nature.
- Fixed term contracts are negotiated directly between employer and employee and reduce role of a middleman such as an agency or contractor.
- Benefits worker since Code entitles fixed term employees to the same benefits (such as medical insurance and pension) and conditions of work as are available to permanent employees.
- Improve conditions of temporary workers in comparison with contract workers who may not be provided with such benefits.

REASONS FOR OPPOSITION

- Unequal bargaining powers between worker and employer could affect the rights of workers.
- Employer has power to renew contracts and hence lead to Job Insecurity
- Code does not restrict the type of work in which fixed term workers may be hired. Therefore, they may be hired for roles offered to permanent workmen.

WHY ARE FIRMS CONTINUING TO HIRE CONTRACT WORKERS INSTEAD OF FIXED TERM EMPLOYEES?

- Ideally, to encourage a shift away from contract workers to fixed-term employees, government should have completely prohibited use of contract labour in core activities, that is, those activities for which the establishment is set up and includes any activity which is essential or necessary to the core activity. However, Industries have been allowed to hire contract workers in core activities under certain conditions such as a sudden increase of volume of work. Such a provision encourages use of contract workers and undermines the initiative of introducing fixed-term employment.

- Cost of hiring contract workers continues to remain lower than cost of hiring fixed-term employees. This is because Fixed-term employees need to be provided with benefits such as medical insurance, pension, provident fund etc.
- Reduced compliance cost for hiring Contract workers since it is staffing companies that are required to incur monitoring and litigation costs.
- Rapid growth of staffing companies

ADDRESSING CONSTRAINTS FACED BY FIXED-TERM EMPLOYEES

Constraints: Industrial Relations Code does not specify a minimum or maximum tenure for hiring fixed-term employees. It does not specify number of times contract can be renewed. It does not restrict type of work in which fixed term workers may be hired. Absence of such safeguards can lead to an erosion of permanent jobs.

HOW THIS COULD BE IMPROVED UPON?

Second National Commission on Labour (2002) had recommended that no worker should be kept continuously as a casual or temporary worker against a permanent job for more than two years. International Labour Organisation (ILO) has highlighted that several countries restrict the use of fixed term contracts by: (i) limiting renewal of employment contracts (Example- Vietnam, Brazil and China allow two successive fixed term contracts), (ii) limiting duration of contract (Example- Philippines limits it up to a year), or (iii) limiting proportion of fixed term workers in the overall workforce.

These recommendations of Second National Commission on Labour and ILO need to be incorporated.

APPLICABILITY OF STANDING ORDERS

Provision: IR Code, 2020 provides that all industrial establishment with 300 workers or more must prepare standing orders on the matters related to: Classification of workers, method for termination of employment, grievance redressal mechanisms etc.

Problems: This means that Small Scale Industries employing less than 300 workers would no longer be required to lay down standing orders and hence may lead to exploitation of workers.

CLOSURE AND LAY-OFF

Provision: Earlier, an establishment having at least 100 workers was required to seek prior permission of government before closure, lay-off, or retrenchment. The threshold has been increased to 300 workers.

Problems: Enable small scale Industries to hire and fire workers at will.

Strikes and Lockouts

Provision: Prior notice of 14 days before a strike or lock-out.

Problems: Impacts the ability of the workers to carry out Strike or lock-out; Decreases their bargaining power

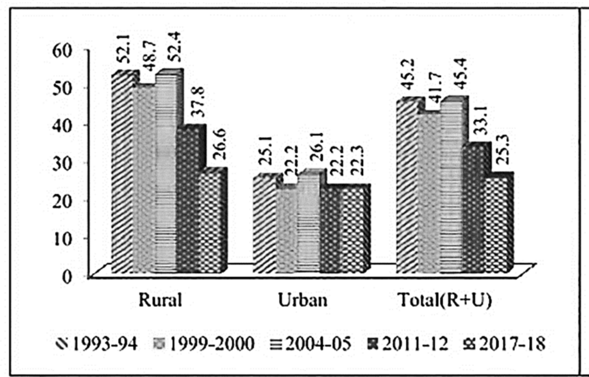
POWER TO EXEMPT INDUSTRIES

Provision: Provides government with power to exempt any new industrial establishment or class of establishment from any or all its provisions if it is in "Public Interest".

Reason for Opposition: Factories Act, 1948 permitted exemptions from its provisions only in cases of public emergency and limited such exemption to three months. However, under IR Code 2020 there is no limit on time duration for which Industries can be exempted. The term "Public Interest" could be interpreted broadly and hence government has wide discretion in providing exemptions.

3. DECLINE IN FEMALE LABOUR FORCE PARTICIPATION RATE (LFPR)

Figure : Female Labour Force Participation Rate (ps + ss, 15-59 ages) by Location (per cent)



IMPORTANT OBSERVATIONS

- Labour Force Participation Rate in 2017-18: Total- 49.8%; Male- 75%; Female- 25.3%.
- Female LPFR in Rural Areas (26.6%) higher as compared to Urban Areas (22.3%)
- Decline in the total Female LPFR from 45.2% in 1993-94 to 25.3% in 2017-18.
- Decline in Female LPFR sharper in Rural areas (from 52% in 1993-94 to 26.6% in 2017-18) as compared to Urban areas (from 25.1% in 1993-94 to 22.3% in 2017-18).

REASONS FOR DECLINE IN FEMALE LFPR

SUPPLY SIDE	DEMAND SIDE
• Higher Enrolment of Females in higher Educational Institutions. • More number of Women opting for Household duties due to increase in household incomes. • Cultural factors- Social Constraints and Patriarchal norms.	• Structural Transformation: Decline in agriculture not accompanied by creation of jobs for women in other sectors. • Decline in Labour Intensive Industries in Urban areas. • Significant wage gap between males and females

INITIATIVES TO IMPROVE FEMALE WORK PARTICIPATION

Improving the Safety of Women at Workplace

Mahila Shakti Kendra Scheme: Empowers rural women through community participation.

Female Entrepreneurship: To promote female entrepreneurship, the Government has initiated schemes like MUDRA, Stand Up India and Mahila e-Haat.

Rashtriya Mahila Kosh: Provides micro-credit at concessional terms to poor women for various livelihood and income generating activities.

Prime Minister's Employment Generation Programme (PMEGP): Under the scheme, women entrepreneurs are provided 25 per cent and 35 per cent subsidies for the project set up in urban and rural areas respectively.

Deendayal Antyodaya Yojana- National Rural Livelihoods Mission (DAY-NRLM) - seeks to reach out to 8-9 crore rural poor households and organize one-woman member

from each household into affinity-based women SHGs and federations at village and at higher levels.

4. SKILLING INDIA: PROSPECTS, CHALLENGES AND WAY FORWARD

Presently, India faces a dual challenge of shortage of trained workforce and non-employability of large number of educated youth, who possess little or no job skills. This is India's skilling paradox: Dwindling opportunities in agriculture, much potential for jobs in manufacturing and services, but not enough people with the right skills.

Present Status: PLFS Report→ only 13% of workforce received training (11%- Informal Training, 2%- Formal Training)

People in working age-group (20-59 years)→ Expected to increase from 50% (2011) to 59% (2041)→ Need to skill the work force to reap demographic dividend.

National Skill Development Mission: Converge, coordinate, implement and monitor skilling activities through institutional structure

CHART: INSTITUTIONAL FRAMEWORK OF NSDM

KEY INSTITUTIONAL MECHANISMS		FUNCTIONS
Governing Council Chair: Prime Minister	⬇	• Provide overall guidance and policy direction • Decide on Sub-Missions in high priority areas. • Review overall progress and development of Mission activities • Overlook convergence of all skill development initiatives/ schemes across Central Ministries/Departments with Mission objectives.
Steering Committee Chair: Minister. SDE	⬇	• Ensure implementation as per Government Council directions • Set targets and approve annual Mission Plan • Review overall progress of Mission activities on a quarterly basis
Mission Directorate (Executive Committee) Chair: Secretary. SDE	⬇	• Implement monitor Mission activities • Coordinate implementation of Governing Council & Steering Committee decisions • Coordinate State efforts and submissions • Coordinate Sub-Missions.
NDSA/NSDC/DGT	**State Skill Development Missions**	

National Skill Development Agency: Quality Assurance and policy research body. Evaluate existing schemes to improve their efficacy and suggest improvements; Ensure skilling needs of marginalised sections are taken care of etc.

National Skill Development Corporation: PPP to promote skill development: Government (49%); Private Sector (51%) Financing of schemes such as Pradhan Mantri Kaushal Vikas Yojana (PMKVY), Pradhan Mantri Kaushal Kendra (PMKK) etc.

Pradhan Mantri Kaushal Vikas Yojana (PMKVY): Objective: Skill 1 crore people over the four years (2016-2020)

Components: (a) Short-term Training at training centers affiliated and accredited by NSDC and (b) Recognition of Prior learning: Issuing Skill certificates to the people with existing skill set.

Pradhan Mantri Kaushal Kendra: Establish state-of-art Model District training centres in every district of India. Strategy: Provide soft loan up to Rs 70 lakhs to create training infrastructure.

National Skill Development Fund: Set up by Government to receive contributions from Government and Non-Government agencies for skilling. Money spent by NSDC for building skills.

CONSTRAINTS AND CHALLENGES

Poor Penetration of Skills: PLFS Report→ only 13% of workforce received training (11%- Informal Training, 2%- Formal Training). This is quite lower as compared to 68 per cent in the UK, 75 per cent in Germany and 96 per cent in South Korea.

Lower Employability: Only 46 per cent of those coming out of higher educational institutions are employable. (India Skills Report 2021).

Informalisation of workforce: Difficult to upgrade the skills of 90% of the workers who are employed as informal workers.

Quantity and Quality of Training: India's annual skilling capacity is significantly lower than the workforce entering the market annually. Further, the quality of skills imparted in the existing facilities is also poor.

Poor Linkages between Universities and Industry which leads to demand-supply mismatch in the skill

Poor participation of Women who constitute 50% of population

Fragmentation of skill development initiatives across ministries and state governments.

Low public perception on vocational training has reduced its attractiveness

WAY FORWARD

Shift in the Policy

- Implement the labour codes at the earliest to enable creation of formal sector jobs in the economy. Formalisation will increase firms' incentives to invest in upskilling their workers.
- Promote public and private investments in labour intensive sectors such as Textiles and Leather.

Mapping skill requirements for a demand driven skill development ecosystem

- Industry stakeholders must be incentivized to provide data on their skill requirements on regular basis
- Regular labour market studies should be conducted to capture changes in industry requirements to assess the skill sets required.
- Regularly update the curriculum in Universities/Colleges/Training Institutes to address demand-supply mismatch of skill sets.

Improving training delivery and quality

- Capacities of teacher training institutes need to be upgraded to ensure the availability of qualified trainers
- A single regulatory body with branches in all states should be set up to lay down minimum standards for all players in the skilling system

Promote Vocational Education in secondary education

Alternative financial sources such as Corporate Social Responsibility (CSR) funds, MPLAD Fund, MGNREGA etc. need to be explored.

Overseas Employment Promotion Agency should be set up to train and certify Indian workers keen on overseas employment, in line with international standards.

Apprenticeship Training has to be promoted through National Apprenticeship Promotion Scheme (NAPS)

National Rural Livelihoods Mission (NRLM) has to be leveraged to provide necessary skill set to the people in the rural areas.

5. APPRENTICESHIP TRAINING PROGRAM

ABOUT APPRENTICESHIP: Apprenticeship training refers to a course of training in any industry or establishment. Apprentices get an opportunity of undergoing 'on the job' training and are exposed to real working conditions.

APPRENTICESHIP ECOSYSTEM IN INDIA

Apprenticeship is regulated in India by Apprentices Act, 1961.

SALIENT FEATURES

- All the establishments having work force (regular and contract employees) of 40 or more are mandated to engage apprentices undertake Apprenticeship Programmes in a range from 2.5% -10% of their workforce (including contractual employees) every year.
- For establishments having a workforce between 6 and 40, engagement of apprentices is optional. Establishments having a workforce of 5 or less are not permitted to engage apprentices.
- National Apprenticeship Promotion Scheme has been launched to promote apprenticeship training and incentivize employers who wish to engage apprentices. Under the scheme, there is 25% of reimbursement of prescribed stipend and sharing of cost of basic training.

STATUS OF APPRENTICESHIP IN INDIA

- Currently India has only about 3 lakh apprentices as compared to the labour force of nearly 500 million people.
- This proportion of less than 0.01% of the workforce compares unfavourably with the countries such as Germany and Australia, which both have around 3.7% of their workforces participating in apprenticeships.
- India has set a target of skilling 500 million people with employable skills by 2022. Thus, apprenticeship will play a crucial role in the task of up-skilling India's workforce and increasing employability.

REASONS FOR POOR APPRENTICESHIP IN INDIA

- **Lack of enterprise engagement in the system:** Only around 24,000 enterprises have taken up apprenticeship in India. The low number of participating enterprises is reported due to high regulatory compliance burden upon employers.
- **Limited occupational coverage:** The Indian formal apprenticeship system has a limited list of designated trades in which apprenticeships can be offered.
- **Inadequate stipend:** The stipend that is required to be paid to apprentices is very low.

- **Limited progression into permanent employment:** Normally, apprenticeships do not lead to permanent employment and hence there is low demand for apprenticeship among the youths.
- **Lack of progression into higher qualifications**: Apprentices who pass their trade tests (All India Trades Tests) obtain a National Apprenticeship Certificate. However, such certificates remain outside the formal educational system and are therefore relatively unattractive to potential entrants.
- **Low status of apprentice training:** India has a very long tradition of informal training and workplace learning. This tradition is preserved today in the 'informal apprenticeship system' that exists alongside the formal system.

RECENT CHANGES IN APPRENTICESHIP RULES

- Minimum stipend amount that will be paid to trade apprentices will be based on qualification. The amount can range anywhere between INR 5000 per month to INR 9000 per month from now onwards.
- Size-limit of an establishment with a mandatory obligation to engage apprentices on an optional basis has been lowered from 40 to 30.
- Reduced the size-limit of an establishment wanting to engage apprentices from 6 to 4. This will allow smaller companies to hire more trainees and give more youths an opportunity to get into the apprenticeship fold.
- Establishments having four or more workers are eligible to engage apprentices.

6. CRITICAL ANALYSIS OF PM KAUSHAL VIKAS YOJANA

Pradhan Mantri Kaushal Vikas Yojana (PMKVY) has been launched to encourage and promote skill development in the country by providing free short-duration skill training Programmes through PMKVY affiliated and accredited training centres. It is implemented by National Skill Development Corporation functioning under the Ministry of Skill Development.

MAJOR FEATURES OF PMKVY

- Demand driven scheme with bottom-up approach
- District Skill Committee (DSC) acts as the focal point of implementation of PMKVY
- Payment to Training Providers broken into tranches i.e. 30% on commencement of training batches, 40% on successful certification and 30% on placement verification
- Recognition of Prior Learning to issue skill based certificates to individuals with prior learning experience or skills
- Phase-wise introduction of vocational courses in schools

CHALLENGES

Under-Utilisation of Funds: Under PMKVY 3.0, only 70% of the total allocated funds have been utilised in 2021-22. Further, restrictions due to COVID-19 led to a decline in enrolments and certifications resulting in low disbursement.

Placements: The placement statistics is the real barometer for evaluating the scheme. Under PMKVY 2.0, only 25% of the candidates were placed. However, under PMKVY 3.0, it is much lower at 8%.

Dropouts: About 20% of the total enrolled candidates dropped out of the training programme. Reasons for dropouts include (i) medical grounds, (ii) distance from

residence to training centres, (iii) accessibility to a job, and (iv) issues specific to females such as pregnancy and marriage.

Challenges faced by Industry: Training courses, curriculum, and practical skills imparted under PMKVY are not aligned with industry requirements. Further, the process for reporting placement details of candidates is cumbersome, highlighting the need to simplify the process.

Implementation challenges such as delay in release of funds from the state treasury to respective departments, non-availability of eligible trainers, and limited placements partners due to less industrialisation in the state.

7. ENTREPRENEURSHIP DEVELOPMENT IN INDIA

Entrepreneurs play an important role in the economic development of a country. Successful entrepreneurs innovate, bring new products and concepts to the market, improve market efficiency, build wealth, create jobs, and enhance economic growth. De novo firms that unleash creative destruction shift surpluses from rent-seeking large producers to consumers and broader society.

INITIATIVES TO BOOST ENTREPRENEURSHIP

1. MUDRA Scheme
2. SETU
3. Atal Innovation Mission
4. Start-up India scheme
5. ASPIRE scheme for rural entrepreneurship
6. India Aspiration fund under SIDBI to invest in various venture funds.

CHALLENGES TO ENTREPRENEURSHIP IN INDIA

1. Lack of incentive structures for entrepreneurship
2. Lack of adequate business incubators to support early-stage ventures
3. Inadequate access to capital and insufficient impact assessment
4. Gaps in education and work-readiness
5. Lack of ease of business as compared to advanced entrepreneurial economies, issues of taxation (Angel Tax etc.), Intellectual property regime, complex labour laws and infrastructure deficit.
6. A cultural affinity for stability with emphasises job security over risk taking
7. Stigma over failure
8. Bias against hiring non-engineers and those from non-elite universities
9. Loss of top talent to other countries
10. Trust deficit between government and private sector.

WAY FORWARD

1. Introducing competitions to solve pressing economic and social challenges. For ex. Hackathons etc in which new budding ideas for new companies will come out.
2. Harnessing corporate funds to Finance R&D
3. Improving efficiency of incubators

- Increasing amount of funding to business incubators
- Creating virtual incubators

- Link funding with an institutionalised annual ranking
- Exit nonperforming incubators
- Strengthening links between incubators and corporate sector

4. Reforming education sector and upskilling workers
5. Providing access to entrepreneurial courses
6. Strengthening Intellectual Property Rights regime
7. Improving ease of doing business.

Aatmanirbhar Bharat provides a truly watershed moment in our history to ignite the innovative entrepreneurial spirit of New India by focusing on strengthening the above pillars.

9 CHAPTER EXTERNAL SECTOR

TOPICS TO BE COVERED

1. *Export-led Model of Development- Need, Constraints and way Forward*
2. *Export-led Models of Bangladesh and Vietnam: Lessons for India*
3. *Foreign Trade Policy 2023*
4. *Internationalisation of rupee*
5. *Trade settlement in rupees*
6. *Analysis of Aatma Nirbhar Bharat*
7. *Decoupling Indian Economy from China- Aatma Nirbhar Bharat*
8. *Critical Analysis of Vocal for Local Campaign*
9. *India's Experience with FTAs- Benefits, Challenges and Way Forward*
10. *Global Value Chains: A Tool for Structural Transformation of Economy*
11. *Analysis of 1991 LPG Reforms*
12. *Capital Account Convertibility*
13. *Breaking up Big Tech Companies*
14. *Need for Made in India Appstore*

1. EXPORT-LED MODEL OF DEVELOPMENT- NEED, CONSTRAINTS AND WAY FORWARD

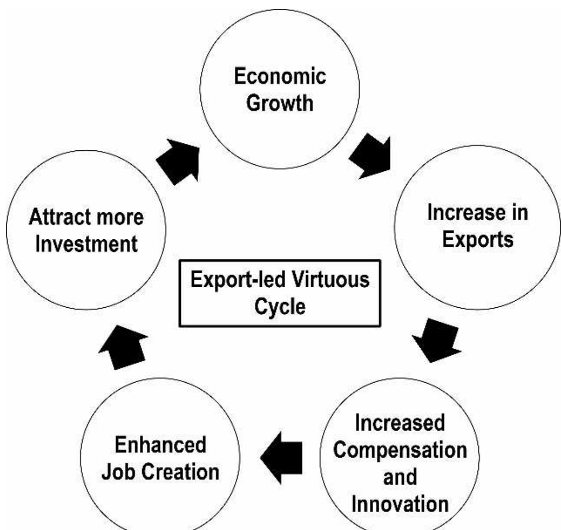
India's vision of becoming a $ 5 trillion economy by 2024 is intricately linked with an export-oriented approach. Greater integration with global value chains (GVCs) will enable India to attract investment, create Jobs, Boost Exports and hence sustain virtuous economic cycle. In line such a strategy, NITI Aayog has taken a significant step by developing the first-ever Export Preparedness Index for Indian states.

IMPORTANT ASPECTS OF INDIA'S TRADE

- India's share in the world's exports has remained stagnant at 1.6% in the last decade.
- India is still critically dependent on import of critical goods such as Pulses, Oilseeds, Electronic Goods, Active Pharmaceutical Ingredients (APIs) etc. which shows lack of self-sufficiency of Indian Economy.
- Imports into India is much higher than exports. This usually leads to Current Account deficit.
- India's export basket is dominated by Capital intensive goods such as Petroleum products, Gems, Jewellery etc. (rather than Labour intensive goods such as Textiles, Leather etc.)
- Undoubtedly, the forex reserves have increased to all time high. However, it is mainly on account of increase in volatile FPI inflows rather than on account of export surplus.
- Unlike China, India has failed to get integrated into Global value chains (GVCs).

NEED FOR EXPORT-LED MODEL

Empirical Evidence: Countries such as Japan, South Korea, Singapore etc. have been able to sustain higher economic growth by following export-led strategy. In the recent times, such an export-led strategy has benefitted both bigger economies such as China as well as smaller economies such as Vietnam.



Shift from Consumption-led to Investment and Export driven Model: India's growth drivers highlight that its economic growth has been primarily propelled by domestic demand which accounts for 60% of India's GDP. However, exports account for only 12% GDP. It should also be recognised that an economy with only $2,000 per capita income will not be able to expand simply based on domestic demand. Moreover, too much focus on domestic demand might strengthen imports faster than exports, which could potentially lead to a widening deficit.

Conducive environment in terms of decline in exports from China on account of US-China Trade war, rising Labour costs, growing anti-China sentiment etc.

Boost Make in India and Assemble in India: By integrating "Assemble in India for the world" into Make in India, India can raise its export market share to about 3.5 percent by 2025 and 6 per cent by 2030. India would create about 4 crore well-paid jobs by 2025 and about 8 crores by 2030.

Innovation and Efficiency: Exporters would be required to innovate and adopt new technologies to boost exports.

INDIA'S PERFORMANCE ON GLOBAL TRADE INDICES

Index	Logistics Performance Index (LPI)	Trading Across Borders – Doing Business	Trade Facilitation Index	Enabling Trade Index
Publishing Agency	**World Bank**	**World Bank**	**OECD**	**World Economic Forum**
What it measures	Logistics Friendliness of countries	Time and cost of the logistical process of countries	Assessment of trade facilitation policies, areas for action and impact of reforms	Factors, policies and services that facilitate trade across borders and to destination.

