SRIRAM's IAS

GENERAL STUDIES

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General Studies
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CSAT
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INDIAN ECONOMY 2022

PART2

Chapter - 14
Banking System In India

Introduction

A bank is a type of financial intermediary as it mediates between the savers and borrowers. It does so by accepting deposits from the public and lending money to businesses and consumers. Its primary liabilities are deposits and primary assets are loans.

There are many types of banks in India. These are as follows:

1. Commercial banks
   - Domestic public sector banks
   - Domestic private sector banks
   - Foreign banks
   - Regional rural banks
   - Payments banks
   - Small finance banks
2. Co-operative banks
3. Land Development banks
4. Investment banks/Merchant banks
5. Development banks

Commercial banks and cooperative banks takes demand deposits, current account and savings account from people.

But the nature of cooperative banks is different. The customers are the owners of the Cooperative banks and it follows the cooperative principle of one person, one vote. The Cooperative banks are registered under the Cooperative Societies Act, 1912, and are regulated by the Reserve Bank of India under the Banking Regulation Act, 1949 and Banking Laws (Application to Cooperative Societies) Act, 1965.

Land Development Banks (LDA) were originally called Land Mortgage Banks. Presently, they are called State Co-operative Agriculture and Rural Development Banks (SCARDBs). They provide long-term finance required by the agriculturists for the purchase of agricultural machinery like tractors for land improvement, etc. Such a credit need is generally not met by commercial banks and co-operative banks because of their short-term deposits.
Investment banks deal with firms primarily, and so, they are called merchant banks (more in the Chapter on capital market).

Development banks provide long-term finance and support to the sectors of the economy where the risks may be higher and these sectors and subsectors cannot access loans from commercial banks adequately. Examples are Small Industries and Development Bank of India (SIDBI), MUDRA Bank or Micro Units Development and Refinance Agency Bank, National Housing Bank (NHB), etc. Except commercial and cooperative banks, no other bank mentioned above accepts demand deposits (chequable deposits, that is, deposits from where money can be withdrawn through cheques).

Commercial Banks

Commercial banks in India include:

1. Scheduled commercial banks
2. Non-scheduled commercial banks

Scheduled commercial banks are those which are included under the second Schedule of the Reserve Bank of India Act, 1934. They are regulated under the Banking Regulation Act, 1949, and satisfy two conditions under the Reserve Bank of India Act:

- Paid-up capital and reserves of an aggregate value of not less than ` 5 lakh.
- It must satisfy RBI that its affairs are not conducted in a manner detrimental to the depositors.

There are certain benefits that are enjoyed by the scheduled commercial banks like approaching RBI for financial assistance, and similarly they have certain obligations like maintaining certain reserves as per the RBI guidelines, and so on.

There are only three non-scheduled commercial banks operating in the country with a total of nine branches. Local Area Banks are the non-scheduled commercial banks in India.

Scheduled banks comprise both-scheduled commercial banks and scheduled co-operative banks.

India had 21 public sector banks that included the IDBI Bank till 2018. But Life Insurance Corporation (LIC) acquired 51 per cent, controlling stake in IDBI Bank and thus it falls in a different category now. In 2019, GOI decided to merge 10 public sector banks into 4 as part of plans to create fewer and stronger global-sized lenders to boost economic growth. The merger reduced the number of public sector banks to 12 and one state-owned Payments Bank in India. They are:

Public Sector Banks (2021)

1. State Bank of India
2. Punjab National Bank
3. Bank of Baroda
4. Canara Bank
5. Union Bank of India
6. Punjab & Sind Bank
7. Indian Bank
8. Bank of Maharashtra
9. Bank of India
10. Central Bank of India
11. Indian Overseas Bank
12. UCO Bank

Payments Bank (PB)

- India Post Payments Bank (IPPB) (Fully owned by Government)

Union Budget 2021-22 had proposed privatisation of two banks as part of its disinvestment plan.

Public sector banks hold over 70 per cent of total assets of the banking sector. Share of public sector banks in total deposits is about 75% per cent.

State Bank of India

State Bank of India had its roots in the 19th century, when the Bank of Calcutta later renamed as the Bank of Bengal, was established in 1806. The Bank of Bengal was one of three Presidency banks, the other two being the Bank of Bombay and the Bank of Madras. All three Presidency banks were amalgamated in 1921 and became the Imperial Bank of India. GOI nationalized the Imperial Bank of India in 1955 and the new bank was named as the State Bank of India.

There were seven regional banks of former Indian princely states. SBI acquired the con- trol of all seven banks in 1960. They were renamed, with the prefix 'State Bank of'. These seven banks were State Bank of Bikaner and Jaipur (SBBJ), State Bank of Hyderabad (SBH), State Bank of Indore (SBN), State Bank of Mysore (SBM), State Bank of Patiala (SBP), State Bank of Saurashtra (SBS) and State Bank of Travancore (SBT). All of them and Bharatiya Mahila Bank were merged with SBI with effect from 1 April 2017.

After the acquisition of subsidiary banks by the SBI, subsidiary banks have ceased to exist. Therefore, the parliament passed the State Banks (Repeal and Amendment) Act of 2017 to amend the SBI Act of 1955 to remove references related to subsidiary banks. It makes SBI one of the top 50 banks in the world.

The combined entity is expected to enhance the productivity, mitigate geographical risks, increase operational efficiency and drive synergies across multiple dimensions while ensuring increased customer satisfaction.

Post merger, the bank will rationalize its branch network by relocating some of the branches to maximise reach. This will help the bank optimise its operations and improve profitability. Integration of treasuries of the associate banks with the treasury of SBI will bring in substantial cost saving and synergy in treasury operations.

Bank Nationalization

The next major nationalization of banks took place in 1969 when the GOI nationalized an additional 14 major banks and again in 1980 GOI nationalized 6 banks. The objectives behind nationalization were:

- To break the ownership and control of banks by a few business families and thus to pre- vent the concentration of wealth and economic power.
- To make banks a part of socio-economic planning
- To extend banks to rural and unbanked areas.
- To mobilize savings from masses from all parts of the country.
- To cater to the needs of the priority sector, like weaker sections and poverty alleviation, agriculture, MSMEs, etc.
- Shift from class banking to mass banking.

50 Years of Bank Nationalization

Government nationalized the 14 largest commercial banks in 1969 accounting for 85 per cent of bank deposits in the country. A second round of nationalization of 6 more commercial banks followed in 1980.

The aims were:

- Use them for five-year plans
- Make Progress towards mass banking from class banking
- Lend to the poor
- Take banking to the unbanked areas
- Reduce inequality
- Reduce rural-urban gaps, etc.

It has achieved most of these goals and more:

- Reduction of regional imbalances
- Expansion of bank deposits
- Boost household savings
- Credit expansion
- Green revolution
- Expand the network of self-help groups
- Shield the banking system from global financial crisis as Indian public sector banks were not allowed to have high levels of foreign direct investment (FDI).

However, PSBs suffered some problems.

- Profitability
- Managerial inefficiency as working conditions are not comparable to the private banks.
- Lack of transparency in loan disbursal.

To improve the performance of PSBs, the following was done:

- Private banks have been allowed to create competition.
- FDI is being permitted.
- Bank consolidation is taking place (SBI).
- Technology is being upgraded.
- Banks are getting connected with differentiated Banks like Payments Banks and so on, and thus better results are expected.

Banking Sector Reforms from 1991

The banking sector occupied a central place in the economic reforms and structural reforms that India conducted from 1991. The need arose due to deteriorating bank performance that was visible in:

- Lack of profitability.
- High Statutory Liquidity Ratio (SLR) and Cash Reserve Ratio (CRR).
- No credit discipline as there were loan melas when loans were liberally given without any merit.
- Lack of competition as there were hardly any private domestic and foreign banks.
- Directed and concessional lending for populist reasons.
- Administered interest rates set by the RBI.

The reforms to set the above problems right were:

- Interest rates were deregulated to make banks respond dynamically to the market conditions. Even savings bank deposit rates were deregulated in 2011.
- Voluntary Retirement Scheme (VRS) for better work culture and productivity.
- Floor and cap on CRR were removed and floor on SLR was removed in 2006.
- Near level playing field for public, private and foreign banks in entry.
- Basel norms adopted for safe banking.
- FDI up to 74 per cent was permitted in private banks.
- Differentiated banking so as to cater to the unbanked and also leverage technology to reach the unreached–for the last mile access to the remotely located.
- Bank consolidation through merger.
- Indradhanush comprising banking sector reforms for professionalization and strength. The above reforms are meant to achieve the following objectives:
- To make banks competitive and profitable.
- To strengthen the sector to face global challenges.
- Sound and safe banking.
- To help banks technologically modernize for customer benefit.
- Make global expertise and capital available by relaxing FDI norms.
- Inclusive banking.

Narasimham Committee

Banking sector reforms in India were conducted on the basis of Narasimham Committee reports I and II (1991 and 1998 respectively), on the first report primarily.

The recommendations of Narasimham committee 1991 are:

- No more nationalization as we need to give confidence to domestic private and foreign investors.
- Create a level playing field between the public sector, private sector and foreign sector banks.
- Select few banks like SBI for global operations.
- Reduce Statutory Liquidity Ratio (SLR) and Cash Reserve Ratio (CRR) as that will leave more resources with banks for lending.
- Rationalize and better target priority sector lending as a sizeable portion of it is wasted and also much of it is turning into non-performing assets (NPAs).
- Introduce prudential norms for better risk management and transparency in operations.

- Deregulate interest rates.
- Set up Asset Reconstruction Company (ARC) that can take over some of the bad debts off the banks and financial institutions and restructure them on profitable lines.

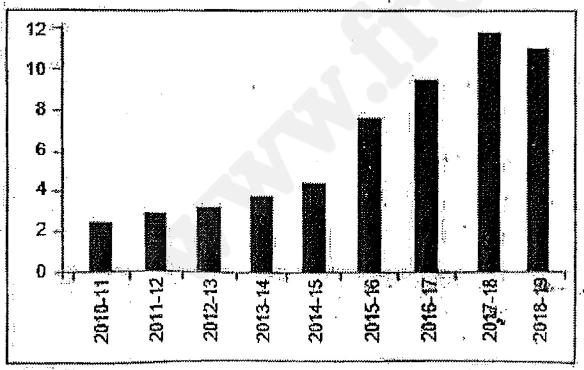
Most of these reforms are implemented:
- SLR and CRR are drastically reduced.
- Divestment in public sector banks led to their listing on the stock exchanges and their performance has improved.
- Private banks have been given licenses.
- SBI's associate banks have merged with SBI to scale up the operations.
- ARCs are functioning.

Substandard Assets or NPAs

When the borrower pays neither the interest nor the principal for a specified period of time, the loan is said to be non-performing. When a loan is classified as NPA, it goes through several phrases as the repayment gets delayed. If the borrower does not pay dues for 90 days, the loan becomes an NPA and it is termed as 'Special Mention Account'. While this loan remains SMA for a period less than or equal to 12 months, it is termed as Sub-Standard Asset.
A sub-standard asset requires a provision of 15 per cent on secured portion and 25 per cent on the unsecured exposure. After 12 months as sub-standard asset, it gets classified as Doubtful Asset 1(DA1) and requires a provision of 25 per cent on secured portion and 100 per cent on the unsecured portion.

Bank Loans: Good and Bad

All loans given by banks are classified as either standard or substandard loans.
Standard Assets: These are performing assets which are being serviced—repayment of principal at the interest rate that is agreed upon—as per the contract.



Data Source: RBI

Figure: Non-performing assets as a percentage of Gross Advances

Once the account crosses one year as DA1, it becomes Doubtful Asset 2 (DA2– 1 to 3 years) and requires a provision of 40 per cent on the secured portion and 100 per cent on the unsecured portion.

Once it crosses 3 years, it becomes Doubtful Asset 3 (DA3) and requires 100 per cent provision irrespective of the availability of security. In other words, it is a loss-making asset. Unsecured loans such as clean loans, educational loans attract 100 per cent provision even at DA1 stage.

Accounts classified as fraud need not go through all these stages and will require 100 per cent provision as soon as it is classified as NPA. Such provisions have to be made out of the profits thus, eroding the bottom line.

Stressed Assets

When an asset shows weakness and is likely to become an NPA, it is considered a stressed asset. RBI allows it to be prevented from becoming an NPA by restructuring, making terms of loan softer by rescheduling the repayment period, lower interest rate, pumping additional assistance, etc. They are classified as standard assets.
RBI mandated the banks to make additional disclosures regarding restructured loans, which includes the number of proposals received and the amount involved, etc.

Nearly 11 per cent of the total loans given by all the banks became bad loans by 2018. Over 90 per cent of these are of public sector banks. The figure is more if we include all troubled loans including restructured assets, written off loans and bad loans that are not yet recognized.

NPAs can occur for a variety of reasons:

- Bad lending practices
- Slowdown in economy
- Power distribution companies (discoms) could not repay due to government's populist policies of supplying power free or at a very concessional rate.
- Steel companies are running losses due to competition from imports.
- Infrastructure companies could not get clearances due to environmental reasons, natural calamities, business cycle.
- Wilful defaulters due to crony capitalism. High levels of NPAs means:
- Banks' profitability diminishes.
- Precious capital is locked up.
- Cost of borrowing will rise as lendable assets shrink.

- Stock prices of banks will go down and investors will lose.
- Investment in economy suffers.
- If banks have to close down, employees and depositors lose.
- Budget comes under pressure as bailouts have to be given. What is being done:
- provisioning
- Capital adequacy norms according to Basel 3
- SARFAESI Act
- ARCs
- foreclosure
- one-time settlement
- interest waiver
- write-offs/write-downs
- debt recovery tribunals
- IBC
- Banking Regulation Act 2017
- Recapitalization bonds

Corporate Debt Restructuring, Sustainable Structuring of Stressed Assets or S4A, Strategic Debt Restructuring were practised before the IBC came into effect in 2017 but were abolished by the RBI.
Foreclosure means closing the loan before the due date and takeover by the lender of the mortgaged property if the borrower does not conform to the terms of mortgage.

Securitization is converting the documents that are the basis for a loan into a security and selling it in the market.

SARFAESI Act

To expedite recovery of loans and bring down the non-performing asset level of the Indian banking and financial sector, the government in 2002 enacted a law called the Securitization and Reconstruction of Financial Assets and Enforcement of Security Interest Act 2002 (SARFAESI). It gave unprecedented powers to banks, financial institutions and asset reconstruction/securitization companies. The Act allows banks and other financial institutions to auction residential or commercial properties in order to recover pending loans. The banks are allowed to take possession of the collateral property and sell it without prior permission of court. The law allows the creation of asset reconstruction companies (ARCs) and enables banks to sell their non-performing assets to ARCs. In 2016, the law was amended to make the process more expeditious.

Asset Reconstruction Company (ARC)

Some Non-Performing Assets (NPAs) are revivable. These assets, if turned around, would not only create additional jobs but also contribute to the national output. However, timely interventions and right management are required to make them productive and profitable. ARCs are one solution.

RBI gives license for ARCs and regulates them. Narasimham Committee on Banking Sector recommend them to take the NPAs off the lender's books at a discount. RBI gives license for ARCs and regulates them.

ARCs under SARFAESI Act can buy NPAs from banks and other financial institutions with benefits like:
- Monetising the NPAs.
- Cleaning up the balance sheets of banks.
- Freeing the financial system to focus on their core activities.
- Facilitating development of market for distressed assets.

As per RBI, ARC performs the following functions:
- Acquisition of financial assets.
- Change or takeover of management
- Rescheduling of debts.
- Settlement of dues payable by the borrower.

GOI made various legislative and regulatory changes that created an enabling and supportive operational environment for ARCs and for takeover of stressed assets. These include 100 per cent for FDI in ARCs, etc. As a result, a number of new ARCs have come up.

If ARCs succeed, it could pave the way to a virtuous cycle of fresh investments, new jobs and additional demand.
Insolvency and Bankruptcy Code (IBC) 2016 provides opportunity for asset reconstruction companies.

Asset Quality Review (AQR)

Bank management is concerned with the quality of their loans since that provides earnings for the bank. They are reluctant to classify a loan as bad even if it is technically so. They may give further loans to the defaulting loanee so as to make him repay with the borrowed money because that will show the loan as standard in the balance sheet of the bank. It is a process called evergreening or window dressing. Banks resort to it also because, if a loan is classified as an NPA, banks have to set aside some of their own money as security against it. Such amounts cannot be lent and so burden the bank finances. However, in the medium and long term it will weaken the bank further. Therefore, special inspections were conducted by the RBI in 2015-16, in addition to the routine inspection, to ensure that the asset classification made by the banks is genuine. It is called Asset Quality Review (AQR). RBI conducted some more AQRs in the subsequent years. It revealed the actual extent of NPAs.

Prompt Corrective Action (PCA)

In general, RBI as the agency in charge of financial stability and banking has to prevent crises. Therefore, it adopted a prompt corrective action (PCA) framework which is invoked when certain risk thresholds are breached. The risks are related to asset quality, profitability, capital and levels of NPA. If the limits specified are crossed, RBI will instruct the banks to follow remedial measures.

Prompt Corrective Action norms allow the regulator (RBI) to place certain restrictions, such as halting branch expansion and stopping dividend payment on banks. The PCA can even cap the lending limit of a bank to one entity or sector. The other corrective actions that can be imposed on banks include special audit, restructuring operations and activation of recovery plan. Banks' promoters can be asked to bring in some new management policies too. The RBI has the right to supersede the bank's board under PCA.

The PCA framework is applicable only to the commercial banks, and is not extended to co-operative banks and non-banking financial companies (NBFCs).

Safety of Banks and Basel Norms

Banks lend to different types of borrowers and each has its own risk. They lend the deposits of public as well as money raised from the market–equity and debt. The intermediation activity exposes the bank to a variety of risks. Banks have to follow prudent practices to prevent bad loans and withstand bad loans. Therefore, banks are recommended to keep aside a certain percentage of capital as security against the risk of non-recovery.

Income must be recognized only when realized; assets must be classified and provisions must be made. Certain capital should be set aside from profits, equity and debt as security against risks. Thus, income recognition, asset classification, provisioning norms and capital adequacy are inter-related and aim at safe banking.

Prudential norms make the operations transparent, accountable and safe and serve two primary purposes: bring out the true position of a bank's loan portfolio and help in prevention of its deterioration.

Basel committee provided the norms called Basel norms to tackle a variety of risks that banks face.

Basel Norms

The Basel Accords—Basel I, Basel II and Basel III—are issued by the Basel Committee on Banking Supervision (BCBS). They are called the Basel Accords as the BCBS maintains its secretariat at the Bank for International Settlements (BIS) in Basel, Switzerland and the committee normally meets there.

Stress Tests

Banks are exposed to a variety of risks–market, credit, liquidity, etc., which need to be assessed continuously. Based on the assessment, banks can be prescribed certain rules to help them cope well. Its need was amply demonstrated when the great recession took place in 2008. A stress test is a simulation of a financial or economic crisis to determine the ability of a bank to deal with it. RBI undertakes such stress tests in India. The following tests are com- mon:

- If stock markets plunge.
- If rupee swings severely.
- If inflation gallops or deflation occurs.
- If growth crashes.
- If global commodity prices swing severely.

Prudential Norms

For the safety of banking operations, they need to follow prudential norms. Prudential norms re- late to:

- Income recognition
- Asset classification
- Provisioning for NPAS
- Capital adequacy norms (capital to risk- weighted asset ratio, CRAR).

The aim of the Basel Accords is to ensure that banks and other financial institutions have enough capital to meet their obligations to depositors and other stakeholders and absorb unexpected losses. Capital is basically:

- profits that accumulate as reserves,
- debt, and
- equity.

Basel I

In 1988, the Basel Committee on Banking Supervision (BCBS) published a set of minimum capital requirements for banks. These were known as Basel I. It focused almost entirely on credit risk (default risk).

Basel II

Basel II was introduced in 2004 focusing on more risks and remedies.

Basel III

It is a global, voluntary regulatory framework on bank capital adequacy, stress testing, etc. It was agreed upon in 2010–2011 and was introduced in 2013 to be adopted till 31 March 2019. But due to large scale NPAs and the coronavirus pandemic, the implementation of Basel-III norms for banking services has been deferred by a year till January 1, 2023.

It was developed in response to the deficiencies in financial regulation revealed by the financial crisis of 2007–2008. The major thrust area of Basel III is improvement of quantity and quality of capital of banks, with stronger supervision, risk management and disclosure standards.

Under Basel III norms, banks need to have a total capital adequacy ratio of 11.5 per cent against 9 per cent earlier.

Basel III has three pillars:
1. Pillar 1 is made up of risks.
2. Pillar 2 enlarges the role of banking supervisors.
3. Pillar 3 defines the standards and requirements for higher disclosure by banks on capital adequacy, asset quality and other risk management processes.

Basel III norms cover 3 risks—credit risk, market risk and operational risk.
Credit Risk: A bank faces the risk that some of its borrowers may not repay loan, interest or both. This risk is called credit risk, which varies from borrower to borrower depending on their credit quality. Basel III requires banks to accurately measure credit risk to hold sufficient capital to cover it.

Market Risk: As part of the statutory requirement, in the form of statutory liquidity ratio (SLR), banks are required to invest in liquid assets such as cash, gold, government and other approved securities. Some money of the banks is also invested in other assets like shares, real estate, etc. Such investments, except the government securities (which carry zero risk), are risky as prices fluctuate. It is known as the market risk, as the value of the investments depends on market forces.

Operational Risk: Operational risks include fraud, security, physical (e.g., infrastructure shutdown) or cyberattacks and digital threats.

Capital Adequacy Norms

To absorb the risks mentioned above, banks need to have adequate capital. It is set at a certain level as Capital Adequacy Ratio (CAR) which is the same as Capital to Risk (Weighted) Assets Ratio (CRAR). It is expressed as a percentage of a bank's risk weighted credit exposures. Historically, all businesses and consumers who borrow—agricultural, students, exporters, infrastructure-related, etc.—are calculated to have a certain quantified level of risk. Each sector carries its own level of risk depending on past performance. Government securities and cash carry zero risk. Its purpose is to protect depositors and promote stability and efficiency of financial systems around the world. RBI mandated the CAR at 9 per cent which is higher than the international norm of at least 8 per cent.

Under Basel III norms, a countercyclical capital buffer is prescribed: keep aside capital that can be used when the cycle turns down due to slowdown or recession and the loans may turn bad.

India and CAR

As per the RBI direction, the Basel III capital regulation is being implemented from 2013 in India in phases. As noted above, RBI laid down 9 per cent CAR. In addition, a capital conservation buffer of 2.5 per cent of the risk weighted assets is also necessary. Thus, in total, it is 11.5 per cent. The RBI's board in 2018 decided to ease capital pressure on banks by allowing them one more year, till March 31, 2020, to meet the Capital Conservation Buffer (CCB). This buffer aims to ensure that banks build up capital buffers during non-stress periods so that they can be drawn down when losses are incurred.

It is a challenge for Indian banks as:
1. They face lakhs of crores of NPAs.
2. Stock markets and debt markets are not in a position to lend them money for the capital requirements.
3. Their profits are dwindling due to the NPAs.
4. GOI is unable to infuse capital except to a very limited extent of recapitalization as it has its own fiscal challenges to meet.

Recapitalization

It has been in news since many years as PSBs are in need of capital to meet both the Basel III norms by 2019 and withstand the impact of NPAs. As NPAs increase, a certain capital needs to be kept aside to secure banking operations. Indradhanush in 2015 committed the government to recapitalization. For banks, like other corporate entities, equity and debt make up their capital in a certain ratio. Changing this ratio is called recapitalization. It can happen by infusion of fresh capital or conversion of debt into shares or vice versa.

In 2017, the GOI floated recap bonds to which PSB banks subscribed. PSBs bought recap bonds from GOI and GOI used the money to buy the shares of some PSBs so that they could use the equity capital to conform to CAR norms and lend their deposits.

Bonds fetch banks interest. Banks' health will improve as they can start lending with the higher amount of capital (Unless a bank has a certain amount of capital, it cannot lend the deposit money to businesses.). Share prices of the banks will rise. GOI will sell the shares at a higher price to redeem the bonds. Thus, it is a win-win solution.

GOI did it in the early 1990s when the PSBs saw a severe erosion in their profitability and capital base due to reckless lending in the preceding decade.

The advantages of the bonds are:

- The same money need not be raised by taxing the citizen.
- By borrowing directly from the banking system instead of the markets, the centre can avoid crowding out private borrowings.
- Banks find the investment in these bonds safe and they just need to divert the SLR excess investment.

But there are downsides too:

- It should not act as a moral hazard and banks should not lend without due diligence as they know the GOI will come to their rescue.
- Fiscal deficit calculation also matters.

It needs to he stressed that unless temporary relief is used to improve PSB governance based on some recommendations from PJ Nayak Committee and BBB, this policy may not make much of a long-term difference.

Bank for International Settlements (BIS)

The Bank for International Settlements (BIS) is an international financial institution owned by central banks which 'fosters international monetary and financial cooperation and serves as a bank for central banks'. It also provides banking services, but only to central banks and other international organizations. It is based in Basel, Switzerland. There are 60 member central banks or monetary authorities in the BIS, including India.

Write Off, Write Down and Haircut

Haircut in bank parlance is when an asset value is brought down as it cannot be realized in full. For example, a loan that is given may not be recovered fully or at all. The first case is one of write down and the latter is write off. Both are examples of haircut.

Insolvency and Bankruptcy Code 2016

Till Insolvency and Bankruptcy Code 2016 (IBC) came into effect, India did not have effective legal and institutional machinery for dealing with debt defaults. There were multiple laws and institutions in place. The recovery proceedings by the creditors, either through the Contract Act or through special laws, such as the Recovery of Debts due to Banks and Financial Institutions Act, 1993 and SARFAESI Act could not produce the desired outcomes. The Sick Industrial Companies (Special Provisions) Act, 1985 (SICA) and the winding up provisions of the Companies Act, 1956 were far from effective.

Laws dealing with individual insolvency—Presidency Towns Insolvency Act, 1909, Provincial Insolvency Act, 1920—were outdated.

IBC aims to consolidate the laws relating to insolvency into a single legislation and provide for their resolution in a time bound manner. This law thus aims to promote entrepreneurship, availability of credit and balance the interest of all stakeholders debtors, creditors, suppliers, employees, etc.

Highlights of the Code

Insolvency is a situation in which an individual/firm is unable to meet the financial obligations due to its creditors. In such a situation, he/it can file for bankruptcy. Bankruptcy is a legally declared status which says that an individual/firm cannot repay debts.

The 2016 Code seeks to speed up the process of resolution and do justice to stakeholders. The Code creates various institutions to facilitate resolution of insolvency. These are as follows:

- **Insolvency Professionals:** A specialised cadre of licensed professionals is created to ad- minister the resolution process, manage the assets of the debtor and provide information for creditors to assist them in decision-making.
- **Insolvency Professional Agencies:** These are the agencies where the insolvency professionals are registered. These agencies conduct examinations to certify insolvency professionals and enforce a code of conduct for their performance.
- **Information Utilities:** An Information Utility is a professional organization which is registered with IBBI that will collect financial information, get the same authenticated by other parties connected to the debt and store the same and, provide access to the Resolution Professionals, Creditors and other stake holders in the Insolvency Resolution Process, so that all stake holders can make decisions based on the same information. It can track serial

defaulters. It also helps creditors understand the financial profile of the debtors.

- **Adjudicating Authorities:** There are 2 adjudicating authorities—National Companies Law Tribunal (NCLT) for companies and the Debt Recovery Tribunal (DRT) for individuals and small firms. The duties of the authorities include approval to initiate the resolution process, appoint the insolvency professional and approve the final decision of creditors. The NCLT appoints an insolvency professional or 'Resolution Professional' to administer the insolvency resolution process. The primary function of resolution professional is to take control of the management of corporate borrower, and run its business as an ongoing concern under the broad directions of a committee of creditors. Therefore, the main emphasis of the Code is to allow a shift of control from the defaulting debtor's management to its creditors, where the creditors drive the business of the debtor with the Resolution Professional acting as their agent.
- **Insolvency and Bankruptcy Board:** The Insolvency and Bankruptcy Board regulates insolvency professionals, information utilities set up under the Code and insolvency professional agencies. The Board comprises representatives of RBI and the Ministries of Finance, Corporate Affairs and Law.

NCLT is a quasi-judicial authority created under the Companies Act, 2013. The decisions of NCLT can be challenged in NCLAT, Appellate Tribunal.

The Debt Recovery Tribunals were established to ease out the debt recovery process involving banks and other financial institutions after passing of Recovery of Debts Due to Banks and Financial Institutions Act (RDDBFI), 1993. Appeals against orders passed by DRTs lie before Debts Recovery Appellate Tribunal (DRAT).

Procedure and the Process

In case of individual defaulters and unlimited partnerships, the minimum amount required for attracting the insolvency code is `1000. The minimum default required to initiate the insolvency procedure for corporate debtors under the Code is `1,00,000.

Initiation: The Code makes a significant departure from the existing resolution regimen by shifting the responsibility on to the creditor to initiate the insolvency resolution process against the corporate debtor. Any corporate debtor who commits a default, a financial creditor (banks and bond-holders), an operational creditor (suppliers) or the corporate debtor or employees or shareholders may initiate the corporate insolvency resolution process.

The insolvency professional administers the process. The professional provides financial information regarding the debtor from the information utilities to the creditor and man- age the debtor's assets. The process lasts for around 180 days and any legal action against the debtor is not allowed during this period.

Decision to Resolve Insolvency: A committee is formed by the insolvency professionals consisting of the financial creditors who lent money to the debtor. The decision will be taken by the creditors committee regarding the future of the outstanding debt owed to them. They may choose to revive the debt by changing the repayment schedule or selling (liquidate) the assets of the debtor to recover the debts owed to them. A decision is to be taken in 180 days or a one-time extension of another 90 days is given. A total of 75 per cent of financial creditors have to consent to revival plans. Liquidation, selling the assets of the company, is another option. For firms with smaller operations, the code stipulates a fast-track insolvency resolution process, which will be completed within 90 days.

Liquidation and Waterfall: If the debtor goes into liquidation, an insolvency professional administers the liquidation process. Proceeds from the sale of the debtor's assets are distributed in the following order of precedence (waterfall)— i) insolvency resolution costs, including the remuneration to the insolvency professional, ii) secured creditors, whose loans are backed by collateral, dues to workers, other employees, iii) unsecured creditors, iv) dues to government, v) priority shareholders and vi) equity shareholders.

Workers' salaries for up to 24 months will get first priority in case of liquidation of assets of a company, ahead of secured creditors.

Significance of the Code
- More power to creditors
- Easier exit
- Speedier insolvency resolution
- Enhances ease of doing business
- Reduces bad loans
- India is a capital scarce country, and therefore, it is essential that capital is used productively. Quick resolution of bankruptcy can ensure this.

Even though DRTs and SARFAESI had time frames for settlement, they were caught up in litigation. It may not happen with the IBC because there is an elaborate infrastructure of IPs and IUs.

IBC stands out for the following reasons:
1. Single code
2. Time bound process
3. Elaborate institutional infrastructure
4. Deals not only with manufacturers as SICA did but all businesses

IBC dropped SICA completely and amended various other laws.

Banking Regulation (Amendment) Act 2017

It amended the Banking Regulation Act, 1949 to allow RBI to issue directions to banks for initiating recovery proceedings against loan defaulters under the recently enacted Insolvency and Bankruptcy Code, 2016 (IBC). RBI acted on these powers and directed banks to initiate recovery proceedings against many defaulters.

Three Years of IBC

1. Since the 3 years it was legislated, the Insolvency and Bankruptcy Code, 2016 (IBC) has made progress in meeting its goals: faster recovery of stressed assets and quicker resolution timelines.
2. Recovery through the IBC was ` 70,000 crore in fiscal year 2019 or twice the `35,500 crore recovered through other resolution mechanisms such as the Debt Recovery Tribunal, Securitization and Reconstruction of Financial Assets and Enforcement of Securities Interest Act, and Lok Adalat in fiscal year 2018.
3. IBC has shifted the balance of power to the creditor from the borrower.
4. It has instilled a significantly better sense of credit discipline. Today, there is a sense of urgency and seriousness among defaulting borrowers because losing their asset is very much a possibility if the resolution process fails.
5. Almost Rs 2.02 lakh crore of debt pertaining to 4,452 cases were disposed of even before admission into the IBC process, as the borrowers made good the amounts in default to the creditors. This shows a behavioural change. This gets reflected in the slower accretion of new non-performing assets (NPAs) in the Indian banking system.
   But there is a Debit Side Too

Resolution timelines are still an issue. While the average resolution timeline for cases resolved through IBC is 324 days, which is much better compared with 4.3 years earlier, it is still above the 270 days set out in the original code.
1. As on 2019, there were 1,143 cases outstanding under the IBC.
2. Limited number of information utilities.