India's Rank	44/160 (2018)	68/190 (2019)	1.52/2 (2018)	102/136 (As per 2016)
Best performing states/ countries	Top 5: Germany. Sweden, Belgium, Austria, Japan	Austria, Belgium, Denmark, France, Hungary, Italy, Netherlands, Spain all tied for Rank 1	1.86/2- Netherlands	Top 5: Singapore, Netherlands, Hong Kong, Luxembourg, Sweden

CHALLENGES IN BOOSTING EXPORTS

→Supply-side

- **Dominance of Dwarf Firms in MSME Sector: MSMEs** account for around 40% of the exports and 45% of manufacturing output. However, these MSMEs face problems with respect to factors of production such as Land, labour and capital. Plus, most of the MSMEs use obsolete technology which leads to poor efficiency and competitiveness.
- **Higher Logistics Cost:** India's logistics cost as a share of GDP is 14 percent, which is high when compared to developed nations, where it ranges between eight and ten percent. Higher logistics cost in turn reduces the overall competitiveness of Indian economy.
- **Trade Facilitation:** Involves reducing the number of documents needed for trade. Trade facilitation reduces the time to export and cost of exports. In India, Trade facilitation, as measured by "Trading Across Borders" is quite poor. "Trading Across Borders" is one of the parameters for measuring World Bank's Ease of Doing Business.
- **Poor Innovation:** India spends hardly around 0.7% of its GDP on R&D, which is quite lower in comparison to USA (2.1%), China (2.8%), Israel (4.3%) etc. Improvement in innovation ecosystem would help us improve manufacturing competitiveness and help us manufacture high quality goods for the global market.
- **Lack of Market Intelligence** related to consumer preference in export markets. For example, higher sweetness in Indian mangoes is not necessarily in demand in many countries.
- **Identification Challenges:** Each district of a country has a potential equivalent to that of a small country in boosting exports. However, there is lack of focus on identifying potential export clusters within a state.
- **Lack of coordination** among multiple government ministries and departments involved in boosting exports.
- **Adverse Impact of FTAs:** Some FTAs with countries such as Japan, South Korea etc. has led to **inverted duty structure** which has in turn encouraged import of finished goods and discouraged domestic manufacturing.

→Policy Instability

- Delay in announcement of incentives under Rode scheme. Even though, this scheme was announced on 1st Jan 2021. The Government has notified the guidelines in Aug 2021.
- Whenever there is increase in prices of agricultural commodities such as Onions, Potato etc., the Government imposes ad-hoc ban on export of such commodities. This affects India's image as a reliable supplier of agricultural commodities.

→Demand-side:

- **Rising Protectionist Policies in importing countries:** High import duties and Quota limits in export markets

- **Easier market access to India's competitors:** Goods from countries such as Bangladesh, Vietnam etc. enter into export markets such as EU, USA etc. at almost zero customs duty. However, Indian goods enter such markets with comparatively higher customs duty and thus our goods become uncompetitive. India's exports of Textiles and Leather to USA and EU has been declining on account of this.
- **WTO Norms:** Indiscriminate application of sanitary and phytosanitary measures by other countries against Indian products. For example, basmati and non-basmati rice exports to the US have been rejected multiple times on the grounds of low hygiene standards. Similarly, the issue of pesticides residues is frequently raised by the EU and Japan

WAY FORWARD

- **Improve Trade Competitiveness** by improving access to factors of production (Land, Labour, Capital), Reduce Logistics costs (14% of GDP) to global benchmarks (8% of GDP), improving Ease of Doing Business etc.
- **Protect domestic Market** from the import cheap foreign goods through (a) strong and effective technical regulations (b) trade safeguards such as Anti-dumping duties and safeguard duties.
- **Better Inter-Ministerial Coordination:** Ministry of Commerce and Industry must hold regular Inter-ministerial meetings. Further, regular Interactions with the State Governments is also crucial so that trade facilitation takes place under cooperative federalism.
- **Handholding support to MSMEs:** MSMEs need to be provided handholding support to have access to factors of factors and use appropriate technology to boost exports.
- **Increase access to formal finance:** Less than 4 per cent of small firms in India have access to formal finance. The figure for US, China, Vietnam and Sri Lanka is 21 per cent.
- **Reorient SEZs (Baba Kalyani Committee):** SEZs should be renamed as 3 E's- Employment and Economic Enclaves. Focus should not only be on boosting exports, but also on employment creation and GDP growth rate. Incentives given to companies in SEZs should depend upon factors such as Value addition, Technology adoption etc. This would encourage the companies to innovate and compete at the global level.
- **Integration into Global value chains (GVCs):** Invite large anchor firms in critical products to set up operations in India. Government initiatives like simplified labour laws, PLI incentives, low corporate tax on new manufacturing operations & scrapping of retrospective tax would encourage firms searching for China plus-one location to shift base to India.

2. EXPORT-LED MODELS OF BANGLADESH AND VIETNAM: LESSONS FOR INDIA

PROBLEMS WITH EXPORT-LED MODELS OF BANGLADESH & VIETNAM

Lack of Diversification of Exports: While most of the exports of Bangladesh are dominated by apparel, exports from Vietnam are dominated by Mobile phones, Textiles, Electronic Goods etc. The poor diversification of exports from these countries is evident in Economic Complexity Index (ECI), published by Harvard growth Lab. This index ranks countries based on how diversified and complex its manufacturing export basket is. The ECI rank for China is 32, India 43, Vietnam 79, and Bangladesh 127. Such lack of diversification of exports hinders development of other crucial sectors such as Agriculture, Defence, Pharmaceuticals etc.

Low Value Addition: One of the reasons for increase in Exports from Vietnam is on account of its integration with the Global value Chains (GVCs). However, the amount of value addition that takes place in Vietnam is quite lower. For example, most of its exports of electronic goods is on account of final assembly of Goods which are manufactured in other countries.

LESSONS FOR INDIA

Both Bangladesh and Vietnam are much smaller economies as compared to India. Obviously, being a large economy, India cannot **rely only on exports** to boost its GDP growth. Over-reliance on Exports could make India more vulnerable to external shocks. For example, the Export-to-GDP (EGR) ratio of Vietnam is around 107%, which makes it highly vulnerable to external crisis such as Global Financial crisis of 2008. In comparison, India's EGR is around 18.7%, which makes it less vulnerable.

Undoubtedly, boosting exports is need of the hour. But it should not be pursued at the expense of other sectors. Rather than focussing entirely on boosting exports, India needs to focus on boosting Manufacturing sector, attract FDI and thus promote economic growth. In that case, exports from India would automatically increase. **So, rather than treating Exports as means to promote economic growth, the Government must perceive the exports as ends of economic growth.**

3. FOREIGN TRADE POLICY 2023

The government has unveiled its new Foreign Trade Policy (FTP) which came into force on 1 April, 2023. The new policy replaces the FTP 2015-20, which had to be extended several times due to the pandemic and geo-political developments. The government has broken away from the conventional practice of setting a five-year cycle. The new policy is intended to be responsive to changing circumstances and will be modified as and when required.

BROAD OBJECTIVES

- Increase India's overall exports to $2 trillion by 2030, with equal contributions from the merchandise and services sectors.
- Work towards making Indian Rupees a global currency and facilitating International Trade settlement in INR.
- Wider engagement with States and Districts to promote exports from the grassroots.
- Focus on e-Commerce exports to streamline processes and make it easier for exports to grow in e-commerce space.

Key Pillars: These are (i) Replacing the incentive-based system of promoting exports with remission and entitlement-based regimes; (ii) Improvement in Ease of Doing Business; (iii) Export promotion through collaboration: Exporters, States, District; and (iv) Focus on Emerging Areas – E-Commerce Exports and Streamlining SCOMET policy.

Pillar 1: Incentives to Remission: The Foreign Trade Policy 2023 has decided to continue with the existing schemes such as RoDTEP, Advance Authorisation Scheme, Export Promotion Capital Goods Scheme etc. However, the current processing time and approval for these schemes ranges from 3 to 7 days. The FTP has decided to adopt automatic route to provide approval for these schemes within 1 day.

Pillar 2: **Improvement in Ease of Doing Business**

- Reduction in user charges for MSMEs under Advance Authorisation Scheme and Export Promotion Capital Goods Scheme.
- Currently, Certificates of Origin under various FTAs are issued by designated agencies. System of self-certification has been being introduced to reduce transaction cost.

- One-time Amnesty Scheme to address non-compliance in Export Obligations by Advance Authorization and EPCG authorization holders
- Merchanting trade involving shipment of goods from one foreign country to another foreign country without touching Indian ports, involving an Indian intermediary is allowed subject to compliance with RBI guidelines. Merchanting trade of restricted and prohibited items under export policy would now be possible. In course of time, this will allow Indian entrepreneurs to convert certain places like GIFT city etc. into major merchanting hubs as seen in places like Dubai, Singapore and Hong Kong.

Pillar 3: **Facilitating enhanced collaboration among stakeholders:** States, Districts and Exporters as Partners in Export Promotion to decentralise Export Promotion

- **Districts as Export Hubs**: Identification of products/services in all the districts; Create institutional mechanisms at the State and District level to strategize exports (State Export Promotion Committee & District Export Promotion Committee); Preparation of District Export Action Plans (DEAPs); Provision of financial assistance to units through Market access Initiative
- **Towns of Export Excellence (TEE)**: TEEs are industrial clusters that are recognized based on their export performance. There are around 39 towns of excellence. 4 New Towns- Faridabad, Moradabad, Varanasi, Mirzapur have been declared as new TEE.
- **Status Holder Certification:** The objective behind certifying certain exporter firms as "Status Holder" is to recognize such exporter firms as business leaders who have excelled in international trade and have successfully contributed to country's foreign trade. Such status holders get benefits such as 24X7 customs clearance. Under the new FTP, the export performance threshold for Recognition of Exporters as Status Holders has been rationalized.

Pillar 4: Focus on Emerging Areas- 1. E-Commerce Exports 2. Streamlining SCOMET policy

E-Commerce: E-Commerce refers to sale of Goods/Services through the e-commerce platform. The FTP seeks to promote cross border trade in Digital Economy. Accordingly, it seeks to promote export of Goods and services through the e-commerce platforms.

- **E-COMMERCE EXPORT HUBS (ECEHs)** to be set up by private sector through PPP model. The ECEH would provide for storage (including cold storage facilities), packaging, labelling, certification & testing and other common facilities for the purposes of export.
- **Dak Niryat Facilitation Kendras** shall be operationalised throughout the country to work in a hub-and-spoke model with Foreign Post Offices (FPOs) to facilitate cross-border e-Commerce and to enable artisans, weavers, craftsmen, MSMEs in the hinterland and land-locked regions to reach international markets.
- **All FTP benefits** to be extended to e-Commerce exports.

SCOMET: Special Chemicals, Organisms, Materials, Equipment and Technologies

- Export of dual-use items, including software and technologies, having potential civilian / industrial applications as well as use in weapons of mass destruction is regulated. It is either prohibited or is permitted under an Authorization unless specifically exempted.
- SCOMET policy emphasizes India's export control in line with its International commitments under various export control regimes (Wassenaar arrangement, Australia group and Missile Technology Control Regime) to control trade in sensitive and dual use items including software and technology.
- The FTP 2023 seeks to streamline licensing of these items to make export of SCOMET items globally competitive. Focus on simplifying policies to facilitate export of dual-use

high-end goods/technology such as UAV/Drones, Cryogenic Tanks, Certain chemicals etc.

4. INTERNATIONALISATION OF RUPEE

WHAT IS AN INTERNATIONAL CURRENCY?

An international currency is supposed to perform three international functions:

- **Store of value:** The governments can use them in their international reserves.
- **Medium of exchange:** International currency is used for invoicing of trade and in financial transactions.
- **Unit of account:** They are used as an anchor for pegging local currency or for denominating trade and financial transactions.

BENEFITS ASSOCIATED WITH INTERNATIONALISATION OF RUPEE

Limits Exchange Rate Risk: Domestic firms may be able to invoice and settle their exports/imports in their currency, thus shifting exchange rate risk to their foreign counterparts. It also permits domestic firms and financial institutions to access international financial markets without assuming exchange rate risk.

Reduces the Cost of Capital and widens the set of financial institutions that are willing and able to provide capital. This would boost capital formation in the economy thereby increasing growth and reducing unemployment.

Financing Deficits in Domestic Currency: It allows a country's government to finance part of its budget deficit by issuing domestic currency debt in international markets rather than issuing foreign currency instruments. It may, likewise, allow a government to finance its current account deficit without drawing down its official reserves.

Reduces the Requirement for Maintaining Large Forex Reserves: The authorities maintain and depend on large foreign exchange reserves in convertible currencies to manage external vulnerabilities.

Lowers the Impact of Capital Outflows: At the macroeconomic level, internationalisation of a currency results in lowering the impact of sudden stops and reversals of capital flows and enhances the ability to repay external sovereign debt.

INITIATIVES TOWARDS THE INTERNATIONALISATION OF RUPEE

Bilateral Swap Arrangements (BSA): India currently has a BSA with Japan for an amount up to USD 75 billion as a backstop line of support in case of any balance of payments issue. RBI also provides liquidity to South Asian Association for Regional Cooperation (SAARC) countries under the SAARC swap framework. Under the SAARC swap agreement, the requesting central bank can make withdrawals in USD, Euro and also in INR.

Developments in the GIFT City: GIFT IFSC has the potential to develop as a competitor to international financial centres for Rupee products. It also provides an opportunity for Indian entities to raise foreign capital through masala bonds and list the same on the exchanges in the IFSC.

Indo-Iran Agreement for Trade settlement in Rupees

Use of UPI system to facilitate cross-border transactions, including remittances. The linkages between fast payment systems across jurisdictions can enhance cross-border payment arrangements and ensure faster remittances.

CHALLENGES ASSOCIATED WITH INTERNATIONALISATION OF A CURRENCY

Volatility of Exchange Rate: It may result in the potential increase in volatility of its exchange rate in the initial stages.

Monetary Policy Implication: This would further have monetary policy implications as the obligation of a country to supply its currency to meet the global demand may come in conflict with its domestic monetary policies objectives. This is popularly known as the **Triffin dilemma (impossible trinity) -** meaning no country can simultaneously reach the policy goals of free capital movement, exchange rate stability, and independent monetary policy.

Accentuate External Shocks: The internationalisation of a currency may accentuate an external shock, given the open channel of the flow of funds into and out of the country and from one currency to another.

Uncertainty in Estimation of Foreign Demands: The costs also emanate from the additional demand for money and also an increase in the volatility of the foreign demand for domestic currency in the international market. Despite advances in statistical reporting, there remains an uncertainty associated with demand estimation.

WAY FORWARD

Internationalisation of Rupee has significant benefits but to achieve it successfully, would require some prerequisites:

Capital Account Convertibility: Internationalisation of rupee would require continued efforts to improve macroeconomic fundamentals and financial market infrastructure with an enhanced risk management framework. Hence, it is **essential to continue on a calibrated path towards current account convertibility.**

Liquidity in Indian National Currency: Encouraging the international usage of rupee requires that sufficient rupee liquidity is available at the government and central bank levels (both domestic and foreign). This will **provide the requisite confidence to all stakeholders**, economic agents and market participants for settling cross-border transactions in Indian Rupee.

Cross-border Payment Infrastructure: Availability of a robust INR-denominated payment mechanism for cross-border transactions and to reduce our dependence on international payment systems based on the SWIFT messaging system.

Deepening Indian Financial Markets: Well developed and sophisticated domestic financial markets give **confidence to foreign investors to take exposure in the underlying currency**.

Making Rupee the "Vehicle Currency": As we progress and achieve a higher level of trade linkages with other countries, along with greater capital account convertibility, deep and liquid financial markets and strong macroeconomic indicators, it is expected that Rupee would be used by other economies for pegging their currencies, which will fulfil the requirement of Rupee being used as a "vehicle currency" by other jurisdictions in their forex intervention to maintain the value of their currency. **Inclusion of Rupee in the International Monetary Fund's (IMF) SDR basket** will further help in attaining the objective of INR as a "vehicle currency".

Conclusion

As the **internationalisation of a currency is a long-drawn process involving continuous change and incremental progress**, it would enable timely redressal of the associated concerns and challenges as we move forward.

5. TRADE SETTLEMENT IN RUPEES

The RBI has come out with a circular to facilitate settlement for the international trade in Rupees. This is considered to be a game changer and bring about multi-faceted benefits. It would enable India to carry out trade with countries such as Russia and Iran which are under economic sanctions. It would also reduce exchange rate risks and boosts trade. In the long run, it can also lead to Rupee Internationalisation.

PRESENT STATUS OF SETTLEMENT IN INDIA'S INTERNATIONAL TRADE

- When countries import and export goods and services, normally payments take place in a foreign currency. Since the US Dollar is the world's reserve currency, most of these transactions are entered into US dollars. This helps the countries to reduce the transaction and coordination costs for the importers and exporters.
- For example, In 2014, the shares of the dollar and the euro in the Indian export basket were 87 per cent and 8 per cent, respectively.

NEED FOR INTERNATIONAL TRADE SETTLEMENT IN RUPEES

Bypass Economic sanctions: Imposition of sanctions on Russia and Iran has made it difficult for India to buy crude oil at lower prices. Trade in rupees would enable India to bypass sanctions and continue to trade with these countries.

Internationalisation of Rupee: Increased demand for Rupees in the exporting countries for the settlement of trade can help Rupee to become internationally acceptable.

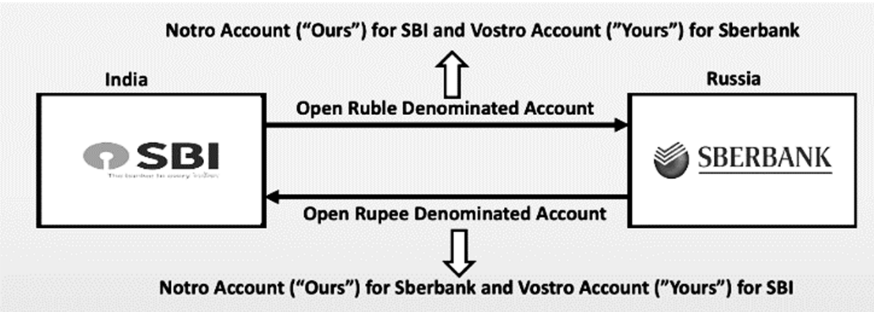
Less volatility in Exchange rate: India's trade remains highly susceptible to US Fed Bank's policies. For example, the adoption of Fed Tapering has led to large scale Rupee Depreciation leading to costly imports and higher trade deficit. Trade in Rupees can enable India to become immune to the US Fed Bank's policies.

Save Forex Reserves: India runs a trade deficit wherein its imports are greater than exports leading to trade deficit and higher dollar outflows. The settlement of trades in rupees will save India's forex Reserves.

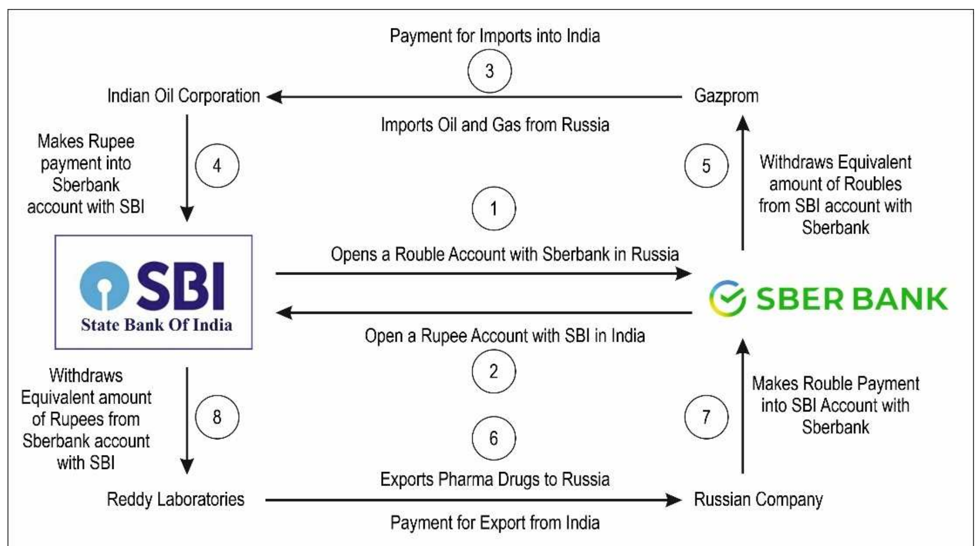
RBI'S SYSTEM FOR INTERNATIONAL TRADE SETTLEMENT IN RUPEES

The framework of FEMA, 1999 Act has been modified to permit Indian Banks to open Special Rupee Vostro Accounts of correspondent bank/s of the partner trading country. Such accounts can be used for the settlements of international trade transactions with any country. Broad features of such an international trade mechanism are outlined below:

1. **Invoicing of goods and services:** any export or import may be invoiced and denominated in the Indian Rupee (INR).
2. **Exchange Rate** between the two trading partner countries may be market determined.
3. **Settlement currency:** The settlement of international trade transactions shall take place in Indian Rupees (INR).



Indian exporters shall be paid the export proceeds in INR from the balances in the designated Special Vostro account of the correspondent bank of the partner country. Similarly, Indian importers shall make their payments in INR, which shall be credited into the Special Vostro account of the correspondent bank of the partner country.



Use of Surplus balance in the Rupee Vostro Accounts

The Rupee surplus balance held in the Vostro Accounts can be used for:

1. Payments for projects and investments.
2. Investment in Government Treasury Bills, Government securities, etc.

6. ANALYSIS OF AATMA NIRBHAR BHARAT

Government has sought to achieve self-sufficiency and boost domestic manufacturing through the Aatma Nirbhar Bharat. Some of the strategies include protectionist and inward oriented policies such as **Ban on imports, Increased Customs duty, Higher preference to Domestic companies in Public Procurement, withdrawal from FTAs** etc.

These inward-oriented strategies highlight that the **Government sees trade as a problem and not as a solution to economic revival.** This would have following adverse impacts:

Set-Back to Make in India and Assemble in India: Some Industries such as Pharma, Automobile, Electronics etc. are heavily dependent on raw materials and hence Increase in customs duty would increase production costs leading to adverse impact on domestic manufacturing and job creation.

Against Well-Established Theory: Theory of comparative advantage states that bilateral trade benefits both the Countries since it enables them to import those goods which otherwise, cannot be manufactured economically as compared to its trading partner.