To provide relief for entities impacted by the pandemic, the government has suspended fresh proceedings under the Insolvency and Bankruptcy Code (IBC) starting from March 25, when the nationwide lockdown was imposed to curb spreading of coronavirus infections. The suspension has been extended till 2021.

Twin Balance Sheet (TBS) Challenge

India's Twin Balance Sheet (TBS) problem—companies overborrowed and became distressed as their investments did not yield and so could not repay to the banks who thus became mired in NPAs. Thus, the balance sheets of both the borrowing companies and the lending banks are under pressure. The issue is important because it is holding up private investment in the country, and as a result, growth in all sectors. Many measures have been introduced by the government like IBC, recapitalization, etc.; but the problem still persists as it is a gigantic challenge. The suggestion of the Economic Survey 2016–2017 is that a dedicated body (special purpose vehicle) called Public Sector Asset Reconstruction Company (PARA) be formed to buy the biggest, most complex NPAs and then dispose of them.

Bad Bank

Public Sector Asset Rehabilitation Agency (PARA)

Economic Survey 2016–2017 proposed that Public Sector Asset Rehabilitation Agency (PARA) be set up to solve the NPA problem of PSBs. PARA is expected to be the special purpose vehicle (SPV) that will raise money by issuing government bonds with which it will buy the big bad loans of the PSBs. The proposal has advantages of relieving the banks of NPAs, settling the issue faster than when each bank has to settle independently, get a better bargain as there is only one buyer, etc. It is the 'bad bank' that the country has been debating for some years—an SPV that holds the bad loans of the PSBs.

P.J. Nayak Committee

It was set up by the RBI for suggestions on the governance issues of banks. It suggested that:

1. The government should reduce its holding in PSBs to below 50 per cent.
2. The process of board appointments in PSBs needs to be professionalized.
3. The fixed term of 5 years for the chairman/managing director of a bank and a term of 3 years for a whole-time director be introduced.

Union Budget 2021-22 and Bad Bank

Government in the Union Budget 2021-22 announced the setting up of bad bank to address the stressed assets of banks. The organization will be set up through an Asset Reconstruction Company (ARC) model.

Banks can transfer bad assets to this entity at a discount. Experts will then attempt for a resolution through a professional approach, while originating banks can focus on new business.

COVID-19 worsened the NPA problem. Freeing up banks from the burden of bad loans could help push credit growth.

In 2018, the government announced a plan for PSBs called 'Project Sashakt', which had a five-point plan for bad loan resolution in public sector banks including an independent Asset Management Company(AMC) would be set up to focus on asset turnaround, job creation and protection. The functions of this new company will be aligned with the Insolvency and Bankruptcy Code (IBC) process and IBC laws.

Bank Consolidation

The idea of bank mergers—consolidation—has been around since 1991 at least, when the former RBI governor M. Narasimham recommended that the government should merge banks with three large banks having an international presence at the top. In 2014, the P. J. Nayak panel suggested that the government either merge or privatize state-owned banks.

Consolidation is aimed at building scale, strengthening their risk-taking ability, operational efficiency, deal better with their credit portfolio, including stressed assets, prevent duplication of bank branches in the same area and strengthen banks to deal with shocks.

The government wants that this, along with measures such as capital infusions in weak banks, to cause a revival. The government is looking to reduce the number of state-run banks to 10–15 through mergers and acquisitions. In case of consolidation, GOI factors in balance sheet, integration of technology and people.
SBI has a merger of operations with five of its associate banks and Bharatiya Mahila Bank marking the first consolidation move in the sector following the bad loan crisis.

However, critics disagree about the benefits. The objections are that it is a tactical decision to address the NPA issues, and will thus cause damage in the long run. The employee rationalization is also worrying some people.

Indradhanush

To revive the NPA-burdened public sector banks, the government introduced in 2015 a seven-point plan called Indradhanush.

The Indradhanush strategy consists of:

- **Appointments in a Professional Manner:** Open PSBs to private sector professionals
- Banks Board Bureau
- Capitalization
- De-stressing public sector banks by consolidation
- Empowerment by government's non-interference
- **Framework of Accountability:** The government also announced a new framework of key performance indicators for state-run lenders to boost efficiency in functioning while assuring them of independence in decision making on purely commercial considerations.
- **Governance Reforms:** 'Gyan Sangam', a conclave of PSBs and FIs organized since 2015 as a retreat for banks and financial institutions to take forward the government's commitment to reforms in the banking and financial sector.

Banks Board Bureau

The Banks Board Bureau (BBB) is an autonomous body, responsible for: (i) making recommendations on appointments of heads of public sector banks and financial institutions (ii) helping banks with developing strategies and raising capital and (iii) recommendations on PSB consolidation.

A committee set up by the RBI to review the governance of bank boards, headed by P.J. Nayak, in 2014 had suggested the formation of the bureau. BBB aims to prepare the PSBs to take on competition and manage risk across business cycles. BBB helps Banks professionalize the appointment process. It engages with the PSBs to help build capacity to attract, retain and nurture both talent and technology.

Differentiated Banking

It means there are different types of banks with different aims, clients and modes of working. Banking sector catering to different segments—general public, firms and companies, farmers, rural, microfinance, MSMEs, etc.—offering specialised services and unique products is crucial for economic growth and financial inclusion.

There has been movement towards differentiated banking in the country. We had cooperative banks, RRBs, development banks like IDBI for a long time. The current wave of differentiated banking started with the Nachiket Mor Committee in 2013.

Differentiated banks are distinct from universal banks (offer all financial products) as they function in a specific segment. The differentiation may be based on capital requirement, scope of activities or area of operations. They offer a limited range of services/products or function under a different regulatory framework.

RBI in recent years pursued it to widen sources of funding in the economy. For example, RBI, since 2014, gave in-principle approval to small finance banks (SFBs) and payments banks. Wholesale and long-term finance (WLTF) banks are under discussion. WLTF banks will focus primarily on lending to infrastructure sector and small, medium and corporate businesses. They may have negligible retail sector exposure on asset side.

Small Finance Banks (SFBs)

Small finance banks are scheduled commercial banks that are a part of differentiated banking in India focused on lending for financial inclusion to small business units, small and marginal farmers, micro and small industries and unorganized sector entities, but not exclusively so.

They can be promoted either by individuals, corporates, trusts or societies. They are established as public limited companies in the private sector under the Companies Act, 1956, licensed under the Banking Regulation Act, 1949 and are governed by the provisions of RBI Act, 1934, Banking Regulation Act, 1949 and other relevant statutes.

SFB is a private financial institution that can operate without any restriction in the area unlike regional rural banks (RRBs) or local area banks. The minimum capital for SFBs is prescribed at `100 crores. Foreign investment is permitted, as in the case of other private sector commercial banks. SFBs are subject to all prudential norms and regulations of RBI as applicable to existing commercial banks like maintenance of cash reserve ratio (CRR) and statutory liquidity ratio (SLR). SFBs are required to extend 75 per cent of credit to the sectors eligible for classification as priority sector lending (PSL) by the Reserve Bank. At least 50 per cent of its loan portfolio should constitute loans and advances of upto `25 lakhs. It is mandatory that at least 25 per cent of its branches be in unbanked rural centres.

SFBs can undertake other non-risk sharing financial services activities, not requiring any commitment of own fund, such as distribution of mutual fund units, insurance products, pension products, etc. SFBs can set up dealership in foreign exchange business. SFBs cannot set up subsidiaries to undertake non-banking financial services activities.

There will not be any restriction in the area of operations of small finance banks; how- ever, preference will be given to those applicants, who, in the initial phase set up the bank in a cluster of under-banked states/districts.

Existing non-banking finance companies (NBFCs), micro finance institutions (MFIs), and local area banks (LABs) can opt for conversion into small finance banks. In 2019, RBI announced the process of `on tap' licensing of Small Finance Banks. 'On-tap' facility allows the RBI to accept applications and grant license for SFBs throughout the year.

The concept of small finance banks was one of the recommendations in the 2009 report, 'A Hundred Small Steps' of the Committee on Financial Sector Reforms headed by Dr. Raghu Ram Rajan. Many SFBs started operations.

Payments Bank

In 2013, Committee on Comprehensive Financial Services for Small Businesses and Low Income Households, headed by Nachiket Mor, recommended that payments banks be allowed. They are a new type of bank that can accept a limited amount as deposit, which is currently limited to `1 lakh per customer.

The payments bank is set up as a differentiated bank. Payments bank is permitted to undertake only certain restricted activities permitted to banks under the Banking Regulation Act, 1949 as given below:

- Acceptance of demand deposits, i.e., current deposits, and savings bank deposits is permitted.
- No NRI deposits should be accepted.
- The eligible deposits mobilised by the payments bank would be covered under the deposit insurance scheme of the Deposit Insurance and Credit Guarantee Corporation of India (DICGC). Given their primary role is providing payments and remittance services and demand deposit products to small businesses and low-income households, payments bank will initially be restricted to holding a maximum balance of `1,00,000 per individual customer. However, payments bank can accept a large pool of money to be remitted to a number of accounts provided at the end of the day the balance does not exceed `1,00,000. Money deposited in the bank gets interest.
- Cannot accept fixed deposits (FDs), term deposits and recurring deposits (RDs)..

- Cannot undertake lending activities.
- Allowed issuance of ATM / Debit Cards. Payments banks, however, cannot issue credit cards.
- Apart from amounts maintained as Cash Reserve Ratio (CRR) with RBI, it will be required to invest minimum 75 per cent of its deposits in government securities/ treasury bills with maturity up to one year that are recognized by RBI as eligible securities for maintenance of Statutory Liquidity Ratio (SLR) and hold maximum 25 per cent in current and time/fixed deposits with other scheduled commercial banks for operational purposes and liquidity management.
- Since payments banks are exposed to operational risks (not credit or market risk), they have to conform to capital adequacy ratio (CAR) norms which are different from banks.
- They are permitted to handle cross-border remittance transactions.
- They can provide mutual funds and other financial products, net-banking and mobile banking.

The bank should be fully networked from the beginning. The bank can accept utility bills. It cannot form subsidiaries to undertake non-banking activities. A total of 25 per cent of its branches must be in the unbanked rural area. The banks are licensed as payments banks under Banking Regulation Act, 1949, and will be registered as public limited company under the Companies Act, 2013. The minimum capital requirement is `100 crores.

Objectives of Payments Banks

Financial inclusion and timely remittances are the need of the hour. Macroeconomic benefits for the region receiving them as well as micro-economic benefits for the recipients serve to boost consumption and investment. Higher transaction costs of making remittances diminish these benefits. Therefore, the primary objective of setting up of payments banks is to advance financial inclusion by providing:

- small savings accounts, and
- remittance services to migrant labour, low income households, small businesses, other unorganized sector entities and other users, by enabling high-volume, low-value transactions in deposits and payments in a secured technology-driven environment.

India Post Payments Bank (IPPB)

In 2014, a task force was formed by GOI to study ways in which the existing postal network could be used more, headed by T.S.R. Subramanian. It said that more services should be provided in the field of banking, insurance and e-commerce.

India Post Payments Bank (IPPB) is a public limited company under the Department of Posts, Ministry of Communications, with 100 per cent government equity.

It aims to utilize all of India's 1,55,000 post offices and 3,00,000 postal service workers to provide house to house banking services. The first phase of the bank with 650 branches and 3250 post offices as access points was inaugurated in 2018.
A total of 90 per cent of post offices are in rural areas. There is one post office for every 7200 people in India. Crores of people already receive their National Rural Employment Guarantee Act (NREGA) payments by post offices. After State Bank of India, India Post has the largest deposits.

The four key features of IPPB are:

1. **Financial Literacy:** IPPB aims to make India prosperous by ensuring that everyone has equal access to financial information and services.
2. **Streamlining Payments:** Beneficiaries can access income from government's DBT programs like MNREGA wages, social security pensions and scholarships, directly from their IPPB bank account. They can also pay their utility bills, fees for educational institutions and many more from the same IPPB account.
3. **Financial Inclusion:** Hundreds of millions of Indians who do not have access to banking facilities cannot avail government benefits, loans and insurance, and even interest on savings. IPPB will reach the unbanked and the under-banked across all cross-sections of society and geographies.
4. Easy Access: With over 1.54 lakhs post offices across the country, postal delivery sys- tem will make IPPB an accessible banking network. IPPB also offers services through internet and mobile banking and prepaid instruments like mobile wallets, debit cards, ATMs, PoS and MPoS terminals, etc.

Regional Rural Banks (RRBs)

RRBs were set up by Regional Rural Banks Act, 1976. They are Scheduled Commercial Banks (government banks) operating at regional level in different states of India. They have been created with the view to serve primarily the rural areas of India with basic banking and financial services. However, RRBs may have branches set up for semi-urban operations and their area of operation may include urban areas too.

The area of operation of RRBs is limited to the areas notified by GOI, covering one or more districts in the state. The area of functioning of RRBs is decided by central government in consultation with NABARD and the Sponsor Banks.

RRBs are different from commercial banks: RRBs are commercial banks but are differentiated to be limited in area of operation; the financial products they can offer and the clients they can cater to. Both have SLR and CRR and Basel obligations.

RRBs perform various functions in following heads:

- Providing banking facilities to rural and semi-urban areas.
- Carrying out government operations like disbursement of wages of MGNREGA workers, distribution of pensions, etc.
- Providing para-banking facilities like debit and credit cards, mobile banking, internet banking, UPI, etc.

The Regional Rural Banks are owned by Central Government, State Government and the Sponsor Bank (any commercial bank can sponsor the regional rural banks) who hold shares in the ratio of 50 :15 :35 respectively. By the beginning of 2021, there are 43 RRBs in the country with 22,000 branches of these banks.

State Bank of India is the biggest sponsor. Government wants to consolidate them into much fewer number so that they can enjoy the benefit of economies of scale. An RRB can function within a single state.

Consolidation/Amalgamation of RRBs within a state has been carried out with the view to enable RRBs:

1. to minimise their overhead expenses,
2. optimise the use of technology,
3. enhance the capital base and area of operation, and
4. increase their exposure.

RRB Act, 1976 was amended in 2015, whereby such banks were permitted to raise capital by floating shares to wider public. Thus, it allows the government equity stake dilution but the ownership and control would remain with the government as its equity will not come down below 51%.

Budget 2019–2020 provided `235 crore towards the recapitalization of RRBs. Recapitalization support is provided to RRBs to augment their capital so as to comply with regulatory capital requirements.

MUDRA Bank

Pradhan Mantri Mudra Yojana (PMMY) is a scheme to extend collateral free loans by Banks, Non-Banking Financial Companies (NBFCs) and Micro Finance Institutions (MFIs) to small/micro business enterprises and individuals in the non-agricultural sector to enable them to set up or expand their business activities and generate self-employment. While launching PMMY, Mudra Bank was also launched.

Micro Units Development and Refinance Agency Ltd. (MUDRA) is an NBFC supporting development of micro enterprise sector in the country. MUDRA is a wholly-owned subsidiary of Small Industries Development bank of India (SIDBI) with 100 per cent capital contributed by it. Presently, the authorized capital of MUDRA is `1000 crores and paid up capital is `750 crores, fully subscribed by SIDBI.

This agency would be responsible for developing and refinancing all micro enterprise sector by supporting the financial institutions which are in the business of lending to micro/ small business entities engaged in manufacturing, trading and service activities. MUDRA would partner with banks, MFIs and other lending institutions at state level/regional level to provide micro finance support to the micro enterprise sector in the country.

GOI decided that MUDRA will provide refinance support, monitor the PMMY data by managing the web portal and facilitate offering guarantees for loans granted under PMMY.

It aims to provide funding to the non-corporate small business sector. MUDRA is conceived not only as a refinance institution but also as a regulator for the micro finance institutions (MFIs).

The MUDRA bank is primarily responsible for:

- Laying down policy guidelines for micro/small enterprise financing business.
- Registration and regulation of MFI entities
- Accreditation/rating of MFI entities
- Promoting right technology solutions for the last mile.
- Formulating and running a credit guarantee scheme for providing guarantees to the loans which are being extended to micro enterprises.
- Creating a good architecture of Last Mile Credit Delivery to micro businesses under the scheme of Pradhan Mantri Mudra Yojana.

Union Budget 2015–2016 proposed creating MUDRA with a corpus of `20,000 crores made available from the shortfalls of priority sector lending. There is a credit guarantee corpus of `3,000 crores for guaranteeing loans being provided to micro enterprises.

MUDRA Bank operates through financing institutions, which, in turn, connect with last mile lenders such as Micro Finance Institutions (MFIs), Primary Credit Cooperative Societies, Self-Help Groups (SHGs), NBFC (other than MFI) and such other lending institutions.

In lending, MUDRA gives priority to enterprises set up by the under-privileged sections of the society particularly those from the scheduled caste/tribe (SC/ST) groups, first generation entrepreneurs and existing small businesses. Micro finance is an economic development tool whose objective is to provide income generating opportunities to the people at the bottom of the pyramid. It covers a range of services which include, in addition to the provision of credit, many other credit plus services, financial literacy and other social support services.

Thus, the financial resources of MUDRA come from priority sector shortfalls; capital provided by the parent SIDBI; and its own earnings, if any.

FDI In Banks

FDI in Indian banks is allowed. In PSBs, 20 per cent of FDI is allowed and in private banks it is 74 per cent–up to 49 per cent is automatic and beyond that it is on approval basis. However, voting rights are capped in national interest at 10 per cent.

Foreign Banks: Subsidiary Vs Branch

Indian Government allows foreign banks to operate by registering as a branch office or by incorporating a subsidiary. A branch office is considered an extension of the parent company and is not considered an independent legal entity. The assets and liabilities of branch offices are considered merged with the parent office. Subsidiary has a separate legal status; there is Indian investment. It has to have a separate management in India. Any losses incurred by the parent cannot be offset by subsidiary's assets. This arrangement protects Indian capital and operations from external economic shocks as such outfits follow local guidelines. It can raise capital from Indian share market as a separate entity. RBI is encouraging foreign banks to become subsidiaries. At present, most foreign banks operate as branches or representative offices of the parent.

Development Banks

Development banks are financial institutions which provide long-term capital for industries and agriculture: Industrial Finance Corporation of India (IFCI); Industrial Development Bank of India (IDBI) which became a universal bank, IDBI Bank, Industrial Credit and Investment Corporation of India (ICICI) that was merged with ICICI Bank in 2000, Indus- trial Investment Bank of India (IIBI), Small Industries Development Bank of India (SIDBI), National Bank for Agriculture and Rural Development (NABARD), Export Import Bank of India, National Housing Bank (NHB).

The commercial banking network addressed the needs of general banking mainly and for meeting the short-term working capital requirements of industry and agriculture. Specialized development financial institutions (DFIs) such as the IDBI, NABARD, NHB and SIDBI, etc., were set up to meet the long-term financing requirements of industry and agriculture. To facilitate the growth of these institutions, a mechanism to provide concessional financing to these institutions was also put in place by the Reserve Bank.

The first development bank in India, IFCI, was incorporated immediately after Independence in 1948 under the Industrial Finance Corporation Act as a statutory corporation to pioneer institutional credit to medium and large-scale. New and different development financial institutions were set up by GOI.
The S.H. Khan committee appointed by RBI (1997) recommended transforming the development finance institution (DFI) into universal banks that can provide a menu of financial services and leverage on their assets and talent. The result was IDBI Bank and ICICI Bank.

Union Budget 2021-22 and DFI

Union Budget proposed creation of a DFI to accelerate investment in infra sector.
Infrastructure needs long-term debt financing. A professionally managed Development Financial Institution is necessary to act as a provider, enabler and catalyst for infrastructure financing. The proposed DFI will have a Rs 20,000 crore corpus.

Co-operative Banks

Co-operative banks are organized and managed on the principle of co-operation, self-help and mutual help. They function under the rule of 'one member, one vote' and on 'no profit, no loss' basis. Co-operative banks, as a principle, do not pursue the goal of profit maximization. Co-operative bank performs all the main banking functions of deposit mobilization, supply of credit and provision of remittance facilities.

Co-operative banks provide limited banking products and are functionally specialists in agriculture related products. However, co-operative banks now provide housing loans also.

Urban Co-Operative Banks (UCBs) are located in urban and semi-urban areas. These banks were originally allowed to lend money only for non-agricultural purposes. This distinction does not hold today. Earlier, they essentially lent to small borrowers and businesses. Today, their scope of operations has widened considerably.

Co-operative banks get financial and other help from the RBI, NABARD, central government and state governments. RBI provides financial resources in the form of contribution to the initial capital (through state governments), working capital, refinance.

Co-operative banks belong to the money market as well as to the capital market—they offer short-term and long-term loans. Land Development Banks (LDBs) provide long-term loans.

The sources of their funds (resources) are:
- ownership funds
- deposits or debenture issues
- central and state government
- RBI
- NABARD
- other co-operative institutions.

Some co-operative banks are scheduled banks, while others are non-scheduled banks. For instance, SCBs and some UCBs are scheduled banks (included in the Second Schedule of the Reserve Bank of India Act).

Co-operative banks are subject to CRR and SLR requirements as other banks. However, their requirements are less than commercial banks.

The Banking Regulation (Amendment) Act, 2020

In the wake of deteriorating condition of cooperative banks in the country, the central government amended the Banking Regulation Act, 1949 to bring the cooperative banks under the supervision of the Reserve Bank of India.

The amendments were considered necessary in the said Act to provide for better management and proper regulation of co-operative banks and to ensure that the affairs of the co-operative banks are conducted in a manner that protects the interests of the depositors, by increasing professionalism, enabling access to capital, improving governance and ensuring sound banking through the Reserve Bank of India.

Further amendments were proposed to be made in Section 45 of the Act to enable the Reserve Bank of India to make a scheme to protect the interests of the public, the banking system, depositors or to secure the banking company's proper management, without first making an order of moratorium so as to avoid disruptions in the financial system.

It brought 1,482 urban and 58 multi-state cooperative banks under the supervision of RBI.

Shadow Banks

There are many financial institutions that perform functions like banks—raise deposits and equity, float bonds and so on and lend them to investors and consumers—but are not covered by stringent regulations like banks. Some of them are floated by the banks themselves like mutual funds, investment banks, housing finance bodies, etc. They are said to form the shadow banking system. Shadow banks play a gainful role in credit delivery and financial inclusion as they can facilitate credit availability to certain sectors that might otherwise have difficulty in accessing credit. They play both a substitute and complementary role for commercial banks as they are able to map the financing needs of the borrowers better. For example, micro finance, housing finance, etc.

Universal Banking in India

A universal bank is one that follows a 'cafeteria' approach to financial services by offering all services–retail, wholesale and investment banking–under one roof. It is both a commercial bank and an investment bank. It also provides other financial services such as insurance. Thus, it is a 'full-service' bank providing wealth and asset management, housing and auto finance, trading, underwriting, consultancy, financial advisory, etc. All commercial banks in India are universal banks. The RBI appointed committee, Khan Working group, in 1998 recommended universal banking, as was done earlier by the Narasimham Committee in 1988. It has advantages like better use of given human, financial and institutional resources. Its disadvantage as that the regulatory norms are not strict for non-~~banking~~ activities, they can derail the entire bank as it happened in the sub-prime crisis in 2008 in the USA.

Priority Sector Credit

After nationalisation of many public sector banks in 1969, government took up inclusive banking. The sectors that were effectively excluded from formal banking were targeted for bank credit mandatorily. It is called directed credit. Directed lending is an institutional mechanism for allocating credit to sectors that have welfare significance, high potential for generating employment and growth; exports; and improving livelihood. A large part of the directed credit in India is priority sector. India's commercial banks have been prescribed targets since early seventies for priority sector lending. Government advises the Reserve Bank of India and RBI directs banks accordingly. It is redistributive in effect.

Different categories under priority sector

Priority Sector includes the following categories:

- Agriculture
- Micro, Small and Medium Enterprises
- Export Credit
- Education
- Housing
- Social Infrastructure
- Renewable Energy

Targets Under Priority Sector

The targets and sub-targets for banks under priority sector are as follows:

Categories	Domestic scheduled commercial banks (excluding Regional Rural Banks and Small Finance Banks) and Foreign banks with 20 branches and above	Foreign banks with less than 20 branches
Total Priority Sector	40 per cent of Bank Credit	40 per cent to be achieved in a phased manner by 2020.
Agriculture	18 per cent of bank credit Within the 18 percent target for agriculture, a target of 8 percent is prescribed for Small and Marginal Farmers.	Not applicable
Micro	7.5 percent of bank credit	Not applicable

Enterprises		
Advances to Weaker Sections	10 percent of bank credit	Not applicable

Priority sector guidelines do not lay down any preferential rate of interest for priority sector loans.

Categories under Agriculture

The activities covered under Agriculture are classified under three sub-categories viz. Farm credit, Agriculture infrastructure and Ancillary activities.

Farm credit: Loans to individual farmers [including Self Help Groups (SHGs) or Joint Liability Groups (JLGs) directly engaged in Agriculture and Allied Activities, viz., dairy, fishery, animal husbandry, poultry, bee-keeping and sericulture. Crop loans, loans to farmers for pre and post-harvest activities, loans to farmers under the Kisan Credit Card Scheme, loans to small and marginal farmers for purchase of land for agricultural purposes. Loans to corporate farmers, farmers' producer organizations directly engaged in Agriculture and Allied Activities, viz. diary, fishery, animal husbandry, poultry, bee-keeping and sericulture.

Agriculture infrastructure: Loans for construction of storage facilities (warehouse, market yards, godowns and silos) including cold storage; soil conservation and watershed development; plant tissue culture and agribiotechnology, seed production, production of bio-pesticides, bio-fertilizer, and vermi composting.

Ancillary activities: Loans for setting up of Agriclinics and Agribusiness Centres; Food and Agro-processing etc.

Social infrastructure

Social infrastructure includes schools, health care facilities, drinking water facilities and sanitation facilities (including construction/ refurbishment of toilets and improvement in water facilities in the household) .Bank credit to Micro Finance Institutions (MFI) extended for on-lending to individuals/ members of SHGs/ JLGs for water and sanitation facilities is also eligible for classification as priority sector loans under 'Social Infrastructure' subject to certain criteria.

Weaker Sections

Priority sector loans to the following borrowers are eligible to be considered under Weaker Sections category:

- Small and Marginal Farmers
- Artisans, village and cottage industries
- Beneficiaries under Government Sponsored Schemes such as National Rural Livelihoods Mission (NRLM) etc.
- Scheduled Castes and Scheduled Tribes
- Beneficiaries of Differential Rate of Interest (DRI) scheme (in which the beneficiaries get loans at a concessional rate)
- Self Help Groups
- Distressed farmers indebted to non-institutional lenders
- Distressed persons other than farmers to prepay non-institutional lenders
- Individual women beneficiaries
- Persons with disabilities
- Minority communities as may be notified by Government of India from time to time.

Regional Rural Banks

RRBs have a target of 75 per cent of their outstanding advances for priority sector lending and sub-sector targets as indicated in table below.

Categories	Targets
Total Priority Sector	75 per cent
Agriculture	18 per cent
Small and Marginal Farmers	8 percent
Micro Enterprises	7.5 per cent
Weaker Sections	15 per cent

The overall Priority Sector target should be achieved across all prescribed categories: Agriculture, MSME, Education, Housing, Social Infrastructure, Renewable Energy and Others with the above sectoral rules.

Small Finance Banks

SFBs have a target of 75 per cent for priority sector lending of their Credit. While 40 per cent should be allocated to different sub-sectors under PSL as mentioned below, the balance 35 per cent can be allocated to any one or more sub-sectors under the PSL, where the banks have competitive advantage.

Categories	Target
Total Priority Sector	75 per cent
Agriculture	18 per cent. Within the 18 per cent target for agriculture, a target of 8 percent is prescribed for Small and Marginal Farmers.
Micro Enterprises	7.5 per cent
Advances to Weaker Sections	10 percent

Priority Sector Lending Certificates (PSLCs)

Some banks lend more than the target and some do not. The former have surplus while the latter have a shortfall. Priority Sector Lending Certificates (PSLCs) level the two. They are a mechanism to enable banks to achieve the priority sector lending target and sub-targets by purchase of these instruments in the event of shortfall. This also incentivizes surplus banks as it allows them to sell their excess achievement over targets thereby enhancing lending to the categories under priority sector.

Microfinance

Microfinance is defined as provision of credit and other financial services like insurance of very small amount to the poor in rural, semi-urban and urban areas for enabling them to raise their income levels and improve living standards. Microfinance Institutions are those which provide these facilities.

Microfinance covers not only consumption and production loans for various farm and non-farm activities of the poor but also includes their other credit needs such as housing and shelter improvements. Self-Help Group (SHG)-bank linkage programme has emerged as the dominant microfinance dispensation model in India.

SHG is a registered or unregistered group of micro entrepreneurs who have homogenous social and economic background and voluntarily come together to save small amounts regularly, to mutually agree to contribute to a common fund and to meet their emergency needs on mutual help basis.

While the SHG-bank linkage programme has surely emerged as the dominant microfinance dispensation model in India, other models too have evolved as significant microfinance channels.

Government allows 'Micro Credit/Rural Credit' (non-banking financial company, NBFC) activities for FDI/Overseas Corporate Bodies (OCB)/ NRI investment to encourage foreign participation in micro credit projects.

Types of Micro Credit Providers in India

- Domestic Commercial Banks:

Public Sector Banks; Private Sector Banks and Local Area Banks

- Regional Rural Banks
- Co-operative Banks
- Co-operative Societies
- Registered NBFCs
- Other providers like Societies, Trusts, etc.

In the area of microfinance, there are many areas of concern in India. They are:

- Unjustified high rates of interest
- Lack of transparency in interest rates and other charges
- Multiple lending
- Upfront collection of security deposits
- Over-borrowing
- Ghost borrowers
- Coercive methods of recovery

Malegam

Malegam Committee

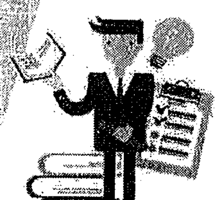
The RBI Committee suggested that

- Micro Finance Institutions (MFIs) be allowed to charge a maximum interest of 24 per cent on small loans which cannot exceed `25,000.
- Creation of a separate category of Non- Banking Financial Companies (NBFC-MFI) for the microfinance sector.
- Small loans of up to `25,000 could be given to families who have an income of up to `50,000 per annum.
- 75 per cent of loans extended by MFIs should be for income generation purposes
- A borrower cannot take loans from more than two MFIs.
- Regulation of MFIs should be done by NABARD in close coordination with the RBI.

- Bank lending to NBFCs, which qualify as NBFC-MFIs, should be entitled to the 'priority lending' status.
- A borrower can be a member of only one self- help group or a joint liability group (where money is lent to a member but the whole group is responsible for repayment, called JLG).

Bank Run

There are times when people are not confident about their bank's capacity to honour its financial commitments. They fear its insolvency for any number of reasons. When a large number of such customers of a bank want to withdraw their deposits at the same time due to such concerns, the bank's resources get even more depleted, the likelihood of default increases, thereby prompting more people to withdraw their deposits. This situation is known as a bank run.



Chapter - 15
Bretton Woods Institutions: World Bank Group

Introduction

World Bank was set up to facilitate the reconstruction of Western Europe after its devastation during World War II. After this historic task was completed, its efforts have been focused on developing countries to alleviate poverty.

World Bank emerged from The Bretton Woods Conference, officially known as the United Nations Monetary and Financial Conference, held in 1944 in Bretton Woods, New Hampshire, USA to agree upon a series of new rules for post-WWII international economic reconstruction, development and monetary stability.

World Bank Group (WBG) is a family of five international organizations with its head- quarters in Washington. Its head is called President and is David Malpass. The President of the World Bank is conventionally an American. There are 189 countries in the WB presently.

The World Bank Group comprises the following five agencies:

- International Bank for Reconstruction and Development (IBRD)
- International Development Association (IDA)
- International Finance Corporation (IFC)
- Multilateral Investment Guarantee Agency (MIGA)
- International Centre for Settlement of Investment Disputes (ICSID)

World Bank Group is owned by its member governments, which subscribe to its basic share capital, with votes proportionate to shareholding. Membership gives certain voting rights that are the same for all countries, but there are also additional votes which depend on financial contributions to the organization. Thus, members have weighted voting based on their contribution to WB's financial resources. WB additionally raises finances from the global credit markets as well.

A country has to first join International Monetary Fund (IMF) before it can be a member of the WB. IMF and WB are called Bretton Woods twins as the 1944 conference gave birth to both.

World Bank is responsible for the preparation of the World Development Report.

World Bank: IBRD and IDA

The IBRD and its concessional lending arm, the International Development Association, are collectively known as the World Bank, and they share the same leadership and staff. The World Bank Group includes the five institutions collectively. All the five did not come into force at the same time.