Hinders Innovation: Shield domestic companies from foreign competition leading to complacency and decline in quality of Goods.

Historical Insights: Policy of import-substitution which started in 2nd five-year plan has failed.

International Experience: Countries such as China and smaller economies such as Vietnam, Malaysia etc. have achieved higher GDP growth rates through free and open trade.

Retaliatory Actions: As evident in US-China Trade war, protectionist policies invite retaliatory actions from other countries and hence makes everyone worse-off.

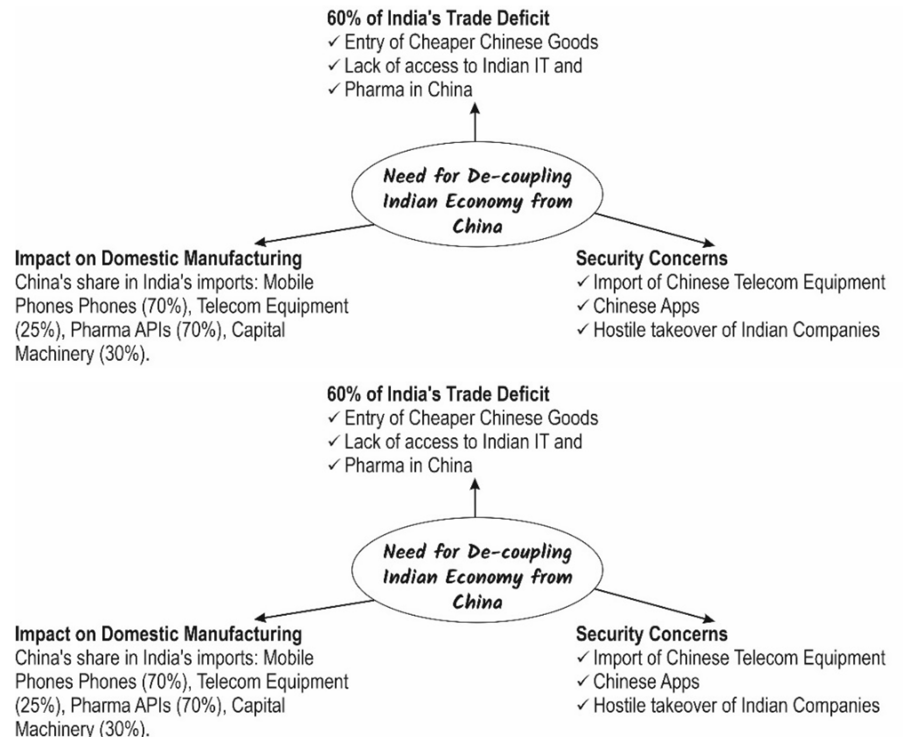
Discourage Foreign Investment: Higher preference to domestic companies leads to lack to level-playing field.

Set back to Export-led Growth: India needs to realize that being open as importer is a prerequisite for becoming successful exporter.

Hence, Government must realize that path to self-sufficiency is through export promotion and global economic integration rather than through protectionism and import-substitution.

7. DECOUPLING INDIAN ECONOMY FROM CHINA- AATMA NIRBHAR BHARAT

The Government has come up with the vision of Aatma Nirbhar Bharat to boost domestic Manufacturing, employment, exports and to reduce dependence on non-critical imports. However, one of the biggest hurdles to this goal is the nature of Economic Interaction between India and China as given below:



The Government has adopted various strategies such as Vocal for Local, Stringent FDI norms, higher import tariffs, preference to domestic firms in public procurement etc. to promote Aatma Nirbhar Bharat. However, concerns have been raised over the forced decoupling of Indian Economy from China.

Minimal Impact on China: India accounts for only around 3 % of China's exports. China's FDI into India is hardly around $ 2 bn.

Adverse Impact on India: Some of the sectors such as Pharma, Electric vehicles, Electronics etc. are critically dependent on Chinese raw materials and hence such a strategy would impose additional costs and lead to loss of jobs.

Despite these challenges, substitution of Chinese Goods with domestic Goods is not a herculean task. Almost one-third of the Chinese imports constitute low-tech goods that were made earlier by Indians. Accordingly, we can ramp up the production of around 3,000 products such as toys, fabrics, kitchenware, cosmetics within a short period of time. In the medium and long run, the Government has to stick to its stated goal of "Self-Reliant" India and reduce dependence on China.

De-coupling of Indian Economy from China is undoubtedly challenging but not impossible. Within a short period of 2 months, India has become the second largest producer of personal protection equipment (PPE) after China. India can repeat the same feat in other sectors as well.

8. CRITICAL ANALYSIS OF VOCAL FOR LOCAL CAMPAIGN

PRESENT STRATEGIES ADOPTED BY GOVERNMENT TO PROMOTE LOCAL GOODS

- **Nationalistic Sentiments:** Appeal to the Nationalistic sentiments of the Indians to buy and Promote Indian Goods.
- **Withdrawing from FTAs** such as RCEP
- **Increasing Customs duty/ Safeguard Duty** on some of the goods such as Solar Panel Cells to promote domestic Manufacturing.
- **Higher Preference** to Domestic Companies in Government Procurement
- **Negative list** to avoid import of certain defence Goods

BENEFITS	CHALLENGES/ CONCERNS
Incentivizes the Foreign Companies to shift their production base to India → Boost Make in India and Create Employment Opportunities.	Make in India has been launched in 2014. But not quite successful so far due to poor regulatory environment such as hurdles in Land acquisition, delays in environmental clearances, complexity in labour laws. Mere slogans will not lead to increase in FDI. It has to be accompanied by deep structural reforms.
Brands that are Global today, were initially local and grew because of customer support. Hence, buying and Promotion of Indian Brands will enable them to become Global brands in future and boost our Exports.	Consumers are Utility Maximisers → Buy Goods which are of Superior Quality and at lower Prices→ Indian Goods may not be able to compete with Foreign Goods in terms of Quality and Price. (Case in Point is Mobile Phones). Consumers also buy Foreign Goods in order to improve their Social Status and Prestige.
Boosting the Local supply Chain → Make India Self-Dependent → Decrease in Imports into India	Development of local supply Chain requires skilled work force as seen in China. India needs to focus more on "Skill India" campaign.
Higher Production of Goods of different Brands→ Increase in Choice of Goods to Indian Consumers	Almost 22% of India's population live below poverty line. Food, Clothing and Shelter is of utmost importance for them. Increase in choice of Goods has no meaning for the people living at lower strata.
Increased demand for Indian Goods → Reduce dumping of Goods by	Increased demand for Foreign Goods such as Chinese Goods is mainly on account of Price competitiveness. Unless the India Goods are

Countries such as China → Improve the trade Deficit	able to match the imported Goods in terms of quality and prices, Trade Deficit would not improve.
Increase in Domestic Investment and FDI → Increase in Employment Opportunities → Increase in Per-Capita Income → Higher Demand for Goods→ Increase in Investment and FDI (Virtuous Economic Cycle)	Government's strategies such as Increase in Customs duty, Preference to domestic companies in procurement etc. shields the domestic companies from foreign competition. This fosters complacency in domestic manufacturing leading to decline in quality of Goods. India has to realise that it was its integration with Global Economy in 1991 that led to rapid increase in its GDP size from $ 270 billion in 1991 to $ 2.9 trillion in 2019. The Government's strategies to boost local manufacturing takes India back to pre-1991 and hint towards protectionist and Anti-Globalisation policies. Hence, such strategies can be considered to be retrograde.

9. INDIA'S EXPERIENCE WITH FTAS- BENEFITS, CHALLENGES AND WAY FORWARD

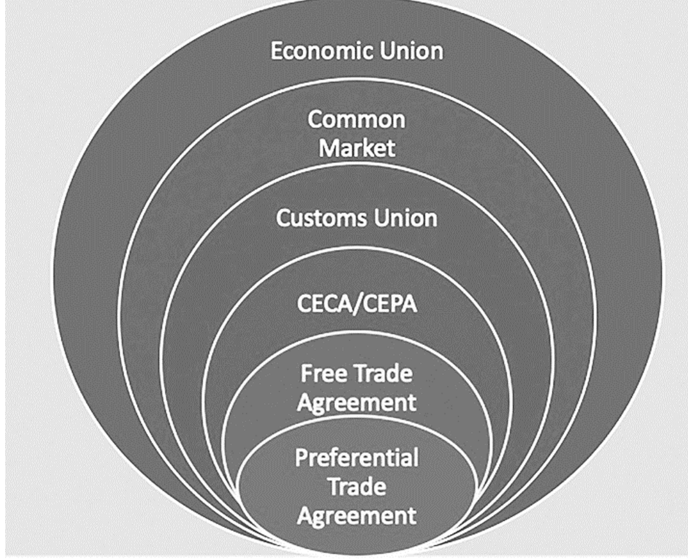
RATIONALE BEHIND FREE TRADE AGREEMENTS (FTAs)

Access to high quality Raw Materials to support the domestic Industries and promote "Make in India" and "Assemble in India".

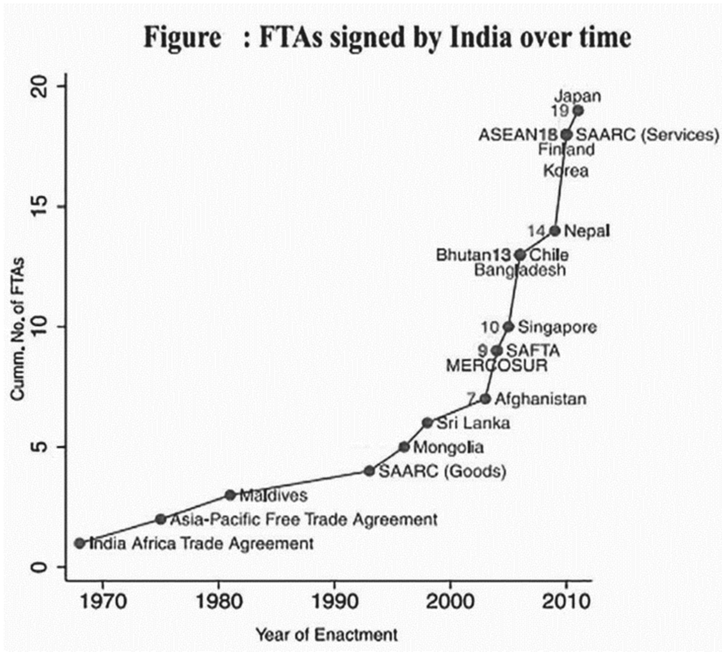
Access to global markets and enable export-led model of Development

Integration into Global value Chains leading to employment creation, enhanced efficiency, higher GDP growth rates.

Trade Liberalisation with Flexibility: FTAs help reduce tariffs with a chosen trade partner in a calibrated manner with tariff reductions spread over time. Further, the partner country would also be required to reciprocate by reducing the tariffs.



INDIA AND FREE-TRADE AGREEMENTS



INDIA'S EXPERIENCE WITH FTAs

POSITIVE IMPACTS:

India's Trade with FTA partners: India's total trade has increased with each FTA partner in post-FTA phase.

Structure of Imports and Exports: FTA partners have been able to provide for high quality raw materials. Further, India's exports are primarily accounted for by non-raw materials with respect to each FTA partner.

Trade in Services: India's trade in services has increased with some of the FTA partners such as Japan, South Korea, Malaysia etc. Some of the sectors that have been benefitted include technology (Computer Software), telecommunication, finance, tourism etc.

FDI in FTA Partners: Indian companies have been established in most of the major FTA partner countries of India leading to greater exports from India.

ADVERSE IMPACTS

Structure of Trade: FTAs have led to increased imports and exports. However, imports are much higher than exports. Further, India's exports to FTA countries have not outperformed overall exports to rest of the world

Widening Trade Deficit: India's trade deficit with ASEAN, Korea and Japan has widened post-FTAs.

Sector-Wise Impact of FTAs: Apart from the widening trade deficit, the quality of trade has also deteriorated after signing of FTAs. Out of 21 important sectors, 13 sectors have been adversely affected by higher imports as compared to exports. Some of these affected sectors are minerals, leather, textiles, gems and jewellery, metals, vehicles etc.

Under-Utilised FTAs: Utilisation rate of FTAs by exporters in India is very low (between 5 and 25%).

WHAT SHOULD BE DONE THEN?

The Surjit Bhalla Committee has given the following recommendations for effective utilization of FTAs:

Review of Existing FTAs: India must undertake a comprehensive review of the existing FTAs in terms of benefits to various stakeholders like industry and consumers. If necessary, these FTAs have to be renegotiated to ensure that India's interests and concerns are adequately addressed.

Improve Trade Competitiveness: Exports in India are constrained by improper access to factors of production, namely, land, labour and capital in India and high cost of these factors of production.

Protect the domestic Market by laying down strong and effective technical regulations to avoid importing cheap quality goods. At the same time, we must use the trade safeguards such as Anti-dumping duties and safeguard duties to protect our domestic Industry.

Approach towards Services: With respect to FTA in Services, India has so far excessively focussed on the movement of Natural persons which would enable Indian professionals (such as IT, Educators, doctors etc) to render their services in the FTA partner countries. However, going forward, we need to go beyond and negotiate with the FTA partners to allow Indian service-based companies to set up their bases in their country.

Better Inter-Ministerial Coordination: The ministry of Commerce and Industry must hold regular Inter-ministerial meetings to improve the coordination between various ministries.

Facilitation for MSMEs: Launch nation-wide sensitisation scheme whereby the MSMEs can be explained about the potential of FTAs.

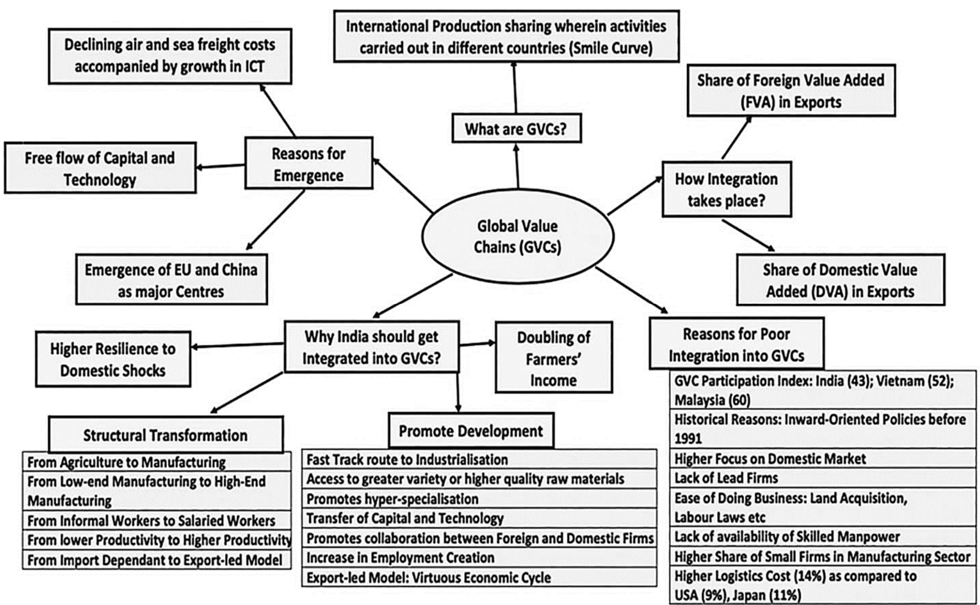
Launch FTA Utilisation Mission: MSMEs are often unable to take advantage of the FTAs due to lack of Information about the FTAs. Hence, there is a need to launch nation-wide sensitisation scheme whereby the MSMEs can be explained about the potential of FTAs.

Reorient SEZs (Baba Kalyani Committee): The SEZs should be renamed as 3 E's- Employment and Economic Enclaves. Focus should not only be on boosting exports, but also on employment creation and GDP growth rate. Incentives given to companies in SEZs should depend upon factors such as Value addition, Technology adoption etc. This would encourage the companies to innovate and compete at the global level.

Integrate Government initiatives such as One-District One Product, RoDTEP Scheme etc. into FTAs to push for exports.

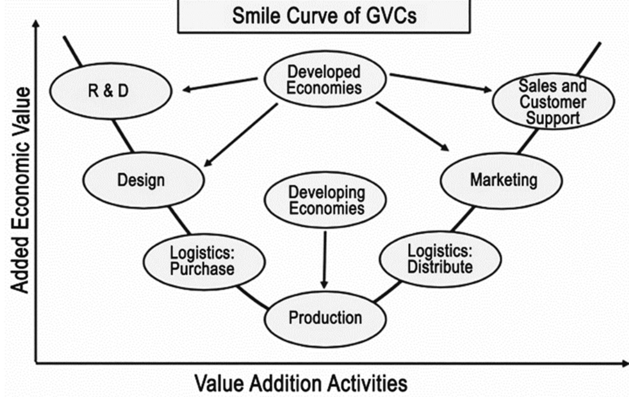
10. GLOBAL VALUE CHAINS: A TOOL FOR STRUCTURAL TRANSFORMATION OF ECONOMY

In Budget 2020-21, Finance Minister had highlighted need for "Assemble in India" on lines of "Make in India". In a way, this was a call for greater Integration of Indian Economy with the Global Value Chains (GVCs) to reap multiple benefits. Integration into GVCs has the potential to bring about structural shift in our economy- From Agriculture to Manufacturing, From Low-end Manufacturing to high-end Manufacturing, From Self-Employed and Casual Workers to Salaried Workers, from lower Productivity to higher productivity and overall, a change in our orientation from being inward to outward



WHAT ARE GLOBAL VALUE CHAINS?

GVCs refer to the full range of activities (design, production, marketing, distribution and support to the final consumer, etc) that are divided among multiple firms and workers in multiple countries to bring a product from its conception to its end use and beyond. The Global value Chains (GVCs) have been developed for number of products such as Automobiles, Pharmaceuticals, Textiles, Electronics, Chemicals, Gold and Jewellery etc.



WHY SHOULD INDIA GET INTEGRATED INTO GVCS?

Economic Growth and Development: According to World Bank, 1 percent increase in the level of GVC participation increases average productivity by 1.6 percent and per-capita Income by more than 1% in long-run. This is on account of following reasons:

- Provides fast track route to Industrialisation since there is no need to build entire supply chain right from scratch.
- Better access to a greater variety of higher-quality or less costly intermediate inputs
- No need for firms to focus on entire supply chain and instead focus on specialised tasks leading to Hyper-specialisation.
- Transfer of technology and know-how from the foreign partners.
- Promotes collaboration rather than competition between Domestic and Foreign Firms wherein each of them focusses on specialised task in the production cycle. Both Domestic and Foreign firms collaborate with each other in order to minimise the costs and maximise the profits.

- Knowledge Intensive firms in other countries would share product innovations with Indian Firms and thus provide scope for the Indian firms to move higher up the value chain
- Increase in Employment creation and Exports

Increased Job Creation and Labour Welfare:

- Potential to provide fillip to Manufacturing sector leading to structural change in Indian Economy.
- Shift in the Workers from agriculture to Manufacturing.
- Higher Paying Jobs accompanied by Social Security benefits
- Induce shift in type of employments from Self-employed and Casual workers towards Salaried Workers

Socio-Economic Transformation: GVCs support employment of not just men, but also women. Notably in the apparel and electronics sectors, where assembly of many small parts must be done manually, firms report preferences for female employees because of the high levels of dexterity required. Thus, as seen in Bangladesh, higher employment creation for Women would have following benefits:

- Higher Expenditure on Girls' Education
- Decline in IMR and MMR
- Political, Economic and Social Empowerment of Women

Doubling of Farmers' Income: India is one of the largest producers of Agri-commodities, its share in global exports stands at merely 2.2% (9th Rank). This clearly highlights India's poor Integration into Global agricultural supply chains. Hence, greater integration would translate into expanded market access and higher prices for the farmers leading to doubling of their income levels.

Higher Resilience: According to OECD, Integration of economies into GVCs lead to resilience, stability and flexibility in their production network and hence capable of responding to domestic shocks. On the other hand, economies which are less integrated into GVCs are more vulnerable to shocks and hence may see decline in economic activity and fall in National incomes in response to domestic shocks

INDIA'S POOR INTEGRATION INTO GVCs

According to OECD-WTO’s TiVA (Trade in Value Added) database, India’s GVC participation index stands at 43, as compared to 52 for Vietnam and 60 for Malaysia. The GVC participation index displays a country’s integration into the GVC and is the sum of forward and backward linkages divided by total exports. The foreign value added of India's Gross Exports (Forward Linkages) has reduced from 25% (2012) to 16% (2016).

Some of the reasons for India's poor Integration into GVCs are as given below:

- **Historical Reasons:** Inward-looking Industrial policies with focus on State-led Industrialisation, Import-substitution, Licence-raj System etc.
- **Lack of Lead Firms in India:** The lead firms are the firms that establish supply chains across the world and hence major drivers of GVCs. For example, in India, Tata Motors (Automobile) and Ranbaxy (Pharmaceuticals) have emerged as lead firms by attracting foreign Investment, transferring technology, establishing supply chains etc. However, there is a need to have such lead firms in almost all sectors.
- **Higher Focus on Domestic Market:** Indian Firms have traditionally focussed on Indian Domestic Market since it is quite large. However, they have failed to realise that integration into GVCs would give them much wider market.

- **Inward Oriented FDI Policy:** Countries such as China and Vietnam have been inviting MNCs with GVC linkages to their countries leading to their Integration. However, India has so far not given due emphasis on this aspect of FDI policy.
- Lack of Focus on R&D leading to limited knowledge transfer
- Lack of access to Finance- Higher Dependence of Banks, Under-developed Bond Market etc.
- Inability of the Government to bring about long-pending Labour Reforms
- Lack of availability of skilled manpower in crucial sectors Electronics.
- Higher Logistics Cost (14%) as compared to USA (9%) and Japan (11%) - leading to Uncompetitive Indian exports.
- Poor Focus on Quality due to higher share of small-scale enterprises
- Inverted Duty structure making import of Finished Goods cheaper

WAY FORWARD

Government should address the various constraints highlighted above in order to successfully integrate Indian Economy into GVCs. India should target the entire production cycle in the Smile Curve of the Global Value Chains (GVCs). In some of the selected products such as Automobile, Pharmaceuticals etc, India needs to focus on high-end activities such as Conceptualisation and Design in order to reap its expertise in R&D, technology. India must also focus on lower end of the curve (Production and Assembly) to give fillip to "Make in India" and "Assemble in India".

11. ANALYSIS OF 1991 LPG REFORMS

July 2021 marks the 30th anniversary of the LPG Reforms. So, far, the LPG reforms has been a mixed bag for India. On one hand, the GDP size of India has increased from $275 bn to $ 2.9 trillion. However, on the other hand, the increase in GDP size has not been accompanied by transformative changes in the Indian Economy.

Agricultural Development: Average growth rate of Indian agriculture is below the targeted growth rate of 4% and is way below the double-digit growth rate of the service sector. Despite being the one of the largest producers of food grains, India's share in global export of agricultural commodities has remained stagnant at 2% (9th Rank). Similarly, the import of cheaper agricultural commodities has adversely affected the income levels of the farmers. This clearly shows that the farmers in India have not able to get benefitted from LPG reforms.

Stagnation in Manufacturing sector: Share of manufacturing sector to India's GDP has remained stagnant at 16-17% since 1991 reforms. Instead of focussing on labour intensive industries, the manufacturing sector has come to be dominated by capital intensive Industries. The failure of the LPG reforms to promote manufacturing sector is the biggest loss for the Indian Economy.

Jobless Growth: Employment elasticity is hardly around 0.1 which means every 1% increase in GDP growth rate leads to 0.1% increase in employment creation. Apart from low quantity of jobs, concerns have also been raised with respect to poor quality of jobs. 90% of India's workforce is employed in informal sector, characterised by low wages, poor productivity and lack of access to social security benefits. Hence, there is a need to create high-paying, high-productivity formal sector jobs.

Lack of Inclusive Growth: India has failed to prevent concentration of wealth and provide for equitable distribution of income. For instance, as per Credit Suisse, 1% of wealthiest in India have increased their share in wealth from 40% in 2010 to 60% in the last five years. Richest 10% in India own more than 4 times the wealth than remaining

90%. Going forward, richest 10% in India would take away majority share of $ 5 trillion economy.

Provision of basic services: The Government has failed to allocate sufficient financial resources for provision of basic goods and services. For instance, India's expenditure of 3% on education is much below the target of 6%. Similarly, expenditure on health has remained quite lower at 1.5% as against the mandated 3%.

CONCERNS WITH INDIA'S EXTERNAL SECTOR

- India's share in the world's exports has remained stagnant at 1.6% in the last decade.
- India's export basket is dominated by Capital intensive goods such as Petroleum products, Gems, Jewellery etc. (rather than Labour intensive goods such as Textiles, Leather etc.)
- Undoubtedly, the forex reserves have increased to all time high. However, it is mainly on account of increase in volatile FPI inflows rather than on account of export surplus.
- Unlike China, India has failed to get integrated into Global value chains (GVCs).

Poor Innovation Ecosystem: R&D Expenditure as % of GDP at 0.7% has remained stagnant in the last 2 decades. Unlike developed economies, the R&D expenditure in India is mainly driven by public sector. The private sector investment in R&D needs to be substantially enhanced.

12. CAPITAL ACCOUNT CONVERTIBILITY

RUPEE CONVERTIBILITY IN INDIA

Full Rupee Convertibility on Current Account: Current Account under Balance of Payment (BoP) includes various transactions such as Imports, Exports, Remittances, Gifts, Donations. On these transactions, India has adopted full Rupee Convertibility in 1993.

Partial Rupee Convertibility on Capital Account: Capital Account Convertibility (CAC) is not just currency convertibility, but it also involves freedom to invest in financial assets of other countries. The Committee on Capital Account Convertibility (1997) headed by Tarapore has given a working definition for the CAC - "CAC refers to the freedom to convert local financial assets into foreign financial assets and vice versa at market determined rates of exchange. It is associated with changes of ownership in foreign/domestic financial assets." So, it basically refers to easing of restrictions on movement of capital (such as FDI, FPI etc) from one country to another.

PROS AND CONS OF FULL RUPEE CONVERTIBILITY ON CAPITAL ACCOUNT TRANSACTIONS

PROS	CONS
• Easier access to Foreign Capital and technology due to greater ease for the foreign Investors. • Promote competition between domestic companies and MNCs • Internationalisation of Rupee- Rupee can easily be accepted in other countries. • Enable domestic Investors to invest in overseas market • Promote Financial Discipline since the Government must keep in check Fiscal	• Higher Volatility in the Exchange rate due to sudden inflow and outflow of foreign currencies. (1997 Asian Financial Crisis) • Higher Inflows of foreign Capital could lead to sudden appreciation in the value of Rupee and thus hurt Exports. • Greater chances of global risks affecting Indian Economy! Example: 2007-08 Global Financial Crisis) • Higher Foreign Debt

Deficit and Public Debt to attract foreign Capital • Promote Employment opportunities and GDP growth.	• Outflow of Domestic Savings to other Countries. • No empirical link between Capital Account Convertibility and Economic Growth.

INDIA'S READINESS FOR CAPITAL ACCOUNT CONVERTIBILITY

Tarapore Committee has recommended that India should Capital Account Convertibility in a phased and gradual manner. At the same time, it has laid down some pre-conditions to be met for the introduction of Capital Account convertibility:

1. Eliminate Revenue Deficit and ensure Revenue surplus
2. Substantial part of Revenue surplus should be earmarked for meeting repayment obligations.
3. Strengthen Regulation of Financial sector, including that of Banks. Reduce the NPAs of Banking sector and focus on reforms in Public Sector Banks (PSBs).
4. To meet import and debt service payments, forex reserves should be adequate enough.
5. RBI should evolve policies to allow industrial houses to have stakes in Indian banks or promote new banks.

WHAT APPROACH SHOULD INDIA FOLLOW?

- Capital account liberalization should be regarded as a process and not an event i.e., it should be introduced in a phased and gradual manner.
- The degree and timing of capital account liberalization need to be sequenced with other reforms, such as strengthening of banking systems, fiscal consolidation, trade liberalization and the changing domestic and external economic environments.
- India must focus more on liberalising inflows as compared to outflows. Among the kinds of inflows, FDI should be preferred for stability, while excessive short-term external debt needs to be avoided.
- For outflows, the hierarchy for liberalization must be - Corporates first, followed by financial intermediaries, and finally individuals.

13. BREAKING UP BIG TECH COMPANIES

The Digital Era has seen the growth of Big Tech Companies such as Google, Amazon, Facebook, Apple and Microsoft, which are combinedly known as "GAFAM". As of September 2020, the combined valuation of these platforms is more than $5 trillion. Over the past decade, the digital economy has become highly concentrated and prone to monopolization. Several digital markets such as social networking, general online search, and online advertising are dominated by just one or two firms.

HOW BIG TECH COMPANIES HAVE GAINED DOMINANT MARKET POSITION?

- **Role of Online Platforms as Gatekeepers:** As Amazon, Apple, Facebook, and Google have captured control over key channels of distribution, they have come to function as gatekeepers. Their role as gatekeepers also gives the dominant platforms to control the fates of other businesses.

  For example, in 2007, Google bought Android OS which is used for running the smart phones. Then, Google called upon the smartphone manufacturers to pre-install and give default status to Google's own apps such as Chrome, Google Map etc. Through

Chrome, Google now owns the world's most popular browser, a critical gateway to the internet.

- **Acquisition of Competitors:** Big tech companies have also resorted to acquisition of smaller competitors to retain their dominant market position. For example, Facebook acquired WhatsApp and Instagram to continue its dominance in the field of social media.
- **Collection, storage and Analysis of Data:** Big tech companies enjoy dominance with respect to amount of data collected by them. This in turn makes smaller companies to depend upon Google, Amazon etc. for advertising their products.
- **Discriminatory Practices:** Companies such as Amazon force their sellers to sell their products only on their platform. Further, companies such as Google give higher preference to the companies which place their advertisement with them.
- **Higher Economies of scale and scope** also enable these Big Tech companies to have profits as compared to their smaller rivals.

HOW DOMINANCE OF BIG TECH HURT ECONOMY?

- **Hinders Innovation:** Competition in digital markets incentivizes incumbent firms and new entrants to build new technologies and improve business processes. In case of monopolisation, the incumbent firms lack the incentive to invest in research and development.
- **Data Privacy Issues:** Misuse of personal data of the users to make profits.
- **Hinders Start-up Ecosystem:** Monopoly enjoyed by deep-pocketed big tech companies would prevent growth of start-up companies.
- **Affects Consumers:** Monopolised market is usually characterised by higher prices and poor quality of services.
- **Exercise pervasive influence on society and politics** which could affect process of democratisation. Take for instance, the role of social media in spreading fake news, hatred, communal disharmony etc.

WHAT MUST BE DONE TO DEAL WITH DOMINANCE OF BIG TECH?

Strengthening Antitrust Laws: The anti-trust laws such as Competition Act, 2002 need to be strengthened; Empower Competition Commission of India to deal with abuse of dominant market position by Big Tech companies.

BREAKING UP THE BIG TECH

There are basically 3 proposals to reduce the dominance of the Big Tech by breaking them.

1. **Platforms should evolve into separate companies:** This proposal would break up tech companies by separating the underlying platform from the products and services sold on it. Google could no longer own Android and offer apps like Gmail, Maps, and Chrome. Amazon could no longer own the Amazon Marketplace and sell its own private-label goods. Apple could no longer own iOS and offer products like Safari, Siri, or Find My iPhone.
2. Restrict the number of products the Big Tech can offer
3. Reversal of past acquisitions which enabled Big Tech Companies to enjoy dominance.

14. NEED FOR MADE IN INDIA APPSTORE

Abuse of Dominant Position by Google and Apple: Presently, there are more than 300+ app stores such as Google's play store, Apple's Appstore, Samsung's Galaxy store,

Amazon Appstore etc. Despite availability of so many choices, most of us use either Google play store or Apple Appstore.

Unfair Practices: Both Google and Apple collect payments from App developers to get their Apps listed on their respective Appstore. Apple also requires the App developers to pay 30% as commission for the in-app purchases made by App developers.

Lack of Choice to Consumers and App developers in terms of accessing and listing mobile apps.

Set back to Domestic App Ecosystem: PM has recently highlighted that digital gaming has a huge potential at the international level and called upon Indian entrepreneurs to take a lead and develop apps to boost mobile app ecosystem. But, in the present ecosystem, an entrepreneur faces multiple costs as well as risks as shown below:

- Required to pay charges and commission to get their Apps listed.
- Required to comply with unfair rules and regulations laid down by Big Tech
- In absence of regulation, there is a risk of app being delisted without any mechanism for redressal of his grievances.

So, having an Indigenously developed Appstore would help us address these problems faced by app developers. Further, the regulation of Appstore through an Independent authority would help us lay down clear rules and guidelines over aspects of listing of mobile apps.

WHAT SHOULD BE DONE TO BREAK THE MONOPOLY OF MNCS IN MOBILE APP ECOSYSTEM?

Mobile Seva App Store hosts the various mobile applications for government services as well as private sector mobile apps. This needs to be developed as viable alternative to Appstore of Google and Apple.

Encouraging development of Mini-App Stores: Paytm has recently launched Mini-App store, which is a web-based service that provides access to various apps as if they are downloaded on your mobile. Two advantages here- Saves phone memory and saves Data which otherwise gets used up for downloading the mobile app.

Encouraging development of local handsets: Most mobile phones sold in India are Chinese and these come pre-loaded with their own apps and play stores. So, we need to boost the Indigenous manufacturing of Mobile phones. Just like how the Android OS comes pre-loaded with Google applications, we can ensure that mobile phones manufactured in India come pre-loaded with our Appstore such as MobileSeva App store.

10 CHAPTER INFRASTRUCTURE AND INVESTMENT

TOPICS TO BE COVERED

1. *Infrastructure Sector- Constraints and Challenges/ National Infrastructure Pipeline*
2. *National Monetisation Pipeline- Benefits, Challenges and Strategies needed*
3. *Gati Shakti Master Plan: Benefits and Challenges*
4. *National Land Monetization Corporation*
5. *Road Sector*
6. *Railways*
7. *PPP Model in Indian Railways*
8. *Civil Aviation*
9. *Ports & Shipping and Inland Waterways*
10. *Warehousing in India- Status and Challenges*
11. *Energy Sector*
12. *Energy Poverty in India*
13. *DISCOMs: Present Status, Challenges and Strategies*
14. *Performance Analysis of Pradhan Mantri Ujjwala Yojana (PMUY)*
15. *Coal Sector Reforms*
16. *Major Constraints in the Energy Sector*
17. *Digital Infrastructure- Prospects & Constraints*
18. *Logistics Sector- Constraints and Challenges*
19. *Electric Mobility*
20. *Battery Swapping Policy*
21. *Analysis of PPP*
22. *PPP in Healthcare*
23. *HAM Model of PPP*
24. *Swiss Challenge Method*

1. INFRASTRUCTURE SECTOR- CONSTRAINTS AND CHALLENGES/ NATIONAL INFRASTRUCTURE PIPELINE

NEED FOR INFRASTRUCTURE BOOST IN THE INDIAN ECONOMY

- **Vision of $ 5 Trillion Economy:** It is estimated that India would need to spend $4.5 trillion on infrastructure by 2030 to sustain its growth rate.
- **Boost Demand and Employment Creation**
- **Increased Urbanisation:** According to World Bank data, by 2030, it is estimated that around 42% of India's population would be urbanised from the current 31%.
- **Changing Demography in India:** The Economic survey 2018-19 has highlighted that the share of working of working-age population would increase from 50% (2011) to 59% (2041), while the share of senior citizens would increase from 8% (2011) to 16%

(2041). The changed demography will need the converged development of a host of infrastructure facilities such as housing, water sanitation services, digital and transportation needs.

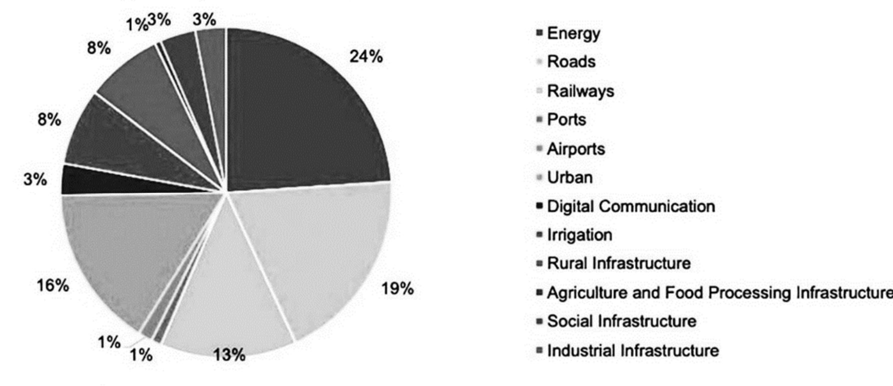
- **Climate change and disaster resilience:** Building Climate Resilient infrastructure is critical for people's well-being, quality of life, and economic prospects.

CONSTRAINTS AND CHALLENGES IN TRANSPORT SECTOR

- **The transport network is not planned holistically:** Lack of interconnectedness and synergies in the transport network; Poor Intermodal connectivity; Lack of connectivity between ports and inland modes of transport.
- **Poor Maintenance** of Indian Railways, National highways and roadways etc.
- **Limited Capacity** leading to congestion of roads and railways.
- **Modal imbalances:** Roadways have become the dominant mode of transport of goods at the cost of railways, despite the latter's economic and environmental advantages over the former. Similarly, inland waterways remain underutilized as a mode of transport.
- **Poor Transport safety** leading to increase in accidental deaths
- **Higher dependence on fossil fuels** affecting India's energy security.
- **Lack of access** to long term financing options
- **Delays in** Land acquisition and environmental clearances.

National Infrastructure Pipeline: The Task force has now outlined the expenditure of around **Rs 102 lakh crore over the next 5 years** in order to realise $ 5 trillion economy. The funding of the National Infrastructure Pipeline will be jointly made by the **Centre, states and the private sector** in the proportion of **39:40:22 (39 % by the centre, 40% by the states and 22% by the private sector).**

Sector-wise break-up of project capital expenditure worth Rs 102 lakh crore during FY20-25



Source: Ministries/ departments/state governments

2. NATIONAL MONETISATION PIPELINE- BENEFITS, CHALLENGES AND STRATEGIES NEEDED

The Budget 2021-22 has laid out a three-pronged strategy for infrastructure financing in the country. This includes:

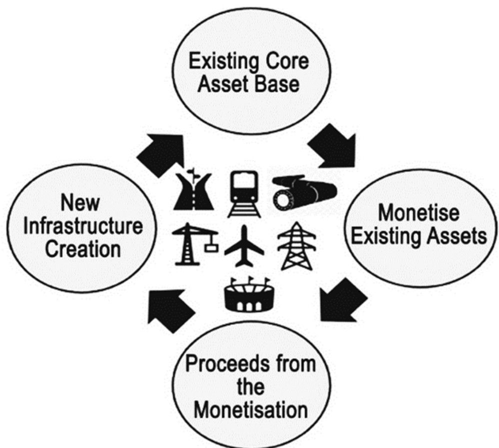
- Creation of institutional structures in the form of Development Bank (National Bank for Financing Infrastructure and Development (NaBFID).
- Increase in allocation of capital expenditure
- National Monetisation Pipeline

The Government has recently launched the National Monetization pipeline (NMP) to raise around Rs 6 lakh crores during the next 4 years -2022-25. This would help us meet our investment needs for the National Infrastructure pipeline. One of the critical factors for ensuring the success of NMP is to attract more investors-both domestic as well as institutional

Concept of National Monetization Pipeline (NMP): Asset Monetisation is defined as **transfer of core assets** owned by the Government to the private sector for a limited period. The **core infrastructure assets** include roads, ports, airports, telecom, railways, warehousing, energy pipelines, power generation, power transmission, hospitality and sports stadiums. NMP does **not include monetization of non-core assets** (such as land, buildings etc).

NMP is not privatisation since the ownership of the assets would continue to remain with the Government. The assets would be only transferred to the private sector for limited duration of time based upon the contract.

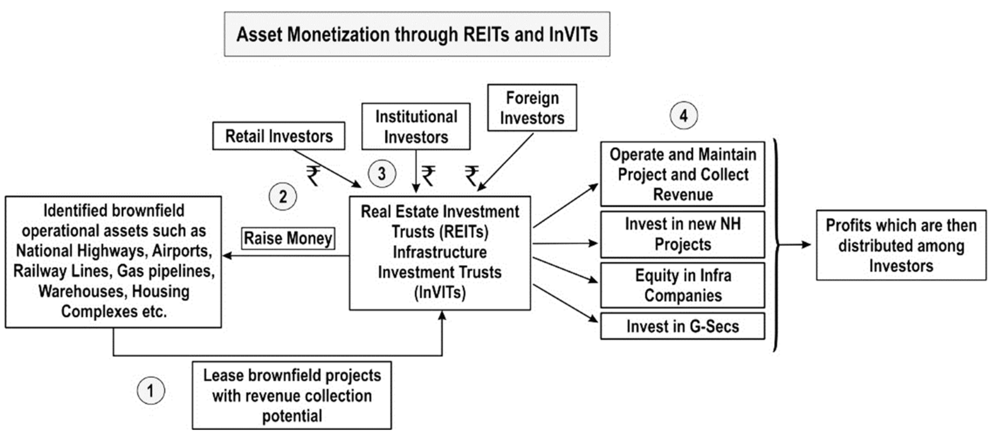
Note: Assets which are central to the business objectives of the Government have been categorised as Core Assets for the purposes of monetisation.



Global Examples: Asset Recycling Initiative (ARI) in Australia helped in raising over $ 17 billion for funding infrastructure. Similarly, Indonesia's Limited Concession Scheme (LCS) was also hugely successful.

Need for National Monetisation Pipeline (NMP): The NMP would help us meet the financing for the National Infrastructure Pipeline (NIP). As estimated by the Task Force for NIP (2019), traditional sources of capital are expected to finance 85% of the capital expenditure under NIP. Remaining 15% is expected to be met through innovative mechanisms such as Asset Monetisation and NaBFID.

ASSET MONETIZATION MODELS	
Direct Contractual Models	**Structured Financing Models**
1. Operate-Maintain-Transfer (OMT) Model: Used as Toll-Operate-Transfer (ToT) Model in National Highways 2. Operate Maintain Develop (OMD): Used as Operation Management Development Agreement (OMDA) in Airports 3. Long term lease Agreements: Used for leasing of Telecom Towers, Bus Terminals, Stadiums etc.	1. Real Estate Investment Trusts (REITs) 2. Infrastructure Investment Trusts (InVITs)



BENEFITS

- **Unlock the value:** The NMP would help us unlock the value of existing public assets such as Roads, Railways, ports etc. It would reduce the burden on the government owned agencies for operation and maintenance of assets.
- **Raise Finances:** The Covid-19 pandemic has led to decrease in revenue collection, while at the same time calls for enhanced public expenditure on capital assets. NMP would enable the Government to raise finances by monetising its existing assets to spend on creation of new infrastructure.
- **Experience with Disinvestment**: In the past, disinvestment proceeds from the PSUs have not necessarily been invested in new infrastructure creation. NMP enables the government to raise revenue without losing ownership of the assets.
- **Risk Averse Private sector:** The Private sector has been reluctant to undertake investment due to economic slowdown. Under NMP, the Government would raise revenue to create new assets and then transfer such assets to the Private sector. This is less risky for the private sector and hence attracts greater investment.
- **Lead role for the Government**: Presently, creation of new infrastructure assets is saddled with multi-faceted challenges such as delays in land acquisition, environmental clearances etc. If the Govt. takes lead in creation of infrastructure, the Government can easily address these challenges.
- **Better Operation and Maintenance of assets:** The Private sector would be involved in operation and maintenance of assets which is expected to improve the service delivery and efficiency in management of public assets.
- **Better Targeted:** Taxpayers' money would not be utilised for the maintenance of the assets. Rather, only those people who use such assets will be required to pay user charges.

CHALLENGES AND CONCERNS

Enhanced Role of the Government: Under NMP, the Government would continue to build and own capital assets. Presently, there are number of problems in creation of infrastructure- time and cost overruns, delays in land acquisition, poor quality of infrastructure etc. This needs to be addressed to ensure success of NMP.

Impact on the people: People may be required to pay higher user charges to private sector.

Lack of Independent regulatory authority in some of the sectors such as Roads, Railways etc. may discourage the private sector investment. An Independent regulatory authority would (a) Make rules and regulations for PPP agreements (b) Ensure that user

charges are market determined (c) Adjudicate on disputes between Government and private sector. This would create atmosphere of trust, confidence and fairness and hence encourage private sector investment.

DESIGNING PPP AGREEMENT

- Contracts must provide flexibility for addressing unforeseen developments (such as climate-related disasters, for example).
- Clear quality benchmarks must be set for the assets that are handed over by the government.
- Limit arbitrary actions by the Government such as Cancellation of projects
- Need to set up a robust mechanism for dispute resolution relating to PPP contracts.