World Bank is the world's largest development bank. It provides financial products and policy advice to help countries reduce poverty and extend the benefits of sustainable growth to all of their people. The Bank only finances sovereign governments directly and projects backed by sovereign governments. The World Bank's activities are focused in fields such as human development (e.g., education, health—Swachh Bharat Mission, Sarva Shiksha Abhiyan etc), agriculture and rural development (e.g., irrigation, rural services—Pradhan Mantri Krishi Sinchayee Yojana (PMKSY), Watershed Management Project Neeranchal etc.), poverty alleviation (Deen Dayal Antyodaya Yojana—National Rural Livelihoods Mission (DAY—NRLM), environmental protection (e.g., pollution reduction, establishing and enforcing regulations— National Ganga River Basin Project, etc.), infrastructure (e.g., roads, urban regeneration, electricity, port modernization and new port development under Sagarmala), and governance (e.g., anti-corruption, legal institutions development).

The Bank provides loans at soft rates to member countries, as well as grants to the poorest countries: The IBRD focuses on middle income and creditworthy poor countries, while IDA focuses on the poorest countries in the world.

International Development Association (IDA)

The International Development Association (IDA) helps the world's poorest countries. IDA was created in 1960 and is responsible for providing long-term, interest-free loans to about 80 of the world's poorest countries. IDA repayments are stretched over 25 to 40 years, including a five-to ten-year grace period. IDA also provides grants to countries at risk of debt distress. In addition to concessional loans and grants, IDA provides significant levels of debt relief through the Heavily Indebted Poor Countries (HIPC) Initiative and the Multilateral Debt Relief Initiative (MDRI).

While the IBRD raises most of its funds through the world's financial markets, IDA is funded largely by contributions from the governments of its richer member countries. Additional funds come from IBRD's and IFC's income and from borrowers' repayments of earlier IDA credits.

Donors meet every three years to replenish the IDA's funds and review IDA's policies. The most recent replenishment of IDA's resources, the eighteenth (IDA18), has a size of $75 billion to finance projects over the three-year period from 2017–2020.

IDA loans primary address education, basic health services, clean water supply and sanitation, environmental safeguards, business–climate improvements, infrastructure and institutional reforms. These projects are intended to pave the way towards economic growth, job creation, higher incomes and better living conditions.

Eligibility for IDA support depends on a country's relative poverty, defined as per capita income below an established threshold and updated annually ($1,165 in fiscal year 2018). IDA also supports some countries, including several small-island economies, that are above the operational cut-off but lack the creditworthiness needed to borrow from the International Bank for Reconstruction and Development (IBRD). Some countries, such as Nigeria and Pakistan, are IDA-eligible based on per capita income levels and are also creditworthy for some IBRD borrowing. They are referred to as 'blend' countries. IDA has 173 members.

International Finance Corporation (IFC)

The International Finance Corporation (IFC) promotes private sector investment in developing countries as a way to reduce poverty and improve people's lives. IFC shares the primary objective of all World Bank Group institutions—to improve the quality of the lives of people in its developing member countries. IFC is the largest multilateral source of loan and equity financing for private sector projects in the developing world.

India is one of the founding members of IFC. IFC finances investments with its own resources, mobilizing capital in the international financial markets. India represents IFC's single-largest country exposure. IFC is working in the following areas:

- Investment climate for private sector development and inclusive growth.
- Financial inclusion by working on financial services and initiatives related to the sustainability of the MFI sector, including micro-credit bureau, risk mitigation initiatives, code of conduct setting, etc.

- Renewable energy (solar and biomass) and cleaner production as well as key sub-sectors such as agribusiness.
- Developing PPP transactions with focus on social services (health and education) and climate change impact projects. IFC floated a rupee bond and masala bond in the global credit market to fund Indian companies in 2014.

Multilateral Investment Guarantee Agency (MIGA)

The Multilateral Investment Guarantee Agency (MIGA) promotes foreign direct investment into developing countries by insuring investors against non-commercial and political risk, advising governments on attracting investment, etc. India is a member of all the four bodies mentioned above.

International Centre for Settlement of Investment Disputes (ICSID)

The International Centre for Settlement of Investment Disputes (ICSID) provides facilities for the conciliation and arbitration of investment disputes between member countries and individual investors. India is not among its members.

India and the World Bank

India is a founding member of the WB and has benefited immensely from its operations in multiple ways—funds, advice, cross-country experience, etc. Most of GOI's and the state governments' flagships have been funded by the WB. The advantage of borrowing from the World Bank is the low cost and stable financing it provides with longer maturity periods. Financing through the International Development Association (IDA), the Bank's concessional lending arm, is very attractive for India.

India has been borrowing from the World Bank (through IBRD and IDA) for various development projects in the areas of poverty alleviation, infrastructure, rural development, human resource development etc. IDA funds are one of the most concessional external loans for GOI and are used largely in social sector projects that contribute to the achievement of SDGs. IBRD funds are:

- semi-concessional,
- have longer maturity, and
- WB is a multilateral institution, and India is one of the owners and thus is preferred.

WB's cumulative loans to India stands at more than US$ 100 billion in 2019.

The Indian Constitution does not allow the states to borrow from the WB directly, and so GOI borrows and on-lends to the states. States are involved in the consultation process.

IMF and WB Group: Differences

International Monetary Fund	World Bank Group
• single institution	• comprises five institutions
• oversees the international monetary system	• seeks to promote the economic development of the world's poorer countries
• promotes exchange rate and monetary stability in its member countries and globally	• assists developing countries through long-term financing of development projects and programs
• assists with BoP bailout funds by providing short- to medium-term credits	• encourages private enterprises in developing countries through its affiliate, the International Finance Corporation (IFC)
• draws its financial resources principally from the quota subscriptions of its member countries	• IBRD and IFC acquire most of their financial resources by borrowing from the international bond market. IDA gets donations.
	• has insurance and arbitration wings (MIGA and ICSID respectively)

IMF and WB

The two institutions hold joint annual meetings. There are similarities and differences between them. Both are owned and directed by the governments of member nations. Both institutions concern themselves with broadening and strengthening the economies of their member nations.

Despite these similarities, however, the Bank and IMF remain distinct.
The fundamental difference is that the Bank is primarily a development institution, while the IMF is concerned about financial and monetary stability of the world and each member country, seeking to maintain an orderly system of payments and receipts between nations.

Each has a different purpose, a distinct structure, receives its funding from different sources, assists different categories of members and strives to achieve distinct goals.

Bretton Woods 2.0

The original purpose of the Bretton Woods Conference was post-WWII reconstruction. The arrangements need redefinition and refocus in the post-recession world since 2008. The broad mandate should be The two institutions need to be democratized Merit-based appointment to head the two institutions

- IMF should have an expanded role and be the lender of last resort.
- SDRs should be more central to global monetary system as we need to diversify from national currencies.

- The World Bank should be refocused with clear goals—helping the poorest countries achieve the SDGs to reduce poverty, hunger and disease.
- Global trade agenda should be reoriented to help the poorest countries be more productive; promote environmental sustainability, help enforce compliance with reduced carbon emissions and the protection of endangered biodiversity.
- The new global financial structure should help rescue the world from human-induced climate change.

World Bank Group and Covid-19

The World Bank Group launched its emergency operations to fight COVID-19 by reaching 100 developing countries – home to 70% of the world's population. Since March 2020, the Bank Group has rapidly delivered record levels of support in order to help countries protect the poor and vulnerable, reinforce health systems, maintain the private sector, and bolster economic recovery. This assistance, the largest and fastest crisis response in the Bank Group's history, marks a milestone in implementing the Bank Group's pledge to make available $160 billion in grants and financial support over a 15-month period to help developing countries respond to the health, social and economic impacts of COVID-19 and the economic shutdown in advanced countries.

India, World Bank Group and Covid-19

The total commitment from the Bank towards emergency COVID-19 response in India was $2 billion by June 2020. A $1 billion support was announced in April 2020 towards immediate support to India's health sector.

Another $1 billion was approved in May 2020 for India's COVID-19 Social Protection Response Program to support India's efforts at providing social assistance to the poor and vulnerable households, severely impacted by the COVID-19 pandemic.

This new support is to be funded in two phases – an immediate allocation of $750 million for fiscal year 2020 and a $250 million second tranche that will be made available for fiscal year 2021.

The first phase of the operation is implemented countrywide through the Pradhan Mantri Garib Kalyan Yojana (PMGKY). It will immediately help scale-up cash transfers and food benefits, using Public Distribution System (PDS) and Direct Benefit Transfers (DBT); provide robust social protection for essential workers involved in COVID-19 relief efforts; and benefit vulnerable groups, particularly migrants and informal workers, who face high risks of exclusion under the PMGKY.

In the second phase, the program will deepen the social protection package, whereby additional cash and in-kind benefits based on local needs will be extended through state governments and portable social protection delivery systems.

Social protection is a critical investment since half of India's population earns less than Rs.225 a day and are close to the poverty line. Over 90 percent of India's workforce is employed in the informal sector, without access to significant savings or workplace based social protection benefits such as paid sick leave or social insurance. Over 9 million migrants, who cross state borders to work each year, are also at greater risk as social assistance programs in India largely provide benefits to residents within states, without adequate portability of benefits across state boundaries. Importantly, in an urbanizing India cities and towns will need targeted support as India's largest social protection programs are focused on rural populations.

Chapter - 16

Bretton Woods Institutions: International Monetary Fund (IMF)

Introduction

The United Nations Monetary and Financial Conference, commonly known as the Bretton Woods Conference, was held in Bretton Woods, New Hampshire, USA in 1944. Its aim was to regulate the international monetary and financial order after the conclusion of World War II with the help of multilateral bodies. It finalized agreements to set up the:

- International Bank for Reconstruction and Development (IBRD), popularly known as World Bank, and
- International Monetary Fund (IMF)

The two institutions are known as the Bretton Woods twins. They are two of the 15 specialized agencies of the United Nations. The IMF was set up to promote and maintain monetary stability at global level. The IBRD was created for post-war reconstruction.

International Monetary Fund (IMF)

The IMF has 189 members. India is a founding member. It is headquartered in Washington. The current Managing Director (MD) of the International Monetary Fund is Bulgarian Economist Kristalina Georgieva, who has held the post since 1 October 2019. Gita Gopi- nath was appointed as Chief Economist of IMF in 2018. Christine Lagarde was the MD before Kristalina Georgieva.

IMF Objectives

- To promote international monetary cooperation.
- To facilitate balanced growth of international trade for the economic growth of all member countries.
- To promote exchange rate stability, maintain orderly exchange rate arrangements; and advise against competitive exchange rate revaluation.
- To help members in times of BoP crisis.

Governance Structure

The Board of Governors is the highest decision-making body of the IMF. It consists of one governor and one alternate governor for each member country. The governor is appointed by the member country and is usually the minister of finance or the head of the central bank. While the Board of Governors has delegated most of its powers to the IMF's Executive Board, it retains the right to approve quota increases, Special Drawing Right (SDR) allocations, the admittance of new members and amendments to the Articles of Agreement and bye-laws. The Board of Governors also elects or appoints executive directors.

The IMF Board of Governors is advised by two ministerial committees:
- International Monetary and Financial Committee (IMFC), and
- Development Committee

The IMFC meets twice a year, during the Spring and Annual Meetings. The Committee discusses matters of common concern affecting the global economy and also advises the IMF on the direction of its work.

The Development Committee is a joint forum of the World Bank Group and the IMF. The Committee's mandate is to advise the Boards of Governors of the Bank and the Fund on critical development issues and the financial resources required to promote economic development in developing countries. Over the years, the Committee has interpreted this mandate to include trade and global environmental issues in addition to traditional development matters.

The Development Committee meets twice a year, in the spring and in the fall at the time of the joint Bank-Fund Annual Meetings. Its meetings are held in tandem with the meetings of the International Monetary and Finance Committee (IMFC) of the fund.

The Boards of Governors of the IMF and World Bank Group (WBG) normally meet once a year to discuss the work of their respective institutions. The Annual Meetings generally take place in the month of September/October. The annual meetings include meetings of the International Monetary and Financial Committee, the Development Committee, the Group of Ten, the Group of Twenty-Four, and various others.

In addition to the Annual Meetings, IMFC and the DC hold meetings each spring to discuss progress on the work of the institutions.

The Group of Ten (G-10) refers to the group of countries that agreed to participate in the General Arrangements to Borrow (GAB) in 1962, an agreement to provide the IMF with additional funds to increase its lending ability and rescue members from currency crisis. It actually has 13 members.

The Group of 24 (G-24) was established in 1971 as a wing of the Group of 77 of developing countries in order to help coordinate the positions of developing countries on inter- national monetary and development finance issues and to ensure that their interests are adequately represented in negotiations on international monetary matters. It now has 28 members. China is a special invitee.

Functions of IMF

IMF monitors the world's economies, lends to members in economic difficulty on the external account and provides technical assistance.

To elaborate, the work of the IMF is of three main types:

- Lending to countries with BoP difficulties. For example, India needed forex resources in 1991 to meet its import and debt servicing needs. India's credit rating in the global markets was not high. IMF gave India credit.
- Surveillance which involves the monitoring of economic and financial developments of every member country and the provision of policy advice, aimed especially at crisis- prevention and resolution.
- Appraisal of the exchange rate policies of member countries.
- Provides countries with technical assistance and training in its areas of expertise.
- Plays an important role in the fight against money-laundering and terrorism.

Benefits to member countries of the IMF are many.

- Member get BoP assistance as IMF is like a last resort lender.
- Member have the opportunity to influence other members' economic policies.
- Member get technical assistance in banking, fiscal affairs, and exchange matters.
- Member have increased opportunities for trade and investment.

IMF Quota

Upon joining, each member of the IMF is assigned a quota based broadly on its relative size in the world economy. A member's quota guides:

- Subscriptions, the amount the member is obliged to provide to the IMF.
- Voting power.
- The amount of financing a member can obtain from the IMF when it needs.

Quotas are denominated in Special Drawing Rights (SDRs), the IMF's unit of account. Upon joining the IMF, a country normally pays up to on quarter of its quota in the form of widely accepted foreign currencies (such as the U.S. dollar, euro, yen, or pound sterling) or SDRs. The remaining three quarters are paid in the country's own currency.

What is paid in foreign currency is known as Reserve Tranche Position (RTP). It is the primary means of financing the IMF. Reserve Tranche Position is accounted in a country's foreign-exchange reserves. It can be withdrawn from IMF any time without any interest during critical situations of a country such as during a BOP crisis.

IMF decides on the quota of each country on the basis of four yardsticks as shown below:
- member country's GDP,
- its economic openness,
- its 'economic variability' and
- international reserves.

Economic variability is calculated on the basis of current receipts and net capital flows. India's quota is 2.76 per cent and China's is 6.41 per cent, while the U.S.'s quota is 17.46 per cent (converts to a vote share of 16.52 per cent) giving it veto power over crucial decisions at the IMF, many of which require a super majority of 85 per cent.

In the present regime, the new and emerging global economic power structure is not reflected. Countries like India are grossly under represented. Therefore, they want a review. It also reflects on pace of governance reforms.

US is the primary opponent of quota reforms as its voice gets reduced and that of China's increases. US is in general opposed to multilateralism.

The 15th Review is underway, and it provides an opportunity to assess the appropriate size and composition of the IMF's resources and continue the process of governance reforms to realign quota shares with members' relative positions in the world economy, while protecting the poorest members. India benefits from it.

The IMF's Board of Governors conducts general quota reviews at regular intervals (no more than five years). Any changes in quotas must be approved by an 85 per cent majority of the total voting power, and a member's own quota cannot be changed without its consent. Two main issues addressed in a general quota review are:
- the size of an overall quota increases, and
- the distribution of the increase among the members.

For the first time, four emerging market countries—BRIC will be among the 10 largest members of the IMF. Other top 10 members include the US, Japan, and the four largest European countries (France, Germany, Italy, and the UK).

Special Drawing Rights (SDRs)

IMF lends in its own artificial currency unit called the SDR. The SDR is an international reserve asset, created by the IMF in 1969 to supplement its member countries' official reserves. Its value is based on a baskct of five key international currencies—Dollar, Euro, Yen, Pound and Chinese Yuan which was included in 2016. Five currencies with their weights in descending order are—U.S. Dollar, Euro, Renminbi (Chinese yuan), Japanese yen and British pound. The basket composition is reviewed every five years to ensure that it reflects the relative importance of currencies in the world's trading and financial systems.

Some criteria for inclusion in the basket: the issuing country is among the largest exporters in the world and its currency is 'freely usable'. A currency is determined to be freely usable when it is widely used to make payments for international transactions and widely traded in the principal exchange markets. The SDR value in USD terms was US$ 1.38 by 2019.

Properties of SDRs

- SDRs can be exchanged for national currencies.
- SDRs are not traded in the forex market like other national currencies but can be exchanged between countries.
- Private parties do not hold or use SDRs.
- SDR is neither a currency nor a claim on the IMF.
- It is a potential claim on the freely usable currencies of IMF members. Holders of SDRs can obtain these currencies in exchange for their SDRs. India's forex reserves include a small part of SDRs.

SDRs as Global Reserve Currency

The international monetary system needs reform as was made evident by the 2008 global financial crisis. Dollar as a global reserve currency is neither as viable nor desirable to the same degree as it was before the great recession of 2008.

John Maynard Keynes once proposed a global currency, the Bancor, to be placed at the centre of the international monetary system. It did not find favour as every large economy wants its own currency as the global reserve currency.

The US dollar dominates the global reserve system. This has disadvantages:

- Creates tension due to the use of a national currency, the dollar, as the global currency.
- Can lead to global volatility as a result of weaknesses in the US economy like the twin deficits.

- US monetary policy impacts the whole world though it is made with the US's interests in mind.

Nor is there any other currency that comes remotely close to replace the USD. Some experts argue that the global role of SDRs should be increased as:

- It would help diversify the risk from forex holdings.
- Lessen chances of global financial volatility.
- Make US policies relatively less important for the world.
- Global stability enhances as dollar worries recede.

However, SDRs can only supplement the dollar and other global reserve currencies and gold as the SDR is the creation of US and the west within the IMF. If SDR becomes a rival to dollar and yen, it may not receive the support of these countries.

IMF's Financial Resources

There are four channels:

- Quotas that raise about 470 billion SDRs.
- Borrowing arrangements—GAB and NAB.
- Bilateral Agreements: Since the onset of the global financial crisis in 2008, the IMF has entered into several rounds of bilateral borrowing agreements to ensure that it could meet the financing needs of its members.

Borrowing Arrangements

While quota subscriptions of member countries are its main source of financing, the IMF can supplement these resources through borrowing when it needs more to meet members' needs. Such additional funds are raised through General Arrangements to Borrow (GAB) and New Arrangements to Borrow (NAB).

GAB and NAB are credit arrangements between the IMF and a group of members and institutions that provide supplementary resources to the IMF to prevent or cope with problems of the international monetary system or to deal with an exceptional situation that poses a threat to international monetary stability. The GAB lapsed at the end of 2018.
India provided loans of US$ 12 billion to NAB when the sovereign debt crisis in Europe worsened.

How the IMF Lends

A core responsibility of the IMF is to provide loans to member countries experiencing BoP problems. This financial assistance enables countries to:

- rebuild their international reserves;
- stabilize their currencies;
- continue paying for debt servicing and imports; and
- restore conditions for strong economic growth while undertaking policies to correct the underlying problems.

Unlike development banks, the IMF does not lend for specific projects.

IMF Loan Windows

Over the years, the IMF developed various loan instruments, or credit facilities, that are tailored to address the specific circumstances of each one of its diverse membership.

- **Poverty Reduction and Growth Facility (PRGF):** Low-income countries may borrow at a concessional interest rate through it.
- Rapid Credit Facility (RCF) The Rapid Credit Facility (RCF) provides rapid concessional financial assistance with limited conditionality to low-income countries (LICs) facing an urgent balance of payments need. The RCF was created under the Poverty Reduction and Growth Trust (PRGT) as part of a broader reform to make the Fund's financial support more flexible and better tailored to the diverse needs of LICs, including in times of crisis. It was used to fight Covid induced economic crisis in 2020
- Flexible Credit Line (FCL) was designed to meet the demand for crisis-prevention and crisis-mitigation lending for countries with very strong policy frameworks and track records in economic performance. It was used to fight economic crisis caused by the pandemic in 2020
- **Exogenous Shocks Facility (ESF):** It provides policy support and concessional financial assistance to low-income countries facing global shocks. For example, due to commodity prices falling, etc.
- **Stand-By Arrangements (SBA):** Non-concessional loans are provided mainly through Stand-By Arrangements (SBA) for members who are in a BOP crisis. When a member takes SBA, they may opt for a long-term Extended Fund Facility(EFF) after using the SBA if the economy is still to recover. EEF requires basic changes in the economic policy orientation like opening up the economy or they may not opt out of such EFF, having used the SBA funds well and not needing any further assistance.
- **Extended Fund Facility (EFF):** It is a long term fund facility to address structural problems in the economy that are causing chronic BoP pressures.
- The IMF also provides emergency assistance to support recovery from natural disasters and conflicts, in some cases, at concessional interest rates.

Except for the PRGF and the ESF, all facilities are subject to the IMF's market-related interest rate.

The amount that a country can borrow from the Fund, its access limit, varies depending on the type of loan but is typically a multiple of the country's IMF quota. This limit may be exceeded in exceptional circumstances.

In 2018, IMF agreed to give about US$ 57 billion to Argentina as a bailout assistance, the largest ever assistance given to a single country in the history of IMF.

The IMF's analysis of global economic developments, contained in its World Economic Outlook, provides finance ministers and central bank governors a common framework for discussing the global economy.

Twice a year, it publishes the Global Financial Stability Report. The IMF's performance is assessed on a regular basis by an Independent Evaluation Office.

IMF and Conditionalities

IMF conditionalities are a set of policies or conditions that the IMF wants the debtor country to adopt in exchange for the loan. The IMF requires the government seeking assistance to correct its macroeconomic imbalances in the form of policy reform. Fund is delivered in tranches (instalments) linked to policy changes. If the conditions are not met, the funds are withheld. Some conditionalities enforce structural adjustment wherein the economy is opened up to globalization and privatization. Some are of short-term significance like expenditure cuts.

Some of the conditions include:

- Cutting expenditures, also known as austerity
- Devaluation of currencies
- Trade liberalisation or lifting import and export restrictions
- Open up to foreign direct investment
- Allow foreign participation in domestic stock markets
- Balancing budgets and not overspending
- Removing price controls and state subsidies
- Privatization
- Deregulate the exchange rate
- Currency convertibility
- Downsize the government
- Enact flexible labour sector reforms
- Enhancing the rights of foreign investors vis-a-vis national laws
- Improving governance and fighting corruption

These conditions are known as the Washington Consensus. These loan conditions ensure that the borrowing country will solve its BoP problems and have access to enough foreign currency and be able to repay the IMF.

These conditionalities need not be followed rigidly but must be adopted for the growth of the economy.

Most countries cannot follow these policies with popular support as they hit the poor. Conditionalities thus created controversy. The IMF admitted that too many conditions were imposed on borrowers and it created a backlash.

Another criticism about the conditionalities is that the reforms suggested are the same for all countries irrespective of the causes of the crisis.

India suggested that the IMF conditionalities must be more sensitive to the domestic realities of the member countries.

IMF and the Great Recession 2008

The great recession that followed the Lehman Brothers' bankruptcy was the worst crisis since the Great Depression of 1929–1939. The institution that rose to global expectations to rescue the countries affected by the BoP crisis was the IMF which mobilized on many fronts to support its member countries, increasing its lending, using its cross-country experience to advise on policy solutions and introduce reforms to become more responsive to member countries' needs. It stepped up its crisis lending, including a sharp increase in concessional lending to the world's poorest nations and provided analysis and targeted advice.

The IMF created a broad financial safety net to limit the spread of the crisis. Since 2010, the IMF focused largely on Europe after the outbreak of the sovereign debt crisis threatened the euro.

IMF and Social Protection

Social protection refers to policies designed to ensure income security of the poor and the vulnerable. Universal social protection includes—adequate cash transfers for all who need them, especially children; benefits and support for people of working age in case of maternity, disability, work injury or the unemployed; pensions for the elderly. This protection can be provided through social insurance, tax-funded social benefits, social assistance services, public works programs and other schemes guaranteeing basic income security.

To incorporate social protection considerations into IMF's operational work, it works with relevant partner institutions. The relevant institutions include: the World Bank, in the areas of poverty assessment, provision of social safety nets and basic social services, and improving the effectiveness and pro-poor orientation of public expenditures; the International Labour Organization (ILO), in the area of labour market and related social policy reforms; United Nations Children's Fund (UNICEF); the Organization for Economic Cooperation and Development (OECD); regional development banks; and bilateral aid agencies, etc.

IMF, Money-Laundering and Terror Finance

Money laundering is the process of converting the financial and physical assets generated by criminal activity into legal assets by a variety of means. Terror financing raises money to support terrorist activities. Both these activities exploit the vulnerabilities in financial systems that allow for an inappropriate level of anonymity and opacity in carrying out transactions.

The IMF is concerned because these illicit activities can discourage foreign investment and distort international capital flows. They may also result in welfare losses, draining resources from more productive economic activities and even have destabilizing effects on other countries. In an increasingly interconnected world, the harm caused by these activities is global.

Since 2000, the IMF responded to calls from the international community to expand its work on anti-money laundering (AML). After the tragic events of 9/11 in 2001, the IMF intensified its AML activities and extended them to include combating the financing of terrorism (CFT).
IMF set up a fund to finance AML/CFT capacity development in its member countries. The IMF also monitors issues, such as virtual currencies, costs of and mitigating strategies for corruption, etc.

In the case of money laundering and terror financing by Pakistan, the role of IMF is as follows: Financial Action Task Force (FATF) could grey/black list Pakistan and that will make IMF lending to Pakistan that much more difficult.

Reforming the IMF

The role of IMF was criticized for the following reasons:

- The IMF Managing Director is invariably from a European country as a convention.
- India and other emerging markets are demanding that it should not be geographically confined and be merit-based.

- The one-size-fits-all policy under which it gives the same recipe for all ills of all members.
- Conditionalities that go with the loans that it disburses demand that spending on social sector be curtailed.
- India wants that its economic power, as it is emerging, should be recognized and so be given greater voting rights.
- IMF failed to predict the global recession in 2008–2009, let alone prevent it with its surveillance role.

Reforms have taken place after the global crisis in some of these matters.

India and the IMF

India is one of the IMF's original members. India and the IMF have had a symbiotic relationship.

The IMF provided India with loans over the years and this helped the country in times of BOP pressure. IMF credit was instrumental in helping India respond to BoP problems on two occasions. In 1981–1982, India borrowed SDR 3.9 billion. In 1991–1993, India borrowed a total of SDR 2.2 billion under two stand-by arrangements (SBA), and in 1991, it borrowed SDR 1.4 billion under the Contingency Compensatory Financing Facility (CCFF). CCFF, as the name suggests, is a financing facility to bail out a member from a contingency.

India subscribes to the IMF's Special Data Dissemination Standards. Special Data Dissemination Standard (SDDS) was established in 1996. Countries belonging to this group make a commitment to observe global accounting standards in government finance and provide information about their data and data dissemination practices. Data dissemination standards enhance the availability of timely and comprehensive statistics, which con- tributes to sound macroeconomic policies and the efficient functioning of financial markets.

The relationship between the IMF and India has grown strong over the years. In fact, India turned into a creditor to the IMF and has stopped taking loans from it. India lent to the IMF in 2012 to bail out the Eurozone countries.
India needs IMF as:

- its globalizing economy carries risks like any other,
- it needs IMF for technical training and capacity building,
- it needs to contribute to global monetary stability for its own enlightened self-interest, and
- it needs the SDR to diversify its forex holdings for greater safety.

Financial Transaction Plan (FTP)

India has been participating in the Financial Transaction Plan (FTP) of the IMF since 2002. Fifty-three countries, including India, now participate in FTP. By participation in FTP, India is allowing IMF to encash its rupee holdings as part of our quota contribution, for hard currency which is then lent to other member countries who are debtors to the IMF.

Quota/Voice Reforms

As part of the Fourteenth General Review of Quotas (2010), India's total quota has increased to SDR 13,114.4 million from SDR 5821.5 million. With this increase, India's share would increase to 2.75 per cent (from 2.44 per cent), making it the eighth largest quota holding country in the IMF. Significantly, the reforms will lead to a realignment of quota shares of member countries, with shifts to the dynamic Emerging Market and Dynamic Countries (EMDCs) while protecting the voting share of the poorest members. India's voice in the decision making process of the IMF grows correspondingly. It is a consequence of India's GDP growth and the resulting increasing size of the economy.

Financial Action Task Force (FATF)

The Financial Action Task Force (FATF) is an inter-governmental agency to set standards and promote effective implementation of legal, regulatory and operational measures for combating money laundering, terrorist financing and other related threats to the integrity of the international financial system. The FATF works to generate the necessary political will to bring about national legislative and regulatory reforms in these areas.

The FATF currently comprises 37 member jurisdictions and 2 regional organisations— European Commission and Gulf Cooperation Council (GCC). India is a member and Pakistan is not. It has many associate members one of which is Asia Pacific Group (APG) on Money Laundering of the FATF.

Xiangmin Liu of the People's Republic of China is the President of the FATF since July 2019. Its headquarters are located in Paris.

Chiang Mai Initiative (CMI)

The Chiang Mai Initiative (CMI) is a multilateral currency pooling arrangement among the ten members of the Association of Southeast Asian Nations (ASEAN), the People's Republic of China (including Hong Kong), Japan, and South Korea. It draws from a foreign exchange reserves pool worth US$ 240 billion that was launched in 2010.

After the 1997 Asian Financial crisis, member countries started this initiative to manage regional short-term liquidity problems and facilitate the work of other international financial arrangements and organisations like IMF. It has never been used as there has not been a crisis since the 1997 Asian financial crisis.

BRICS CRA

The BRICS Contingent Reserve Arrangement (CRA) is a pool of foreign currency reserves for the member countries to draw from, when they face any BoP crisis, actually or potentially. It was established in 2015 by the BRICS countries Brazil, Russia, India, China and South Africa after being signed at Fortaleza, Brazil in 2014. It became operational in 2016. Each member contributes to the pool which is a safety net but not the same amount.

The objective of this reserve is to provide protection against global liquidity pressures when members' national currencies are adversely affected by global financial pressures. It is an example of south-south cooperation, that is, cooperation among developing countries. It plays a role similar to the IMF and thus it is complementary to the IMF. Some see CRA as a competitor to the IMF. That may be premature.

CRA has a capital of $100 billion which is contributed as given in the Table.
Under the terms of the arrangement of CRA, each country can only borrow a part of its contribution before going to the IMF for a stand-by arrangement with the IMF. It works out to a very small amount when compared to the IMF resources.

BRICS CRA

Country	Capital contribution (billion USD)	Access to Funds (billion USD)	Voting Rights
Brazil	18	18	18.10
China	41	21	39.95
India	18	18	18.10
Russia	18	18	18.10
South Africa	5	10	5.75
Total	100	85	100.00

IMF and Covid-19

With the disruption in the global economy caused by COVID-19, many developing countries needing to increase spending but they face a situation of collapsing economies and tax revenues. Emerging and low-income countries are heavily dependent on trade. They use the foreign exchange they earn from exports to purchase needed imports for their citizens. With the collapse of trade, forex earnings have dwindled and countries are drawing on their reserves of foreign exchange. When foreign exchange reserves run out, a country's ability to purchase abroad does too, and citizens will suffer.

World Bank projected a 20 percent drop in remittances for countries like India and even more for sub-Saharan Africa

At the same time, international capital markets are also withdrawing financial investments from these countries.

Many prominent persons have advocated that the IMF undertake an "SDR allocation" of upto $1 trillion to assist countries in dealing with the global financial crisis brought about by the COVID-19 pandemic. But some IMF shareholders have voiced concerns, particularly the United States, which has a controlling vote in the matter. India also opposed it.

Like a central bank can print its own currency, the IMF can create SDRs. It requires a vote of at least 85 percent of the total votes held by IMF members. And the United States holds 16.51 percent of the votes, so its agreement is essential if more SDRs are to be created. New SDRs have been created several times in the IMF's history.

A new SDR allocation will make them available to countries at rates less than the commercial rates in global markets. This added international liquidity enables faster recovery of normalcy. It can prevent a humanitarian disaster, currency collapses and global financial instability.

However, US opposed new SDR allocation. India did so because it could be misused by some countries..

Spring Meetings 2020

The steps that were taken to provide assistance to developing countries grappling with the economic fallout from the COVID-19 crisis at the virtual spring meetings of the World Bank Group and the International Monetary Fund (IMF) in April 2020, and at the Group of 20 (G20) summit that took place a few weeks earlier, are:

- temporary debt-relief
- new emergency lending facilities for developing and emerging market economies.