Ability to realise fair value: Presently, economy is facing slowdown and the private sector is highly averse to taking risk. Hence, the Government may not be able to realise fair value from the assets due to poor participation of the private entities.

FINANCING PROBLEMS

- Success of NMP depends upon structured financing models such as REITs and InVITs. Poor awareness among the investors may make it difficult for REITs/InVITs to raise money.
- Banks may be unwilling to lend money to the private sector to lease assets.
- Under-developed corporate bond market may make it difficult for the private sector to raise revenues

Encourage Crony Capitalism: Only few large business houses can end up leasing the assets leading to monopolisation.

STRATEGIES NEEDED (NITI AAYOG'S RECOMMENDATIONS)

Streamlining Investment Guidelines: Presently, the SEBI has laid down certain restrictions on the Insurance, Pension fund and mutual fund companies with respect to how much money can be invested in REITs and InVITs. For example, the insurance fund companies cannot invest more than 3% of the money raised by REITs/InVITs. Such lower limits would make it difficult for the REITs/InVITs from tapping long term finances from the institutional investors. Hence, there is a need to enhance the investment limit to mobilize more money from the institutional investors.

Tax benefits: To encourage the participation of the retail investors, the Government should consider providing income tax benefits for the investment in REITs/InVITs.

REITs/InVITs under IBC: The REITs/InVITs can issue bonds to raise money from the market. However, as of now, the REITs/InVITs do not come under the Insolvency and Bankruptcy code. Hence, in case of default by the REIT/InVIT, the lenders cannot take recourse under IBC. Such a restriction may discourage investments in REIT/InVITs. Hence, to encourage investment, there is a need to bring REITs/InVITs under the IBC.

Need for Standard Agreements: There is a need to develop model PPP concession frameworks for various brownfield asset classes for quicker adoption.

Creating institutional structures for fast tracking asset identification and monetisation transaction: Each ministry should establish suitably empowered working group with the sole mandate to identify assets, method of monetisation and handhold in the transactions process.

User Charges by Private sector: Develop mechanism to ensure that the private sector set user charges by considering the investment and risks involved. The user charges should not be too high as it would impact common people.

3. GATI SHAKTI MASTER PLAN: BENEFITS AND CHALLENGES

PM Modi has launched the Gati Shakti Master Plan – National Master Plan for Multi-modal Connectivity. The Gati Shakti platform would provide Gati (Speed) and Shakti (Strength for integrated planning and coordinated implementation of infrastructure connectivity projects.

CURRENT PROBLEMS IN INFRASTRUCTURE

Lack of Coordination between different Ministries/ Departments. Most of the Government ministries work in silos without adequate coordination with other agencies. For example, once a road is constructed, other agencies dug up the constructed road again for activities like laying of underground cables, gas pipelines etc.

Time and Cost overruns: According to Ministry of Statistics and Programme Implementation, One out of every five infrastructure projects have a delay of over five years. Further, delays in execution of projects have led to increase in cost by almost 4.5 lakh crores, amounting to 80% of our capital expenditure in 2021-22.

Huge difference between Macro planning and micro implementation: Different departments are not even aware which department is preparing to start which project and where. Similarly, the private sector is also not aware about the new infrastructure projects being planned and executed. Prior idea about such infrastructure projects can lead to higher private sector investment.

ABOUT PM GATI SHAKTI

PM Gati Shakti is supposed to break departmental silos and institutionalize holistic planning for stakeholders across major infrastructure projects. The PM Gati Shakti will ensure that India of the 21st century does not waste money or time due to lack of coordination in infrastructure projects. Under the PM Gati Shakti National Master Plan, everything, from roads to railways, from aviation to agriculture, various ministries and departments would be linked.

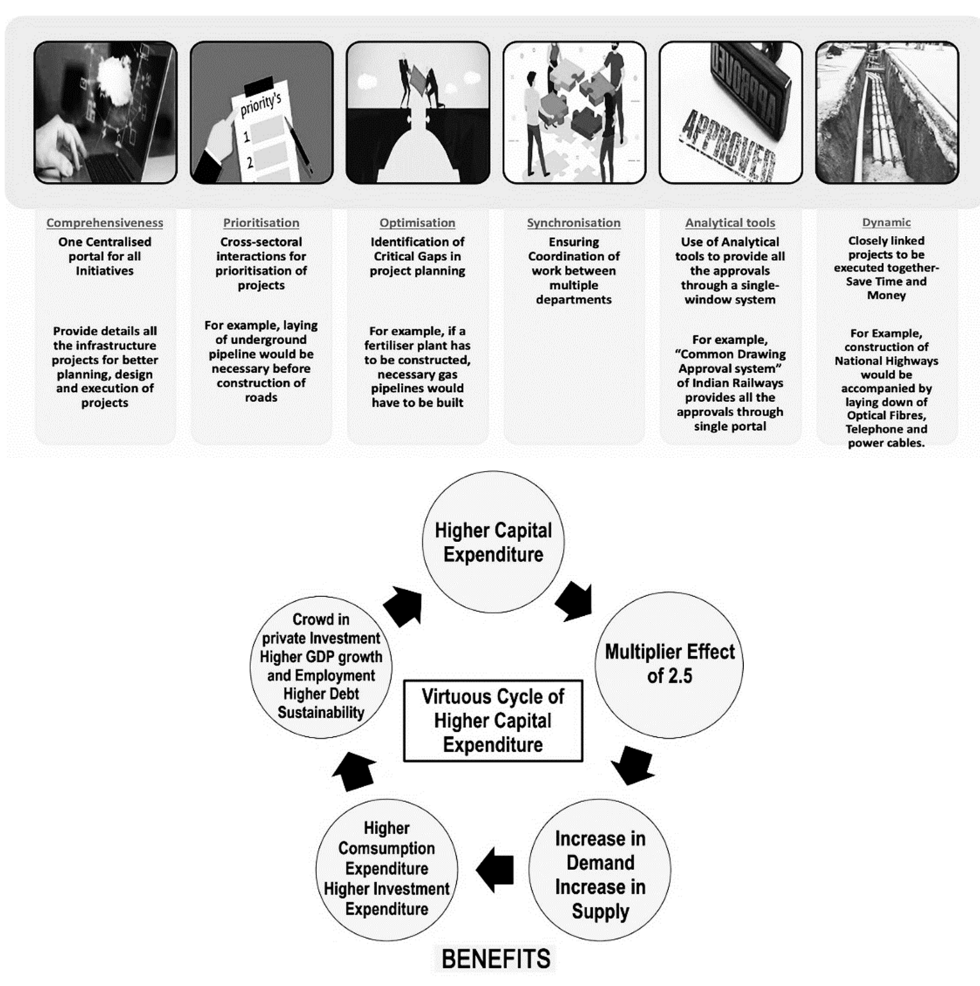
- National Master plan for Multi-modal connectivity
- Seeks to bring 16 Ministries together for integrated planning, design and execution of infrastructure projects.
- Monitor projects worth Rs 100 lakh crores.
- Incorporate the infrastructure schemes of various Ministries and State Governments like Bharatmala, Sagarmala, UDAN etc.
- Economic Zones like manufacturing clusters, defence corridors, electronic parks, industrial corridors, fishing clusters, agri zones will be covered to improve connectivity & make Indian businesses more competitive.
- Leverage technology including spatial planning tools with ISRO imagery developed by BiSAG-N (Bhaskaracharya National Institute for Space Applications and Geoinformatics).

HOW IS GATI SHAKTI DIFFERENT FROM NATIONAL INFRASTRUCTURE PIPELINE?

Under the National Infrastructure Pipeline (NIP), the Government has identified infrastructure projects worth Rs 111 lakh crores which it will be constructing in the five years between 2021-2025. The Implementation of NIP requires coordination and integrated planning between multiple ministries and departments. Such an integrated

and holistic approach to infrastructure creation would be provided through the Gati Shakti.

6 PILLARS OF GATI SHAKTI



The PM Gati Shakti would provide to Gati (speed) and Shakti (power) for creation of infrastructure in India. It would provide fillip to manufacturing sector, reduce logistics costs and enhance exports from India and hence critical to ensure vision of Aatma Nirbhar Bharat.

BENEFITS

Local Multiplier effects: In India, the capital expenditure multiplier is around 2.45, while the revenue expenditure multiplier is 0.99 (RBI Bulletin, Dec 2020). Hence, Capital Expenditure has the potential to revive both demand and supply leading to expeditious economic recovery and creation of more employment opportunities.

Enhance Income levels of Farmers: PM Gati Shakti would help us in integrating rural economy with rest of India through Roads, Railways, Ports, Airports, Digital Infrastructure etc. Such integration would reduce post-harvest losses, streamline agriculture supply chain, ensure success of E-NAM and boost exports.

Reduce Logistics cost: The logistics cost account for around 12-14% of India's GDP, which is quite higher as compared to 8-10% in other economies. The higher logistics cost reduces the competitiveness of manufacturing sector, reduces our exports and hence critical to ensure $ 5 trillion economy.

Promote Industrial Development: Provide multi-modal connectivity to Economic Zones like manufacturing clusters, defence corridors, electronic parks, industrial corridors etc.

Ensure efficient implementation of Infrastructure projects: Promote inter-ministerial and inter-departmental coordination and hence reduce time and cost overruns and improve ease of living for the people.

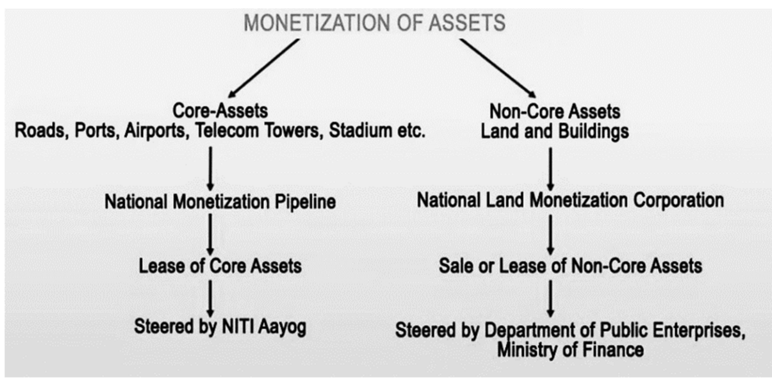
To Sum up, PM Gati Shakti plan will break inter-ministerial silos, enhance India's global competitiveness through next-generation infrastructure and seamless multi-modal connectivity, ensure seamless movement of goods and people and enhance the ease of living as well as the ease of doing business.

4. NATIONAL LAND MONETIZATION CORPORATION

In Budget speech 2021-22, Finance Minister announced setting up of an agency to conduct monetization of the land and other non-core assets of Government agencies and public sector undertakings (PSUs). In pursuance of the Budget announcement, National Land Monetisation Corporation (NLMC) has been recently set up.

UNDERSTANDING ASSET MONETISATION

- The Government agencies and PSUs own both core and non-core assets. The Core assets are the assets which are integral to the functioning of the PSUs. While the non-core assets include land and buildings.
- For example, NHAI's core assets would include the National Highways which it has built. While non-core assets would include surplus land and buildings owned by it.
- Some of these core and non-core assets may be under-utilised or unused. Selling or leasing these assets would help us unlock their value, raise capital and undertake investment for creation of new infrastructure projects.
- The monetisation of core assets is undertaken under the National Monetisation Pipeline. On the other hand, monetisation of non-core assets (sale/lease of land and buildings) would be undertaken by the National Land Monetisation Corporation (NLMC)



DETAILS ABOUT NATIONAL LAND MONETISATION CORPORATION (NLMC)

Establishment: Set up as a wholly owned Government of India company with an initial authorized share capital of Rs 5000 crore and paid-up share capital of Rs 150 crore.

Mandate:

- The surplus land and building assets of PSUs would be transferred to the NLMC. The NLMC would then undertake monetization of surplus land and building assets. As part of such an exercise, NLMC would either sell or lease the surplus land and buildings to the private sector.

- NLMC will also act as an advisory body and support other government entities and CPSEs in identifying their surplus non-core assets and monetising them in an efficient and professional manner.
- Act as a repository of best practices in land monetization.

BENEFITS

Unlock value of Underutilised Non-Core assets: Various Government agencies hold land in excess of 5 lakh hectares. For example, the Railways and Defence Ministries have the largest amount of government land, some of which can be monetised.

Administrative Efficiency: Monetisation of land by individual PSUs would be time-consuming exercise. However, when unutilised lands of different agencies are pooled in together by NLMC, it would be able to bring in higher economies of scale, better technical expertise and higher revenue realisation.

Raise Finances: Monetisation of land is one of the most viable options for government to raise additional finances for the creation of new infrastructure.

Efficient Utilisation of Land: Monetisation of land would lead to the efficient utilisation of unutilised land and boost urban infrastructure and economic development. The Vijay Kelkar Committee (2014) had recommended monetising government's under-utilised land to finance infrastructure projects in urban areas.

Cascading Effects: The commercial development of unutilised land accelerates the development of real estate sector leading to planned urbanisation, boost to Tourism sector and creation of employment opportunities.

Fast track strategic disinvestment: The NLMC would also facilitate the monetisation of assets belonging to PSUs that have ceased operations or are in line for a strategic disinvestment. For instance, at the time of Strategic Disinvestment of Air India, it owned land and buildings worth Rs 14,000 crores. It was transferred to the government's Air India Assets Holding Limited (AIAHL). Now, NLMC will undertake the monetisation of such assets.

CHALLENGES AND CONCERNS

Lack of Reliable Land Inventory: Presently, there is no Centralised, updated and consistent inventory of all the unutilised lands owned by Government departments and PSUs. This could complicate the process of Land monetisation.

Reluctance of the Government Agencies and PSUs to demarcate land parcels as "surplus". Hence, Government agencies must be required to identify the surplus land and also provide justification for holding on to surplus lands.

Realistic Valuation of land: There is a need for realistic valuation of land before undertaking its monetisation. Normally, state Governments provide for official valuation of Land. However, such valuation is usually lower than the existing market price. If land is monetised as per the official records, then the Government's revenue realisation would be lower. On the other hand, independent valuation may lead to higher unrealistic valuation and hence may discourage private sector from buying/leasing-in land.

5. ROAD SECTOR

PRESENT STATUS

India has the second-largest road network globally. Roads can be classified into national highways, expressways, state highways, major district roads and rural roads. The total road network in India was 59 lakh km. It accounts for largest share in the movement of both passengers and freight.

GOVERNMENT INITIATIVES FOR ROAD SECTOR

Bharatmala Pariyojana: Bridging critical infrastructure gaps through effective interventions like development of Economic Corridors, Inter Corridors and Feeder Routes, National Corridor Efficiency Improvement, Border and International Connectivity roads, Coastal and Port Connectivity roads and Green-field expressways etc.

Setu Bharatam: Make all national highways free of railway crossings

SETTING UP OF MULTI-MODAL LOGISTICS PARKS

Monetisation of Assets through Toll-Operate-Transfer (TOT) Model

Electronic Toll Collection (ETC) system to remove bottlenecks, ensure seamless movement of traffic and collection of user fee.

BhoomiRashi Portal: Digital and paper-less processing of land acquisition related Notifications

Infrastructure Debt Fund (IDF) set up to enhance flow of long-term infrastructure debt

CONSTRAINTS/ CHALLENGES

- Capacity of existing National highways: The NHs account for only 2.2 per cent of the country's total road network but carry 40 per cent of India's total road traffic.
- Maintenance of existing infrastructure: The annual outlay earmarked for maintenance is only about 40 per cent of the funds required
- Low private sector participation in NH - 15%.
- Poor connectivity of remote areas with trunk routes and metros
- Problems with Tolls- Revenue leakages; congestion at toll plazas; Flat rate toll irrespective of actual distance travelled
- Cost escalation for roads: Delays in acquiring land can affect project costs
- Limited use of advanced technology in safety and security - traffic management, surveillance, automated fare collection system.

HOW TO ADDRESS THESE CHALLENGES?

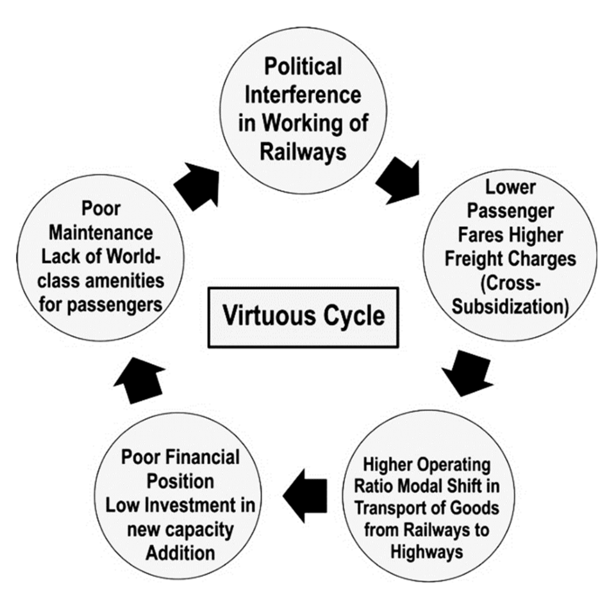
- Increase connectivity, especially in Rural India and with Ports by expanding the road network
- Improve road maintenance and safety: Earmark funds from the Central Road and Infrastructure Fund (CRIF)
- Urban Mobility: Dedicated cells for integrated planning, coordination and delivery of transport services in smaller cities; dedicated Metropolitan Urban Transport Authority in larger metropolitan authorities.
- Streamline land acquisition
- Increase emphasis on research and development
- Expand the reach of the electronic toll collection (ETC) system to all the toll plazas.

6. RAILWAYS

India has the fourth largest railway network in the world. It has come a long way since 1950-51 in terms of number of trains and quantum of traffic carried. However, it has been highlighted that Indian Railways may end up as burden on the national economy due to the number of issues.

PROBLEMS WITH THE INDIAN RAILWAYS

- **Decline in share of Freight Traffic** on account of shortfall in carrying capacity and lack of price competitiveness. The Indian Railways has kept the passenger fares at lower value while it has increased the freight charges to compensate for this loss. Hence, the cross-subsidization of low passenger fares by artificially high freight rates has led to shift in favor of road transport, for both freight as well as short distance passenger traffic.



- **Under- Investment:** The expenditure on the railways as a percentage of transport expenditure declined from 56 per cent in 1985-90 to 30 per cent in 2007- 12.
- **Organizational structure:** Delays in decision making, inadequate market orientation lead to slow turnover times and delays in the implementation of railways projects.
- **Internal generation of resources:** Lower share of the railways in freight traffic; Low and static prices for the passenger segment
- **Safety and poor quality of service delivery**:
- **Higher Operating Cost** of 98.4%

HOW TO ADDRESS THESE PROBLEMS?

Bibek Debroy committee on Railway Modernisation and Anil Kakodkar Committee on improving railway safety have given a number of recommendations to improve the performance and safety of Indian railways.

Rationalize fare structures and subsidies by ending the cross-subsidisation model presently followed by railways. Freight tariffs should be competitive with the cost of road transportation so that there is increase in the modal share of Railways.

Independent Regulator for Railways to determine the tariff and monitor whether the tariff is market determined and competitive.

Focus on Core Activities of running trains and give up non-core activities such as running schools, hospitals and a police force.

Accounting reforms: The current accounting system does not provide details of the cost of various activities and services, such as introduction of new trains and scheduling of stops. It neither tracks assets nor assesses liabilities. Consequently, it becomes difficult to compute the costs and benefits of any project or activity. Hence, in this regard, there is a need to adopt accounting reforms to track these details.

Financing of Projects: Railways can lease huge amount of land that it holds to the private sector for certain duration of time and earn revenue. Similarly, railways can enter into PPP agreements for the development of stations.

Safety of Railways: The Kakodkar committee had recommended for an investment of Rs 1 lakh crores over a period of 5 years to improve the safety of Indian railways.

7. PPP MODEL IN INDIAN RAILWAYS

NEED FOR PPP IN INDIAN RAILWAYS (IR)

Demand exceeds capacity: Around 5 crore (15%) passengers could not be given confirmed tickets in 2019-20. On certain routes, the demand exceeds the train capacity by 30%

Availability of track capacity: The two Dedicated Freight Corridors (DFCs) are set to be commissioned in 2021. This will generate additional capacity on routes adjacent to the DFCs, where more passenger trains can be run.

Higher Investment needs: PPP enables IR to raise revenue to meet its investment needs of around Rs 50 lakh crores between 2018 and 2030.

Higher Multiplier ratio: IR has strong forward-backward linkages due to which it has large multiplier effect of 5. Investment of Rupee 1 increases the output by Rs 5 (Eco Survey 2014-15)

Benefits to the passenger: Higher service quality and reduced journey times through the introduction of next generation coaches.

HOW WOULD THE PPP MODEL OF PRIVATE TRAINS WORK?

Sharing of Resources: Under this model, the physical infrastructure such as Railway tracks, signaling, Railway stations etc. would remain under the control of Indian railways. The private sector entities would be required to bring in their modern coaches to operate on specific routes. Here, the Private sector entities are expected to be given complete autonomy with respect to fixing the fares and provision of various other services such as catering, housekeeping etc.

Payment Mechanism: The Private sector is required to pay haulage charge to the Railways for the use of its physical infrastructure such as Railway tracks, signaling, Railway stations etc. Apart from that, the private sector operator needs to share the revenue with the Indian Railways

HOW PPP MODEL IN INDIAN RAILWAYS BENEFITS VARIOUS STAKEHOLDERS?

BENEFITS FOR THE STAKEHOLDERS		
Indian Railways	**Private Sector**	**Passengers**
No Political Interference in Fixing of Passenger Fares	Complete independence and autonomy to decide on the fares on such trains.	Greater choice to the passengers
Decrease in operating cost due to higher revenue collections from Private sector	Scope to earn higher Profits	Private sector operators would be forced to attract passengers and hence provide world-class amenities.
Steady income • Haulage Charge • Share of Revenue of Private sector	As of now, only 5% of routes are opened up for private sector. Paves way for higher Private sector participation in Indian Railways	Almost around 5 crore passengers could not be given confirmed tickets in 2019-20. Private sector participation would expand the passenger capacity and hence benefits passengers

Reduce Indian Railways' reliance on borrowed funds for Investment in Expanding Railway Network		

REASONS FOR POOR RESPONSE OF PRIVATE SECTOR

Higher entry barriers: Private entities required to buy their own Fully Air-conditioned modern coaches which are higher costly.

Higher charges: Private entities are required to pay multiple charges to the Indian Railways in the form of Haulage charges, Station usage charges etc. Plus, they are also required to share a certain percentage of their revenue with IR. Private entities argue that the higher charges reduce their profit margin.