However, there was no decision taken for the IMF to issue a new allocation of its international reserve currency, Special Drawing Rights (SDRs).

Chapter - 17
World Trade Organization (WTO)–I

Introduction

The General Agreement on Tariffs and Trade (GATT) was adopted in 1947 by 23 countries to establish a free and fair international trading regime among member countries by liberalizing global trade—removing all of trade barriers—tariffs or non-tariff restrictions, such as quotas, etc. It came into existence in 1948 with 23 founding members, including India.

GATT progressed, expanded its scope in terms of areas covered and its depth of cover- age—by a series of 'trade rounds negotiations centered around a specific set of issues over a period of a few years, leading to an agreement among members is called a round.

GATT was headquartered in Geneva, Switzerland.

Eight rounds of such negotiations were held under GATT:

1. Havana Round (1947)
2. Annecy (France) Round (1949)
3. Torquay Round (England) (1950)
4. Geneva Fourth Round (1956)
5. Dillon Round (1960–1961) (Geneva)
6. Kennedy Round (1962–1967), which was held in Geneva but was named after the US President John F Kennedy
7. Tokyo Round (1973–1979)
8. Uruguay Round (1986–94)

The Uruguay round lasted the longest under the GATT as it took place at a time when the world was undergoing basic changes in terms of the way economies were managed:

- Industrial democracies were becoming more acceptable to the developing countries.
- China was adopting LPG policies in a historic manner.
- The communist model of economy was losing value.
- Developing countries were rethinking their protectionist policies.
- The Union of Soviet Socialist Republics (USSR) was disintegrating, leaving the third world weak in bargaining terms

On the back of historic confidence and led by the largest global economy, the USA, GATT conducted negotiations to open up the economies of members. New areas were brought into the agenda, such as intellectual property rights, agriculture, services, foreign direct investment and so on. Initially, the developing countries were reluctant and resisted the expansion of the agenda, as they were apprehensive of the impact. But due to western influence, and the lack of unity among the developing countries; they agreed. The Director General of the GATT was asked to draft an agreement for the consideration of its members. It was called Dunkel Draft, named after the Director General Arthur Dunkel. When the draft attained consensus, it was made into the Marrakesh Treaty and was signed in Marrakesh (Morocco) in 1994, and paving the way for the establishment of World Trade Organization (WTO) at the beginning of 1995.

GATT and WTO

GATT is different from WTO in many ways:

- GATT is a treaty, while WTO is an organization.
- GATT had no dispute settlement processes unlike WTO.
- GATT was essentially concerned with traditional trade issues, such as tariffs and quotas in international trade, while WTO encompasses many more areas.
- GATT had only a relatively small secretariat with no institutional foundation to implement these rules.

The World Trade Organization, which came into existence at the beginning of 1995, replaced the General Agreement on Tariffs and Trade (GATT). It is headquartered in Geneva, Switzerland. It has 164 members. Afghanistan became the 164th WTO member.

Liberia was the 163rd member and Kazakhstan was the 162nd member. In addition to states, the European Union is also a member.

WTO members do not have to be full sovereign nation-members. Instead, they must be a customs territory with full autonomy in the conduct of their external commercial relations. Thus, Hong Kong and Taiwan became WTO members. Iran is not a member of WTO. WTO is headed by Director-General whose term is four years.

WTO is not a part of the United Nations and acts autonomously as upon the members' decision. A global arrangement exists between the two, like the relationship that had existed between the UN and General Agreement on Tariffs and Trade (GATT). This includes provision for exchange of information, representation at each other's meetings and cooperation between the secretariats.

Unlike other organizations, such as the World Bank and the International Monetary Fund (IMF), where there is weighted voting, where a country has as much voting power as it contributes financially, the WTO has a 'one country one vote' system, making it relatively democratic. Decisions are taken by consensus.

WTO consensus is usually arrived at by a process of informal negotiations between small groups of countries. Such negotiations are often called 'Green room' negotiations (after the colour of the WTO Director-General's Office in Geneva), or 'mini-ministerials', when they occur in other countries.

India conducted two mini-ministerial meetings in 2018 and 2019 to further the spirit of multilateralism and give and take as the WTO faced new challenges.

Decision-Making in the WTO

The highest-level decision-making body of the WTO is the Ministerial Conference, which usually meets once every two years, with each member country represented by its commerce minister.

WTO Ministerial Conferences

- January 1, 1995: The WTO came into existence.
- 1996: The first ministerial conference in Singapore.
- 1998: Second ministerial conference in Geneva, Switzerland.
- 1999: Third ministerial conference in Seattle, Washington, USA
- 2001: Fourth ministerial conference in Doha, capital of Qatar. A new Round of trade talks begin, called Doha Development Round.
- 2001: The People's Republic of China joined WTO after 15 years of negotiations.
- 2003: Fifth ministerial conference in Cancún, Mexico. G20 is formed. The 'overloading' of the Doha agenda with Singapore issues is rejected though trade facilitation, which is one of the Singapore issues was accepted by all.
- 2005: Sixth Ministerial in Hong Kong once again failed to deliver results.
- 2009: Seventh Ministerial in Geneva.
- 2011: 8th Eighth Ministerial in Geneva.
- 2013: 9th Ninth Ministerial in Bali.
- 2015: 10th Tenth Ministerial in Nairobi.
- 2017: 11th Eleventh Ministerial Conference in Buenos Aires, Argentina.
- 2020: 12th Ministerial to be held in Astana, Kazakhstan (postponed due to pandemic)

Next in authority is the General Council, which carries out the decisions of the Ministerial Conferences. It is seated in Geneva, and has representatives (usually ambassadors or equivalent) from all member governments. The Council has the authority to act on behalf of the ministerial conference.

There are two other bodies apart from the General Council. They are the:

- Dispute Settlement Body, composed of all members, usually represented by ambassadors or equivalent; and
- Trade Policy Review Body (TPRB), where the WTO General Council meets as the trade policy review body to undertake trade policy reviews of its members.

Below them, at the third level, there are the Councils for Trade. The Councils for Trade work under the General Council. There are three councils:

- Council for Trade in Goods,
- Council for Trade-Related Aspects of Intellectual Property Rights, and
- Council for Trade in Services.

Apart from these three councils, six other bodies report to the General Council on issues such as trade and development, the environment, regional trading arrangements and administrative issues.

Dispute Settlement

Disputes can arise from trade policies of members that are violative of the WTO rules. The request for consultations formally initiates a dispute in the WTO. Bilateral consultations between the parties are the first stage of formal dispute settlement. They give the parties an opportunity to discuss the matter and to find a satisfactory solution without resorting to litigation. Only after such mandatory consultations have failed to produce a satisfactory solution within 60 days that the complainant may request adjudication by a panel.

There is no separate Dispute Settlement Body (DSB) other than the General Council, which is the second highest body in the organization and works as the DSB while giving verdict on the trade dispute.

DSB conclusions can be challenged in an appellate body.

After the ruling, the erring nation is directed to make changes in its laws to make them WTO-compliant within a reasonable time. If the 'erring country' does not correct its laws, the complainant country is allowed to take cross retaliatory measures.

On the face of it, this gives all member countries a level playing field as the process is multilateral. But the fact remains that there is no punishment for the erring country and poor countries cannot retaliate against the rich countries.

Crisis in the Appellate Body

The Appellate Body of the World Trade Organization (WTOAB) is a standing body of seven persons that hears appeals from reports issued by panels in disputes brought by WTO members. The WTOAB can uphold, modify or reverse the legal findings and conclusions of a panel.

WTO, Cross-retaliation and Airbus

In 2005, the United States filed a case against the European Union for providing allegedly illegal subsidies to Airbus. Soon after, the European Union filed a complaint against the United States which was protesting support for Boeing. The World Trade Organization in October 2019 approved US tariffs on $7.5 billion worth of European goods in retaliation to EU's illegal support of Airbus. The Appellate Body orders are binding and must be accepted by the parties in dispute. If not, cross retaliation by the aggrieved country is allowed. The WTO Appellate Body has its seat in Geneva, Switzerland.

The WTO's highest court has only three judges serving out of the total sanctioned strength of seven judges by 2019. Minimum three judges are required to form bench on any dispute resolution. The Appellate Body may be rendered inoperable with the impend- ing retirement of the judges. Appointments of the judges take place by consensus, and any member country can delay the process.

The crisis has been aggravated by the United States repeatedly vetoing the initiation of a process to nominate and appoint Appellate Body members.

Appeals continue to accumulate. If the WTO's formal appeals process and its ability to issue binding rulings becomes paralysed, countries may abandon the multilateral system altogether and resort to unilateral retaliatory measures to settle trade disputes.

The arbitration process is the heart and soul of the WTO, and its future is combined with the future of the WTO.

Foundational Principles of WTO

WTO laid down three principles for its operation:

1. National treatment
2. Most favoured nation (MFN)
3. Special and differential treatment (S and D)

National Treatment

National treatment is a basic principle of GATT/WTO, which prohibits discrimination between imported and domestically produced goods with respect to taxation or other government regulation. Anyone in the country can purchase goods either from the domestic producer or from a foreign source, and the two are treated alike. To understand the issue further, the following recent case about solar panels will help.

Most Favoured Nation (MFN)

In international trade, MFN treatment means normal trading relations between two countries. All WTO members are statutorily obliged to grant one another the MFN status. MFN means treating one's trading partners equally on the principle of non-discrimination.

MFN is so important that it is the first article of the General Agreement on Tariffs and Trade (GATT), which governs trade in goods. MFN is also a priority in the General Agreement on Trade in Services (GATS) and the Agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPS).

MFN has benefits in line with the WTO aims:

- It increases trade as there are more countries trading normally without any trade barriers.
- It is the basis for global trade liberalization. Since all countries are treated alike under the MFN, global trade is based on cost and quality.
- MFN helps small countries because, otherwise, they face bilateral pressure.
- Having one set of tariffs for all countries simplifies the rules and makes them more transparent.
- MFN prevents domestic special interests from obtaining protectionist measures.

Solar Panels

National Solar Mission is one of the several initiatives that are part of the National Action Plan on Climate Change, with a solar power capacity target of 100 GW by 2022.

Guidelines for solar thermal mandated that 30 per cent of the project must have domestic content. Indian manufacturers want to avoid competition with global players at this nascent stage of development, and the government wants to incentivize the growth of local industry by mandating compulsory local content. However, a controversy emerged between power project developers and solar PV equipment manufacturers. The former camp prefers to source modules by accessing the highly competitive global market to attain flexible pricing, better quality, predictable delivery and use of latest technologies. The latter camp prefers a controlled/planned environment to force developers to purchase modules from module manufacturers in India. India's domestic content requirements were challenged in the WTO by US Trade Representative, citing discrimination against US exports, which is violative of WTO rules of national treatment, and won the case.

Exceptions to MFN:

- Regional trade blocs such as the European Union and the erstwhile North American Free Trade Agreement (NAFTA or the United States—Mexico—Canada Agreement, or US- MCA), which have lowered or eliminated tariffs among its members while maintaining tariff walls between member nations and the rest of the world. Trade agreements usually allow for exceptions to allow for regional economic integration. These groupings were already in existence when the WTO was set up.
- Imports from poor countries are allowed at lower/zero tariffs (Generalised System of Preferences, GSP).

India and Pakistan are specifically mentioned for a carve-out (exception): Taking into account the exceptional circumstances arising out of the establishment of India and Pakistan as independent States and recognizing the fact that they have long constituted an economic unit, the contracting parties agree that the provisions of this Agreement shall not prevent the two countries from entering into special arrangements with respect to the trade between them, pending the establishment of their mutual trade relations on a definitive basis. Measures adopted by India and Pakistan should however be consistent with the objectives of the Agreement.

India, in early 2019, announced the withdrawal of the MFN status for Pakistan, following the terror attack on CRPF personnel in Pulwama in Jammu and Kashmir, and hiked the customs duty by 200 per cent on goods originating from Pakistan with immediate effect. This is allowed as it related to national security.

S and D Provisions: WTO and Developing Countries

The WTO Agreements contain special provisions that give developing countries certain privileges as compared to the developed countries. These special provisions are referred to as Special and Differential (S and D) treatment provisions.

Developing countries comprise majority of the WTO membership. They are grouped as developing countries and as least developed countries.

There are no WTO definitions for developed and developing countries. Some members announce for themselves whether they are developed or developing countries. However, other members can challenge the decision of a member to make use of provisions available to developing countries. In other words, if a member declares itself to be a developing country and it is not challenged, it gets the status.

Developing Country: The status of Developing Country in the WTO brings certain privileges/benefits. Following are the examples:

- Provisions in some WTO Agreements which provide developing countries with longer transition periods before they are required to fully implement the agreement. When the WTO's intellectual property rights regime came into force in 1995, developing countries had 10 years' time to implement certain provisions.
- Agricultural subsidies can be given up to 10 per cent of the value of produce, while it is 5 per cent for the developed countries.
- There is a scheme called Generalized System of Preferences (GSP) and it is available to the developing countries.

However, all WTO developing countries do not automatically get the benefit from the preference schemes, like Generalized System of Preferences (GSP). It is the choice of the developed country that decides the list of developing countries getting benefitted from the GSP.

The WTO recognizes least developed countries (LDCs) which are the countries that have been designated so by the United Nations. There are currently 47 LDCs on the UN list, 36 of which have become WTO members. LDCs are entitled to GSP benefits.

WTO Agreements

The WTO oversees about 60 different agreements that have the status of international legal texts. Member countries must sign and ratify all WTO agreements on accession. Negotiations take place on the basis of the principle called single undertaking. It means that virtually every item of the negotiation is part of a whole and an indivisible package and that cannot be agreed upon separately. Nothing is agreed until everything is agreed.

Important among the agreements are the following:

- The Agreement on Agriculture (AoA)
- The General Agreement on Trade in Services (GATS)
- The Agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPS)

- The Agreement on the Application of Sanitary and Phytosanitary Measures also known as the SPS Agreement. Under the SPS agreement, the WTO sets constraints on members' policies relating to food safety (bacterial contaminants, pesticides, inspection and labelling) as well as animal and plant health (imported pests and diseases).
- The Agreement on Technical Barriers to Trade—It ensures that technical negotiations and standards, as well as testing and certification procedures, do not create unnecessary obstacles to trade.
- Bali Package, which is a trade agreement resulting from the Ninth Ministerial Conference of the World Trade Organization in Bali, Indonesia, in 2013. It is aimed at lowering global trade barriers, and is the first agreement reached through the WTO that is approved by all its members. The package forms part of the Doha Development Round, which started in 2001.

Agreement on Agriculture (AoA)

Its three pillars are:
- domestic support
- export subsidies
- market access

Domestic support means the subsidies that the governments give to the farmers, such as food, fertilizer, power, water, etc. The domestic subsidies are grouped into three classes called 'boxes':
- Green Box,
- Amber Box, and
- Blue Box.

The basis for classification is whether the subsidies distort trade and to what extent that should be allowed.

Green box includes subsidies on which there are no limits as they are not considered to be trade distorting. To qualify for the green box, WTO says a subsidy must not distort trade, or at most cause minimal distortion. These green box subsidies must be government-funded.

They are programs that are not directed at particular products, and they may include direct income supports for farmers that are decoupled from current production levels and/ or prices. Examples are environmental and conservation programs, research funding, extension services, food stamps and disaster relief.

Rythu Bandhu Scheme of Telangana involving direct income support to farmers is also an example. Pradhan Mantri Kisan Samman Nidhi 2019 is another.

Subsidies that are considered to be trade distorting, but are given by governments for welfare or any other reason are subject to limitations and fall into the Amber box. WTO members are required to limit such support within 5 to 10 per cent of their value of production—5 per cent for the developed countries and 10 per cent for developing countries like India.

Blue box subsidies are direct payments under a production limiting program. There is no limit on them. For example, farmers are paid to limit their production so that the farm can be left fallow for it to regain top soil fertility.

India and the Amber Box

There has been an unfair limitation on India's food procurement policy by the WTO. The limitation on subsidy may not be objectionable, but the calculation of the subsidy is. India has MSP or, minimum support price, a programme under which the government pays the farmer for the grain he sells to the Food Corporation of India, which is used to run the Public Distribution System (PDS) under which low-income and poor people are supplied grain affordably. The subsidy involved thus is to make:

- agriculture investment-worthy,
- provide food security, and
- ensure price stabilization and so on.

However, the WTO put a cap on the subsidy which India is accused of having exceeded. India's stand is that there should be no limit and if there is, then subsidy calculation should be fair.

India questions the methodology of calculating the subsidy. The 10 per cent limit may be acceptable to India, but WTO takes 1986–88 as the base year from which inflation is calculated. The level of inflation allowed since then is very small, but in reality, prices have shot up on all inputs since then much more. But the WTO allows limited inflation. Thus, our numbers and theirs are at a variance.

A temporary 'Peace Clause' was made at the WTO Bali conference in 2013 at the 9th Ministerial. Bali declaration stated that the peace clause was an interim arrangement, and a permanent solution should be negotiated by 2017. However, the clause has been extended indefinitely till a satisfactory permanent solution is in place.

Peace Clause in WTO rules means that any country in breach of its statutory obligations under the WTO Agreement on Agriculture cannot be legally challenged. A temporary Peace Clause was made at the WTO Bali conference in 2013. It stipulated that no country would be legally barred from food security programmes for its own people, even if the subsidy breached the limits specified in the WTO Agreement on Agriculture.

Export Subsidies

Agricultural export subsidies are to be limited by the developed countries, either in value or volume terms, so that international prices are not lowered below a point, and exports and domestic markets of the developing countries are not priced out. The Nairobi Ministerial in 2015 decided that the developed countries should stop agricultural export subsidies immediately and the developing countries were given some more time.

India says that the earlier gains expected by the developing countries from a genuinely free international trade in agricultural goods have not come about as the advanced countries are least inclined to reduce the export subsidies to the statutory levels. It is one of the 'implementational concerns' in WTO being discussed in the Doha round.

Market Access

Market access means all member countries should throw open their domestic market to agricultural imports by reducing tariffs and removal of non-tariff barriers. Countries should undertake:

- 'tariffication'—to convert non–tariff barriers (like quotas) to tariffs, and
- 'bind' their tariffs—to agree to a limit that is the 'bounded rate' and not increase the rates beyond them. The bounded rates are usually high.

Special Products and Special Safeguard Mechanisms

Special Products (SP) and Special Safeguard Mechanisms (SSM) are the concerns of developing nations involved in WTO negotiations on agriculture. By using SP and SSM, these nations hope to ensure food security and protect small and marginal farmers and their livelihoods from the volatility in international trade in agriculture commodities.

Special Products (SPs)

Special Products (SPs) are agricultural products of particular importance to farming com- munities in developing countries for reasons of food security, livelihood security and rural development. Therefore, the Doha Development Round of WTO negotiations allowed SPs to have higher tariffs. SP is a component of the WTO's Special and Differential (S and D) provision and is available only to developing country members of the WTO.

Special Safeguard Mechanisms (SSMs)

Special Safeguard Mechanisms or SSMs are a set of provisions through which a developing country can temporarily impose higher than bound tariff rates on the import of a particular agricultural product if there is a sudden surge in imports of that product into the country.

Sudden and sharp declines in the international price of an agricultural commodity could lead to an import surge that, in turn, could damage the viability of domestic production. In these cases, a temporary measure, like SSM will allow developing countries to tide over crises.

G33

The G33 ('Friends of Special Products' in agriculture) is a group of 48 developing countries including India and China. They have common concerns in agriculture and their demands are as follows:

- MSP programmes to help farmers during times of distress should not be treated as trade-distorting.
- Calculation of the quantum of food subsidies on the basis of market prices prevailing in 1986–1988 is flawed and does injustice and should be dropped.

WTO and Safeguard, Anti-Dumping and Countervailing Duties

Safeguard measures are defined as 'emergency' actions with respect to increased imports of particular products, where such imports have caused or threatened to cause serious injury to the importing member's domestic industry. It is imposed when there is a surge in imports of the commodity. Such measures take the form of quantitative import restrictions or of duty increases beyond bound rates.

The features of safeguard measures are that:

- such measures must be temporary;
- they may be imposed only when imports are found to cause or threaten serious injury to a competing domestic industry;
- the member imposing them must pay compensation to the members whose trade is affected by the safeguards.

Safeguard measures must be applied on an MFN basis. Safeguards are seen as responses to fair trade behaviour.

Safeguard Duty in India

India imposed safeguard duty on steel imports as the country faced cheap steel imports flooding its market, and thus, protected the domestic steel sector in 2015. It aims to deter countries, such as China, South Korea and Japan from undercutting local producers. Its initial rate was reduced and it was ended in 2018. Critics say that it is counter-productive, as it promotes inefficiency, but the answer is that it is temporary.

This was challenged by Japan in the WTO. WTO ruled that India violated WTO norms in imposing the duty.

Countervailing Duties (CVDs)

Some countries subsidize their products and make them cheap to be exported. The domes- tic industry of the importing country may thus be injured. The importing country then takes recourse to CVDs. Thus, CVDs are known as anti-subsidy duties. CVDs are imposed to neutralize the unfair effects of subsidies. They are imposed after a domestic investigation finds that a foreign country subsidised its exports, injuring domestic producers in the importing country.

Anti-Dumping Duty

Dumping in international trade means exporting goods at a price which is:

- less than the price of the same product in domestic market, or
- less than the cost of production, or
- less than fair/normal value (price in the domestic market of a third country).

Under the World Trade Organization (WTO) rules, dumping is prohibited only if it causes or threatens to cause material injury to a domestic industry in the importing country.

Dumping is a kind of predatory pricing in international trade. The objective of dumping may be to:

- unfairly capture the foreign market;
- use the full capacity of the industry;
- dispose off the extra stock;
- drive out competition unilaterally; and
- dictate price of the product.

The anti-dumping laws in India are in the Customs and Tariffs Act, 1975 (Amended 1995) and the Anti-dumping rules.

China as a Market Economy

China became a member of the WTO in 2001 at Doha. It was to be given the status of a 'market economy' in 2015, that is, after 15 years. But it has not been given as other countries feel that it manipulates its currency and so is not a free market. When a country is not a 'market economy', its exports can be subjected to anti dumping duty. The reason is that the prices quoted by such country can be rejected as reliable as it is not a market economy. China appealed to the WTO for the status but WTO ruled that conferment of the status is not automatic after 15 years. There is a need to show that the features of a free market economy are present in the country.

Directorate General of Trade Remedies

The Directorate General of Trade Remedies was named in 2018 as an integrated single window agency for providing comprehensive and swift trade defence mechanism in India.

DGTR now deals with anti-dumping, CVD and safeguard measures. It also provides trade defence support to our domestic industry and exporters in dealing with increasing instances of trade remedy investigations instituted against them by other countries. DGTR provides a level playing field to the domestic industry against the adverse impact of the unfair trade practices such as dumping and actionable subsidies from any exporting country, by using Trade Remedial methods under relevant framework of WTO arrangements, Customs Tariff Act and Rules and other relevant laws and International agreements, in a transparent and time-bound manner.

DGTR functions as an attached office of the Department of Commerce, Ministry of Commerce and Industry.

When complaints are filed with the DGTD, it will conduct the investigation and makes recommendations to the Government for imposition of remedial duties. Such duty is finally imposed by the Ministry of Finance. Thus, while the Department of Commerce recommends, it is the Ministry of Finance, that levies such duty.

TBT Technical Barriers to Trade (TBT) and SPS

The Agreement on Technical Barriers to Trade is an international treaty administered by the World Trade Organization.

The agreement exists to ensure that technical regulations, standards, testing, and certification procedures do not create unnecessary obstacles to trade. The agreement prohibits technical requirements created in order to limit trade, as opposed to technical requirements created for legitimate purposes, such as consumer or environmental protection. The TBT agreement is closely linked to the Agreement on the Application of Sanitary and Phytosanitary Measures.

The Agreement on the Application of Sanitary and Phytosanitary Measures is an inter- national treaty of the World Trade Organization. Under the SPS agreement, the WTO sets constraints on member-states' policies relating to food safety (bacterial contaminants, pesticides, inspection and labelling) as well as animal and plant health (phytosanitary) about imported pests and diseases.

GATS

The General Agreement on Trade in Services (GATS) of the WTO is the set of regulations that governs trade in services among the WTO countries. GATS, which is one of the three agreements along with AoA and agreement on TRIPS, has rules that cover a broad range of economic activities, such as health care, education, telecommunications, banking, insurance, business process offshoring (BPO), tourism and so on.

India is interested in these fields due to its core competence in them. With GATS, multilateral trading system extends to services for the first time. GATT, its predecessor did not cover such services.

With regard to services, members of the WTO offer one another most favoured nation (MFN) status as they do for physical goods. MFN means grant of non-discriminatory trade or normal trade. GATS negotiations are conducted among members bilaterally on the basis of requests and offers. Requests can be made by any WTO member in any service sector to any member. Each member makes bilateral requests to its major trading partners. These requests ask for full market access and national treatment commitments. The GATS agreement covers four modes of supply for the delivery of services in international trade:

Mode 1: Cross-border

Services supplied from the territory of one WTO member into the territory of any other Member. Outsourcing is an example.

Mode 2: Consumption Abroad

Services supplied in the territory of one WTO member to the service consumer of any other Member. Tourism, students, or patients to consuming the respective services are the examples.

Mode 3: Commercial Presence
Services supplied by a service supplier of one WTO member, through commercial presence, in the territory of any other member. Hospital, bank, hotel, etc., and so on set up by one country in another are examples.

Mode 4: Presence of Natural Persons
Services supplied by a service supplier of one WTO member, through the presence of natural persons of a member in the territory of any other member Consultants, health care workers, software engineers, etc., and so on are examples.

Trade Facilitation

Trade facilitation looks at how procedures and controls governing the movement of goods across national borders can be improved to reduce costs and maximise efficiency while safeguarding legitimate regulatory objectives. Trade facilitation is 'the simplification, standardization and harmonisation of procedures and associated information flows required to move goods from seller to buyer and to make payment'. Occasionally, the term trade facilitation is extended to address a wider agenda in economic development and trade, to include the improvement of transport infrastructure, the modernization of customs administration, etc., and so on.
In 2017, the first multilateral deal concluded in the 21-year history of the World Trade Organization entered into force following its ratification by two-thirds of the WTO membership, including India.

World Trade Organization (WTO) and E-commerce

Developed countries and a few others want the WTO to take up e-commerce for global regulation and facilitation. India has been opposing attempts to incorporate e-commerce in the ongoing Doha Round talks of the WTO on the grounds that it would lead to the dilution of the development agenda.

Indian companies have reservations, fearing it would favour multinational firms. It involves policies on:
- Privacy
- Data sovereignty
- Net-neutrality
- Consumer protection
- Digital reach and quality
- Cybersecurity and hacking
- Fake goods and piracy
- Taxation
- Kirana shops

Apprehensions are related to the curtailment of policy space of governments to regulate and nurture its domestic producers and consumers and wider population.

Proponents say that small and medium-sized enterprises (SMEs) will benefit using from e-commerce. However, SMEs are the least likely to be able to compete with giant transnational corporations, which enjoy the benefits of scale, historic subsidies, technological advances and strong state-sponsored infrastructure. Critics warn that MSMEs in India and in other developing countries face insurmountable problems in embracing e-commerce, especially for international trade due to the lack of e-commerce readiness. India faces serious challenges in four areas in facilitating e-commerce, especially international/cross-border:

1. Hard and soft infrastructure
2. Legal framework
3. Taxes
4. Administration

Singapore Issues

The first WTO ministerial conference was held in Singapore in 1996. Rich countries introduced four issues that came to be known as the 'Singapore issues':

- Investment by foreign companies on the same terms as that of national companies.
- Competition laws that deal with monopolies and cartels, price-fixing, mergers etc. and so on should be the same for all members on the basis of international agreement on competition.
- Transparency in government procurement and creating a level playing field for all players, domestic and foreign.
- Trade facilitation with standardization and simplification of customs procedures.

The last one came into force in 2017, but the other three continue to be opposed. Developing countries do not allow them to be brought into the agendas, as they feel that it might damage their economic interests. The opposition of the developing countries rests on the following grounds:

- Doha agenda should not be overloaded, and the existing issues need to be implemented first, such as health and agricultural trade.
- Large, multinational corporations dominate and threaten the young and growing domestic firms.
- They are too intrusive.

- Policy should be the prerogative of the government. It should be made at its own discretion because such policy depends on a country's unique market conditions.

The common theme of three of the issues (investment, competition and government procurement) is to maximise the rights of foreign enterprises to have market access to developing countries through their products and investment; to reduce to a minimum the rights of the host government to regulate foreign investors; and to prohibit government from measures that support or encourage local enterprises.

Doha Round

The Doha Round of trade talks under the WTO began in 2001 in Doha, the capital of Qatar. It is called Doha Development Round as it promises to address the issues of developing countries, such as India. It is yet to complete by 2019, and the prospects for successful closure are dim.

Developing countries believed that they were made many promises under the Marrakesh Treaty, but those were never delivered in matters related to agriculture, patents and so on. They insisted on having the commitments fulfilled and so opposed any further additions to the WTO agenda in the form of any new proposals. Developed countries are interested not in fulfilling their promises but in adding to the agenda.

Doha round is taking so much time for many reasons:

1. Developed countries are no more interested as the developing countries are resisting their agenda until the former's commitments are fulfilled.
2. WTO already served their purpose by having the basic rules of globalization accepted by all; and the future of globalization lies in new issues like e-commerce.
3. Measures like compulsory licensing and denial of new patents for incremental innovations irked them.
4. Set back to WTO from the protectionism and tariff and trade wars of the US.

India and WTO

Informal Mini-ministerials, 2018 and 2019

India hosted two Informal WTO Ministerial Meetings in 2018 and 2019. India is one of the founding members of the World Trade Organization. The main aim of the meet was to once again rejuvenate the spirit of negotiations between the developed and the developing countries.

Delegations from 52 countries, including Roberto Azevedo, Director-General of the, WTO, participated to facilitate an exchange of views on issues relating to the multilateral trading system. The issues highlighted were:

1. Break down of the dispute settlement system
2. Agriculture trade-related issues like public stockholding norms; SP; SSM
3. The issue of protectionism and the US tariff hikes

The developing countries say that:
The 2019 informal mini-ministerial again took up the issues of dispute settlement in WTO; the S and D benefits of the developing countries being whittled down; rising US– China trade tensions; and the future of Doha Round.

India and Bilateral Investment Treaty (BIT)

A bilateral investment treaty (BIT) is an agreement establishing the terms and conditions for private investment by nationals and companies of one country in another. BITs are signed as part of trade pacts. Its terms include fair and equitable treatment, protection from expropriation and security. The unique feature of many BITs is that they allow for an alternative dispute resolution mechanism, whereby an investor whose rights under the BIT have been violated could have recourse to international arbitration, often under the auspices of the ICSID (International Center for the Settlement of Investment Disputes of World Bank Group), rather than suing the host state in its own courts. This process is called investor-state dispute settlement.

India ended the Bilateral Investment Treaties (BITs) it had signed with many countries and some were allowed to expire in 2017. The ministry of finance is the nodal body dealing with BITs.

The new model BIT has clauses that are progressive for our sovereignty and policy space, such as reducing the extent of most-favoured nation status and national treatment clauses. The contentious change is India's insistence that foreign firms can turn to outside arbitration only after exhausting local judicial remedies. GOI says this is necessary to stop the hundreds of arbitration cases filed against the government by foreign firms. Foreign firms say the cases are filed because the government is filing taxation and retrospective taxation and other cases against them.

As per India's BITs, investors can access ICSID (International Centre for Settlement of Investment Disputes) or can approach for arbitration under UNCITRAL (United Nations Commission on International Trade Law) rules.

As India is not a party to ICSID convention, the foreign investors can access Additional Facility Rules of ICSID for dispute resolution.

H1B Visa Fee Hike and WTO-Compatibility

The H-1B visa of the US is a non-immigrant visa that allows US companies to employ foreign workers in speciality occupations. Indian software professionals were major beneficiaries of this. But the US restricted the regime when it changed rules to raise fees for L1 (transfers within the MNC to US) and H1B working visas and also placed restrictions on the number of those visas awarded.

India felt that its interests were unfairly harmed. India launched a complaint against the US at the WTO. India alleged that the US was violating its obligations under General Agreement on Trade in Services (GATS). India contends that the fee increase does not com- ply with 'most-favoured-nation (MFN) treatment' under the GATS, which mandates equal treatment of all WTO members.

Generalized System of Preferences (GSP) and India

Generalized System of Preferences (GSP) is a preferential tariff system extended by developed countries to LDCs and other developing countries. It involves reduced tariffs or duty- free entry of eligible products.

Indian exporters benefited from this. This tariff preference helps new exporters to penetrate a market and established exporters to increase their market share and to improve upon the profit margins, in the donor country. Developed countries benefit as goods are relatively cheap and thus consumer satisfaction and demand increases. Their currency outgo also decreases.

India, US and GSP

The United States Trade Representative (USTR) in 2019 withdrew GSP benefits for Indian goods. The GSP programme allowed duty-free entry of 1,937 products worth $5.6 billion from India into the US, benefitting exporters of textiles, engineering, gems and jewellery and chemical products. The US dairy industry and the US medical device industry were hurt as India did not allow the former and increased the prices of the latter. India's response was that for exporting dairy products to India, the US needs to certify that dairy products are sourced from animals that have not consumed feed-containing internal organs or blood meal. India mandates this for all countries on religious and cultural grounds. We had never closed dairy imports. Many countries like France, Germany and New Zealand are now giving the certification about the feed used and export dairy products to India. The US can also follow a similar route. GSP withdrawal cannot be seen in isolation. Trade relationships between India and the US have come under pressure under the Trump administration, with US unilaterally raising tariffs on steel and aluminium imports from India and challenging India's export subsidy regime at the WTO successfully. India imposed higher retaliatory tariffs on 28 U.S. products, including almonds, apples and walnuts in mid-2019. India also dragged the US to the WTO on higher steel and aluminium tariffs.

Rules of Origin (ROO)

In international trade, rules of origin are used to determine the country of origin of a product. The importance of ROO derives from the fact that duties and restrictions in several cases depend upon the source of imports. For example, countries can have normal, preferential and free-trade arrangements. Unless certain value addition is made in the member countries, Free Trade Agreements and Preferential Trade Agreements do not accord tariff concession. The reason is simple—when countries forge closer economic ties, the aim is that they should develop with greater investment, employment and so on.

U.S.–Mexico–Canada Agreement (USMCA) requires that 75 per cent of automobile content be made in North America in order for automobiles to qualify for preferential, duty-free treatment.

Regional Trading Arrangements (RTA) and Multilateralism Under WTO

There are many trade blocs in the world, and they existed even when the WTO took birth in 1995. For example, are preferential trade agreements (PTA) and free trade agreements (FTA). WTO allows them. The reason is that since the aims of the two are the same—economic integration through liberalized global trade that boosts economies. RTAs complement WTO.

- Complementaries are established among the regional members.
- Trade creation is another argument, that is, due to free trade among members more trade is created.
- There is higher production and greater efficiency due to enhanced competition.
- Free trade within a region is a beginning towards globalization as it prepares the countries to face global competition and secure benefits.
- In fact, FTAs catalyse globalization as the benefits at the regional level will accelerate the pace towards a larger scale.
- Non-economic factors are another major incentive as more peaceful relations among the regional countries will have a virtuous effect.

- Regional economic integration without prejudicing globalization and multilateralism is carried forward with 'open regionalism'. 'Open regionalism' is defined as external liberalization by trade blocs, that is, the reduction in barriers on imports from non-member countries that is undertaken when member countries liberalize the trade among themselves and become competitive.
- Regional free trade is easier to implement in comparison to globalization as the latter is difficult to be accepted by find acceptance among the people of the country.
- Domestic lobbies for protectionism can be resisted more successfully by the government at the regional level initially and later at the global level.
- Scope for deeper integration at the regional level—not only trade but also comprehensive economic cooperation (investment, collaborations, etc.) compared to the world at large. Some regional trading arrangements that are in force and in negotiations are:
- The Trans-Pacific Partnership (TPP) was a proposed trade agreement between Australia, Brunei, Canada, Chile, Japan, Malaysia, Mexico, New Zealand, Peru, Singapore, Vietnam, and United States, from which the United States withdrew and so the agreement could not enter into force. The remaining nations negotiated a new trade agreement called Comprehensive and Progressive Agreement for Trans-Pacific Partnership, which incorporates most of the provisions of the TPP, and it came into force late 2018.
- Regional Comprehensive Economic Partnership (RCEP) is the proposed Free-Trade Agreement (FTA) scheme of the 10 ASEAN member states and its FTA Partners (Australia, China, India, Japan, Korea and New Zealand) that is under negotiation. It is ASEAN-led. India opted out of it.
- African Continental Free Trade Agreement was signed in Kigali, Rwanda, in 2018 by 44
- African countries. It will make Africa the world's largest free- trade area: 55 countries merging into a single market of 1.2 billion people with a combined GDP of $2.5 trillion.
- The United States–Mexico–Canada Agreement (USMCA), referred to as 'NAFTA
- 2.0' to distinguish it from the predecessor, the North American Free Trade Agreement (NAFTA). Compared to NAFTA, the agreement gives the U.S. more access to Canada's dairy market, incentivizes more domestic production of cars and trucks, increases environmental and labour regulations, and introduces updated intellectual property protections.
- European Free Trade Association (EFTA) between Iceland, Norway, Switzerland and

- Liechtenstein.
- South Asia Free Trade Agreement (SAFTA) between India, Pakistan, Nepal, Sri Lanka, Bangladesh, Bhutan, Afghanistan and the Maldives.
- Mercosur is a Regional Trade Agreement (RTA) between Brazil, Argentina, Uruguay and Paraguay.
- The Andean Community of Nations (CAN) is a trade bloc comprising the South American countries like Bolivia, Colombia, Ecuador and Peru. Its headquarters are located in Lima, Peru.
- The Economic Community of West African States (ECOWAS) is a regional group that was initially of sixteen countries, founded in 1975 on the basis of Treaty of Lagos.
- The Southern African Development Community (SADC) seeks to further socio- economic cooperation and integration as well as political and security cooperation among 14 southern African countries.

India and WTO: Gains and Losses

In the 25 years since the WTO came into force in 1995, India benefited in many ways:

- MFN status in the 164-member body.
- The one country one vote system of decision making makes WTO a democratic body, where the rich do not command greater voting weightage.
- Rule-based trading system.
- Impartial trade dispute settlement process, unlike earlier when there was bilateral pressures and threats to fall in line (Super and Special 301 of the USA).
- Definitive schedule for trade liberalization with special protection so as to calibrate alignment with global economy.
- Opportunity to throw up MNCs in the pharma and other sectors.
- To become a global hub for R and D investment with the acceptance of TRIPS.
- The globalization process that WTO ensures is the course chosen by India as a part of the economic reforms launched in 1991.
- India has an advantage in the services sector and will benefit from its opening up. There is dissatisfaction for the following issues:
- No progress on the Doha Development issues
- Dispute settlement process has broken down.
- Severe and unfair restrictions on India's food subsidy.
- Free and fair agricultural trade is being defeated by the developed countries.
- Recourse to national security clauses in a questionable manner by the USA is unacceptable.
- New issues like e-commerce being sought to be inserted are a threat to India at this stage.

Protectionism

When a country protects its domestic producers with high tariffs and quantitative restrictions on imports, it is called protectionism. Protectionism seeks to discourage foreign participation in local markets. Protectionism 'protects' domestic businesses and workers within a country. It contrasts with free trade, in which government barriers to trade are kept to a minimum. Protectionism is essentially import substitution. A variety of policies can be used to achieve protectionist goals, which include:

- Tariffs
- Import quotas
- Domestic subsidies
- Export subsidies
- Currency manipulation
- Imposing labour or environmental standards to keep out foreign goods (non-tariff barriers apart from QRs).
- Imposition of restrictive certification procedures on imports (technical barriers).

India had been protectionist for four decades till 1991 as we had to protect the nascent Indian industry. For agriculture, protectionism is justified as we need to protect our food security and small and marginal farmers. However, we are in the process of opening up to foreign participation.

When developed countries close their economies as the US has been doing under Donald trump, it becomes objectionable because:

- It is unfair as the lack of competition makes domestic industry uncompetitive, unproductive and costly.
- It restricts consumer choice.
- It may inflate the economy.
- It hurts growth.
- It prevents employment creation.
- It inhibits innovation, etc.

US restrictions on H1B visas exemplify all these effects of protectionism. US followed, post-recession in 2008, 'Buy American' philosophy and still follows 'America first' pol- icy. The basis for it is the loss of jobs due to globalization in the west. Due to relocation of western industries to China, there were job losses in those economies which was deeply resented by people. Later, since 1990's not only the blue-collar jobs were lost to foreign competition, but there was offshore outsourcing and the loss of white-collar jobs as well. But protectionism is not the answer as its damage is more than any benefit.

US Protectionism and its Legality

The WTO rules say that countries cannot normally discriminate between their trading partners. Exceptions are permitted only under strict conditions.

Article XXI states that the agreement shall not prevent any contracting party from taking any action which it considers necessary for the protection of its essential security interests. A member country can invoke this section when it is:

- Related to fissionable nuclear materials;
- Related to the traffic in arms, ammunitions and implements of war; and
- In times of war or other emergency in international relations.

In 2019, the WTO dispute settlement panel issued a landmark ruling in a dispute between Russia and the Ukraine asserting that the panel, rather than the country imposing tariffs, had the power to determine whether there was an emergency or not. It said that political or economic differences between members are not sufficient, of themselves to constitute an emergency.

Thus, US raising tariffs based on national security reasons is not viable.

Trade War

When two countries impose higher tariffs and QRs on each other in order to protect their own economies and also to hurt the economy of the other, it is called a trade war.

Recent examples are the Trump tariffs imposed by the US President Donald Trump as part of his American First economic policy. They are:

1. Tariffs on solar panels and washing machines.
2. Tariffs on steel and aluminium from most countries, including India.
3. Tariff of 25 per cent and more on hundreds of categories of goods imported from China. Trading partners implemented retaliatory tariffs on U.S. goods, including India.

The rationale cited is that other countries are having unfair trade surpluses with the USA and that it is hurting American economic interests, such as growth, investment and jobs.

These policies are populist as their economic rationality is negative, and as they hurt US consumers due to higher cost; global trade will slow down, which will also hurt the US. The policies may have popular appeal, but that is only in the short term.

For example, steel and aluminium imports began to harm the US economy as large companies like GM were downsizing labour force due to high input costs. Companies were relocating outside the US as imports were costing more, thus, pushing up the cost of production.

WTO Plurilaterals

On most matters, all WTO members subscribe to all its agreements. However, there are some agreements which have a narrower group of signatories and are known as 'plurilateral agreements'. They have become a bone of contention now. The background is as follows:
WTO members at the launch of the Doha Round in 2001 agreed to an ambitious development-centric negotiation agenda on agriculture subsidy, market access and services. However, irreconcilable differences emerged between the rich and developing countries. Big countries abandoned the multilateral issues, and are pursuing new subjects that are of interest to their corporates. This is the background for their pursuing plurilaterals among like minded countries.

Many believe that plurilateral agreements can not be an alternative to the consensus-driven decision- making at the WTO. They demand that even plurilaterals should be introduced only by consensus of all WTO members. Plurilateral agreements are being launched for the following issues:

- electronic commerce,
- investment facilitation,
- disciplines for micro, small and medium enterprises, and
- gender

Many feel that multilateral-level rule-making is under threat. The contestation is between developed countries on one side, and large number of developing countries, such as India, Brazil, South Africa, and Indonesia, etc. on the other. China has already joined most plurilaterals.

India advocates multilateralism. India believes that plurilaterals do injustice to the non-participants among them and undermines WTO.

Threats to WTO

Since the great recession of 2008, and the slowdown in global trade growth, there have been many threats faced by the WTO. The main threats are:

- Tariff and trade wars
- Plurilaterals
- Weakening the WTO through crippling its dispute settlement body.

Asian Clearing Union

The Asian Clearing Union (ACU) was established with its headquarters at Tehran, Iran, in 1974 as an initiative of the United Nations Economic and Social Commission for Asia and Pacific (ESCAP), for promoting regional economic co-operation. The Central Banks of Iran, India, Bangladesh, Bhutan, Nepal, Pakistan, Sri Lanka, Myanmar and Maldives are currently the members of the ACU.

The main objectives of a clearing union are to facilitate payments among member countries for eligible transactions on a multilateral basis, thereby economizing on the use of foreign exchange reserves and transfer costs, as well as promoting trade among the participating countries.

The Asian Monetary Unit (AMU) is the common unit of account of ACU, and is denominated as 'ACU Dollar' dollar and 'ACU Euro', which is equivalent in value to one US Dollar and one Euro, respectively. All instruments of payment under ACU have to be denominated in AMUs.

Important Terms

- **ACP Countries:** About 70 African, Caribbean and Pacific (developing) countries that have preferential access to the EU market.
- **AMS:** Aggregate Measure of Support shows the extent of support provided by governments to the agricultural sector, for example, the minimum support prices (MSP) in India. There are limits set on AMS under the AOA of WTO.
- **Beggar-thy-neighbour:** It is a policy by which one nation develops at the expense of others. Beggar thy neighbour is an attempt to solve the economic problems in one country by means which hurt the economies of others. China is accused of following it by deep devaluation of renminbi and boosting its exports. Its competitors lost out to it in the process. They were deindustrialized and lost jobs. China's devaluation of currency and dumping practices have hurt the Indian economy severely. Many MSMEs had to close down.
- Cairns Group has 19 agricultural exporting countries. India is not a member. In particular, its members aim to abolish trade-distorting amber box, domestic support for agricultural products and seek to improve market access for agricultural exports.
- **Non-Agricultural Market Access (NAMA):** Non- Agricultural Market Access (NAMA) relates to trade negotiations on non-agricultural or industrial products. In the NAMA negotiations, WTO members discuss the terms or modalities for reducing or eliminating customs tariff and non- tariff

barriers on trade in industrial products. Nama 11 is a coalition of strong developing countries. They are fighting to get a fair deal from the north countries. India is a member.

- **Natural Persons:** People, as distinct from juridical persons such as companies and organisations. 'Movement of natural persons' concerns the ease of travel through and the ability to live and work in other countries.
- **Non-tariff Barriers:** Government steps other than tariffs that restrict trade flows.
- Examples include quantitative restrictions, import licensing, standards and conformance regulations.
- **Tariff Escalation:** Tariff rates that increase with each additional level of processing, thus penalising value-added products.
- Tariff peaks are relatively high tariffs, usually on 'sensitive' products, amidst generally low tariff levels. For industrialized countries, tariffs of 15 per cent and above are generally recognized as 'tariff peaks'.
- Tariff rate quotas allow a certain volume of product access at a lower tariff level. A higher tariff is charged on products imported outside the tariff quota.

महाज्योती
— ज्ञानदीप समतेचा —

SRIRAM's IAS

महाराष्ट्र शासन

महाज्योती
— ज्ञानदीप समतेचा —

महात्मा ज्योतिबा फुले संशोधन व प्रशिक्षण संस्था (महाज्योती), नागपूर

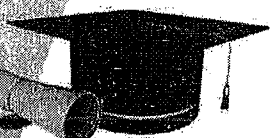
(महाराष्ट्र शासनाच्या इतर मागास बहुजन कल्याण विभागाची स्वायत्त संस्था)

महाज्योती

Ph.D विद्यार्थ्यांना अधिछात्रवृत्ती (Fellowship)

महाज्योती, नागपूर मार्फत महाराष्ट्रातील इतर मागासवर्ग प्रवर्ग विमुक्त जाती-भटक्या जमाती व विशेष मागास प्रवर्गातील उमेदवारांना भारतातील मान्यताप्राप्त विद्यापीठ/ महाविद्यालय / संस्था / यामध्ये कोणत्याही विषयात पूर्णवेळ व नियमितरित्या Ph.D करण्यासाठी कमाल ५ वर्षांसाठी अर्थसहाय्य करण्यात येणार आहे.

* लाभार्थी पात्रता/ निकष :



* उमेदवार हा महाराष्ट्राचा रहिवासी असावा.
* उमेदवार हा इतर मागास वर्गीय, विमुक्त जाती भटक्या जमाती तसेच विशेष मागास प्रवर्गातील नॉनक्रिमीलेयर गटातील असावा.
* Ph.D विद्यार्थ्यांना अधिछात्रवृत्ती (Fellowship) पात्रता पूर्ण केलेली असावी.
* विद्यापीठाकडून वेळोवेळी होणाऱ्या बदलानुसार पात्रता असणे आवश्यक राहील.

* योजनांचा लाभ घेण्यासाठी आवश्यक कागदपत्रे:

१. रहिवासी दाखला
२. जात प्रमाणपत्र
३. नॉनक्रिमिलेयर प्रमाणपत्र
४. आधारकार्ड
५. शैक्षणिक गुणपत्रक

* योजनेचा लाभ घेण्यासाठी अर्ज कुठे व कसा करावा.

महाज्योती, नागपूर कार्यालयाच्या www.mahajyoti.org.in या संकेत स्थळावरील नोटीस बोर्ड मधील "Ph.D विद्यार्थ्यांना अधिछात्रवृत्ती (Fellowship)" या टॅबवर क्लिक करून आपला अर्ज आवश्यक माहिती तसेच कागदपत्रांसहित ऑनलाईन अपलोड करावा.

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Chapter - 18
WTO and Intellectual Property Rights

Introduction

Intellectual property (IP) is the work of the intellect or the mind to create products that have commercial uses—products like drugs, literature, paintings and so on. It is protected in the same way as physical property with property rights based on trademarks, patents and so on. Holders of the patents and so on are entitled to the commercial proceeds exclusively for a specified time period.

Types of Intellectual Property Rights

- A patent is granted for a new, useful, and non-obvious invention, and it gives the patent holder an exclusive right to commercially exploit the invention for a certain period of time.
- Copyright is given for creative and artistic works, such as books, movies, music, paintings, photographs, and software, and give the copyright holder an exclusive right to control reproduction or adaptation of such works for a certain period of time.
- A trademark is a distinctive sign that is used to distinguish the products or services of different businesses.
- An industrial design right protects the form of appearance, style or design of an industrial object (e.g., spare parts, furniture, or textiles).

The need for agreement on IP arises from the fact that its creation takes substantial investment and should be incentivized. The commercial proceeds from trade in intellectual property are growing in worth.

Agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPS)

Agreement on TRIPS lays down legal standards for the member countries to protect intellectual property by way of copyright rights, geographical indications, industrial designs, integrated circuit layout designs, patents, monopolies for the developers of new plant varieties, trademarks and so on. It regulates dispute resolution procedures and enforcement procedures. However, the brunt of TRIPS is for patents.

TRIPS and Patents

A patent is an exclusionary right. It grants the right to exclude others from making use of the patented inventions for a given period. In return for the patent, the inventor offers the knowledge with commercial use to be put in public domain after the expiry of the patent. A patent is an incentive to innovate and invent. It sustains research and development (R and D).

Product and Process Patents

Under WTO, patents can be granted for the process or product. Product patents provide for absolute protection of the product, exhausting all the processes that may lead to similar products, whereas process patents provide protection with regard to a specific process or method of manufacture. Protection for process patents would not prevent the manufacture of patented products by a process of reverse engineering, where a different process or method from that which has been invented (and patented) is used. Before TRIPS, national legislation permitted only process patent protection, which allowed manufacturers in some countries like India to make generic versions of patented medicines. The aim was to make drugs and foods available at a cheaper price. But TRIPS does not allow it as it is a disincentive to innovation.

The TRIPS agreement:
- Allows both process and product patents.
- Only product patents must be awarded to food, pharmaceuticals and chemicals.
- Product patents are valid for 20 years.

Developing countries that had apprehensions about product patents agreed to it because they benefited under other agreements, for example, services and so on. The guiding principle is single undertaking—all or none.

They agreed also because they received concessional terms under TRIPS—a grace period of 10 years to adopt product patents in the fields of food, pharmaceutical and chemical.

In line with WTO's TRIPS, India changed its patent laws. Some additional safeguards were incorporated as given below.
Patents (Amendment) Act 2005 provides for:
- The availability of pre-grant and post-grant challenges.
- Incremental innovation involving small scale improvements do not qualify for new patents.
- The introduction of a provision for enabling grant of compulsory license and parallel imports to meet public health crises as provided for in TRIPS.

Prior to 1970, 85 per cent of medicines available in India were produced and distributed by multinational corporations (MNCs), and the prices of drugs in the country were among the highest in the world. The 1970 Patents Act of India provided for process patents for pharmaceuticals and agrochemical products. This enabled the growth of a strong local generic drug industry, which produces the same drugs as the MNCs at relatively low prices. When Indian manufacturers of generic drugs such as Cipla, Ranbaxy and others began manufacturing and selling drugs at much lower prices, it served a public health cause. The demand for these drugs grew in countries that could not afford to buy these drugs from MNCs.

The Indian government accepted TRIPS and product patents because the Indian pharma industry is going global and TRIPS helps R and D to capture the global pharma market. It attracts MNC investment as well. TRIPS is a part of the larger WTO package.

There was a fear that the prices of medicines would spiral due to product patents as it can lead to monopoly pricing. But on balance, it was felt that since 97 per cent of all drugs in India were off-patent, prices would be protected. Add to that the fact that the government could control the prices of essential medicines, and the fear of price rise was seen to be largely unfounded. Drug Price Control Order (DPCO) gives the government the power to regulate prices and make them affordable.

The other criticism is that patents being given for 20 years will stunt technological development in India. However, this opinion is being debated. On the positive side, the act, it:

- modernizes the law,
- helps Indian pharma companies to grow into MNCs,
- enables Indian companies to take up contract research,
- allows FDI to flow in with all the technological benefits,
- safeguards provisions to help meet public health concerns,
- allows generic manufacturers to continue in India for product patented drugs by paying a reasonable fee, and
- includes built-in safeguards.

(Generic medicines are unbranded drugs. They have the same active chemical content as the patented drug. They can be granted to drugs for which either there is a process patent or the product patent has expired.)

TRIPS and Public Health Safeguards

While the TRIPS provisions are good in the long term for the development of new medicines, they may go against availability of affordable medicines when there is a public health emergency. Therefore, there are two safeguards in TRIPS law that are incorporated into Indian law as well:

- Compulsory licensing
- Parallel imports

Compulsory licensing means that the government of the country facing public health crisis can ask for the production and sale of the drugs in the country at concessional prices based on a compulsory license that is issued. If the patent holder is ready, it gets the license; If not, it allows the government to temporarily override a patent and give license to another company. This allows generic copies of a patented product to be produced domestically, and compensation is paid to the patent holder. Generic copies of patented drugs are much cheaper than branded drugs, thereby ensuring an adequate, affordable stock of the essential drugs. This works without the consent of the patent owner.

When the pharma company that holds the patent for the drug is unwilling to price it affordably, parallel imports are the recourse available. Parallel importation is the importation of drugs from another country because the country that has a health emergency does not have the manufacturing capacity.

India's first ever compulsory license was granted by the Intellectual Property Appellate Board (IPAB) in 2012 to Natco Pharma for the production of the generic version of Bayer's Nexavar, an anti-cancer agent used in the treatment of liver and kidney cancer. Health experts and NGOs welcomed the order as it was pro-health and pro-patient. It was the only case when compulsory licensing was invoked.

The US did not like this and so India was placed on the Priority Watch List in the US Trade Representative's (USTR) Special 301 Review. Special 301 is a section in the US trade law that seeks to penalise the countries whose IP laws go against US interests.

Incremental Innovations

Section 3(d) of the Indian Patents Act disallows evergreening of patents unless it differs significantly in properties with regard to therapeutic efficacy. In 2013, the Supreme Court in a landmark ruling rejected the Swiss drug maker Novartis' plea for a patent for its anti-cancer drug Glivec, a beta crystalline of a known molecule called imatinib mesylate, saying it lacked novelty and failed to meet the country's patenting standards. It upholds India's policy stance that incremental innovations lacking 'enhanced therapeutic efficacy' as assessed by the patenting authorities will not qualify for patents.

Novartis enjoyed the patent for Glivec for 20 years and later, without adequate value addition, applied for a new patent for the same drug with mere incremental innovation.

Voluntary Licensing

Gilead Sciences entered into licensing agreements with seven Indian generic manufacturers for its Sovaldi (anti-Hepatitis-C drug). This license allows Indian companies to manufacture and sell the drug in any of the 91 voluntary-licence (VL) countries at their own price but at a 7 per cent royalty rate on sales. The manufacture of the active pharmaceutical ingredients (APIs) is in India. The criticism is that the license restricts export to only some countries and excludes many important middle-income countries. However, the consensus opinion is that Gilead's licenses are an important victory for public health:

Anti-Counterfeiting Trade Agreement (ACTA)

MNCs of the advanced world did not accept the Indian patent laws that refused to allow ever- greening and also invoked compulsory licensing provisions. They made an ACTA in 2011—a multinational treaty for the purpose of establishing international standards for intellectual property rights enforcement. The agreement was signed in 2011 between EU, Australia, Canada, Japan, South Korea, United States and some more like-minded countries.

Supporters described the agreement as a response to the increase in global trade of counterfeit goods and pirated copyright-protected works. ACTA had its own definition of counterfeit for whatever did not agree with its notion. ACTA described its IPRs protection as TRIPS Plus. If any nation did not follow it, the ACTA countries would confiscate the medicines. For example, Indian generics being sent to other developing countries could be confiscated at airports and ports of ACTA members. It is anti-WTO and was watered down in course of time.

Sui Generis System

The TRIPS agreement provides sui generis option regarding patent laws. Sui generis means generating by itself or of itself. It is a choice given to members in place of TRIPS norms. That is, they can protect inventions either on the basis of TRIPS rules for patents or any other indigenous system (sui generis) that has traditionally been in vogue in the country.

Geographical Indications (GI)

There are some goods that owe their properties to the region in which they originated and are nurtured. The climate, soil and the native efforts of the region account for their fame, utility and qualities. Some Indian examples are— basmati Rice, Darjeeling tea, Kanchipuram silk saree, alphonso mango, Nagpur orange, Kolhapuri chappal, Bikaneri bhujia, Agra petha, Mysore silk, Nilgiri tea, Coorg coffee, Mysore sandal products, Malabar pepper and others. They can apply for and obtain GI.

GI means any indications that identify the goods as originating in the territory of a country or a region or locality in that territory. It is used to identify agricultural, natural or manufactured goods. The manufactured goods should be produced or processed or prepared in that territory. It should have a special quality or reputation or other characteristics.

There are many benefits when a product or process is given a GI:

- It confers legal protection to Geographical Indications in India.
- It prevents unauthorised use of a registered Geographical Indication by others.
- There is greater accountability.
- It provides legal protection to Indian Geographical Indications which, in turn, boost exports.
- It protects the consumers.
- It promotes economic prosperity of producers of goods produced in a geographical territory.

There are rules as to who can apply for a GI. Any association of persons, producers, organisation or authority established by or under the law can apply, but the applicant must represent the interest of the producers. It is generally not granted to an individual but is given to a product for a specific period of time (10 years in India). It can be renewed from time to time for a further period of 10 years each.

GI is different from a trademark. A trademark is a sign that is used in the course of trade to distinguish goods or services of one enterprise from those of other enterprises. Basmati rice has a GI but there are many companies that produce it with under different trademarks.

In 1999, the Parliament passed the Geographical Indications of Goods (Registration and Protection) Act, 1999. This act seeks to provide for the registration and protection of geo- graphical indications relating to goods in India. The act is administered by the Controller General of Patents, Designs and Trademarks, who is the Registrar of Geographical Indications. The Geographical Indications Registry is located at Chennai. The act came into force in 2003. This is a sui generis legislation intended to give better protection to GIs of India.

In 2004–05, Darjeeling tea became the first GI-tagged product in India. Since then, about 330 products were registered as GIs by 2019, including 14 foreign GIs, according to the Cell for IPR Promotions and Management (CIPAM), which is an arm of the Department of Industrial Policy and Promotion (DIPP).

Some examples are Kancheepuram silk and Darjeeling tea. Various different states enjoy the protection. Some such products are Nagpur orange, Kangra painting, Moradabad metal craft, Firozabad glass, Kannauj perfume, Kanpur saddlery, Saharanpur woodcraft, Dharmavaram handloom pattu sarees and paavadas, Warli painting, Kolhapur jaggery, Thewa art work and the three Manipur-based knit works Moirang phee, Wangkhei phee and Shaphee lanphee. Tirupati laddu is given as prasadam to devotees after having the darshan in the temple. It received Geographical Indication tag, which entitles that only Tirumala Tirupati Devasthanams can make and sell it.

Bird's Eye chilli, Mizo chilli has been given GI. The Hyderabad haleem is one among the few Indian dishes that got a GI status. So is the famous traditional craft of Rajasthan, blue pottery made in Jaipur. Also, Pattachitra is a form of art that originated in Odisha. It is a pictorial narrative painted on a cloth-based scroll. Generally, the scrolls depict the tales of Hindu gods and goddesses.

Famous Banganapalle mangoes of Andhra Pradesh and Tulapanji rice of West Bengal are among the seven commodities that have been granted Geographical Indications in 2017–18. Others who got the GI tag recently are Pochampally Ikat of Telangana, Gobindobhog Rice of West Bengal, Durgi stone carvings and Etikoppaka toys of Andhra Pradesh and Chakhesang shawl of Nagaland. In 2016–17, as many as 33 items got GI registration.

Karnataka tops the national list, followed by Tamil Nadu, Andhra Pradesh and Kerala. Joynagarer moa is a seasonal Bengali sweetmeat delicacy made of puffed rice and palm jaggery that that got a Geographical Indication tag.

Sangli chi halad (Sangli's turmeric) from Maharashtra and Erode turmeric got the GI in 2018.

In 2019, Palani Panchamirtham panchamirtham from Palani Town in Dindigul district of Tamil Nadu, Tawlhlohpuan and Mizo Puanchei from the state of Mizoram and Tirur betel leaf from Kerala were given GI.

Palani prasadam was the second temple prasadam after Tirupati laddu that got the GI.

Tawlhlohpuan, a compactly woven fabric from Mizoram, is known for warp yarns, warping, weaving and intricate designs that are made by hand. Mizo

Puanchei is a colourful Mizo shawl considered essential by most women from the state and a common costume in Mizo festive dances and official ceremonies.

Some applications are pending. Following are some examples:
Himachal Pradesh's Kangra Arts Promotion Society sought GI, saying the art form was in vogue in the foothills of the western Himalayas and that pigments used in Kangra paintings are derived from organic and inorganic sources. The central theme of Kangra paintings is love, and the recurring themes are the six seasons or music or Krishna–Radha or Shiva–Parvati.

Manipur government's department of commerce sought GI for Moirang phee, Wangkhei phee and Shaphee lanphee, which are shawls/fabric with unique needle work, to be worn as a special recognition of honour.

Kolhapur jaggery seeks unique recognition for its white and golden chemical-free product with no added colour, chemicals, additives and flavours. Its application said the jaggery had natural sweetener and contained glucose, vitamins, calcium and minerals.
French champagne and cognac, the USA's Napa Valley, the UK's Scotch whisky and Mexican tequila are among foreign products that have acquired GI tags in India.

Rasgolla

There has been a long debate between West Bengal and Odisha over where the sweet originated. In 2017, West Bengal was granted the tag for Rasagolla Bangla, which led people to erroneously believe that the GI Registry recognized Bengal as its exclusive place of origin, which is factually incorrect.

West Bengal got GI for its Version of the Sweet

Odisha received the geographical indication (GI) tag for its local version of the Rasagolla in 2019, the Odisha Rasagola.

The GI tag for Bengal and Odisha Rasagolas recognise two distinct versions of the sweet. The Odisha Small Industries Corporation Ltd has been awarded the GI where the sweet originated is a moot point. Both West Bengal and Odisha are claiming the sweet as their own, but both the states have their own versions and dates of its origin, and the GI tags have officially accepted both the versions.

Bengalis claim that the Rasagolla was invented in the 19th century by Nobin Chandra Das in Kolkata, while Odias believe that the tradition of Niladri Bije, where Rasagola is offered, started in the 12th century.

Basmati Rice

It is a variety of aromatic rice with short and long grains that is cultivated in India and Pakistan. Basmati rice is globally known for its aroma and many unique cooking and taste properties owing to the agro-climatic conditions and farmers' efforts in the geographical areas of origin. In 2008, the Agricultural and Processed Food Products Export Development Authority (APEDA) applied for GI tag of Basmati rice. The Geographical Indication Registry approved the tag for the states of Punjab, Haryana, Himachal Pradesh, Delhi, Uttarakhand and parts of western Uttar Pradesh and Jammu and Kashmir.

Madhya Pradesh filed an application for a GI tag on basmati rice for its thirteen districts. The place of origin for of the basmati rice is the Indo-Gangetic plains. Madhya Pradesh was unable to establish that it is a part of Indo-Gangetic plains and therefore the application was rejected by the Registry. In 2019, Delhi High Court struck down the decision of the central government which restricted the basmati rice production to only seven states in the Indo- Gangetic plains.

Kadaknath Chicken

Madhya Pradesh and Chhattisgarh contested for the Geographical Indication (GI) tag for Kadaknath, a black-feathered chicken known for its high protein and very low fat and cholesterol levels. It is in high demand and is local to Jhabua and Dhar districts of western Madhya Pradesh. MP's claim over the breed was recognised, while Chattisgarh lost. It is the only animal to have a GI Tag in India.