Lack of Level playing field: Trains run by Indian Railways (IR) and private sector would operate on same routes. Presently, there is lack of clarity with respect to whether there would be level playing field between IR and Private sector. For example, IR trains may get priority in terms of allotment of platforms, preferential departure, and arrival timings etc.

Unfair competition: Indian Railways maintains lower passenger fares through cross-subsidization. Similarly, the subsidy provided on certain air routes under the UDAN scheme has led to decline in airfare prices.

On the other hand, the Private sector operating the passenger trains needs to fix higher fares to recover its investment. The higher fares on such private trains vis-a-vis IR/air travel acts as major obstacle.

UNREASONABLE TERMS IN PPP AGREEMENT

- Lack of flexibility for the private entities in changing departure/arrival timings, introduction of new halts along the routes, deciding on length of train etc.
- PPP Agreement provides for key performance indicators such as punctuality, reliability, maintenance of trains etc. to be met by private entities. Inability to meet these indicators attracts penalty. For example, if the private trains do not arrive/depart on time, they would be required to pay fine. However, the private entities argue that ability to arrive/depart on time (punctuality) depends on the signaling provided by Indian Railways. So, it would be unfair to force the private entities to pay fines in such cases.

WAY FORWARD

The Bibek Debroy committee on Railway Modernisation had strongly advocated setting up of Railway Regulatory Authority of India (RRAI) to ensure success of PPP in Indian Railways.

Rationale: Presently, policy making, and the regulatory function are both vested with the Ministry of Railways. There is a clear conflict of interest as the regulator (Ministry of Railways) is also the competitor for the private entities. Because of this, private entities would always have an apprehension that policies would be tilted in the favour of Indian Railways. An atmosphere of trust and confidence must be built through setting up of an independent and autonomous regulator in form of RRAI.

ROLE

- Determine whether the tariffs fixed by IR are market determined and competitive. Create level playing field between Indian Railways (IR) and private entities.
- Ensure that the private entities are treated on par with IR on all aspects, including access to railway infrastructure.

- Adjudicate on disputes which may arise between IR and private entities.

Unlike other infrastructure sectors such as Roads, Ports, Airports etc, IR has so far failed to attract private sector investment. Hence, going forward, IR must address various bottlenecks and challenges which are hindering the private sector investment.

8. CIVIL AVIATION

India is currently considered the third largest domestic civil aviation market in the world. However, the industry is facing multi-faceted challenges because of which concerns have been raised over the future growth prospects of the industry.

GOVERNMENT'S POLICY SUPPORT

National Civil Aviation Policy 2016: Aims to take flying to the masses by making it affordable and convenient; covers 22 areas of the Civil Aviation sector.

UDAN ("Ude Desh Ka Aam Naagrik") Scheme: put smaller cities and remote regions on the aviation map

Nabh Nirman Scheme: Expand airport capacity more than five times to handle a billion trips a year.

CHALLENGES BEFORE THE AVIATION INDUSTRY

Government Intervention: The flying rights over another country's territory do not lie in the hands of the airline company; rather it depends on the political relation and bilateral treaty between two or more countries.

Rising Fuel Prices: The industry's operational cost component is dominated by the cost of the Aviation Turbine Fuel (ATF) accounting for almost 45% of the operational expenses.

Congestion: Capacity limitations at many airports like Delhi and Mumbai; Inadequate hangar space and unavailability of land to expand airports at their current sites,

High Airport (aeronautical) Charges: The airport charges payable at the international airports are higher than those payable at the airports nominated as Domestic airports or domestic flights leading to higher operational costs of aviation companies.

Shortage and gaps in availability of industry-recognised skills – from airline pilots and crew to maintenance and ground handling personnel.

HOW TO ADDRESS THESE CHALLENGES?

- **Enhance aviation infrastructure**- Complete the planned airports under the UDAN initiative in a time-bound manner; Revival of 50 un-served and under-served airports/airstrips should be completed.
- **Increase investment in the sector through financial and infrastructure support**- Reduce taxes on MRO services and consider granting infrastructure status for MRO; Increase aircraft parking infrastructure and facilities at metro airports.
- Bring **aviation turbine fuel (ATF) under GST.**
- **Address shortage of skilled manpower**- Expedite commencement of courses by the National Aviation University; Facilitate greater involvement of the private sector in sponsoring aviation institutions
- **Ease the regulatory burden**- Deregulate further and open up the aviation market; Strengthen regulatory capacity with respect to public private partnerships etc.

9. PORTS & SHIPPING AND INLAND WATERWAYS

India has a coastline spanning about 7,500 km, forming one of the biggest peninsulas in the world. Around 90 per cent of India's external trade by volume and 70 per cent by value are handled by 12major ports and 205 non-major ports operate on India's coast. Yet, roads and railways continue to be the dominant mode for cargo movement. Despite being the most cost-effective and efficient mode, water transport accounted for mere 6 per cent of freight transport in India in 2016-17.

CONSTRAINTS BEFORE INLAND WATER WAYS

- **Modal mix**: Roads (54 per cent) continue to be the dominant mode of transporting cargo, followed by rail (33 per cent). Transportation of cargo through waterways – shipping and inland water – accounts for a minuscule modal share (6 per cent) despite it being the most cost effective and efficient mode.
- **Draught levels**: Most Indian container handling ports lack the capability to handle large container vessels due to inadequate depth; a minimum draft depth of 18 metres is needed to enable mother vessels to dock at ports.
- **Connectivity to ports:** Weak hinterland connectivity between production centres and gateway ports
- **Transhipment port**: A large percentage of containers in India are currently transhipped through other ports, such as Colombo (just south of India), Singapore (East) due to the absence of a transhipment port in the country. This has led to additional costs and delays due to the feeder voyage from India to the hub port.
- **Capital for inland vessels:** At present, the cost of capital is very high and makes IWT freight uncompetitive.
- **Technical issues in inland waterways**: The varying and limited depths due to the meandering and braiding of alluvial rivers and the erosion of their banks causing excessive siltation, lack of cargo earmarked for IWT, non-mechanized navigation lock systems and insufficient unloading facility at terminals hinder the use of IWT by shippers.

WAY FORWARD

- **Open up India's dredging market:** At present, the Dredging Corporation of India (DCI) and a limited set of private vendors serve the Indian dredging market, limiting competition.
- **Expedite the implementation of Sagarmala** to modernise ports.
- **Enhance last mile connectivity to inland waterways:** IWT should be integrated to multimodal/ intermodal connectivity. Inland terminals with proper road and/or rail connectivity and seamless transfer of goods from one mode to the other are important for an efficient logistics supply chain.
- **Facilitate access to capital for inland vessels:** Financing for inland vessels could be made part of priority sector lending by banks. Categorizing inland vessels as infrastructure equipment will further ease access to capital issues for a sector where capital investments and operational costs are high.
- **Address technical and regulatory constraints** in inland waterways to ease movement of inland vessels- Detention of a vessel without a valid reason should not be allowed; A clear directive needs to be issued for security of inland vessels, crew and cargo; Strengthen existing Inland Water Transport Directorates or Maritime Boards or

set them up in states where they do not exist to ease the IWT business and to ensure efficient regulation and facilitation of IWT for cargo movement.

- **Streamline the governance of inland waterways**: Currently, inland waterways are governed by multiple authorities including the Central Inland Water Corporation Limited (CIWTC Ltd), port authorities and state governments. Streamlining the regulatory structure and bringing an overarching body to oversee Inland Water Transport such as the IWAI will bring more consistency in the rules and strategy of the sector.
- **Develop measures for year-round navigation**: Currently, due to weather conditions, several inland waterways are only serviceable during a part of the year. The seasonality of this mode of transport reduces its adoption. Efforts should be made to develop deeper stretches of the river, i.e., at least 2.5 m to 3 m.

10. WAREHOUSING IN INDIA- STATUS AND CHALLENGES

Importance: Warehousing constitutes only 15%-35% of the total logistics costs but its importance is significant with respect to the role it plays in the smooth functioning of supply chain networks.

Problems with Warehousing in India:

- Domestic warehousing market is highly fragmented with most of the warehouses having an area less than 10,000 sq. ft.
- Approximately 90% of the warehousing space in the country is controlled by unorganized players, which manage small-sized warehouses.
- Limited mechanisation in warehouses. Higher dependence on manual loading and unloading of cargo.
- Lower adoption of IT infrastructure for tracking of cargo.
- Higher storage costs and handling losses.
- Lack of cold chain infrastructure
- Under-developed Third-party logistics (3PL Market): 3PL is a concept where a single logistics service provider manages the entire logistics function for a company. There are only few third-party logistics providers in India.

Strategy: Develop Warehousing zones outside the major cities by using the land Banks with the NHAI. The Government can invite private entities to develop Warehousing zones in PPP mode on the identified land.

11. ENERGY SECTOR

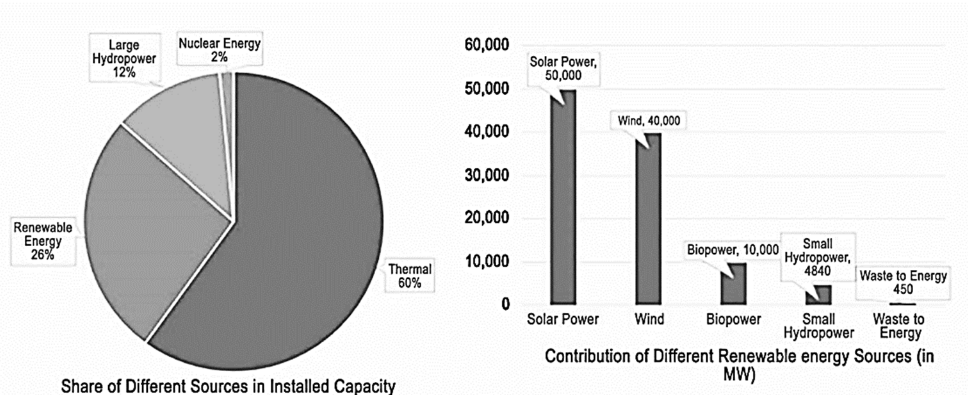
The energy sector is fundamental to growth and development. Availability of electricity, petrol, diesel and gas at competitive prices is essential for the efficient functioning of energy user sectors, which include households, transportation, industry, agriculture and the government and comprise nearly the entire economy.

OBJECTIVES

The government's on-going energy sector policies aim "to provide access to affordable, reliable, sustainable and modern energy".

- Make available 24x7 power to all by 2019.
- Achieve 175 GW of renewable energy generation capacity by 2022.
- Reduce imports of oil and gas by 10 per cent by 2022-23.

- Continue to reduce emission intensity of GDP in a manner that will help India achieve the intended nationally determined contribution (INDC) target of 2030.

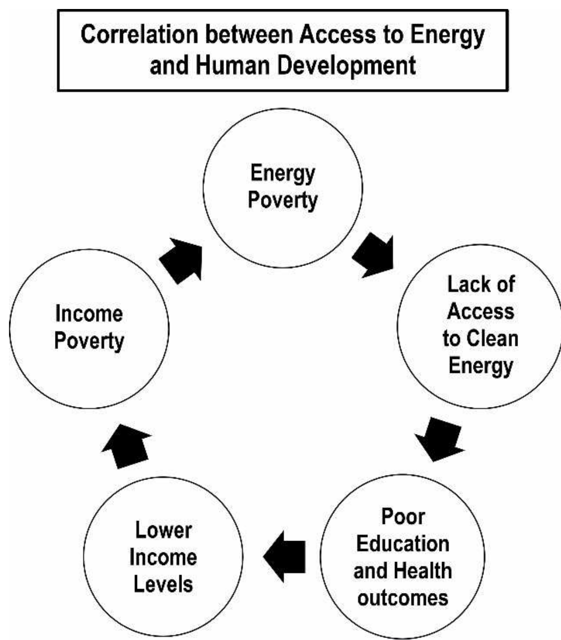


12. ENERGY POVERTY IN INDIA

ENERGY POVERTY IN INDIA

According to World Bank, there is direct correlation between Access to Energy and Human Development. Access to clean, affordable and safe energy in the form of electricity, clean cooking fuel etc. automatically leads to improvement in education, health and over-all well-being. That is why, **SDG 7 calls upon the countries to provide affordable, sustainable and reliable energy for all.**

Even though India accounts for **18% of the world's population**, it uses only around **6% of the world's energy**. India's per-capita energy consumption is one-third of global average. There is also a wide disparity between urban and rural areas in access to energy. Hence, apart from income poverty, India is also facing energy poverty.



STEPS TAKEN TO REDUCE ENERGY POVERTY

Ujjwala Yojana: Deposit-free LPG Connection.

PAHAL Scheme: DBT for LPG Cylinders

Saubhagya Scheme: Electricity connections to all un-electrified households.

KUSUM Scheme: Installation of solar pump-sets.

Energy Efficiency measures such as National Mission on Enhanced Energy Efficiency, Ujala, Standards and Labelling etc.

The Economic Survey 2018-19 has highlighted that India has to increase its per-capita energy consumption by 4 times to achieve higher levels of Human Development. This can be done through:

- Increase subsidy amount under Ujjwala Scheme and use behavioural economics to nudge people to regularly use LPG cylinders.
- Address the issue of frequent power cuts under Saubhagya scheme.
- Promotion of electric induction cookstoves.
- Improve financial health of DISCOMs

There is positive correlation between Access to Energy and Human Development and hence India's prosperity is dependent upon its ability to reduce energy poverty.

13. DISCOMS: PRESENT STATUS, CHALLENGES AND STRATEGIES

The DISCOMs have incurred heavy losses around Rs 75,000 crores in 2020-21 due to structural, operational and managerial inefficiencies.

Higher Cost of Power Procurement: Discoms have entered into expensive and long-term thermal Power purchase agreements (PPAs).

Lack of Independence and Autonomy: Political interference in fixing tariffs leading to lower tariffs on electricity. The DISCOMs end up supplying electricity to households and agriculture sector at subsidized prices leading to higher losses.

Cross-Subsidization of Tariffs: The DISCOMs have increased the electricity tariffs for the industries to compensate for the losses.

Higher AT&C losses (22%) on account of Transmission losses, Commercial losses due to power theft, absence of metering, inefficiencies in bill collection etc. The Global Average for AT&C losses is much lower at 8% (USA- 6%; China- 8%).

Higher Dependence on State Governments: The DISCOMs depend on the state governments for the subsidies. Delays in receiving subsidy reimbursements from the government add to the liquidity stresses of discoms.

Monopolisation: Presently, DISCOMs enjoy monopoly in distribution of electricity leading to absence of competition, higher inefficiencies and poor service delivery.

DISTRIBUTION SECTOR REFORMS

Electricity Amendment Act, 2003:

- Established regulatory bodies - Central Electricity Regulatory Commissions (CERCs) and State Electricity Regulatory Commission (SERCs).
- Appellate tribunal for dispute resolution.
- Introduction of competition through open access policy
- Delicensing of Thermal Generation
- Introduction of Renewable Purchase Obligation Policy (RPO) which requires DISCOMs certain percentage of their electricity needs from Renewable energy.

Deen Dayal Upadhyaya Gram Jyoti Yojana–DDUGJY: Focuses on feeder separation (rural households and agricultural) and strengthening of sub-transmission and distribution infrastructure in rural areas. It is meant to provide round-the-clock power to rural households and adequate power to agricultural consumers.

UDAY Scheme: Aims at improving the financial position of DISCOMs. Under the scheme, states are supposed to take over 75 percent of the discoms' debt and the DISCOMs were required to reduce AT&C losses to 15%.

Saubhagya Scheme: Free electricity connections to all households (both APL and poor families) in rural areas and poor families in urban areas.

Reforms based Results linked Revamped Power Distribution Scheme: Help DISCOMs improve their operational efficiencies and financial sustainability by providing result-linked financial assistance to DISCOMs to strengthen supply infrastructure based on meeting pre-qualifying criteria and achieving basic minimum benchmark. Under this scheme, the DISCOMs are required to reduce AT&C losses to 12-15% by 2024-25.

Private Participation and Competition in Distribution: Some of the states have promoted private participation in the DISCOMs through (a) Franchise Model and (b) Privatisation of DISCOMs.

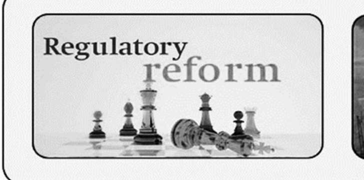
(a) Under the Franchise model, the private entity has no ownership over the distribution grid assets. The private party manages billing and revenue collection. Example: Bhiwandi, Maharashtra.

(b) In case of privatisation, the private entity not only manages the billing and revenue collection but also owns the distribution grid. Example: Privatisation of Delhi Vidyut Board in 2002.

Retail Choice to Consumers: Presently, the DISCOMs enjoy monopoly in distribution of electricity which in turn leads to lack of consumer choice and higher inefficiencies. Hence, the Union Budget 2021-22 has sought to introduce competition in the distribution sector and provide retail choice to the consumers.

Privatisation of DICOMs: The Centre has announced that it would privatise the DISCOMs in all the Union Territories.

STRATEGIES TO IMPROVE THE DISTRIBUTION SECTOR



Regulatory reforms:

1. Necessary independence and autonomy to the SERCs to fix electricity tariffs
2. Electricity tariffs should reflect the cost of procurement of electricity
3. Put an end to Cross-Subsidisation.

Structural Reforms

4. Different Models of Distribution based upon consumer mix and geography- State-owned; Franchise and Private owned
5. Retail choice for Consumers by delicensing Distribution

Operational Reforms:

6. Long term PPAs to be complemented by short-term and medium term power procurement
7. Reduce AT&C through Universal Metering, Installation of Pre-paid meters, Smart meters etc.

14. PERFORMANCE ANALYSIS OF PRADHAN MANTRI UJJWALA YOJANA (PMUY)

Government has achieved its target of providing 8 crore LPG connections to poor under PM Ujjwala Yojana. The success of this scheme can be evident in the fact that LPG coverage in India has increased to 95% from 55% in 2014.However, providing connections is just one part of the push towards cleaner and reliable cooking fuels.

About PM Ujjwala Yojana: It aims to provide deposit free LPG connections to poor households. Under the scheme, an adult woman member of a below poverty line family

identified through the Socio-Economic Caste Census (SECC) is given a deposit-free LPG connection with financial assistance of Rs 1,600 per connection by the Centre. Eligible households are identified in consultation with state governments and Union territories. The scheme is being implemented by the Ministry of Petroleum and Natural Gas.

PRADHAN MANTRI UJJWALA YOJANA		
Achievements	**Challenges**	**Way Forward**
Target achieved: Target of providing 8 crore LPG connections achieved 7 months ahead of schedule (March 2020). **Increase in LPG coverage** from 62% (2016) to 99.5% (2021). **Addressed energy poverty-** India accounts for 18% of world's population but uses only 6% of world's energy. **Facilitated human development** as there is direct correlation between access to energy and human development. **Women empowerment** as time saved on collecting firewood can be better spent on more productive activities. **Better health outcomes** as indoor pollution gets reduced **Expansion in constitutional rights** as it strengthens Right to Life (Art 21) **Progress towards SDG 7 -** Access to affordable, reliable and sustainable energy for all	**Higher refilling cost:** On an average, the families with Ujjwala connections are opting for four subsidised cylinders in a year, this is lower than the seven subsidised cylinders that non-Ujjwala connections go for in the same time period. The lower usage can be attributed to higher refilling cost which is forcing them to use the LPG cylinders sparingly. **Flawed mind set of the people:** Most people believe that food cooked on a chulha is healthier and tastier. In contrast, rotis cooked on gas cause indigestion. They also believe cooking with solid fuels is healthy for the women too as the fumes causes tears and purifies the eyes.	**Higher subsidy amount to poor households**: Under the National Food Security Act (NFSA), the Antyodaya households are provided higher amount of food grains as compared to priority households. There is a need to adopt this model even in PM Ujjwala Yojana as well wherein the Antyodaya households could be provided the LPG cylinders free of cost. **Integrating behavioural economics into Ujjwala Yojana:** Adopt nudge theory to encourage regular and continuous usage of the LPG cylinders. The Government must launch a campaign communicating solid fuels harm respiratory health. Similarly, advertisements that food cooked on gas can be as tasty and healthy as food cooked on a chulha would be helpful.

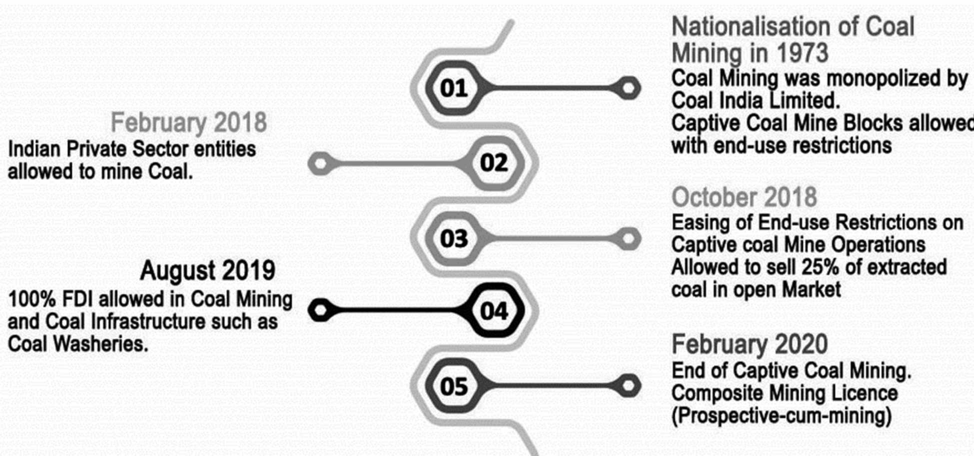
15. COAL SECTOR REFORMS

PRESENT STATUS OF COAL SECTOR

- India has the world's third largest coal reserves. India is also the second largest coal producer in the world. However, due to the growing needs of the rapidly expanding economy, the annual demand for coal has increased to around 900 MT. Hence, the shortage of coal in India is met through imports.

Coal accounts for almost 55% of our energy needs. Hence, the shortage of coal within our domestic economy is forcing the thermal power plants to operate their threshold capacity. This has led to lower profit margins of the thermal power plants and reduced their ability to repay back the loans to the banks. Thus, the shortage of coal within India has not only led to poor financial position of power plants but it has also led to increase in the non-performing assets (NPAs) of the Indian banks.

GOVERNMENT'S INITIATIVES TO LIBERALISE COAL SECTOR



SIGNIFICANCE OF GOVERNMENT'S INITIATIVES

Boost Coal Mining: Domestic production by Coal India Ltd (CIL) has been unable to keep up with the demand for coal

Meet the Coal Needs of Power Plants: Power plants in India have been operating below their installed capacity, necessitating imports to meet demand.