APEDA

APEDA is a non-trading statutory body created under the Agricultural and Processed Food Products Export Development Authority Act, 1985 (APEDA Act), which provides for the development and promotion of export of certain agricultural and processed food products from India, including basmati rice. The APEDA Act was amended in 2008 to confer it powers to protect intellectual property in special products such as basmati rice. As such, APEDA is qualified to be an applicant under the GI Act.

Government Measures to Promote GIs

The government has undertaken several steps for the promotion of Indian products registered as GIs, such as:

- Participation in trade fairs and other events to promote and create awareness on GIs and increase the sale of GI products.
- Promotion of GIs through social media.
- Involving state governments and union territory administration and other relevant organizations for the facilitation of GI producers.

- In order to spread awareness for registration of GI-authorised users, awareness programmes are conducted for concerned stakeholders at various places in the country.
- Engagement with Textiles Committee under the Ministry of Textiles for marketing of commercially viable GIs.
- The online system of filing GI applications is operational since 2015. However, the examination of the application is done offline.

The Cell for IPR Promotion and Management (CIPAM) has taken up the initiative to promote Geographical Indications to supplement the incomes of our farmers, weavers, artisans and craftsmen. It is a professional body under the aegis of the Department for Promotion of Industry and Internal Trade (DPIIT), which ensures focused action on issues related to IPRs. CIPAM assists in simplifying and streamlining of the IP processes, apart from undertaking steps for furthering IPR awareness, commercialization and enforcement.

IPR Policy 2016

National Intellectual Property Rights (IPR) Policy lays down an institutional mechanism for implementation, monitoring and review. It aims to incorporate and adapt global best practices to the Indian scenario and bring together the strengths of the government, research and development organizations, educational institutions, corporate entities including MSMEs, start-ups and other stakeholders in the creation of an innovation-conducive environment, which stimulates creativity and innovation across sectors, and also facilitates a stable, trans- parent and service-oriented IPR administration in the country. The National Intellectual Property Rights (IPR) Policy endeavours for a 'Creative India; Innovative India.

Objectives

The Policy lays down the following seven objectives:

- IPR Awareness: Outreach and Promotion—To create public awareness about the economic, social and cultural benefits of IPRs among all sections of society.
- Generation of IPRs—To stimulate the generation of IPRs.
- Legal and Legislative Framework—To have strong and effective IPR laws, which balances the interests of rights owners with larger public interest.
- Administration and Management—To modernize and strengthen service-oriented IPR
- administration.
- Commercialization of IPRs—Get value for IPRs through commercialization.

- Enforcement and Adjudication—To strengthen the enforcement and adjudicatory mechanisms for combating IPR infringements.
- Human Capital Development—To strengthen and expand human resources, institutions and capacities for teaching, training, research and skill building in IPRs.

DPIIT is the nodal department to for the coordination, guidance and oversight of the implementation and future development of IPRs in India.

The policy recognizes that India has a well-established TRIPS-compliant legislative, administrative and judicial framework to safeguard IPRs, which meets its international obligations while utilizing the flexibilities provided in the international regime to address its developmental concerns. It reiterates India's commitment to the Doha Development Agenda and the TRIPS agreement.

While IPRs are becoming increasingly important in the global arena, there is a need to increase awareness on IPRs in India, be it regarding IPRs owned by oneself or respect for others' IPRs. The importance of IPRs as a marketable financial asset and economic tool also needs to be recognized. For this, domestic IP filings, as well as commercialization of patents granted, need to increase. Innovation and sub-optimal spending on R and D too are issues to be addressed.

PPVFR Act

The Protection of Plant Variety and Farmers Right Act, 2001 (PPVFR Act) was made to:

- Set up an effective system for the protection of plant varieties.
- Protect the rights of farmers and plant breeders.
- Encourage the development and cultivation of new varieties of plants.

The act was enacted to grant intellectual property rights to plant breeders, researchers and farmers who have developed any new or extant plant varieties. The rights granted under this Act are heritable and assignable and only the registration of a plant variety confers the right.

Farmers are entitled to save, use, sow, re-sow, exchange or sell their farm produce, including seeds of a registered variety in an unbranded manner. Farmers' varieties are eligible for registration.

The period of protection for field crops is 15 years and for trees and vines 18 years. The rights granted under this act are an exclusive right to produce, sell, market, distribute, import and export the variety.

Civil and criminal remedies are provided for enforcement of breeders' rights. There are provisions relating to benefit- sharing and compulsory licencing, in case a registered variety is not made available to the public at a reasonable price.

Compensation is also provided for villages or rural communities if any a registered variety has been developed using any variety in whose evolution such a village or the local community has contributed significantly.

PepsiCo

The US snack and beverage giant PepsiCo sued a handful of farmers in Gujarat for cultivating a variety of potato that the multinational claims as its own. The American major uses the particular tuber in question for making Lay's brand of chips.

PepsiCo has taken the farmers to court for infringing on its intellectual property right (IPR) by cultivating FL 2027, one of the two potato varieties registered by the company. Registration confers an exclusive right on the breeder to produce, sell, market, distribute, import and export the said variety.

Indian law gives an upper hand to the farmers as per the PPVFRA, which overrides other provisions to guarantee the right of farmers to use seeds. It says that 'notwithstanding any- thing contained in this act,' a farmer is entitled 'to save, use, sow, re-sow, exchange, share or sell his farm produce, including seed of a variety protected under this act in the same manner as he was entitled before the coming into force of this act, provided that the farmer shall not be entitled to sell branded seed of a variety protected under this act.'
The Protection of Plant Varieties and Farmers' Rights Act, 2001 (PPV and FRA), a sui generis system, was enacted to meet the World Trade Organization's (WTO) demand for legislation to protect breeders' interests.

India's law is unique because it seeks to protect the rights of breeders as well as farmers. There is a special chapter that safeguards farmers' access to seeds too, and it is the only legislation globally guaranteeing farmers' rights. Other countries subscribe to an instrument called the Union for the Protection of Plant Varieties (UPOV), an international agreement with several versions, that offers limited rights to farmers.

Covid 19 and IPRs

The COVID-19 pandemic has caused Governments to contemplate measures to override patents and other intellectual property rights (IPRs) in order to facilitate production and distribution of vaccines, treatments, diagnostics and medical devices.

By 2021, as countries around the world started vaccinating their residents against COVID-19, the unequal distribution of vaccines between rich and poor countries has become obvious and alarming. Since October, the World Trade Organisation has been debating a proposal initiated by India and South Africa to waive obligations under the Trade-Related Aspects of Intellectual Property Rights or TRIPS agreement to make COVID-19 technologies, including vaccines, quickly accessible to across the world. During the TRIPS council meeting on February, developed countries continued to oppose movement on the proposal.

India raised the issue with the WTO for two reasons: The mismatch between the supply and demand; and the intensification of manufacturing in the hands of a few private manufacturers. It presented an urgent need to enhance the COVID-19 vaccine availability using the existing production facilities of diverse vaccine manufactures across the globe to ensure equitable access.

The proposal of India and South Africa made the proposal to temporarily suspend the intellectual property rights around products that would protect, contain, and treat COVID-19. That includes waiving protections for patents — as has been done for HIV treatments, among other drugs — but also copyrights, industrial designs, and trade secrets until widespread vaccination is in place globally, and the majority of the world's population has developed immunity.

The proposal would protect countries from having a dispute resolution brought against them at the WTO if they take steps to begin producing or distributing the products. It gives them freedom to operate, to take steps at the national level, including the potential to manufacture and distribute immunizations at a cost well below what the current patent holders are charging.

The proposal was initially tabled in October in the TRIPS Council, a committee dedicated to discussing the implementation of the WTO's intellectual property agreement, where it has rallied support from other low- and middle-income countries.

At the same time, it has also drawn plenty of criticism, led by pharmaceutical companies. Who said that the effort would jeopardize future medical innovation, making us more vulnerable to other diseases.

Critics however dismiss that argument, pointing out that much of the research was publicly funded or came from charities. They opine that this North-South distrust in respect to vaccines, which is a common good puts the global south in danger of being left behind in the COVID-19 response, particularly as it faces additional expenses in shoring up cold chains and distribution efforts.

Another point of view is that there are exemptions within the TRIPS Agreement that could be leveraged to gain legal access to the patents, copyrights, or industrial designs that lower-income countries say they need to begin production.

Those exemptions include the right to issue compulsory licenses and gain access to patents without the holder's consent, as well as the security exceptions under Article 73 of the TRIPS Agreement that might be broadly interpreted to offer access to copyrights and industrial designs, which are not included in compulsory licenses. Art.73 of the TRIPS is also an exception that can be invoked.

But access-to-medicine activists highlighted a number of hurdles to actually taking advantage of these exemptions, including the time required to issue individual compulsory licenses, which might then be contested by the technology owner, and a history of higher-income countries threatening lower-income countries with WTO disputes when they attempt to claim an exception. There is also uncertainty around the possible reactions to a security exception claim.

Article 73 of the TRIPS Agreement

It provides for the security exceptions that states can invoke to defend their non-compliance with the TRIPS Agreement. This is a unique provision in the context of international intellectual property law. Article 73 permits a state to take any action which it considers necessary for the protection of its essential security interests' during the 'time of war or other emergency in international relations.

World Intellectual Property Organization (WIPO)

The World Intellectual Property Organization (WIPO) is one of the 15 specialized agencies of the United Nations (UN). WIPO was created in 1967 'to encourage creative activity, to promote the protection of intellectual property throughout the world'.

WIPO currently has 191 member states, administers 26 international treaties like Patent Cooperation Treaty, the Madrid system for trademarks and the Hague system for industrial designs among others.

It is headquartered in Geneva, Switzerland. The WTO and WIPO have a cooperation agreement.

The difference between WTO and WIPO is that

1. WTO has a wider mandate for regulating global trade.
2. WTO is not a UN-specialized agency and is neither a part of the UN system.
3. All WTO members have to compulsorily accept the TRIPS rules, while WIPO members need not adopt the treaties that the WIPO administers.

Chapter - 19
Global Financial Architecture

Introduction

The financial world has grown enormously more inter-connected and complex since the emergence of the Bretton Woods institutions in 1945. Globalization has spread deep and wide. World-wide interactions have expanded on a mammoth scale. International cooperation and coordination has strengthened. There have also been crises at the regional and global level such as in 1997 in East Asia and the 2008 global great recession.

With so many benefits flowing from globalization, financial, monetary and economic stability is indispensable for future growth in the world. Therefore, global groups have emerged that take periodical stock at the summit level for prompt and strong action for financial and monetary stability along with growth and alleviation of poverty at the global and national level.

There are many old and new institutions in place for these goals to be achieved. They address the need for growth and development, monetary stability, check on money laundering and terror financing, lower the risk of financial crises and spill-over effects, etc.

The institutions are:
- Bretton Woods Institutions
- Asian Development Bank (ADB)
- New Development Bank (NDB)
- Contingent Reserve Arrangement (CRA)
- Asian Infrastructure Investment Bank (AIIB)
- Bank for International Settlements (BIS)
- Financial Stability Board (FSB)
- Groups

Groups

G-7

The Group of Seven (G7) is a group comprising Canada, France, Germany, Italy, Japan, the United Kingdom, and the United States. Russia had been a member but was abandoned in 2014. These countries, the seven advanced economies in the world, along with the European Union, which is also represented at the G7 summit, meet annually at the summit level. The summits in 2020 and 2021 will be held in the USA and UK, respectively.

The G7 conducts dialogue and seeks agreement on current economic issues on the basis of the comparable interests of those countries. The 2019 France summit discussed US– China trade tensions, sanctions on Iran, Amazon forest fires, etc. PM Modi attended the G7 Summit as a special guest as he was invited by the French President Emmanuel Macron.

G10

The Group of Ten (G10) refers to the group of countries that have agreed to participate in the General Arrangements to Borrow (GAB), a supplementary borrowing arrangement that can be invoked if the IMF's resources are estimated to be below a member's needs. The GAB was established in 1962. Switzerland later joined, expanding its membership to 11, but the name G10 remained the same. The following international organizations are official observers of the activities of the G10: Bank for International Settlements (BIS), the European Commission, IMF, and OECD.

G-15

The Group of Fifteen (G15) was established in 1989 as a forum to take up economic cooperation among developing countries—the South-South cooperation. It comprises 18 countries, but the name has remained unchanged. India is a founding member. The group is not as functional as before anymore.

G-20

The Group of 20 (G20) is a group of advanced and emerging market economies, including India. In the aftermath of the East-Asian financial crises in 1997, the G20 was created in 1999 to strengthen policy coordination between its members, promote financial stability, and modernize the international financial architecture. India was the chairman in 2002 as the meet was held in Delhi.

Before the outbreak of the global financial crisis of 2008, G20 meetings of Finance Ministers and Central Bank Governors were held to discuss international financial and monetary cooperation and policies, reform of international financial institutions and issues surrounding economic development.

The first G20 Leaders' Summit (Heads of state and government) was held in 2008 following the Lehman meltdown. Since then, the G20 assumed an increasingly active role in global economic issues. G20 is the 'the premier forum for international economic cooperation'. The 2020 G20 Riyadh summit will be the fifteenth summit. India will host the G20 Summit In 2022, when the country celebrates its 75th year of Independence.

The IMF works closely with the G20, particularly on issues related to global economic growth and international monetary and financial stability.
It comprises Argentina, Australia, Brazil, Canada, China, the European Union, France, Germany, India, Indonesia, Italy, Japan, Mexico, Russia, Saudi Arabia, South Africa, South Korea, Turkey, the United Kingdom, and the United States.
To ensure that global economic forums and institutions work together, the Managing Director of IMF and the President of World Bank, plus the chairs of the IMFC and the Development Committee also participate in G20 meetings on an ex-officio basis. Japan hosted the summit in 2019.

G-24

The Group of Twenty-Four (G24), originally a chapter of the G77, was established in 1971 to coordinate the positions of emerging markets and developing countries on international monetary and development finance issues and to ensure that their interests were adequately represented at the Bretton Woods Institutions, particularly in the IMFC and Development Committee meetings of IMF and the World Bank. The group, officially called the Inter-governmental Group of Twenty-Four on International Monetary Affairs and Development, is not an organ of the IMF, but the IMF provides secretariat services for the group. The Ministers of the Group meet twice a year, prior to the IMFC and Development Committee meetings. China has been a Special Invitee since 1981.

G-77

The Group of Seventy-Seven (G77) was established in 1964, by seventy-seven developing countries at the end of the first session of the United Nations Conference on Trade and Development (UNCTAD) in Geneva. It was formed to articulate and promote the collective economic interests of its members and to strengthen their joint negotiating capacity on all major international economic issues within the United Nations system. The membership of the G77 has since expanded to 134 member countries, but the original name has been retained because of its historical significance. Egypt held the Chairmanship of the Group of 77 for the year 2018. The State of Palestine is chair for the year 2019.

Institutions

ADB

The Asian Development Bank (ADB) is a regional development bank headquartered in Manila, Philippines. It admits members of the United Nations Economic and Social Com- mission for Asia and the Pacific (UNESCAP) and non-regional developed countries. ADB has 67 members, of which 48 are from within Asia and the Pacific and 19 from outside. The ADB was modelled on the

World Bank and has a similar weighted voting system, in which votes are distributed in proportion with the members' capital subscriptions. ADB is an official United Nations Observer. Japan and United States hold the largest proportion of shares, followed by China, India and Australia.

ADB's mission is to help its developing member countries from Asia and Pacific reduce poverty and improve the quality of life of their people. ADB's main partners are governments, the private sector, non-government organizations, development agencies, community-based organizations, and foundations.

Under Strategy 2020, a long-term strategic framework adopted, ADB follows three complementary strategic agendas—inclusive growth, environmentally sustainable growth, and regional integration. In pursuing its vision, ADB's main instruments comprise loans, technical assistance, grants, advice, and knowledge. The Asian Development Outlook is an annual publication produced by the Asian Development Bank (ADB). It is similar to Global Economic Prospects, a similar publication by the World Bank Group and World Economic Outlook, a publication of IMF.

European Central Bank (ECB)

The eurozone (euro area) is a monetary union of 19 of the 27 European Union (EU) member states (Brexit leaves United Kingdom out). They have adopted the euro (€) as their common currency and sole legal tender. The other eight members of the European Union continue to use their own national currencies. The monetary authority of the eurozone is the ECB. It makes and administers the monetary policy of the 19 eurozone member states. It is thus one of the world's most important central banks. The bank is headquartered in Frankfurt, Germany.

New Development Bank (NDB)

The New Development Bank (NDB), BRICS Bank, is a multilateral development bank owned and managed by the BRICS states. During the sixth BRICS Summit in Fortaleza (2014), the leaders signed an agreement establishing the New Development Bank (NDB) to strengthen cooperation among BRICS and supplement the efforts of multilateral and regional financial institutions for global development, thus contributing to strong, sustain- able and balanced growth. NDB intends to mobilize resources for infrastructure and sustainable development projects in BRICS and other emerging economies and developing countries.

NDB seeks to support public or private projects through loans, guarantees, equity participation and other financial instruments.

It shows the growing role of BRICS and other emerging markets and developing countries (EMDCs) in the world economy, and their greater willingness to act independently in matters of international economic governance and development. NDB's mandate is that it will mobilize resources for infrastructure and sustainable development projects in BRICS and other EMDCs. The bank will contribute to the investment needs of the founding members and other EMDCs.

The initial authorized capital of the bank is $100 billion. The initial subscribed capital of the NDB is $50 billion, which is equally distributed among the founding members, unlike CRA of BRICS. The voting power of each member is equal.

K. V. Kamath is the President of the NDB. The bank is headquartered in Shanghai, China. The Inaugural Chairman of the Board of Directors came from Brazil. The Inaugural Chairman of the Board of Governors is Russian.

NDB is financing US$ 350 million for the Development and Upgradation of Major District Roads Project in Madhya Pradesh. This is the first loan agreement for NDB-assisted projects in India.

NDB will also provide a loan of USD 175 million to Madhya Pradesh Bridges Project. The objective of the project is to tackle the weak links of the road network, the bridges of Madhya Pradesh, to realize the full benefits of upgrading the state highways and major districts roads, through the construction and upgradation of about 350 bridges in Madhya Pradesh. The positive impacts of the project include promoting inclusive development of the rural communities in Madhya Pradesh and stimulating regional economic development through improved connectivity, enhanced accessibility and increased job opportunities.

Asian Infrastructure Investment Bank (AIIB)

The AIIB was established as a new multilateral financial institution that aimed to provide 'financial support for infrastructure development and regional connectivity in Asia'.

It is headquartered in Beijing. Its goals are also to:

- boost economic development in Asia,

- create wealth,
- provide infrastructure, and
- promote regional cooperation and partnership.

AIIB will 'provide or facilitate financing to any member, or any agency or enterprise operating in the territory of a member, as well as to international or regional agencies or entities concerned with the economic development of the Asia region.'

The starting capital of the bank was $100 billion, equivalent to two-thirds of the capital of the Asian Development Bank and about half that of the World Bank. China, India and Russia are the three largest shareholders of AIIB, with China holding almost 30 per cent of the share, and India about 7.5 per cent and Russia even less.

By mid-2019, the total number of countries approved for membership of AIIB was 100 (Regional Members: 44, Non-Regional Members: 28, Prospective Members: 28) AIIB's third Annual Meeting was held in Mumbai, India, in 2018.

AIIB approved six projects worth $1.2 billion in loans to India for infrastructure-related projects, and an additional $1.9 billion is under review. The fund will invest in six projects, including $500 million in the Mumbai Metro and $455 million in rural roads of Andhra Pradesh. This also includes $200 million to the National Investment and Infrastructure Fund (NIIF) as well as a loan of US$160 million in support of the Andhra Pradesh–24x7 Power for All project with the objective of strengthening the power transmission and distribution system in the state of Andhra Pradesh.

AIIB has the potential for 'scaling up financing for sustainable development' and to improve global economic governance.

Contingent Reserve Arrangement has been discussed in chapter 27.

European Bank for Reconstruction and Development (EBRD)

European Bank for Reconstruction and Development (EBRD) is an international financial institution. As a multilateral developmental investment bank, the EBRD uses investment to build market economies. It began by assisting the countries of the former Eastern Bloc but expanded to support development in many countries from central Europe to central Asia. EBRD has membership from all over the world, the biggest shareholder being the United

States. It provides loans regionally to its countries of operation. It helps countries that have a multi-party democracy as a rule, unlike other similar bodies. Its headquarters are in Lon- don.

EBRD is owned by 69 countries and two EU institutions (European Union and European Investment Bank), the 69th member being India, which joined in 2018. Though it has public sector shareholders, it invests in private enterprises, together with commercial partners. The EBRD is separate from the European Investment Bank (EIB), which is owned by EU member states and is used to support EU policy. Membership of EBRD would enhance India's international profile and promote its economic interests.

EBRD is working closely with leading Indian organisations such as. the Federation of Indian Chambers of Commerce and Industry (FICCI), the Confederation of Indian Industry (CII), the Associated Chambers of Commerce and Industry of India (ASSOCHAM) and the International Solar Alliance (ISA).

Bank for International Settlements (BIS)

The Bank for International Settlements (BIS) is an international financial institution owned by central banks; it works for international monetary and financial cooperation and serves as a bank for central banks. The BIS carries out its work through its meetings, programmes and through the Basel Process: hosting international groups pursuing global financial stability and facilitating their interaction. It also provides banking services, but only to central banks and other international organizations. It is based in Basel, Switzerland.

Financial Stability Board (FSB)

The Financial Stability Board (FSB) is an international body that monitors and makes recommendations about the global financial system. The FSB promotes international financial stability; it does so by coordinating national financial authorities and international standard-setting bodies as they work toward developing strong regulatory, supervisory and other financial sector policies.

The Board includes all G20 major economies and European Commission, among others. Hosted and funded by the Bank for International Settlements, the Board is based in Basel, Switzerland.

Organisation for Economic Co-operation and Development (OECD)

The Organisation for Economic Co-operation and Development (OECD) is an international economic organisation of 34 developed countries to stimulate economic progress and world trade. It is a forum of countries committed to democracy and market economy, providing a platform to compare policy experiences, seeking answers to common problems, identifying good practices and co-ordinating domestic and international policies of its members. Its membership includes non-European states. The OECD's headquarters are located in Paris. India is on the Governing Board of the OECD's Development Centre and also participates as an observer in some OECD Committees.

World Trade Organisation (WTO)

WTO is a global trade facilitator and regulator and contributes to global economic development through trade, investment and innovation.

Chapter - 20
Poverty: Concepts, Data, Policy and Analysis

Introduction

Poverty is the deprivation of basic human needs–food, clothing, shelter, safe drinking water, etc. It also includes the deprivation of opportunities to health, education, skills, employment, etc. The inadequate availability of the above goods and services means that the quality of life is also degraded.

There are many reasons for poverty. Some of them are:

- Colonial destruction of economy;
- Uncontrolled population growth;
- Growth is not rapid enough to eradicate poverty;
- Models of growth may be unsuitable for poverty alleviation. For example, capital-intense growth in a labour surplus country like India;
- Poverty is a vicious circle wherein parental poverty leads to poverty for their children and so on;
- Poor educational base and lack of other vocational skills also perpetuate poverty;
- Small land holdings and their low productivity are the cause of poverty among households dependent on land-based activities for their livelihood;
- Geographic factors, for example, lack of fertile land and access to natural resources;
- Anti-poverty schemes not being effective due to institutional and other inadequacies;
- Insurgencies as in the north east of India and naxalism as in the eastern corridor;
- Due to the poor physical and social capital base, a large proportion of the people are forced to seek employment in vocations with extremely low levels of productivity and wages; and
- Gender discrimination.

Poverty and its Types

- Human Poverty is the lack of essential human capabilities–literacy and nutrition.
- Income Poverty is the lack of sufficient income to meet minimum consumption needs.
- Extreme Poverty The World Bank defines extreme poverty as living on less than $1.90 a day.

- Relative Poverty is poverty defined according the standard of living of a specific country. The poverty line of a rich country is much higher than that of a middle income or low income country.
- Absolute Poverty is defined in relation to the consumption of one or more goods and services.

Poverty Line

Poverty line is the level of income below which one cannot afford to purchase all the resources one requires to have a certain minimum quality of life.

Poverty lines are defined as per capita monetary requirements an individual needs to afford the purchase of a basic set of goods--food and other goods.

Some definitions include only certain calories of intake and convert it into monetary value. In India, monetary requirement to consume 2100 calories in urban areas and 2400 calories in rural areas per day per person was the absolute poverty line but was changed later by the Tendulkar committee in 2010. Other definitions include more goods and services in the basket. For example, the one given by the Rangarajan Committee in 2014. The monetary value is determined and indexed to inflation and the line is drawn dynamically.

Headcount Ratio

The incidence of poverty is revealed by this ratio. It shows the percentage of the population whose income is below the poverty line, that is, the population that cannot afford to buy a specified basic basket of items.

Poverty Gap (PG)

PG is a measure of the intensity of poverty among the poor: the difference between the aver- age income among the poor and the poverty line. This indicator measures the magnitude of poverty as well as its intensity—number of poor and how poor the poor are. The Poverty Gap Index is the combined measurement of incidence of poverty and depth of poverty. PG is also called the Foster-Greer-Thorbecke (FGT) index.

Misery Index

The misery index was given by economist Robert Barro in the 1970's. It is the unemployment rate added to the inflation rate. It is based on the belief that a higher rate of unemployment and worsening inflation intensify the misery. A mix of high inflation and more unemployed people (stagflation) means a rise in the misery index.

World Bank and Poverty Definitions

The World Bank defined extreme poverty at $1.9 per person per day. In an attempt to be more precise with its classifications, the World Bank in 2017 added new standards of poverty for people living in middle and high-income countries. The new standards are set at $3.20 per person per day for 'lower-middle-income' countries, such as Egypt or India, $5.50 per person per day for 'upper-middle-income' countries, such as Russia, a third standard for high-income countries, like the US, at $21.70 per person per day.

Planning Commission and Poverty

The Planning Commission till 2014 was the nodal agency in the Government of India for the estimation of poverty—the number and percentage of poor at national and state levels. Estimates of poverty are made from the large sample survey data on household consumer expenditure conducted by the National Sample Survey Organization (NSSO) of the Minis- try of Statistics and Programme Implementation.

NSSO and Poverty Estimates

The NSSO collects household consumer expenditure data every 5 years on a large sample. Though the household consumer expenditure surveys are also conducted annually, but the sample size is much smaller. Every 5 years, full surveys on 1,20,000 households are carried out. In the intervening period, 'thin' samples of around 20,000 households are surveyed. The 'thin' samples do not indicate the trends fully.

Committees

The Planning Commission initially gave poverty numbers and related data since 1979 based on the definition of poverty linked to calories consumption in the rural and urban areas at 2400 and 2100 calories per capita per day respectively, given by the Alagh Committee Report and the Lakdawala Committee (1993). In 2005, the Planning Commission appointed an expert group led by Suresh Tendulkar to suggest a new poverty line for rural areas. It submitted its report in 2009. It used the latest data to construct a new basket to define the poverty line. It moved away from calorie intake as the anchor for poverty estimation and included a small basket of goods and services like health and education. The Arjun Sengupta Commission on Unorganized Enterprises in 2007 estimated that 77 per cent of the population can be categorized poor and vulnerable.

NC Saxena Committee

The Ministry of Rural Development in 2008 appointed a committee headed by NC Saxena to calculate the rural BPL figures in the states. It recommended that 50 per cent of India's population be given below poverty line cards.

While advocating the exclusion of large number of families from the BPL lists, the committee recommended that families who have agricultural land double the size of the district average or possess a two wheeler or one running bore well or have members who are income tax payers would be deleted from the BPL lists. The panel recommended that some disadvantaged communities be given BPL cards automatically. These include chronically vulnerable groups, such as households with members having tuberculosis, leprosy, disability, mental illnesses or HIV/AIDS and others, designated 'primitive tribe', designated Dalit groups, homeless households, etc.

It recommended 13 new parameters for defining the BPL category of people in the country. The revised definition is based on landholding, type of dwelling, clothing, food security, hygiene, capacity for buying commodities, literacy, minimum wages earned by the household, means of livelihood, education of children, debt, migration and priority for assistance. It did do away with the earlier definition based on food calories.

Urban Poverty

S. R. Hashim Committee

The Planning Commission constituted an expert group under S.R. Hashim in 2010 to recommend detailed methodology for the identification of BPL families in urban areas in the context of the 12th Five-Year Plan. The expert group recommended that poverty in urban areas be identified through specific vulnerabilities in

- residential,
- occupational, and
- social categories.

It said that those who are houseless and live in temporary houses where usage of dwelling space is susceptible to insecurity of tenure and is affected by lack of access to basic services should be considered residentially vulnerable.

Houses with people unemployed for a significant proportion of time or with irregular employment or whose work is subject to unsanitary or hazardous conditions or have no stability of payment for services should be regarded occupationally vulnerable.

Households headed by women or minors or where the elderly are dependent on the head of the household or in which the level of literacy is low or members are disabled or chronically ill should be considered socially vulnerable.

Pronab Sen Committee

The Ministry of Housing and Urban Poverty Alleviation set up a committee to look into various aspects of Slum statistics/Census and issues regarding the conduct of slum census in 2011 under the Pronab Sen Committee. The committee submitted its report in 2010.

The salient finding/recommendations of the committee were:

- The committee projected slum population in the country for the year 2011 at 93.06 million.
- The committee recommended a definition of a slum as: 'A compact settlement of at least 20 households with a collection of poorly built tenements, mostly of temporary nature, crowded together usually with inadequate sanitary and drinking water facilities in unhygienic conditions.'

The committee suggested the adoption of the following as slum-like characteristics for the identification of slum areas:

- Predominant Roof Material: Any material other than concrete.
- Drainage Facility: No drainage or open drainage.

Socio Economic and Caste Census (SECC)

The Socio Economic and Caste Census 2011 (SECC) was conducted for the 2011 Census of India. SECC 2011 was the first paperless census in India. It was also the first-ever caste- based census since the 1931 Census.

SECC 2011 was conducted by three separate authorities but under the overall coordination of Ministry of Rural Development in the Government of India:

- Census in Rural Area has been conducted by the Ministry of Rural Development.
- Census in Urban areas is under the administrative jurisdiction of the Ministry of Housing and Urban Poverty Alleviation.
- Caste Census is under the administrative control of the Ministry of Home Affairs: Registrar General and Census Commissioner of India.

GOI is using the SECC data for:

- Pradhan Mantri Ujjwala Yojana (PMUY)—the scheme to give free LPG connections to the poorest households.
- PM Awas Yojana (PMAY) to build low-cost houses for the poor.

- Electricity connection under the Deen Dayal Upadhyaya Power Scheme.
- Building toilets under the Swachh Bharat Mission
- Preparing labour budgets under the MNREGA and
- Ayushman Bharat scheme.

Rangarajan Committee

An expert group under the Chairmanship of Dr. C. Rangarajan was constituted by the Planning Commission in 2012 to review the methodology for the measurement of poverty in the country and submitted its report in 2014. The reason for setting up the panel was that the Tendulkar poverty line was found unsatisfactory in its methodology. The panel also looked into the issue of linking poverty estimates with providing benefits under the government's social welfare schemes. That is, it dealt with the question of whether entitlements are to be given only to the poor or more people.

It defined poverty based on criteria of adequate nourishment, clothing, house rent, conveyance, education, etc. It also redefined calorie intake by including calories from protein and fats based on ICMR norms differentiated by age and gender.
Based on this methodology, it reset the poverty line in 2014. According to the Committee, the new poverty line should be `32 in rural areas and `47 in urban areas at 2011–12 prices. The earlier poverty line figure was `27 for rural India and `33 for urban India.

The Rangarajan report added 94 million more to the list of the poor as its line was drawn higher. The total number of poor became 363 million from 269 million in 2011–2012. Rangarajan committee's estimation of the number of poor was 19 per cent higher in rural areas and 41 per cent higher in urban areas than what was estimated using the Tendulkar Committee's formula.

Covid-19 and Poverty in India

Estimate from the International Monetary Fund (IMF) reports - World Economic Outlook: A Long and Difficult Ascent, October 2020 and Fiscal Monitor: Policies for the Recovery, October 2020- shows that in India 40 million would turn extremely poor.

The pandemic has had a disproportionate effect on low-income households because they are concentrated in the informal sectors, are more vulnerable to job losses, have lower financial savings, and have less access to healthcare.

Prof. Arvind Panagariya's recent book "New India: Reclaiming the Lost Glory" 2020 which shows92.4%of its workers are employed in small firms (1-50 workers), 2.3% in medium (51-200 workers) and 5.3% in large firms (more than 200 workers). Thus, social protection was absent and economic shocks dealt a severe dent to their livelihoods.