Reduce Current Account Deficit: 25% of our coal requirements are met through imports

Technological advancement in Coal Mining: FDI would lead to newer and efficient exploration technologies and methods for mining coal, especially high-end technology for underground mining used by global miners, which would help in lowering costs.

Promote Competition: New policy would also enable the opening up of the industry to competition, which until now had been the monopoly of Coal India Limited.

16. MAJOR CONSTRAINTS IN THE ENERGY SECTOR

SUBSIDIES AND TAXES: A variety of subsidies and taxes distort the energy market and promote the use of inefficient over efficient fuels. They also make Indian exports and domestic production uncompetitive as energy taxes are not under GST and hence, no input credit is given.

COAL

- Monopoly in extraction of coal by Coal India Limited.
- Demand-supply mismatch in coal leading to imports (25% of domestic requirements).
- Most of the thermal power plants are operating below their capacity- Plant Load Factor (PLF) is hardly around 56% in 2019-20.
- Delays in Land acquisition.
- Tendency to expand opencast mining and discourage underground operation even for better quality coal reserves.
- outdated technology.

POWER GENERATION, TRANSMISSION AND DISTRIBUTION

- Old inefficient plants continue to operate whereas more efficient plants are underutilized.
- Although legally independent, Regulatory Commissions are unable to fully regulate discoms and fix rational tariffs.
- State power utilities are not able to invest in system improvements due to their poor financial health.
- High aggregate technical and commercial (AT&C) losses
- Unmetered power supply to agriculture provides no incentive to farmers to use electricity efficiently
- High industrial/commercial tariff and the cross-subsidy regime have affected the competitiveness of the industrial and commercial sectors.

ENERGY EFFICIENCY

- Limited technical capabilities, high initial capital expenditure, limited market and policy issues have adversely affected efforts to achieve energy efficiency.
- Non-availability of sufficient credit facilities and difficulties in obtaining required finances for energy saving projects are strong deterrents to investments in energy efficiency in India

RENEWABLE ENERGY: High energy costs result in reneging on old power purchase agreements (PPAs) and erode their sanctity. This leads to uncertainty regarding power off take and consequently endangers further investments.

17. DIGITAL INFRASTRUCTURE- PROSPECTS & CONSTRAINTS

Digital connectivity facilitates the communication and commerce that drives economic growth. Individuals cannot transfer payments digitally, use e-governance portals to connect with the government, access information or make online purchases without continuous and reliable Internet or telephone access. The Digital India Programme has made significant progress in its nine growth areas. The areas of focus include building broadband highways, providing universal access to mobile connectivity, a public *internet access program,* e-governance, electronic service delivery, access to information, increasing electronics manufacturing, providing information technology skills for jobs and early harvest programs.

Current Situation: According to Internet Trends 2017 report, 27% of India’s population (355 million users) uses the internet. While this represents exponential growth compared to 4% penetration in 2009, there is scope for improvement. Tele-density, or the number

of telephone connections for every 100 individuals, is 83. In rural areas, the tele-density is one-third that of urban areas.

GOVERNMENT INITIATIVES

National Digital Communication Policy

- Broadband for all
- Creating 4 million additional jobs in Digital Communications sector
- Enhancing contribution of the digital communication sector to 8% of India's GDP from 6% in 2017.
- Propelling India to Top 50 Nations in the ICT Development Index of ITU from 134 in 2017.
- Enhancing India's contribution to Global Value Chains
- Ensuring Digital Sovereignty

National Broadband Mission: Universal and equitable access to broadband services across the country, especially in rural and remote areas.

Digital India Scheme: Areas of focus include broadband highways, providing universal access to mobile connectivity, a public internet access program, e-governance, electronic service delivery, access to information, increasing electronics manufacturing, providing information technology skills for jobs and early harvest programs.

BharatNet: Providing high-speed broadband to all the panchayats in the country

National Information Infrastructure (NII): Ensure integration of networks and cloud infrastructure to provide high-speed connectivity to various government departments up to the panchayat level.

Public Internet Access Program: Make 2,50,000 common service centres (CSCs) operational at the gram panchayat level to deliver government services online

Universal Service Obligation Fund (USOF): Fund is raised through the imposition of 'Universal Access Levy (UAL)', which is a percentage of the revenue earned by operators under various licenses. This fund was established with the object of improving telecom services in the remote and rural areas of India.

CONSTRAINTS AND CHALLENGES

1**. Broadband connectivity**

- Internet access is plagued by issues related to quality and reliability, outages, call drops and weak signals.
- The current definition of broadband of 512 kbps speed is inadequate and not in line with the expected rise in demand in the future.
- Existing networks have been strained by limited spectrum availability and usage, affecting the provision of quality services.

2. **Digital access and literacy**

- A significant portion of our population does not have access to devices such as laptops, computers, smartphones, etc.
- Digital literacy in India is estimated to be less than 10 per cent of the population.

3. **Content in Indian languages:** Currently, most digital content is in English. However, “9 out of every 10 new internet users in India over the next 5 years are likely to be Indian language users”.

4**. Availability of e-services:**

- Several e-services are not available on digital platform
- Wide variation across states in availability of citizen e-services.

- Currently, citizens must physically visit government offices to access most government-to-citizen (G2C) services, as municipalities and other government bodies have been slow to digitize their processes.

5. **Cyber security:** Regulatory framework for cyber security is inadequate. Hacking and denial-of-service attacks have led to disruption of services, both in the government and the private sector – banks and governments increasingly face security breaches.

STEPS FOR IMPROVING DIGITAL INFRASTRUCTURE

Improving Access:

- Provide Universal broadband connectivity at 50Mbps to every citizen
- Provide 1 Gbps connectivity to all Gram Panchayats of India by 2020 and 10 Gbps by 2022
- Enable deployment of public Wi-Fi Hotspots; to reach 5 million by 2020 and 10 million by 2022
- Ensure connectivity to all uncovered areas

Innovation in Digital Sector

- Attracting investments of $100 billion in the Digital Communications Sector
- Creation of Innovation led Start-ups in Digital Communications Sector
- Accelerateate transition to Industry 4.0

Quality of Service: Adequate availability of spectrum is critical to ensure service quality. Efficient spectrum allocation in large continuous blocks should be explored. We should explore migration to new technologies which would resolve some of the bandwidth challenges.

Access and digital literacy: National Digital Literacy Mission should focus on introducing digital literacy at primary school level in all government schools for basic content, higher classes and colleges for advanced content. Multiplier effects of this mission will be realised when these students educate their family members.

CONTENT IN INDIAN LANGUAGES

- State governments should pay special attention to creating content, particularly those relating to government e-services, in Indian regional languages.
- Centre, States and researchers need focused collaboration to promote Natural Language Processing for making all government's online services available in all 22 official languages.
- Focus could be laid on the automatic translation of content into regional languages from Hindi or English.
- Case studies like those of European Union, which had similar problems in making content available in the languages of member countries, should be explored to identify models that can potentially be adopted.

Availability of e-services: Individual ministries and states must play a pivotal role in ensuring that all their services are available and easily accessible by citizens over digital platforms. Boosting domestic manufacturing of Electronics and other Digital Components.

Boost Electronics Manufacturing to reduce the import of electronic Goods and ensure digital sovereignty

CYBER SECURITY

- Need to evolve a comprehensive cyber security framework for data security, safe digital transactions and complaint redressal.

- Promotion of Data Localisation and a comprehensive data protection regime based on recommendations of B N Srikrishna Committee should be implemented.
- Principles of Net neutrality should be upheld and aligned with service requirements.
- Security standards, testing for devices and networks should be mandated and periodically updated.

WAY FORWARD

Digital Infrastructure is the bedrock on which the vision of digitally empowered Digital India can be realised. This needs to be given focussed attention for a transparent, empowered and secure India of 21st Century.

18. LOGISTICS SECTOR- CONSTRAINTS AND CHALLENGES

CURRENT SITUATION

Logistics is the overall process of managing how resources are acquired, stored and transported. It includes industrial parks, warehouses, cold storages and transportation.

- Employs around **22 million people** (2016).
- Growth rate in the last decade is around 7.8%
- Higher Logistics costs in India around 14 % of GDP (U.S - 9 %, Japan- 12 %)
- Poor Ranking on Logistic performance Index
- A 10 per cent decrease in indirect logistics cost has the potential to increase exports by 5-8 per cent.

CONSTRAINTS IN LOGISTIC SECTOR

- **Cost of logistics:** remains high due to challenges in accessing finance, underdeveloped infrastructure, poor connectivity and an unfavourable modal mix. (India: Road-60%, Rail- 31%, Water-9%; International Benchmarks: Road-25-30%, Railways-50-55%, Waterways- 20-25%)
- **Coordination due to multiple stakeholders' involvement:** Logistics has four key components: transport, warehousing, freight forwarding and value-added logistics. Each of these falls under different segments of regulatory oversight, which adds complexity to the system. The presence of multiple agencies often leads to duplicate processes. Non-uniform documentation across states adds to transaction costs.
- **Warehousing capacity and fragmented structure:** India's current reported warehousing capacity is 108.75 million metric tonnes (MMT) of which the private sector makes up less than 20 per cent. There is low value addition in the warehouse sector. Handling and warehousing facilities are still largely un-mechanized with manual loading, unloading and handling in the case of many commodities.
- **Seamless movement of goods across modes and high dwell time:** Movement of goods across modes suffers from the absence of last mile connectivity and infrastructure.
- **Interoperable technology across modes:** Lack of interoperability of software systems used by authorities governing different modes of transport leads to inefficiencies as it increases transit time and need for manual intervention when switching modes.
- **Higher Border compliance & document processing time**

MEASURES TAKEN BY GOVERNMENT

- Draft National Logistics Policy for higher economic growth.
- Infrastructure status to Logistics.
- Infrastructure lending at easier terms with enhanced limits.
- Access to larger amounts of funds as External Commercial Borrowings (ECB).
- Access to longer tenor funds from insurance companies and pension funds.
- Eligibility to borrow from India Infrastructure Financing Company Limited (IIFCL).
- National Trade Facilitation Action Plan - reflection of the Government's commitment to implement the Trade Facilitation Agreement (TFA)
- New Logistics Division in the Ministry of Commerce and Industry (Bibek Debroy committee recommendation).
- E-way bill – reduced truck turnaround time by 20%.
- India has signed International Conventions:
  - **UN TIR convention (***Customs Convention on International Transport of Goods)*
  - **TFA of WTO has been ratified** which aims to simplify custom procedure.
- **LEADS Index** by Ministry of Commerce & Industry
- Infrastructure creation Bharatmala, Sagarmala, BBIN (*framework MVA)*
- Logistics park - Ministry of Road Transport and Highways (MoRTH) is developing multi-modal logistics parks at selected locations in the country under its **Logistics Efficiency Enhancement Program (LEEP)**
- Relaxed FDI norms.
- GST has eased cross border movement of goods.

WAY FORWARD

- Driving logistics cost as a % of GDP down from estimated current levels of 13-14% to 10% in line with best-in-class global standards and incentivize the sector to become more efficient by promoting integrated development of logistics
- Optimizing the current modal mix (road-60%, rail-31%, water-9%) in line with international benchmarks (25-30% share of road, 50-55% share of railways, 20-25% share of waterways)
- Enhancing efficiency across the logistics value chain through increased digitization and technology adoption such as Blockchain, Bigdata, and AI etc.
- Ensuring standardization in logistics (warehousing, packaging, 3PL players, freight forwarders)
- Creating a National Logistics e-marketplace as a one stop marketplace. It will involve simplification of documentation for exports/imports and drive transparency through digitization of processes involving Customs, PGAs etc. in regulatory, certification and compliance services
- Improve India's ranking in the Logistics Performance Index to between 25 to 30
- Strengthening the warehousing sector in India by improving the quality of storage infrastructure including specialized warehouses across the country
- Set up Multi Modal Logistics Park Authority (MMLPA)

19. ELECTRIC MOBILITY

NEED TO PUSH FOR ELECTRIC MOBILITY

Climatic change: India has committed to cutting its GHG emissions intensity by 33% to 35% below 2005 levels by 2030

Advances in renewable energy and battery technology: Lower cost of clean, low-carbon energy with higher energy densities, faster charging and long-lasting batteries.

Rapid urbanization: According to a study by WHO, India is home to 14 out of 20 most polluted cities in the world. Electric vehicles (EVs) can improve that scenario by reducing local concentrations of pollutants in cities.

Data capture and analysis: Mobility has undergone a digital revolution. This has created possibility of a greater utilization of existing transportation assets to move towards electric mobility.

Opportunities through Improved battery technology: Advances in battery technology have led to higher energy densities, faster charging and reduced battery degradation from charging.

Energy security: EV's will facilitate lower reliance on fossil fuel imports and at the same time reduce India's Current account Deficit (CAD).

Lower Maintenance of Electric Vehicles due to a smaller number of moving parts.

NITI Aayog in its report has highlighted that making India's passenger mobility shared, electric and connected can cut its energy demand by 64% and carbon emissions by 37%. This roughly translates into savings of Rs 3.9 lakh crores by 2030.

INITIATIVES TAKEN FOR ELECTRIC MOBILITY

National Electric Mobility Mission Plan 2020: Aims to have 6-7 Million Electric Vehicles by the end of 2020. Implemented by Ministry of Heavy Industries and Public Enterprises.

National Council for Electric Mobility: Inter-Ministerial team headed by Minister of Heavy Industries to approve Electric Mobility Plans.

National Board for Electric Mobility: Inter-Secretarial team headed by Secretary, Department of Heavy Industries to recommend Policies for adoption of Electric Vehicles.

FAME Scheme (Phase II): Demand Incentive and Charging Infrastructure.

CHALLENGES IN ADOPTION OF ELECTRIC VEHICLES

Despite these initiatives, share of Electric vehicles in India has remained below 1%. This is quite low as compared to countries such as Norway where the share of electric vehicles is as high as 40%. Similarly, last year, China alone accounted for more than half of the global sale of Electric Vehicles. Some of the constraints and Challenges are:

- **Higher Dependence on Raw Materials:** India does not have enough reserves of rare earth minerals such as Lithium, Cobalt etc. which are required for manufacturing batteries. Most of these minerals are imported from countries such as China.
- **Poor Charging Infrastructure:** Once fully charged, the Electric Vehicles can run for an average maximum distance of around 250 km. Hence, unless the charging infrastructure improves, the demand for electric vehicles would remain lower.
- **Higher Capital costs** of Electric vehicles in comparison to conventional vehicles.
- **Lower efficiency of Electric vehicles** in terms of average speed and distance travelled.
- **Energy Insecurity:** Fossil fuels account for almost 65% of electricity needs in India. Hence, higher demand for electricity to charge electric vehicles could lead to increased demand for fossil fuels.
- **Lack of skilled manpower** for manufacture of Electric and hybrid vehicles.

STEPS TO PROMOTE ELECTRIC VEHICLES

- **Revisiting FAME Scheme:** Provide higher incentive for two-wheelers instead of four wheelers.

- **Promote Battery Swapping**
- **Retrofitting Existing Vehicle Fleet** by enabling them to act as Hybrid Vehicles (both Petrol/Diesel and Electric).
- **Ensuring availability of critical and strategic minerals** such as Lithium, Cobalt etc. by acquiring mines overseas. Setting up of Khanij Bidesh India Ltd. (KABIL) to ensure mineral security is a step in right direction.
- **Providing charging infrastructure**
- **Import Duty and Make in India:** Components such as batteries, drivetrains etc. should have lower customs duty as compared to finished Electric cars.
- **GST rates** should favour commercial vehicles in comparison to private vehicles.
- **Invest in Research & Development** in new approaches and technologies such as hydrogen fuel-cells, new battery-chemistries (with higher specific energy and energy densities) etc. Appropriate guidelines must be laid down for provide for tax exemption and utilisation of CSR Funds.
- **Added thrust on Renewable energy projects** such as Solar, Wind etc. for charging of Electric Vehicles and to ensure energy security.
- **Explore innovative incentives** to promote Electric Vehicles such as Doing away with Road Tax and Registration charges, free toll, free parking, dedicated parking spaces in offices and residential buildings etc.

20. BATTERY SWAPPING POLICY

NITI Aayog has recently come out with Draft Policy on Battery Swapping.

BENEFITS OF BATTERY SWAPPING

Reduce cost of Electric Vehicles: Battery swapping policy would lead to decrease in initial cost of EVs and encourage more people to adopt electric mobility.

Reduce Maintenance Cost: Electric batteries can be recharged for only finite cycles. Beyond 4-5 years, older batteries would have to be replaced with the new ones. This can lead to higher maintenance costs. In case of Battery Swapping, Customers do not own batteries and hence this maintenance cost gets eliminated.

Address anxiety issues related to Charging and Range: Normally, people are reluctant to buy electric vehicles due to lower range (250-300 km) of electric vehicles and higher time taken for charging batteries. The introduction of Battery swapping would enable seamless travel without the need to worry much about range and charging.

PROBLEMS AND CHALLENGES

Demand-Supply Mismatch: Presently, we need one electric battery for one vehicle. However, with introduction of battery swapping, the number of batteries needed would increase.

Non-Removable batteries: Only few companies provide for removable batteries. If the batteries are in-built and cannot be removed, then battery cannot be swapped. For ex., in case of Ola e-scooter, batteries cannot be removed from the vehicles and hence drained batteries cannot be replaced with the recharged ones.

Lack of interoperability standards: If battery swapping policy has to be successful, batteries should be made interoperable across different manufacturers. For example, it should be possible for the batteries used in Ola e-scooters to be used in any other electric scooters such as Bounce infinity, Bajaj etc. Such interoperability standards would make it easier for the people to adopt electric mobility.

Higher GST rate on Electric Batteries: Presently, GST rate on stand-alone electric batteries is quite higher at 18% and hence higher tax rate can be a disincentive for the battery recharging stations.

Waste Management: At the end of battery lifespan, enormous amounts of electronic wastes such as cobalt, lithium, manganese oxide, nickel etc. get generated. Hence, there is a need to put in place efficient waste recycling programme aimed at optimum recovery and minimal destruction of environment.

NITI AAYOG'S DRAFT BATTERY SWAPPING POLICY

Interoperability standards: Battery swapping services will need to ensure interoperability between EVs and batteries for successful mainstreaming of battery swapping as an alternative. Accordingly, policy aims to lay down the interoperability standards.

Registration of vehicles with swappable batteries: Policy provides for easier registration of vehicles without electric batteries.

Unique Identification Number (UIN) to be assigned to electric batteries for their tracking and monitoring. Similarly, a UIN number will be assigned to each Battery Swapping Station.

Fiscal Support:

- Demand side incentives offered under FAME Scheme for EV purchase can be made available to EVs with swappable batteries.
- Subsidies may be given by the Centre to the entities setting up battery swapping stations.
- State Governments may provide additional capital subsidies for the setting up of battery swapping stations.

Rationalise GST Rates: GST council may recommend for the reduction in the GST rates on the electric batteries.

Re-use and Recycling Ecosystem: Policy aims to promote the re-use of swap batteries after their End-of-Life (EOL) and also fix the Extended Producer Responsibility (EPR).

Nodal agencies: Bureau of Energy Efficiency (BEE) will be responsible for implementation of battery swapping networks across the country. States and UTs are responsible for the implementation and governance of the battery swapping ecosystem. Appointed state nodal agencies (SNAs) for EV public charging infrastructure will facilitate the rollout of battery swapping.

21. ANALYSIS OF PPP

PPP refers to a contractual arrangement between a government or a government-owned entity on one side and a private sector entity on the other wherein private sector entity provides for public assets or public services.

NEED FOR PPP IN INDIA

- **Vision of $5 trillion Economy:** It is estimated that India would need to spend $4.5 trillion on infrastructure by 2030 to sustain its growth rate.
- **Boost Demand and Employment Creation**
- **Equitable risk allocation and mitigation**
- **Plugging the deficiency in infrastructure to cater to Increased Urbanisation**
- **Complementary roles and drivers**: Public sector is predominantly driven by ‘public good’, while private sector by ‘profit’. PPP projects allow both sectors to cooperate and enable both to meet their goals.

INITIATIVES TAKEN BY GOVERNMENT TO BOOST PPP

- **Viability Gap Funding (VGF) Scheme:** Aims at supporting infrastructure projects that are economically justified but may not be financially viable
- **India Infrastructure Project Development Fund (IIPDF):** funding to Central, State and local bodies to carry out various activities related to project development.
- **Public Private Partnership Appraisal Committee:** to streamline the procedure for approval of PPP projects
- **India Infrastructure Finance Company (IIFC):** Dedicated institution for financing infrastructure with focus on PPP projects.
- **National Infrastructure Investment Fund (NIIF):** Quasi-Sovereign Wealth Fund to provide financing to infrastructure projects.
- **Rupee denominated bonds or masala bonds** were launched to eliminate foreign exchange risk.
- RBI introduced **NBFCs (Infrastructure Finance Companies (IFCs))** to provide credit facilities to projects.
- **Setting up of Infrastructure Investment Trusts (InvITs)**

MODELS OF PPP IN INDIA

PPP arrangements are characterised by the identification of risks and their allocation among the parties to the arrangement. Based on the risk allocation, the various PPP models are designed.

Type of Risk ⇒ **Type of Model ⇓**	**Financing Risk**	**Revenue Risk**	**Maintenance Risk**
BOT Model	Private	Private	Private
EPC Model	Govt.	Govt	Govt
HAM Model	Govt, and Private	Govt.	Private

Build-own-operate Transfer (BOOT) Contracts	**Private partner has the responsibility for construction and operations. Ownership is with the private partner for the duration of the concession.**				
MODES	**Asset ownership during contract**	**PPP duration**	**Capital Investment by**	**Rote of Private Sector**	**Examples**
Build-own-operate-transfer (BOOT) or DBOOT	Private	Long (e.g., 20-30 yrs.)	Private	Design, Finance, construct, own, manage, maintain. Transfer	Used for development of Minor Ports
Build-own-operate (BOO)	Private	Perpetual	Private	Design, Finance, construct, own, manage, maintain	Not very common in India

Build-Ope Rate-Transfer (BOT) Contracts	Responsibility for construction and operations with the private partner while ownership is retained by the public sector.				
MODES	**Asset ownership during contract**	**PPP duration**	**Capital Investment by**	**Role of Private Sector**	**Examples**
Design-build-operate (DBO)	Public	Short-medium (e.g., 3-5 yrs)	Government	Design, construct, manage, maintain	Not very common in India
Build-operate-transfer (BOT)/ Design-Build-Finance-Operate-Transfer (DBFOT)	Public	Long (e.g., 20-30 Yrs)	Private	Design, finance, construct, manage, maintain, Transfer	Most common form. Used for Bus terminals. Highways, Expressways, Water supply etc.

EPC Model

Competitive Bidding
- Bidding for lump sum price support from Government
- Private sector which bids for lowest amount gets the contract

Role of Government
- Specify the timelines for completion of projects and other technical details
- Government takes care of all clearances including Land acquisition.
- Provides funding to private sector based upon specified stages of construction

Role of Private Sector
- Engineer (Design), Procure (Raw materials including labour), Construct the project.
- Complete the project as per the Timeline
- Avail Funding provided by Government
- Transfer the project to the Government upon completion

Benefits
- Ensures completion of project on time.
- Useful for constructing Roads which have poor financial viability due to lower traffic and hence may not attract private sector investment
- Reduces the Financial, Revenue and maintenance risk for private sector

Drawback
- Higher financial burden on Government
- Higher Risk for the Government.

Hybrid Annuity Model

Bidding Stage
- Bidding for the total project cost and maintenance of project for a certain duration
- Project awarded to the private sector which quotes the lowest amount

Funding Stage
- Government: 40% of the project cost paid in five equal instalments over a period
- Private Sector: 60% of the project cost through Equity and Debt

Construction
- Private sector to complete the project within timeline
- Project gets transferred to Government upon completion

Erection of Toll
- NHAI erects toll and collects user fees
  - Pays 60% of the project cost to the private sector along with Interest (payments at interval of 6 months)
  - Payment for Maintenance as decided in the contract
- Maintenance of Road by Private sector until completion of contract

CHALLENGES RELATED TO PPP

Challenges across the PPP lifecycle can be classified into:

Financing Issues:

- Financing issues, including aggressive bidding, underpricing of projects, and funding constraints (debt and equity).
- Project sponsors in PPP projects depend hugely on commercial banks for financing the debt portion of the project. The delay in infrastructure projects leads to increase in NPAs, which in turn leads to vicious cycle of lower credit to PPP projects.
- Project delays and aggressive bidding have resulted in poor recovery from the projects
- Delays in execution of projects lead to equity getting trapped in ongoing projects, thus not being available for newer projects.

Capacity and procedural challenges: lack of efficient project preparation activities, delay in land acquisition, delays in obtaining requisite approvals and clearances, and poor project monitoring activities.

Policy, regulatory and institutional gaps: Absence of regulators or multiplicity of regulators results in many issues and disputes being unresolved, leading to litigations and cases. This in turn leads to delays or cancellation of projects and results in cost escalation, thereby making the projects unviable.

STRATEGIES NEEDED TO IMPROVE FRAMEWORK OF PPPS- KELKAR COMMITTEE RECOMMENDATIONS

Revisiting PPPs

- PPP model requires the involvement of a private partner to leverage financing and improve operational efficiencies. Therefore, state owned enterprises or public sector undertakings should not be allowed to bid for PPP projects.
- PPPs should not be used by the government to evade its responsibility of service delivery to citizens.
- This model should be adopted only after checking its viability for a project, in terms of costs and risks. Further, PPP structures should not be adopted for very small projects, since the benefits are not commensurate with the costs.
- Currently, PPP contracts focus more on fiscal benefits. The focus should instead be on service delivery for citizens. Further, fiscal reporting practices and performance monitoring of PPPs should be improved.

Risk allocation and management

- PPP contracts should ensure optimal risk allocation across all stakeholders by ensuring that it is allocated to the entity that is best suited to manage the risk.
- A generic risk monitoring and evaluation framework should be developed covering all aspects of a project's lifecycle.
- Guidelines for risk allocation should be formulated.

Strengthening policy and governance

Some countries have a legal framework for PPPs in the form of PPP act/law/policy which clearly spells out the objectives, scope and implementing principles of the PPP program.

- Ministry of Finance may develop a national PPP policy document.
- Formulating a PPP law,
- Prevention of Corruption Act, 1988 should be amended to distinguish between genuine errors in decision making and acts of corruption by public servants.

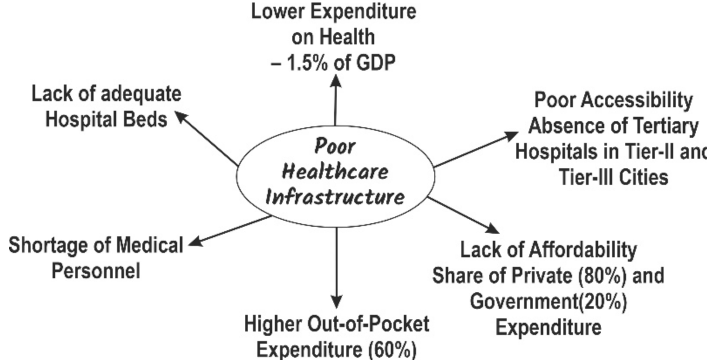
Strengthening institutional capacity

- Capacity of all stakeholders including regulators, authorities, consultants, financing agencies, etc. should be built up. A national level institution should be set up to support institutional capacity building activities and encouraging private investments about PPPs.
- Independent regulators must be set up in sectors that are going for PPPs.
- Infrastructure PPP Project Review Committee may be set up to evaluate PPP projects.
- Infrastructure PPP Adjudication Tribunal should also be constituted.

Strengthening contracts: Since infrastructure projects span over 20-30 years, a private developer may lose bargaining power because of abrupt changes in the economic or policy environment. The Committee recommended that the private sector must be protected against such loss of bargaining power. This could be ensured by amending the terms of the PPP contracts to allow for renegotiations.

22. PPP IN HEALTHCARE

The COVID-19 pandemic has exposed the deep-rooted flaws in our healthcare sector. Hence, there is a need to mobilise resources from both Public and Private sector through PPP to improve the health outcomes.



UN SDG-17 has highlighted that PPP can help in ensuring 4 As of Healthcare- Accessibility, Affordability, Availability and Awareness. PPP can be leveraged to transform healthcare sector in following ways:

Improving efficiency of hospital management by handing over the management of public hospitals to private partners with the responsibility for its up gradation. The Interest of the poor could be protected through reimbursement of the fees by the Government. This would have multiple benefits such as expansion of healthcare facilities, decrease in Government's burden and leveraging private sector's expertise in terms of human resources and equipment.

Addressing shortage of Medical Personnel by setting up new Medical Colleges in PPP Mode and linking them to existing district hospitals.

Reducing out-of-pocket expenditure by enabling poor people to get treatment in the private hospitals and reimbursing their costs.

Addressing Accessibility and Affordability by contracting out the management of the Primary Healthcare Centers (PHCs). PPP agreements can also be signed with the Private Laboratories to provide round-the-clock tests.

Ensuring Affordable Medicines through the expansion of Pradhan Mantri Bhartiya Janaushadhi Pariyojana (PMBJP)

PPP Investment in IT Infrastructure to provide Universal Health Coverage (UHC) based on recommendations of Srinath Reddy Committee.

Improving Preventive Care by engaging with NGOs for information dissemination and capacity building of ASHA workers.

Cross country experiences reveal that countries which have adopted PPP have much better healthcare infrastructure. Hence, recent crisis has to be turned into an opportunity to bring in structural changes by rejuvenating PPP.

23. HAM MODEL OF PPP

Presently, the Government uses different PPP Models such as BoT, EPC and HAM for construction of National Highways (NHs). However, HAM has emerged as a dominant model due to its inherent advantages over other models.

FEATURES OF PPP MODELS ARE AS SHOWN BELOW

PPP Model	Role of Private Sector	Role of Government	Risks
Build -Operate-Transfer (BoT)	Build, Finance, Construct, Maintain and Transfer	Minimal	Private Sector
Engineering Procurement Construction (EPC)	Design, Procure raw materials. Construct	• Funding • Land acquisition • Collect user fees and Maintenance	Government
HAM	• 60% Funding • Build and maintain	• Upfront Funding of 60% in Instalments. • Collect user fees and pay Private sector in form of annuities	Both

HAM combines features of BoT and EPC and hence emerged as preferred model due to following reasons:

Equitable Risk Sharing: Under BoT, the private sector faces considerable risk in form of delays in clearances, lower traffic, lower toll collection etc. While EPC leads to higher financial burden on the Government.

Lower Financial Burden on Government: 60% of the upfront project cost is provided by the private sector. Government's financial support is in the form of Installments.

Lower burden on Banks: Private sector financing in form of equity and debt and hence need for Bank loan reduces.

Timely completion of project due to active involvement of Government.

Proper Maintenance of NHs etc.

HAM model has great potential in boosting private sector Investment in other PPP projects such as metro rail projects and hence need to be explored.

24. SWISS CHALLENGE METHOD

Swiss Challenge method (SCM) is used for awarding PPP projects. Under SCM, an interested party initiates a proposal for a project. The government then invites proposals

from other parties. On the receipt of these bids, the original contractor gets an opportunity to match the best bid.

Private Sector Company "A" Identities a Particular project on its own (Let's say, Modernisation of Existing Railway Station or Construction of New National Highway)

Company "A" submits the detailed proposal to the Government with specifications including Financing and Technical requirements

Expert Committee of Government reviews the Proposal and okays it. Calls for open bidding from other Private Sector entities.

- Lets' say, Company "B" puts forward the best proposal to the Government.
- Company "A" would have "Right of Refusal" i.e., it can match up the bid put forward by Company "B" and win the contract.
- Else Contract awarded to Company "B".

SCM has been used for awarding PPP projects such as **Railway stations, Monorail project, Mumbai-Pune Hyperloop project** etc. SCM can provide a fillip to the **National Monetisation Pipeline** and address problems faced in PPP projects.

BENEFITS

- Provides Innovative solutions as projects are identified by the Private sector on their own.
- Ensure certainty of success as it has willing partner right from the start.
- Reduce Time and cost as pre-project studies are conducted in advance.
- Ensures greater cooperation between Government and private sector.
- Government can choose the best alternative among various options.
- Can be used for technologically advanced projects such as Hyperloop Transportation system.

Presently, there is lack of uniformity in state Governments' policies for using SCM. Hence, as highlighted by NITI Aayog, there is a need for adoption of National Policy framework to implement SCM in a standardised manner.

11 CHAPTER FOOD PROCESSING INDUSTRIES

TOPICS TO BE COVERED

1. *Food Processing Sector*

1. FOOD PROCESSING SECTOR

Food processing is a technique of manufacturing and preserving food substances in an effective manner with a view to enhance their shelf life; improve quality as well as make them functionally more useful. Food processing sector is a sunrise sector in India. It provides many positives prospects as well as face many challenges. Hereby discussing the prospect of this sector in India, challenges faced and steps needed.

IMPORTANT DRIVERS

- India is the world's second–largest producer of fruits and vegetables.
- India has second largest production of marine products, and meat and poultry
- India is the single largest producer of milk in the world, with the production estimated at 137.7 MT.
- India has the largest livestock population across the globe, which is equal to 512 million, including 119 million milch (in-milk and dry) animals, 135 million goats and 65 million sheep.
- The segment contributes about 25 per cent to the country's farm Gross Domestic Product (GDP).

PROSPECTS OF FOOD PROCESSING IN INDIA

- Strong demand growth
  - Demand for processed food rising with growing disposable income, urbanisation, young population and nuclear families
  - Household consumption set to double by 2020
  - Changing lifestyle and increasing expenditure on health and nutritional foods
- Food processing hub
  - India benefits from a large agriculture sector, abundant livestock, and cost competitiveness
  - Investment opportunities to arise in agriculture, food infrastructure, and contract farming
  - Diverse agro-climatic conditions encourage cultivation of different crops
- Increasing investments
  - Investments, including FDI, would rise with strengthening demand and supply fundamentals
  - Launch of infrastructure development schemes to increase investments in food processing infrastructure
- Policy support
  - Sops to private sector participation; 100 per cent FDI under automatic route.
  - Promoting rationalization of tariff and duties relating to food processing sector.

  - Setting up of National Mission on Food Processing

CHALLENGES AND STEPS NEEDED

- Poor quality of produce- not of processing standard.
- Lack of Integrated domestic market'
- Lack of quality standards and poor focus on good manufacturing practices
- Losses high among perishables such as fruits and vegetables
  - Crop losses ranged between 7-16% among fruits and around 5% among cereals in 2015.
  - Perishables such as fruits and vegetables are more prone to losses as compared to cereals. Such crop losses can occur during operations such as harvesting, thrashing, grading, drying, packaging, transportation, and storage depending upon the commodity.
- **Inadequate food processing infrastructure:** forced to sell their produce soon after harvest, irrespective of the prevailing market situations.
- **Cold chain infrastructure** needs to be coupled with logistical support to facilitate smooth transfer of harvested value from farms to distant locations.
- **Transport Facilities:** Committee on Doubling Farmers Income had recommended that railways needs to upgrade its logistics to facilitate the transport of fresh produce directly to export hubs. This includes creation of adjoining facilities for loading and unloading, and distribution to road transport.

MEGA FOOD PARKS

The Mega Food Parks scheme was launched in 2008. It seeks to facilitate setting up of food processing units. As of March 2018, out of the 42 projects approved, 10 were operational.

The Standing Committee on Agriculture noted certain reasons for delay in implementation of projects under the scheme. These include: (i) difficulty in getting loans from banks for the project, (ii) delay in obtaining clearances from the state governments and agencies for roads, power, and water at the project site, (iii) lack of special incentives for setting up food processing units in Mega Food Parks, and (iv) unwillingness of the co-promoters in contributing their share of equity.

Further, the Standing Committee stated that as the scheme requires a minimum area of 50 acres, it does not to promote smaller or individual food processing and preservation units. It recommended that smaller agro-processing clusters near production areas must be promoted.

The Committee on Doubling Farmers Income recommended establishment of processing and value addition units at strategic places. This includes rural or production areas for pulses, millets, fruits, vegetables, dairy, fisheries, and poultry in public private-partnership mode.

Role of E-commerce in improving supply chain management

E-commerce helps in:

1. Reducing the distribution and transactions costs.
2. Increasing the speed of product development.
3. Providing more information for buyers and sellers.
4. Increasing the options of customer and their access to suppliers.
5. Reducing the time intervals.

12 CHAPTER PLANNING IN INDIA

TOPICS TO BE COVERED

1. *Evolution of Planning in India*
2. *Dismantling of Planning Commission*
3. *Relevance of Planning in Market Led Economy*

1. EVOLUTION OF PLANNING IN INDIA

India adopted Planning after its independence in order to promote holistic, comprehensive and integrated growth of the Indian Economy. The Planning Commission was set up on the 15th of March, 1950 through a Cabinet Resolution to formulate five year plan. The Planning Commission formulated twelve five year plans from 1950 to 2014.

FIVE YEAR PLAN	FOCUS/ OBJECTIVE
First FYP (1951-56)	• Influx of refugees, severe food shortage & mounting inflation confronted the country at the onset of the first five-year Plan • Focused on agriculture- Land Reforms and Irrigation Projects (Bhakra Nangal, Damodar Valley Corporation etc.); Community development Programme (1952) • Based on Harold- Domar Model
Second FYP (1956-61)	• Mahalanobis Plan Focussed on (a) rapid industrialization- heavy & basic industries (b) Import Substitution • Iron and Steel Plants set up with support of foreign technology at Rourkela, Durgapur and Bhilai • Industrial Policy 1956 was based on establishment of a socialistic pattern of society as the goal of economic policy.
Third FYP (1961-66)	• Objective: 'Self-reliant' and 'Self-generating' economy. Agriculture sector was given top priority. • Unsuccessful: Chinese aggression (1962), Indo-Pak war (1965), severe drought 1965-66 • Failure of Third Plan led to Devaluation of Rupee.
Three Annual Plans (1966-69)	• Failure of third Five year Plan led to the declaration of "Plan Holiday"; • Initiation of Green Revolution

Fourth Five Year Plan (1969-1974)	• Need for Identification and development of Backward Areas- Programmes such as Drought Prone Area Programme (DPAP), Desert Development Prog (DDP) etc. • Nationalisation of 14 Banks in 1969;
Fifth FYP (1974-78)	• Objective: 'Removal of poverty' (Garibi Hatao) and 'Attainment of self reliance' • Promulgation of emergency in 1975; Implementation of Prime Ministers 20 Point Programme • The plan was terminated in 1978 by the Janata Party.
Rolling Plans (1978-80)	• Two Sixth Plans: Rolling Plan by Janata Party (1978-80) and Sixth FYP by Indira Gandhi Government (1980-85) • Formulated by the Janata Party. Focused on Employment Creation
Sixth Five Year Plan (1980-85)	• Increase in national income, modernization of technology, ensuring continuous decrease in poverty and unemployment • Programmes: Integrated Rural Development Programme (IRDP), Training of Rural Youth for Self-employment (TRYSEM), National Rural Employment Programme (NREP) etc. • Nationalisation of 6 Banks
Seventh Five Year Plan (1985-1990)	• Focus on 'food, work & productivity' • Economy recorded 6% growth rate against the targeted 5% and thus struggled out of • The "Hindu Rate of Growth".
Eighth FYP (1992-97)	• Worsening Balance of Payment position, rising debt burden , widening budget deficits, recession in industry and inflation were the key issues during the launch of the plan. • Introduction of LPG Reforms

2. DISMANTLING OF PLANNING COMMISSION

Even though Planning Commission was able to fulfil its role and promote all round development of economy, it suffered from inherent problems:

More suited to Pre-1991 Era: Planning Commission was set up in 1950 under the socialistic model wherein the Government used to act as Planner, Financer and Implementer. The Government used to make plans, allocate finances for plans and then execute such plans. There was limited role of the private sector. However, the LPG reforms in 1991 required the private sector to play more proactive role of financer and implementer and hence Planning Commission was considered to be unsuitable for Post-1991 planning.

One Size Fits all approach in terms of Planning at the National level led to neglect of regional and local problems and needs. The role of the states was limited to approval of Five year plans.

Hurt Fiscal Federalism: The Planning Commission enjoyed the power to allocate finances to the states and hence it led to loss of States' financial and operational autonomy.

Overlapping Functions with Finance Commission: Both Planning Commission and Finance Commission used to transfer finances to the states. The Finance commission grants used to be untied grants, while the Grants given by the Planning commission used to be tied grants.

Limited role: The Planning commission focussed more on formulation of Five year plans and failed to undertake critical evaluation of Government schemes and policies. Hence, the policy making in India was reactive and a kind of "Fire Fighting" exercise.

Financial and Political clout enjoyed by the Planning Commission led to concentration of power and undermined the role of Finance Ministry.

DIFFERENCES BETWEEN PLANNING COMMISSION AND NITI AAYOG

CRITERIA	PLANNING COMMISSION	NITI AAYOG
Set up as	Non-Statutory body	Non-Statutory Body
Nature of Planning	Imperative Planning Five year plans	Indicative Planning 15-year Vision; 7 year Strategy; 3 Year Action Agenda
More suited to?	Pre-1991 Era	Post-1991 Era
Power to allocate finances?	Yes.	No.
Nature of Role played by Government	Planner, Financer and Implemented for example. Government plans construction of Highways (Planner), allocates money (Financer) and NHAI builds Highways (Implemented	Coordinator, Enabler and Facilitator For example, Government plans construction of Highways and then creates conducive ecosystem so that Private sector finances and builds highways.
Role of Private Sector	Limited	Enhanced role
Role of States	Limited to Approval of Five Year Plans	Participative planning and hence promotes cooperative Federalism
Acts as Think Tank?	No	Yes. Carries out critical review of Government schemes/Polictes/lnitiatives and tracks progress through indicators such as SDG India Index, Health Index etc.
Role Vis-a-vis Ministries	Top-down model	Collaborative and cooperative approach. For example, Aspirational Districts programme implemented by NITI Aayog ensures convergence of schemes implemented by different ministries.

3. RELEVANCE OF PLANNING IN MARKET LED ECONOMY

Some of the Economists highlight that Planning has no relevance in the market led economy as the Government role is considerably reduced. Without Government owned agencies, it becomes difficult to meet the targets set under the Plans. Hence, planning may have little meaning in the absence of adequate financial resources and agencies at the disposal of the Government to finance and implement plans.

However, Planning remains relevant even in market led economy. Only the nature of planning changes from "Imperative" to "Indicative Planning". Planning in the market led economy may fulfil the following roles:

Prescriptive Planning: Planning can lay down long term vision and be more pro-active. Planning can become "Fire-Proofing" exercise wherein future problems can be anticipated and accordingly strategies can be devised in the present times to counter such problems. Example: Strategies to become developed economy by 2047.

Redistributive Planning: Planning can be used to reduce existing inequalities and promote inclusive growth and development. For example, as a "Think Tank", NITI Aayog carries out critical review of Government schemes and policies, identifies gaps and suggest innovative approaches.

Attract Private Sector Investment: The share of Private sector Investment in Infrastructure continues to remain lower (30%) and hence planning can create conducive conditions for attracting private sector investment. For example, National Monetisation Pipeline is formulated by NITI Aayog and seeks to raise Rs 6 lakh crores over the next 4 years.

Promote Balanced Regional Development: Planning can focus on solving region-specific problems by bringing all the stakeholders together. Ex: NITI Forum for North East, Island Development Agency.

Ensure Convergence of schemes and policies at the ground level Ex: Aspirational Districts Programme.

Promote Cooperative and Competitive Federalism through initiatives such as SDG Index, Health Index, Composite Water Management Index etc.

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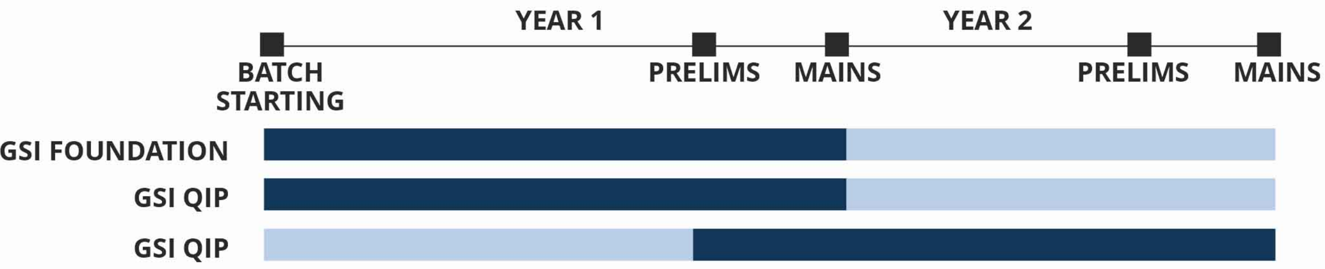

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