Global Hunger Index 2020 report ranked India at 94 out of 107. This index is based on four component indicators: undernourishment; child wasting; child stunting and child mortality.

The Global Hunger Index 2020 warned that in 2020, owing to the COVID-19 pandemic, the values of some of the GHI component indicators, and in turn the GHI scores, are likely to worsen. As for India, it says: "In India, the pandemic is aggravating an already serious hunger situation."

GDP growth for the April-June 2020 quarter crashed to minus 23.9%. The RBI estimates the GDP growth for the entire fiscal to be minus 9.5% which may worsen the impoverishment of the vulnerable.

Government Response: The Central Government initially responded with a Rs. 1.7 lakh crore relief package for citizens under the Pradhan Mantri Garib Kalyan Yojana (PMGKY). Further social assistance measures were included in the Atmanirbhar Bharat package announced in mid-May 2020. Simultaneously, state governments have introduced additional measures for migrant workers, construction workers, below poverty line (BPL) individuals and low-income households.

The problem lay with the delivery in which the challenges are the following:
Even before the pandemic, the effective distribution of social protection benefits faced issues like insufficient staffing, funding, and training of local-level government bodies and organizations (including SHGs and NGOs). These barriers were worsened by issues such as information asymmetry and the insufficiency of performance-based incentives for local agents, which affect their motivation and performance as well.

Common Service Centres (or CSCs) that are front-end channels for delivering services at the last-mile have their fair share of problems, associated with weak connectivity, poor infrastructure, minimal incentives and a lack of automated backend processes.

While the JAM trinity and the increasing reliance on Direct Benefit Transfers have been a step towards automating the existing structure, leveraging technology for targeting had its own cost – beneficiaries are often excluded, preventing such systems from working efficiently. For example, the Aadhaar-Based Biometric Authentication at Fair Price Shops often fails to read fingerprints of elderly and those engaged in manual work as demonstrated in Karnataka, Gujarat and Rajasthan. Direct benefit transfers have been plagued by several exclusion errors, such as beneficiaries being unable to access the formal financial system (they are unbanked), inability to comply with know your customer(KYC) requirements, administrative errors in identity documents, errors in Aadhaar seeding and authentication failures. Fair Price Shop (Public Distribution System, PDS) beneficiaries are chosen on the basis of a poverty line that may not reflect the accurate socio-economic status of a household. A recent study found that the usage of 2011 Census data to calculate state-wide PDS coverage has led to large-scale exclusions from the program. The use of Direct Benefit Transfers to transfer relief funds may also exclude citizens without active Jan Dhan accounts.

It is important that these issues are resolved for better delivery.

Eradication of Poverty

The strategy of the Government includes the following elements:

- Growth of economy is the primary source of poverty eradication.
- Government interventions focused on MSMEs for inclusive growth.
- Welfare State. For example, National Food Security Act (NFSA) 2013. Energy security through schemes like Saubhagya, Ujjwala, etc.
- Progressive taxation to garner fiscal resources for spending on the poor.
- Social safety net like Pradhan Mantri Shram Yogi Maan-dhan (PM-SYM) to ensure old age security.
- Anti-poverty programmes. Pradhan Mantri Awas Yojana, Deendayal Antyodaya Yojana (DAY), etc.
- Skill building
- Decentralization through Panchayati Raj Institutions (PRIs) and Nagarapalikas for better delivery models.

The 2018 Multidimensional Poverty Index (MPI) of Oxford Poverty and Human Development Initiative (OPHI) report said that nearly 271 million people were lifted out of poverty in the period between 2005–2006 to 2015–2016 in India. The poverty rate was down from 55 per cent to 28 per cent, becoming nearly half in the period.

Multidimensional Poverty Index (MPI)

Before Tendulkar and Rangarajan Committees, in India, poverty was defined with reference to a single dimension—consumption of calories and the income required for it. But no one indicator alone can capture the multiple aspects that constitute poverty. Therefore, the Multidimensional Poverty Index (MPI) was developed in 2010 by the Oxford Poverty and Human Development Initiative and the United Nations Development Programme and uses different factors to deter- mine poverty beyond income-based lists. It replaced the previous Human Poverty Index.

The index uses the same three dimensions as the Human Development Index—health, education, and standard of living. These are measured using ten 10 indicators.

Dimension	Indicators
Health	• Child Mortality • Nutrition
Education	• Year of school • Children enrolled
Living Standards	• Cooking fuel • Toilet • Water • Electricity • Floor • Assets

Each dimension and each indicator within a dimension is equally weighted.

The MPI is an index of acute multidimensional poverty. It shows the number of people who are multidimensionally poor through multiple dimensions (suffering deprivations in 33 per cent of weighted indicators) and the number of deprivations with which poor house- holds typically contend.

MPI helps in identifying the sources of poverty. For example, there are people who have income but have no access to health or education. It thus alerts the government towards providing those goods and services that are necessary to comprehensively alleviate poverty and build human capacity. Angus Deaton who was given awarded the Nobel prize in economics in 2015 said that quantity as well as quality of data matters for right public policy.

UN Development Programme, Multidimensional Poverty Index and India 2019

The 2019 global Multidimensional Poverty Index (MPI) from by the UN Development Programme (UNDP), the Oxford Poverty and Human Development Initiative (OPHI) released in mid-2019 said that India lifted 271 million people out of poverty between 2006 and 2016, recording the fastest reductions in the multidimensional poverty index values during the period, with strong improvements in areas such as assets, cooking fuel, sanitation and nutrition. India's MPI value reduced from 0.283 in 2005–2006 to 0.123 in 2015–2016.

Jharkhand in India reduced the incidence of multidimensional poverty from 74.9 per cent in 2005–2006 to 46.5 per cent in 2015–2016.

India reduced poverty as shown below:

- Deprivation in nutrition from 44.3 per cent in 2005–2006 to 21.2 per cent in 2015–2016.
- Child mortality dropped from 4.5 per cent to 2.2 per cent.
- People deprived of cooking fuel reduced from 52.9 per cent to 26.2 per cent.
- Deprivation in sanitation from 50.4 per cent to 24.6 per cent.
- Those deprived of drinking water reduced from 16.6 per cent to 6.2 per cent.
- More people gained access to electricity as deprivation was reduced from 29.1 per cent to 8.6 per cent.
- Deprivation in housing from 44.9 per cent to 23.6 per cent.
- Assets deprivation from 37.6 per cent to 9.5 per cent.

Thus, India has shown statistically significant progress towards achieving Sustainable Development Goal 1, namely, ending poverty in all its forms, everywhere.

Niti Aayog Task Force on Poverty Elimination

Constituted in 2015 under the Chairmanship of Dr. Arvind Panagariya, Vice Chairman, NITI Aayog, the report of the Task Force primarily focuses on issues of measurement of poverty and strategies to combat poverty. Regarding the estimation of poverty, the report could not reach a consensus. With respect to strategies to combat poverty, the Task Force made recommendations on faster poverty reduction through employment intensive sustained rapid growth and the effective implementation of anti-poverty programs.

महाज्योती
ज्ञानदीप समतेचा

SRIRAM's IAS

Sustainable Development Goals (SDGs), Millennium Development Goals (MDGs)

Millennium Development Goals (MDGs)

The Millennium Development Goals (MDGs) were the 8 international development goals to be achieved by the year 2015 that had been established following the Millennium Summit of the United Nations in 2000, subsequent to the adoption of the United Nations Millennium Declaration. Following are the MDGs:

- To eradicate extreme poverty and hunger
- To achieve universal primary education
- To promote gender equality and empower women
- To reduce child mortality
- To improve maternal health
- To combat HIV/AIDS, malaria, and other diseases
- To ensure environmental sustainability
- To develop a global partnership for development.

Sustainable Development Goals (SDGs)

The Sustainable Development Goals (SDGs), officially known as 'Transforming Our World: The 2030 Agenda for Sustainable Development' is a set of 17 aspirational 'Global Goals' with 169 targets between them. Spearheaded by the United Nations, involving its 193 Member States as well as the global civil society, the goals were inspired by the gravity of the following observation: 'there can be no Plan B, because there is no Planet B'. They were adopted at the UN Sustainable Development Summit in 2015.

Goal 1. End poverty in all its forms everywhere.

Goal 2. End hunger, achieve food security and improved nutrition, and promote sustainable agriculture.

Goal 3. Ensure healthy lives and promote well-being for all at all ages.

Goal 4. Ensure inclusive and equitable quality education and promote life-long learning opportunities for all.

Goal 5. Achieve gender equality and empower all women and girls.

Goal 6. Ensure availability and sustainable management of water and sanitation for all.

Goal 7. Ensure access to affordable, reliable, sustainable, and modern energy for all.

Goal 8. Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all.

Goal 9. Build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation.

Goal 10. Reduce inequality within and among countries.

Goal 11. Make cities and human settlements inclusive, safe, resilient and sustainable.

Goal 12. Ensure sustainable consumption and production patterns.

Goal 13. Take urgent action to combat climate change and its impacts.

Goal 14. Conserve and sustainably use the oceans, seas and marine resources for sustain- able development.

Goal 15. Protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, and halt and reverse land degradation and halt biodiversity loss.

Goal 16. Promote peaceful and inclusive societies for sustainable development, provide access to justice for all and build effective, accountable and inclusive institutions at all levels.

Goal 17. Strengthen the means of implementation and revitalize the global partnership for sustainable development.

Similarities and Differences between MDGs and SDGs

Outline of the similarities and differences between the Millennium Development Goals (MDGs) launched in 2000, and the Sustainable Development Goals (SDGs) in 2015 when the MDGs expired:

- **Zero Goals:** The MDG targets for 2015 were set to achieve 'halfway' to the goal of ending hunger and poverty, with similar proportional goals in other fields. The SDGs are designed to completely eradicate hunger, poverty, preventable child deaths and so on.
- **More Comprehensive Goals:** There were 8 MDGs. There are 17 SDGs.
- **Inclusive Goal Setting:** The MDGs were created through a top-down process. The SDGs are created in one of the most inclusive participatory processes the world has ever seen.
- **Distinguishing Hunger and Poverty:** In the MDGs, hunger and poverty were combined in MDG 1. SDGs treat the issue of poverty separate from food and nutrition security.
- **Funding:** The MDGs were largely envisioned to be funded by aid flows, which did not materialize. The SDGs put sustainable, inclusive economic development at the core of the strategy and address the ability of countries to address social challenges largely through improving their own revenue generating capabilities.

- **Peace Building:** The inclusion of peace-building in SDGs is critical to the success of ending hunger and poverty.
- **Data Revolution:** The MDGs said nothing about monitoring, evaluation and accountability–the SDGs target by 2020 to 'increase significantly the availability of high- quality, timely and reliable data disaggregated by income, gender, age, race, ethnicity, migratory status, disability, geographic location and other characteristics relevant in national contexts.'
- **Quality Education:** The MDGs focused on quantity (e.g., high enrolment rates). The SDGs represent the first attempt by the world community to focus on the quality of education–of learning–and the role of education in achieving a more humane world.

Niti Aayog and SDGs

NITI Aayog was entrusted with the role of coordinating the efforts for 'Transforming Our World: The 2030 Agenda for Sustainable Development' (called SDGs). The task is not merely to periodically collect data on SDGs but to act proactively to pursue the goals and targets not only quantitatively but also maintaining high standards of quality. The Ministry of Statistics and Programme Implementation (MoSPI) is also involved.

To achieve these tasks, Centrally Sponsored Schemes (CSSs), including the 'core of the core', 'core' and 'optional' schemes being implemented by the states, have been mapped along with some of the recent initiatives undertaken by the central government.

As a signatory to the SDGs, India is committed to participate in the international review of progress of Sustainable development Goals (SDGs) on a regular basis. The central plat- form for international follow-up and review of the 2030 Agenda is the High-Level Political Forum (HLPF), which has been meeting annually since 2016 under the auspices of the UN Economic and Social Council (ECOSOC). In the HLPF, UN member countries are expected to present their Voluntary National Review (VNR) on the implementation of SDGs. The VNRs thus serve as a basis for international review of progress of SDGs. The NITI Aayog has presented the first VNR on the implementation of SDGs in the country to the 2017 HLPF in 2017.

The report details on various measures and programmes being implemented across India towards achieving the core objectives of the 17 ambitious global goals, which poverty eradication, economic growth, ending hunger and achieving food security, gender equality, promoting inclusive and sustainable industrialization and climate action. The programmes highlighted in the report are the 'Mahatma Gandhi National Rural Employment Guarantee Act', 'Beti Bachao Beti Padhao', 'Sagarmala', 'Clean India' campaign and the Aadhaar Act.

India's VNR

Government sees **SDG 1** as the most important goal, which needs continued economic growth to be achieved. The key programmes were: PM Jan Dhan Yojana (world's largest financial inclusion programme), National Rural Drinking Water Programme, Swachh Bharat Mission (Clean India Mission), Housing for All by 2020 and PM's rural roads programme.

SDG 2 on Ending Hunger, Improving Nutrition Programmes: doubling farmers' income by 2022, Integrated Child Development Services, Public Distribution System and the mid-day meal programme.

SDG 3 on Health and Wellbeing Programmes: National Health Mission, National Vector Borne Disease Programme, Ayushman Bharat and National Programme for Prevention of Non-Communicable Diseases.

SDG 5 on Gender Equality: Save the Girl Child, Educate the Girl Child, Maternity

Benefit Programme, Women Transforming India and Stand Up India.

SDG 9 on Infrastructure and Innovation: Saubhagya, e-vehicles, Atal Innovation

Mission.

SDG 14 on Life under Water: Mangroves for the Future, National Policy on Marine

Fisheries 2017 and Sagarmala (port-led development).

SDG 17 on global partnership for sustainable development.

India expects developed countries to help developing ones to reach these goals, especially in the area of curbing illicit financial flows.

Universal Basic Income (UBI)

A universal basic income is a form of social security in which all citizens receive a regular, unconditional sum of money from their respective governments. The Economic Survey of 2017 dealt with it in depth. It is being debated across the world as automation threatens jobs; growth being low needs to be stimulated with basic income and as a form of social security. There are advantages to this:.

Transparency

Basic income is a much simpler and more transparent welfare system than the one existing in the welfare states around the world today. Instead of having numerous welfare programs, it would give one universal unconditional income. However, this strategy of introducing one basic income is controversial because some basic income supporters argue that it should be added to the existing welfare system rather than act as a replacement for it. Also, money may not help buy goods where people are in remote areas and markets have not developed.

Further, there are questions about the quality of goods and services and inflation.

Administrative Efficiency

One of the benefits of a basic income is lower overall cost than that of the current one as there will be almost zero leakages. For example, that of Aadhaar linkage and direct transfer.

However, if basic income does not deliver and is reversed, there will neither be the original welfare infrastructure like PHCs, PDS shops, etc., nor the basic income.

Poverty Reduction

Basic income is advocated because of its potential to reduce poverty or even eradicate poverty. But the claims are contested as the fiscal space available in a country like India is limited and markets have not penetrated.

Basic Income and Growth

Basic income allows economic growth—there is assured demand because of the transfers. This is also debatable as unless UBI is given based on an irreversible Parliamentary Act with federal consensus, the continuation is not guaranteed and so investors 'confidence may not be high to put up additional production capacities.

Freedom

Beneficiaries can use the income for whatever they want. The downside is that it will open up the fault lines like girls and women being side-lined. There is also a belief among critics that if people have free and unconditional money, they will not work (as much). Less work means less tax revenue and hence less money for the state and cities to fund public projects. There are also concerns that some people will spend their basic income on alcohol and drugs.

Basic Income in India

It was piloted with the project organized by India's Self-Employed Women's Association (SEWA) with support from UNICEF in 2011. In total, there are 20 villages in the project. According to the pilot projects, positive results were found. Villages spent more on food and healthcare, children's school performance improved in 68 per cent of the families, time spent in school nearly tripled, personal savings tripled and new business start-ups doubled.

In India, the existing subsidies may be pruned by Aadhaar linkage and the fiscal savings thus generated may be used for basic income. But immense care should be taken not to be overrun by the exuberance for UBI as that may lead to the existing structures for welfare being replaced by ad hoc schemes. The Economic Survey 2017 began the debate about the pros and cons of UBI.

A limited example of direct income transfer is Pradhan Mantri Kisan Samman Nidhi 2019 which is an initiative by the government of India in which all farmers get `6,000 per year as minimum income support.

Non-Monetary Aspects of Poverty

The assumption that poverty is exclusively bred by income deficiency is flawed. Researchers found that illiteracy as much as income makes people unhealthy. Using data on income, education, and under-five and infant mortality, the researchers suggested that policymakers concerned with poverty and public health should focus on literacy levels equally. They found that the increase in income should be many times more than the increase in literacy to save one child per thousand live births.

It is also suggested that female literacy rates have a closer link with poverty than income—the more educated a mother is, the less the MMR and IMR and malnutrition. Births of her children are more likely to be registered and child marriages are unlikely as children are far more likely to be educated. Children will be vaccinated, will attend school, not engage in child labour or will not be malnourished; they will marry later and thus have a much less reproductive span and thus have lesser number of children. Female literacy is a metric that needs as much work as income. Thus, there is a big role for public intervention in this. All evidence shows that investment in literacy for women yields high development dividends.

Poverty is a Cognitive Tax

Chronic (long-term) poverty causes health difficulties, educational failure, mental health challenges and impoverished aspirations. Poverty causes cognitive depletion and thus is a 'cognitive tax' on the poor. Researchers suggest that people who find themselves poor spend an enormous amount of mental energy managing the state of poverty. It reduces a person's 'mental bandwidth', preventing them from managing effectively other areas of their lives, because worry is consuming them.

A variety of studies point to a correlation between poverty and counterproductive behaviour. The poor use less preventive healthcare, fail to adhere to drug regimens, are less productive workers, less attentive parents and worse managers of their finances. These behaviours are troubling because they can further deepen poverty. Some explanations of this correlation focus on the environmental conditions of poverty. Predatory lenders in poor areas, for example, may create high-interest rate borrowing, and unreliable transportation can cause absenteeism. Lower levels of formal education, for example, emerges as financial illiteracy.

The condition of poverty imposed, as one study showed, a mental burden similar to losing 13 IQ points.

Being poor means coping with not just a shortfall of money but also with a concurrent shortfall of cognitive resources. Poverty being the cause, it strengthens the case for welfare state and inclusive growth.

महाराष्ट्र शासन

महात्मा ज्योतिबा फुले संशोधन व प्रशिक्षण संस्था (महाज्योती),नागपूर

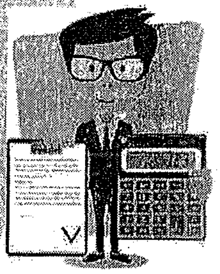
(महाराष्ट्र शासनाच्या इतर मागास बहुजन कल्याण विभागाची स्वायत्त संस्था)

महाज्योती

सनदी लेखापाल(CA)व कंपनी सचिव(CS)परीक्षा प्रशिक्षण योजना

महात्मा ज्योतिबा फुले संशोधन व प्रशिक्षण संस्था (महाज्योती), नागपूर मार्फत महाराष्ट्रातील इतर मागासवर्गीय, विमुक्त जाती-भटक्या जमाती तसेच विशेष मागासप्रवर्गातील युवक-युवतींना सनदी लेखापाल {Chartered Accountant (CA)} व कंपनी सचिव {Company Secretary (CS)} परीक्षेच्या तयारीकरिता प्रशिक्षण योजना सुरु करण्यात येत आहे.

* लाभार्थी पात्रता/ निकष :



* उमेदवार हा महाराष्ट्राचा रहिवासी असावा.
* उमेदवार हा इतर मागास वर्गीय, विमुक्त जाती-भटक्या जमाती तसेच विशेष मागास प्रवर्गातील नॉनक्रिमीलेयर गटातील असावा.
* सनदी लेखापाल {Chartered Accountant (CA)} व कंपनी सचिव {Company Secretary (CS)} परीक्षेकरिता आवश्यक निर्धारित केलेली शैक्षणिक पात्रता धारण केलेली असावी.
* महाराष्ट्र शासनाकडून वेळोवेळी होणाऱ्या बदलानुसार पात्रता असणे आवश्यक राहील.

*योजनांचा लाभ घेण्यासाठी आवश्यक कागदपत्रे:

१. रहिवासी दाखला
२. जात प्रमाणपत्र
३. नॉनक्रिमिलेयर प्रमाणपत्र
४. आधारकार्ड
५. शैक्षणिक गुणपत्रक

* योजनेचा लाभ घेण्यासाठी अर्ज कुठे व कसा करावा.

महाज्योती, नागपूर कार्यालयाच्या www.mahajyoti.org.in या संकेतस्थळावरील नोटीस बोर्डवर योजनेकरिता आवश्यक माहिती तसेच कागदपत्रे जोडून ऑनलाईन अर्ज सादर करता येईल.

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Chapter - 21
Poverty Eradication and Randomized Controlled Trials (RCTs)

Development Economics

Economics as a discipline initially dealt with the efficient allocation of resources for maxi- mum growth. Later, it balanced growth with redistribution and thus welfare focus emerged. However, when decolonisation began and developing countries with mass poverty needed to develop, a distinct school of economics came up—development economics, dedicated to the cause and cure of mass poverty. It undertook studies to understand poverty to effectively alleviate it. It retained the earlier focus on efficient allocation of resources but from a perspective that stressed on the eradication of poverty. In fact, development economics (DE) brings together the best of all schools of economics and consolidates them. Development economics marries efficiency to effectiveness—efficiency being the output for input and effectiveness the achievement of overall results. Development economics is predominantly centred around the question of why poverty persists in spite of extensive economic growth as well as the ways to eradicate it.

Development economics draws from behavioural economics as far as drawing up incentives and disincentives to promote a certain type of behaviour. Development economics conducts micro-experiments and uses this microeconomic data generated to suggest macroeconomic policies for empowerment.

Development economics also suggests fiscal, monetary and welfare policies for poverty alleviation and eradication.

Randomized Controlled Trials (RCTs)

Within development economics, randomized controlled trials (RCTs) have gained enormous ground in dealing with various aspects of human development. RCTs represent experimental economics where empirical field studies are the basis of social and economic interventions for betterment. Thus, evidence-based public policy interventions are encouraged for its myriad advantages.

Randomized controlled trials have a long history in science. A century ago, agricultural researchers pioneered this approach in crop studies. In the postwar era, randomized controlled trials were used in clinical trials. In economics, important randomized controlled trials pre-dated the widespread interest in experimental work in development economics, including welfare reform programme experiments in the 1980s and 1990s and educational research.

In an RCT, two or more groups of people are compared:

- One experimental group of those who receive a new treatment.
- A control group, who receives the current standard treatment, either an existing treatment, no treatment or a placebo. (The placebo effect is a phenomenon in which the body heals even if it only thinks it is receiving a treatment.)

It is important that in an RCT the two (or more) groups of people in a trial are as similar as possible, except for the treatment they receive.

It is important because it ensures that any differences in outcomes between the groups are only due to the treatment received.

The treatment can be a drug being clinically tried, a welfare measure being tested, an incentive being offered, a constraint being imposed and so on.

Information from the control group allows the researchers to see whether the new treatment is more or less effective than the current standard treatment.

Randomization is the process of assigning trial subjects to treatment or control groups using an element of chance in order to reduce the bias.

The trial may be blind, in which information that may influence the participants is with- held until after the experiment is complete. Blind trials can be imposed on any participant of an experiment, including the subjects, researchers, technicians, data analysts or evaluators, to eliminate some sources of experimental bias such as selection bias.

For example, without randomization, scientists may consciously or otherwise assign patients to the group receiving the active treatment if they are more likely to benefit from the experimental treatment. This could make a treatment appear more beneficial than it actually is. This is selection bias and removes objectivity from the experiment.

A double-blind study is one in which neither the participants nor the experimenters know who is receiving a particular treatment. Because the outcomes are measured, RCTs are quantitative studies.

Thus, RCTs are quantitative, comparative, controlled experiments in which investigators study two or more interventions in a series of individuals who receive them in a randomized order.

Advantages

- RCT is a simple and reliable tool in experimental research.
- RCT eliminates bias to a great degree.
- RCT establishes cause–effect relation as objectively as possible.
- The manipulation of results is not possible.
- RCT provides a viable basis for evidence-based policy interventions.
- RCT reduces budgetary wastage, thus ensuring better utilisation of scarce resources.
- By targeting better, results are achieved for individual and social benefits.

Disadvantages

- The results of micro-experiments are difficult to scale to system level for effective policy intervention.
- Experimental approach to poverty alleviation de-emphasises the larger context of poverty and its persistence, which is a matter of analysis for the school of political economy.
- The approach relies on incrementalism, while the challenges are of mass proportions and need urgent attention.
- The RCT approach sidelines local solutions coming from the grassroot experiences of people as unreliable since they are not evidence based.

Limitations

RCTs have limited application as the micro findings are difficult to generalise since the studied population is very different from the population treated in normal life. Thus, RCTs produce insights at best

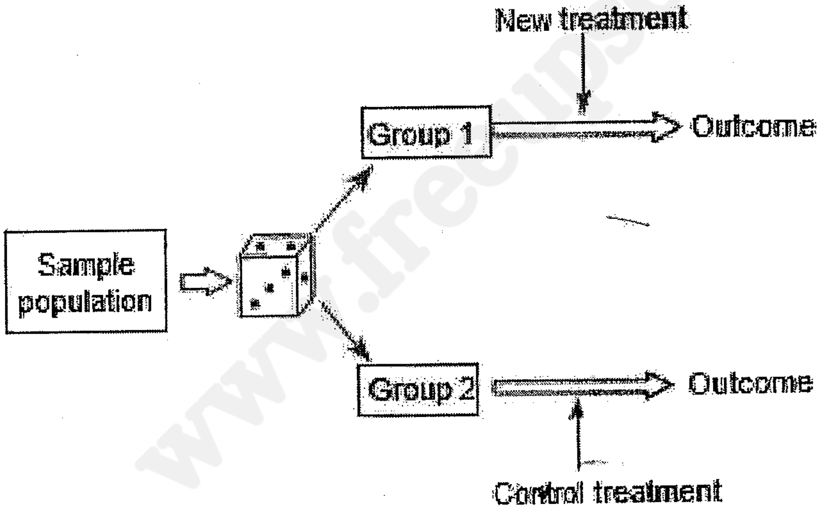


Figure: Randomized Controlled Trials: Methodology

2019 Nobel Prize for Economics

The experimental poverty research driven by the RCTs of Abhijit Banerjee, Esther Duflo and Michael Kremer won them the Nobel Prize in Economics (Sveriges Riksbank Prize in Economic Sciences in Memory of Alfred Nobel) in 2019. Esther Duflo was only the second woman to win this prize (the other was Elinor Ostrom).
They have shown how the problem of global poverty can be tackled by breaking it down to a number of smaller—but more precise—questions at individual or group levels. They then answer each of these using a specially designed field experiment RCT.

In order to understand the contribution of the trio to experimental poverty research, the following examples from the fields of education, health, behavioural biases, gender and politics and credit will help.

Education

RCTs score in finding out about the interventions that increase educational outcomes at the lowest cost. RCT-based field experiments have shown that the primary problem in many low-income countries is not the lack of resources. Instead, it is that teaching is not sufficiently adapted to the pupils' needs. Banerjee, Duflo and others studied remedial tutoring programmes for pupils in two Indian cities. Schools in Mumbai and Vadodara were given access to new teaching assistants who would support children with special needs. These schools were randomly placed in different groups, allowing the researchers to credibly measure the effects of teaching assistants. The experiment clearly showed that help targeting the weakest pupils was an effective measure in the short and medium term.

Other field experiments investigated the lack of clear incentives and accountability for teachers, which was reflected in a high level of absenteeism. One way of boosting the teachers' motivation was to employ them on short-term contracts that could be extended if they had good results. Duflo, Kremer and others compared the effects of employing teachers on these terms with lowering the pupil–teacher ratio by having fewer pupils per permanently employed teacher. They found that pupils who had teachers on short-term contracts had significantly better test results, but those having fewer pupils per permanently employed teacher had no significant effects. Overall, this new, experiment-based research on education in low-income countries shows educational reforms that adapt teaching to pupils' needs are of great value. Improving school governance and demanding responsibility from teachers who are not doing their job are also cost-effective measures.

Health

One important issue is whether medicine and healthcare should be charged for and, if so, what they should cost. A field experiment by Kremer and a co-author investigated how the demand for deworming pills for parasitic infections was affected by price. They found that 75 per cent of parents gave their children these pills when the medicines were free, com- pared to 18 per cent when they cost less than a US dollar, which is still heavily subsidised. Subsequently, many similar experiments had the same finding —poor people are extremely price-sensitive regarding investments in preventive healthcare.

Low service quality is another explanation for why poor families invest so little in preventive measures. One example is that staff at the health centres that are responsible for vaccinations are often absent from work. Banerjee, Duflo and others investigated whether mobile vaccination clinics—where the care staff are always on site—could fix this problem. Vaccination rates went up sharply. This increased further if families received a bag of lentils as a bonus when they vaccinated their children. Because the mobile clinic had a high level of fixed costs, the total cost per vaccination actually halved, despite the additional expense of the lentils.

Microcredit

Banerjee, Duflo and others performed a study on a microcredit programme that focused on poor households in the Indian metropolis of Hyderabad. Their field experiments showed rather small positive effects on investments in existing small businesses, but they found no effects on consumption or other development indicators, neither at 18 nor at 36 months. Similar field experiments, in countries such as Bosnia and Herzegovina, Ethiopia, Morocco, Mexico and Mongolia have found similar results.

Gender and Politics

An important issue in the political economy of development is how the identity of political leaders affects observed policy choices. Duflo took up this question in one of her very first published studies in 2004. The research related to a political reform that aimed to strengthen women's political standing in India in 1993, when the 73rd Constitution Amendment Act introduced reservation for women in Panchayats. Panchayats were also given more powers. To investigate the effect of female reservations, Duflo and Chattopadhyay surveyed a sample of villages in the two states of West Bengal and Rajasthan. They found that in West Bengal, village women were more concerned with drinking water and roads, while village men were more concerned with education. In Rajasthan, women were more concerned than men with water but less concerned with roads.

Bounded Rationality

There are many factors that impact the rationality of human behaviour. Bounded rationality is a concept that shows that, for a variety of reasons, rationality is limited in human behaviour.

In the vaccination study, incentives and better availability of care did improve acceptance of vaccines. The low vaccination rate is partly attributed to the fact that people are not always very rational. Many people are reluctant to adopt modern technology. Duflo, Kremer and others investigated why small landholders—particularly in sub-Saharan Africa—do not adopt relatively simple innovations, such as artificial fertiliser, although they provide great benefits. One explanation is present bias, where the present takes up a great deal of people's awareness, so they tend to delay investment decisions. When tomorrow comes, they once again face the same decision and again choose to delay the investment. The result can be a vicious circle in which individuals do not invest in the future even though it is in their long- term interest to do so. Bounded rationality has important implications for policy design. If individuals are present-biased, then temporary subsidies are better than permanent ones—an offer that only applies here and now reduces incentives to delay investment. This is what Duflo and Kremer and others discovered in their experiment—temporary subsidies had a considerably greater effect on the use of fertiliser than permanent subsidies.

Policy Influence

All the examples of RCTs conducted by the Nobel laureates show that the findings have great value for public policy and NGO interventions with many benefits.

Abdul Latif Jameel Poverty Action Lab (J-PAL)

The Abdul Latif Jameel Poverty Action Lab (J-PAL) is a global research centre working to reduce poverty by ensuring that policy is informed by scientific evidence. Anchored by a network of 181 affiliated professors at universities around the world, J-PAL conducts randomized impact evaluations to answer critical questions in the fight against poverty. J-PAL affiliates have led more than 800 randomized evaluations across a diverse range of topics, from clean water to microfinance to crime prevention. J-PAL translates research into action, promoting a culture of evidence-informed policymaking around the world.

J-PAL builds partnerships with governments, NGOs, donors, and others to generate new research, share knowledge, and scale up effective programs.

J-PAL was founded in 2003 as the 'Poverty Action Lab' by professors Abhijit Banerjee, Esther Duflo and Sendhil Mullainathan. J-PAL was established to support randomized evaluations measuring interventions against poverty on topics ranging from agriculture and health to governance and education.

Chapter - 22
Economic Inequality

Introduction

Economic inequality is the unequal distribution of income and opportunity among different groups in society. It has many dimensions—income, wealth, consumption and opportunities. Income inequality is the extent to which income is distributed in an uneven manner among a population. It relates to not only the flow of income but is linked with the stock of wealth as the latter generates periodical returns. Wealth inequality is uneven distribution of financial assets, physical property, gold, etc.

Consumption inequality occurs as a result of an increase in income and wealth inequality. It means that the rich consume more in quality and quantity of food, water, shelter, electricity, transport and other material and invisible goods and services. This is associated with another inequality called inequality of opportunity. Inequality of opportunity means the well-off have access to good health, education, entertainment, communications, etc., while the same is partly denied to others.

Inequality does not necessarily mean poverty. It is possible that the rich are getting richer faster than the poor becoming less poor. In that case, the poor also improve their economic status with higher incomes relatively. It is only when inequality exceeds a certain level that the riches of the affluent start to hurt others.

Economic inequality may result from the operation of the economic system, access to assets, nature of laws, education and skills, as well as social factors like caste, gender and so on.

Effects of Economic Inequality

If economic inequality is excessive, with disproportionate assets and incomes going to the affluent:

- Poverty results are inevitably associated by illiteracy, malnutrition, lack of sanitation and so on for the majority of the population.
- Human development suffers.
- The rich may become so influential that crony capitalism follows.
- When wealthy individuals and corporations influence the government policy to their advantage, the consequences are low minimum wage, no or limited national health insurance, inadequate spending on health, safety or pollution regulations, access, etc.

- On the social side, the fault lines in society become reinforced—gender, caste, ethnic and other divides become even more polarized.
- Environmental danger deepens as there is no bottom-up inputs in policy-making, and growth at any cost prevails.

Thus, rising inequality has the danger of aggravating even more.

Measures of Inequality

Gini Coefficient

The Gini coefficient is a number that measures inequality across society. It varies between 0 and 1. If all the income/wealth goes to a single person (maximum inequality) and all others receive nothing, the Gini coefficient is equal to 1. If income is shared equally, with everyone receiving the same amount, the Gini is equal to 0 which is perfect equality. In other words, the lower the Gini value, the more equal a society. Most OECD countries have a coefficient lower than 0.32.

India's Gini

The most credible measure of inequality in the country is based on the consumption surveys of the NSSO. Based on these, the Gini of consumption expenditure, as measured by the National Sample Survey Office (NSSO), consumption expenditure surveys report a rise in consumption inequality to

- 0.38 for urban areas in 2011–12
- 0.29 in rural areas in 2011–12

The latest data on income inequality is available from the India Human Development Survey (IHDS) reports, which show income inequality in India in 2011–12 at 0.55.

The growing divide undermines economic democracy and promotes corruption and cronyism. In fact, one of the apprehensions that the Indian economy may be heading into a middle income trap is based on its inequality, where a bulk of production is meant for the top 10 per cent of the population and rest unable to create demand in the economy. Thus, inequality is a threat to economic growth itself.

Lorenz Curve

The Lorenz curve was developed by Max O. Lorenz as a graphical representation of income inequality measured by Gini data. It can be used to measure inequality of income or assets or any other facility. The Gini coefficient is derived by considering the following two factors:

- Area between the line of perfect equality and the Lorenz curve.
- Area between the line of perfect equality and the line of perfect inequality.

Gini number is arrived at when the former is divided by the latter as the number has to be less than one.

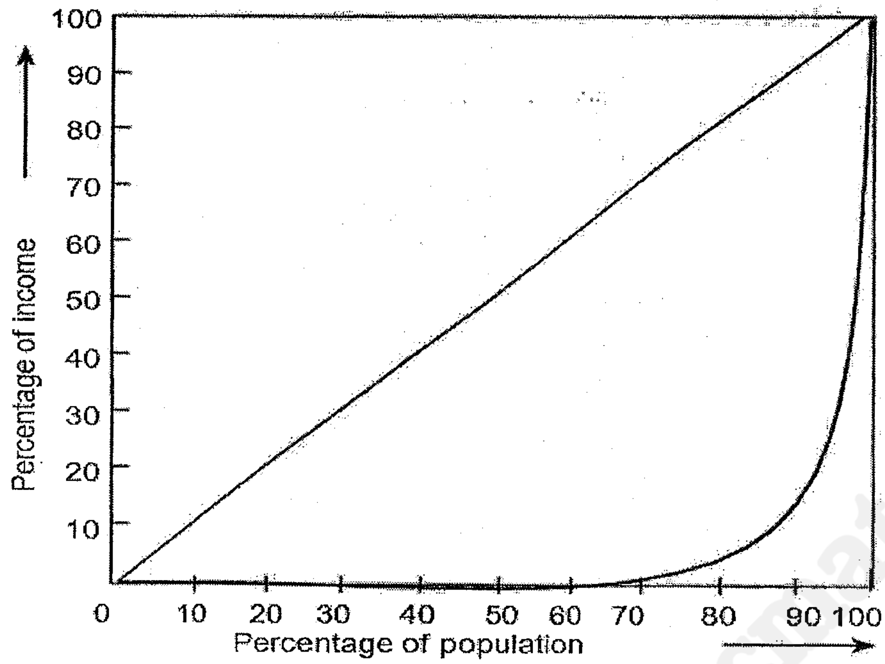


Figure: Lorenz Curve

Ahluwalia–Chenery Welfare Index

GDP may grow but the distribution of economic resources may, in fact, worsen, making the rich richer and the poor poorer. Thus, inclusive growth and not merely growth is required. An index that measures how all social groups are impacted by growth is necessary. This problem is dealt by the Ahluwalia–Chenery Welfare Index, which measures how each social group is impacted by prosperity and adjusts growth numbers accordingly. It is an alternative measure of income growth, one that gives equal weight to growth of all sections of society.

Kuznets Curve

Economist Simon Kuznets had hypothesized that as an economy develops, inequality increases but later reduces. The shape of the Kuznets curve is like an inverted U.

Kuznets Curve and Thomas Piketty

The recent work of Thomas Piketty, Capital in the Twenty-First Century, questions the Kuznets Curve. Piketty shows that since 1980, there has been a sharp rise in inequality in the US, Japan and Europe. His data shows a U-curve in the trends of inequality in the advanced nations—US, Japan, Germany, France and Great Britain—the exact opposite of the Kuznets Curve. Inequality grows sharply after having fallen initially for a few years.

Piketty shows that there is nothing natural or automatic about declining inequality under the market system. It is the policies of a Keynesian welfare state and a strong labour movement that led to a decline in inequality in the 60-year period (1914–1974). The trend shifted towards greater market forces and so inequality rose again since the 1980s.

In slow growing economies, past wealth takes on a disproportionately higher importance. The wealth that is inherited grows faster than overall output and income.

According to Piketty diffusion of knowledge and skill can moderate inequality. State policies on education, access to training and skill development are crucial.

Palma Ratio

Unlike the Gini index, Palma ratio used by Oxfam is the ratio of income share of the top 10 per cent to that of the bottom 40 per cent.

Inter-Group Equality

There are deep disparities among groups based on a variety of identities—caste, women, minorities, the differently abled and other marginalized groups. Inclusiveness from a group perspective goes beyond a poverty reduction perspective and includes consideration of the status of the group as a whole in relation to the general population. For example, narrowing the gap between caste or gender divide must be part of any reasonable definition of inclusiveness, and this is quite distinct from the concern with poverty or inequality, though the two are related. Angus Deaton, who was awarded the Nobel Prize in Economics 'for his analysis of consumption, poverty, and welfare', is renowned for having differentiated data to tackle poverty related to women, caste, region, etc.

Balanced Regional Development (BRD) and Inclusive Growth

Another aspect of inclusiveness relates to whether all states and all regions are seen to benefit from the growth process. The regional dimension has grown in importance in recent years. Many backward districts are affected by left wing extremism preventing development. The most important constraint in the growth of backward regions in the country is the poor infrastructure facilities, especially road connectivity, schools and health facilities and availability of electricity. These factors hold back development. Improvement in infrastructure is, therefore, an important component of regionally inclusive development strategy.

The efforts of the government in this regard are the following:

- Special category states
- Green revolution in the eastern region
- North-eastern region Vision 2020
- PMGSY
- Bharatmala
- Saubhagya
- DDY
- PMAY
- Aspirational districts

Empowered Action Group (EAG)

The government had constituted an Empowered Action Group (EAG) under the Ministry of Health and Family Welfare following the 2001 census to stabilize population in eight states (called EAG states) that were lagging in containing population. The EAG states Bihar, Jharkhand, Uttar Pradesh, Uttarakhand, Rajasthan, Madhya Pradesh, Chhattisgarh and Odisha constitute over 45 per cent of India's population. Earlier they were referred to as bimaru states (Bihar, MP, Rajasthan and UP).

The problems in the EAG States are less to do with the availability of funds than the issue of governance. Therefore, proposals for resolving the systemic issues relating to key areas such as human resource management, logistics management, regular release of funds to operational levels, greater autonomy to the districts and, within districts, to PRIs are integral parts of the plan. EAG need to strengthen the systems of governance and monitoring. The need is to involve the community successfully through local empowerment and convergence. In a federal structure like India, there is need to strengthen the centre–state coordination before direct interventions can be made at district levels.

Aspirational Districts Programme

The Aspirational District Programme was launched in 2018. It aims to rapidly transform the districts that have shown relatively less progress in key social areas and have remained as pockets of under-development, thereby posing a challenge to balanced regional development.

115 districts were identified from 28 states, with at least one from each state, using a composite index of key data sets that included deprivation enumerated under the Socio-Economic Caste Census, key health and education sector performance and the state of basic infrastructure.

NITI Aayog drives the programme with the support received from central ministries and the state governments. While NITI Aayog is steering the initiative in around 30 districts, central ministries oversee 50 districts, besides the Ministry of Home Affairs, which focuses on 35 Left Wing Extremism (LWE) affected districts. Officers at the level of Joint Secretary/ Additional Secretary have been nominated to become the Central Prabhari Officers of each district. States have appointed state nodal and Prabhari officers. An Empowered Committee under the Convenorship of the CEO, NITI Aayog will help in the convergence of various government schemes and streamlining of efforts.

The broad contours of the programme are convergence (of central and state schemes), collaboration (of central, state level Prabhari officers and District Collectors), and competition among districts, driven by a spirit of mass movement. With states as the main drivers, this program will focus on the strength of each district, identify low-hanging fruits for immediate improvement, measure progress and rank districts.

Inequality and Economic Growth

When an economy grows, inequality is usually witnessed initially as the well-off get most of the opportunities. It does not hurt growth up to a point of inequality as employment is created and incomes rise for all and there is an incentive for productivity, innovation and prosperity. The poor do not get poorer as they also benefit but only marginally.

However, when inequality exceeds a certain threshold, it begins to harm growth. Empirical research shows that the effect of income inequality on economic growth can be either positive or negative, and that at a particular level of inequality—at a Gini of about 0.27—the direction of the relationship changes—that is, inequality begins to hurt economic development.

When income is concentrated in the hands of a narrow group of individuals, it can lead to reduced demand by the general population and lower investment in education and health, impairing long-term growth. When inequality grows, economic growth does not lead to the alleviation of poverty.

Steep inequality damages the long-term prospects for economic growth by restricting the number of people who can participate in markets.

To examine why growth is not reducing inequality, we need to see the fact that income growth is concentrated within certain rich groups and in urban centres.

On the other hand, the poor rely mainly on agriculture and the informal sector; and the agricultural sector has not been growing as fast as other sectors. The poor are not very high on human capital—education and skills—and so cannot enjoy the fruits of growth. Their education and health standards are low and thus they cannot be very productive and innovative, which make the poverty cycle vicious for them. In the case of those who are socially excluded from benefits based on gender and caste or otherwise, it is doubly vicious-in terms of economic and social marginalization.

Reasons for Sharpening Inequality

The main reasons for widening economic gaps in recent years are:

- Cumulative inequality that was built over years.
- Globalization and greater opportunities for the corporates.
- Capital intensity of growth in a labour-surplus country.
- Neglect of agriculture, where 60 per cent of people depend on it for their livelihood.
- Financialization of economy, where the rich have far greater opportunities to generate even more.
- Relatively low investment in education and health meant that the low-income group and poor remained so.
- Skills received less attention.
- Discrepancy in investment between urban and rural areas that favoured better-educated, better-off urban populations.
- Unevenness in growth in incomes across urban and rural areas, leading and lagging regions in the country, for example coastal areas and the interior, and highly educated households and the less educated are important factors associated with increases in inequality.

The government addresses inequalities by introducing policies that ensure:

- Education, health and skills and training programmes.
- Infrastructure, particularly rural.
- Labour intensive growth.
- Backward region development.
- Social security.
- Increased public investment in agriculture.

For millions of children, inequality means not having access to adequate nutrition, health, and basic education. Therefore, public policy has huge challenges in providing these services.

Inclusive Growth

There are many divides in the country that create and reinforce inequality. These are:

- rural–urban
- rich–poor
- gender-based
- social divisions based on caste and ethnicity
- developed regions and underdeveloped regions
- digital divide

The effort to alleviate these divides has been the crux of the government's socio-economic planning. One of the chief priorities of the government is achieving the inclusive growth.

The government has been implementing various programmes/schemes for creating better employment opportunities, strengthening social infrastructure and providing basic amenities such as water, electricity, roads, sanitation and housing to cover all sections of the population, in order to promote inclusive growth.

Various schemes such as the Mahatma Gandhi National Rural Employment Guarantee Act scheme (MGNREGA), PMAY, Pt. Deen Dayal Upadhyaya Grameen Kaushalya Yojana (DDU-GKY) and Deen Dayal Antyodaya Yojana—National Urban Livelihoods Mission (DAY—NULM) are being implemented by the government in both rural and urban areas of the country with the aim of creating additional employment opportunities directly and indirectly to reap the benefits of demographic dividend.

The strategies include promoting labour-intensive sectors by encouraging agro-based industries, textiles and Medium, Small and Micro Enterprises (MSMEs). Focus has also been given to the growth of start-ups.

For social protection, under Ayushman Bharat, over 10 crore poor and vulnerable families (approximately 50 crore beneficiaries) are receiving a coverage of up to 5 lakh rupees per family per year for secondary- and tertiary-care hospitalization.
According to Economic Survey 2017–18, utmost priority to social infrastructure such as education, health and social protection is being given by the government to engineer inclusive and sustainable growth in India.

Social Security

Some social groups are so vulnerable that unless they are protected with various schemes related to food, health, insurance and so on, further distress is possible, such as old age, poverty, unemployment, disability and so on. The government provides social protection by way of wage employment, food grain, either free or at affordable prices, old age pension, etc. Food Security Act, 2013 and public distribution system in India is an example of social security.

In social insurance, people receive benefits or services in return for contributions to an insurance scheme. These services include provision for retirement pensions, disability insurance, etc. For example, the pension scheme for unorganized workers, namely Pradhan Mantri Shram Yogi Maan-Dhan (PM-SYM) to ensure old age protection for unorganized workers from 2019.

PM-SYM

PM-SYM is a voluntary and contributory pension scheme on a fifty-fifty basis, where a prescribed contribution specific to age shall be made by the beneficiary, along with matching contribution by the central government. For example, if a person enters the scheme at the age of 29 years, he is required to contribute `100 per month till the age of 60 years; an equal amount of `100 will be contributed by the central government.

Each subscriber under the PM-SYM, shall receive minimum assured pension of `3000 per month after attaining the age of 60 years.

Eligibility is restricted to unorganized workers, who are mostly engaged at home- based work, street vendors, head loaders, mid-day meal workers brick kiln workers, rag pickers, cobblers, domestic helpers, rickshaw-pullers, washer men, landless labourers, own account workers, agricultural workers, beedi workers, handloom workers, construction workers, leather workers, audio-visual workers and similar other occupations whose monthly income is `15,000 per month or less and belong to the entry age group of 18–40 years. They should not be covered under New Pension Scheme (NPS), Employees' State Insurance Corporation (ESIC) scheme or Employees' Provident Fund Organisation (EPFO). Further, he/she should not be an income tax payer.

Social Safety Net

Social safety net is a part of social security. It involves a collection of services provided by the state or other institutions, including welfare, unemployment benefit, universal health- care, homeless shelters, etc., to prevent individuals from falling into poverty beyond a certain level. MGNREGA in India and Ayushman Bharat are examples.

Globalization and Inequality

The integration of world economy through the progressive globalization of trade, investment and finance reached unprecedented levels and had dramatic impact on the economic well-being of citizens in all regions and among all income groups by the first decade of the century.

There are two schools of thought about this impact: one school of thought argues that globalization leads to a rising tide of income, raising all boats. Hence, even low-income groups from low—and middle-income countries come out as winners from globalization in absolute terms.

The opposing school of thought argues that although globalization may improve overall incomes, the benefits are not shared equally among the citizens of a country. The widening income disparities have limited the drivers of further growth by denying inclusive character to growth.

The sustainability of globalization depends on maintaining broad support across the population, which could be adversely affected by rising inequality.

Different countries have felt different outcomes under globalization. China tapped its potential well, even as inequality grew due to more talented sections having their pay gallop while others growing far less. There are disproportionate upper-income gains when com- pared with gains for middle- and lower-income groups.

In the case of India, economic growth rates went up; incomes of hundreds of mil- lions increased and there is a surge of prosperity. But there is another side to the hyper- globalization (a word coined by Dr. Arvind Subramnian): growth has not been inclusive at the macro level. rising import competition adversely affected manufacturing employment. Capital intensity is not allowing employment-intensity that is necessary. Informalisation of employment is growing.

Also, the financial markets with speculative activity made the rich richer with others having little or no scope for improving their lot.

Industrialists in some sectors saw their wealth grow as they found their market footprint expanding globally. That made little difference to the poor and low-income groups, and much of it was capital-intensive growth.

The blue collar and white collar grievances in the USA led to populist isolationism and trade wars by Donald Trump.

Brexit and many nationalist movements in Europe also owe their origins to uneven globalization and social unrest.

To bridge inequality, there are redistributional interventions in India. There are RTE, Ayushman Bharat, PMGSY, Golden Quadrilateral, NHDP, Digital India, Skill Mission, etc. But the progress is slow, and the quality in some needs drastic improvement such as in schools, hospitals, nutrition and skills. Till the interventions pays off, opportunities for the lower part of the pyramid are likely to stagnate and inequality will rise.

Artificial Intelligence (AI) and Inequality

While contemporary technology has created enormous wealth and prosperity, there are doubts about the equity side of this growth. The exclusionary economic growth that has been witnessed for some decades is feared to be intensified with the emergence of AI and automation in the following ways:

- Labour displacement.
- Automation impacts income and wealth inequality. A majority of jobs may be lost to machines, which will aggravate inequality.
- Job creation is occurring predominantly in low-paying and high-paying jobs, while middle-class jobs are affected by job destruction.

This means that unless AI is phased in well, it could polarise the economic system even more.

Pandemics and Inequality

In the last more than a century, world has witnessed many pandemics- Spanish flu of 1918-19 and five major recent epidemics of this century – SARS (severe acute respiratory syndrome) (2003), H1N1 (2009), MERS (Middle East respiratory syndrome) (2012), Ebola (2014) and Zika (2016) –each affecting several countries.

Pandemics expose the weaknesses in every society and widening and persistent inequality was a feature of almost every country, even before COVID-19 broke out.

History of pandemics reveals widely disparate levels of ability to prepare and respond. All the divides are sharpened- economic, social, geographic and digital.

Developing countries and those in crisis suffer the most, along with the already vulnerable; those that rely on the informal economy, women, those living with disabilities, refugees, and the displaced, as well as those that suffer from stigma. Pandemics expose the gaps between the haves and the have nots.

Women are particularly exposed during health crises. They make up the bulk of the first healthcare responders. If they are working from home, they will likely shoulder an even greater burden of housework and childcare. Mounting evidence suggests domestic violence is surging worldwide as a result of lockdowns.

More than half the world's people lack essential health services and have little or no social protection. About 100 million people are being pushed into extreme poverty because they can't afford healthcare.

Even basics such as soap and clean water are luxuries for too many. Lockdowns have also made the digital divide more apparent. Billions of people don't have reliable broadband internet, which limits their ability to work, continue their education, or socialize.

With schools closed, experts estimate that effective out of school rates could regress to levels before the Sustainable Development Goals (SDGs) or even the Millennium Development Goals, and threatening the hard work and progress of the past 30 years.

Chapter - 23
Foreign Trade

Introduction

No country is self-sufficient in all the goods and services that it requires. It has to depend on countries for what it lacks. For example, India depends on other countries for crude and edible oils, quality coal, electronic items, and so on. Similarly, India has many special and surplus items of both goods and services that it can export to other countries, including agricultural goods, software services and so on.

The exports and imports of a country together make foreign trade. If exports are greater than imports, it is called trade surplus; and if imports are greater, it is called trade deficit. Every year since Independence, India has had a trade deficit. Exports are foreign exchange earners. They stabilize and strengthen the exchange rate if they grow. They may be necessary for some imports, for example, the gems and jewellery industry imports stones and carves them into jewellery in India. Exports make the domestic economy efficient as the international market requires high-quality low-priced goods and services.

Imports are also important for export, domestic capital formation and consumption. They make domestic producers competitive.

India's Exim Policy: Its Evolution and Content

India's external trade has evolved and witnessed many changes since independence in 1947. Soon after, the government followed a policy of protectionism, and import substitution was the norm under the self-reliance model of planning. Import substitution means making goods in the country rather than importing the same. It is necessary when the country's economy is at an infant stage and needs protection; and also if the country has limited foreign exchange reserves and needs to use that judiciously.

The import substitution policy followed during the restrictive phase gave way to a new phase of reforms after the mid-1980s aimed at easing trade restrictions to promote economic growth competitiveness. Till then, India used to have an annual exim policy. For the first time, a 3-year foreign trade policy was adopted to provide continuity for promotion of investment.

We needed to export:
- to make our economy competitive
- to boost growth

- to create employment
- to earn foreign currency
- to serve our external debt
- to add value to imports and to export high-value goods, as in the case of gems and jewellery and crude products.

India's external trade policy and practices gathered real momentum in the 1990s.A slew of reforms were launched to boost exports in 1991 as part of our liberalization and globalization strategy. Initially, a devaluation of rupee was undertaken. Later, structural reforms were conducted, such as the convertibility of the rupee, liberalization of imports, long-term exim policy, etc.

Today, except for a handful of goods disallowed on environmental, health and safety grounds and a few others that are canalized (bulk imports through designated agencies like STC), such as fertiliser, cereals, edible oils and crude, all goods can be imported with- out license or restrictions. Tariff reforms were addressed with a reduction in peak rates rather than selective exemptions. The peak rate of customs duty was consistently brought down with the aim of giving competition to Indian goods and services. The reduction helps in making the domestic economy competitive and helps imports for exports and also the import of capital goods. Today, it stands at 10 per cent.

One of the instruments of shaping a country's trade dynamics is its foreign trade policy. The Foreign Trade Policies (FTP) of 2004–09, 2009–14 and 2015–20 recognized that trade is an end in itself and its primary purpose is to stimulate greater economic activity and employment generation.

India's exports during 2017–18 were \$302.84 billion, and imports were \$459.67 billion. India had a 2.2% share of global merchandise (physical goods) export in 1948 in US dollar terms. It dropped to 0.42% in 1980. After the implementation of a series of trade reform measures, India's exports rose. India's share in global merchandise exports has risen from 0.6 per cent in the early 1990s to 1.7 percent in 2016, and similarly, the share of imports has risen from 0.6 per cent to 2.4 per cent during the same period. In addition, the diversification of exports to high growth locations in Asia, CIS countries, Africa and Latin America through special trading arrangements has given an added fillip to export growth.

Besides trade policy, another initiative of the government to give a boost to exports has been the introduction of Special Economic Zones (SEZs) Act, 2005. The main objectives of the SEZ are:

- 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

India's Trade Reforms Since 1991

One major dimension of the economic reforms undertaken since 1991 has been the globalizing of economy, of which liberalization of foreign trade is a central aspect. The following reforms were made:

- Devaluation of the currency in 1991 to boost exports
- Rupee convertibility on the trade account since 1992 to incentivize exporters
- Cutting down peak customs duty, which stood at above 300 per cent in 1991, to 10 per cent on most non-agricultural industrial goods, which primarily facilitated exports
- Simplification of procedures (there is no GST on exports)
- SEZs
- FTAs/Cepa/Ceca
- WTO-led schedule for global trade integration
- Incentives for exporters, such as interest rate subsidy (subvention) and so on
- Sector-specific packages
- Diversification

The effect of the same is that exports have registered remarkable growth, created employment, given the country adequate forex, made the economy competitive, brought in FDIs and so on.

Foreign Trade Policy 2015–20

In order to boost India's exports, the government has implemented several measures through the new Foreign Trade Policy 2015–20, its mid-term review released in 2017 and other pol- icy measures taken from time to time. The key measures include the following:

- FTP 2015–20 provides a framework for increasing exports of goods and services as well as generation of employment and increasing value addition in the country, in line with the Make in India, Digital India, Skill India, Start-up India and Ease of Doing Business initiatives.
- The main objective of the policy is to enable India to respond to the challenges of the external environment, keeping in view the rapidly evolving international trading architecture.
- The policy provides a framework for the promotion of exports through schemes and incentives for exports and duty remission/exemption on inputs for export production.

- The policy introduces two new schemes—Merchandise Exports from India Scheme (MEIS), for improving the export of specified goods by merging some earlier schemes for better coherence, and Services Exports from India Scheme (SEIS), for increasing the export of notified services.
- The Niryat Bandhu Scheme has been galvanised and repositioned to achieve the objectives of Skill India and trade promotion and awareness. The Niryat Bandhu scheme was first introduced in 2011 for first-generation entrepreneurs in international business enterprises. Under this novel scheme, the officer (Niryat Bandhu) would mentor those individuals who want to engage in foreign trade.
- Trade facilitation and enhancing the ease of doing business measures have been given special focus with the introduction of paperless work. India also ratified the WTO Agreement on Trade Facilitation (TFA) in 2016 for enhancing trade facilitation.
- A new scheme titled Trade Infrastructure for Export Scheme (TIES) was launched in 2017 to address the export infrastructure gaps in the country.

Agri-Export Policy 2018

The government has formulated a comprehensive agriculture export policy to consolidate efforts for the export of agricultural products.

The objectives of the agriculture export policy are:

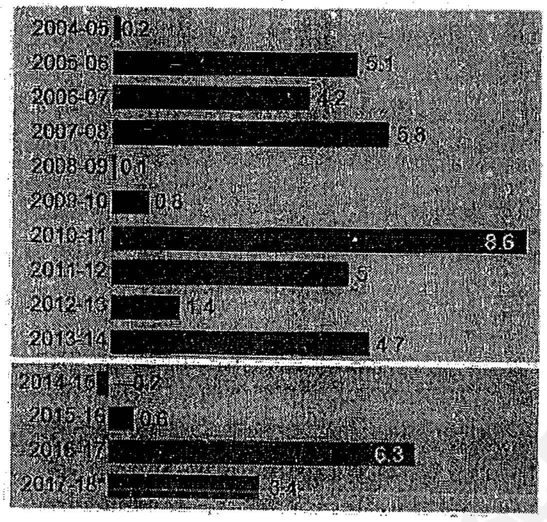
- To double agricultural exports from present US$ 30+ Billion to US$ 60+ Billion by 2022 and reach US$ 100 Billion in the next few years thereafter, with a stable trade policy regime.
- To diversify the export basket, destinations and boost high-value and value-added agricultural exports including focus on perishables.
- To promote novel, indigenous, organic, ethnic, traditional and non-traditional agri-products exports.
- To provide an institutional mechanism for pursuing market access and tackling barriers and sanitary and phytosanitary issues.
- To integrate India's agri-exports with global value chains.
- Enable farmers to get the benefit of export opportunities in overseas markets.

The Department of Commerce also has several schemes to promote exports, including the export of agricultural products—Trade Infrastructure for Export Scheme (TIES), Market Access Initiative (MAI) Scheme and Merchandise Exports from India Scheme (MEIS). In addition, assistance to exporters of agricultural products is also available under the Export Promotion Schemes. Agricultural and Processed Food Products Export Development Authority (APEDA), Marine Products Export Development Authority (MPEDA), Tobacco Board, Tea Board, Coffee Board, Rubber and Spices Board are also seeking to promote exports through participation in international fairs and exhibitions, taking initiatives to gain market access for different products, different markets, dissemination of market intelligence and taking steps to ensure the quality of exported products.

The export of agricultural products depend on several factors such as the international and domestic demand and supply situation, international and domestic prices, concerns of food security and so on.

Agriculture imports are constantly monitored, and appropriate decisions are taken as per the prevailing situation.

Year	2014–15	2015–16	2016–17	2017–18
Agricultural Exports (USD Billion)	38.71	32.43	33.28	38.43



Source: Department of Agriculture, GOI

Figure: Annual Growth rate of agriculture and allied activities (in per cent)

India's Exports and Imports: Merchandise Exports

Strategically located near highly populated trading partners—China, Pakistan and Bangladesh—India has exported US$323.1 billion worth of goods in 2018.

India's exported goods plus services represent 19.1 per cent of the country's gross domestic product. From a continental perspective, almost half (49.3 per cent) of Indian exports by value were delivered to fellow Asian countries. Another 19.3 per cent was sold to European importers, while 18 per cent went to North America. Smaller percentages went to Africa (8.3 per cent), Latin America (2.9 per cent), excluding Mexico but including the Caribbean, then Oceania (1.3 per cent), led by Australia.

Given India's population of 1.3 billion people, its total $323.1 billion in 2018 exports translates to roughly $250 for every resident.

The following export product groups represent the highest dollar value in Indian global shipments during 2018. Also shown is the percentage share of export categories represented in terms of overall exports from India.

1. Mineral Fuels Including Oil: US$48.3 billion (14.9 per cent of total exports)
2. Gems, Precious Metals: $40.1 billion (12.4 per cent)
3. Machinery Including Computers: $20.4 billion (6.3 per cent)
4. Vehicles: $18.2 billion (5.6 per cent)
5. Organic Chemicals: $17.7 billion (5.5 per cent)
6. Pharmaceuticals: $14.3 billion (4.4 per cent)
7. Electrical Machinery, Equipment: $11.8 billion (3.6 per cent)
8. Iron, Steel: $10 billion (3.1 per cent)
9. Cotton: $8.1 billion (2.5 per cent)
10. Clothing and Accessories (Not Knit or Crochet): $8.1 billion (2.5 per cent)

India's top 10 exports accounted for over three-fifths (61 per cent) of the overall value of its global shipments.

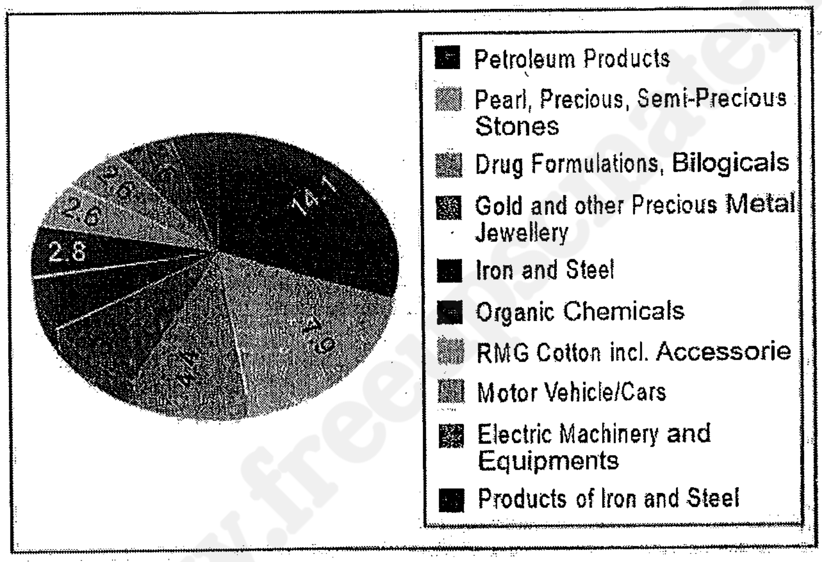


Figure: Commodity-Wise Composition of Exports 2018–2019

Mineral fuels, including oil, was the fastest growing among the top 10 export categories. Close behind in second place for improving Indian export sales are electrical machinery and equipment, which gained 33.9 per cent. India's shipments of organic chemicals recorded the third fastest gain in value up 30.7 per cent year over year, ahead of 22.5 per cent sales expansion for machinery.

There were three declining top categories for Indian exports: iron and steel, with a 14.7 per cent drop; clothing and accessories, down by 9.6 per cent; and gems and precious metals, down by 5.8 per cent.

Merchandise Imports

India imported US$507.6 billion worth of goods from around the globe in 2018, up 14.3 per cent from 2017 to 2018.

From a continental perspective, 60.3 per cent of India's total imports by value in 2018 were purchased from fellow Asian countries. European trade partners supplied 15.8 per cent of import purchased by India, while 8.2 per cent worth originated from Africa and another 8.1 per cent coming from exporters in North America.

Smaller percentages arrived in India from Latin America (4.2 per cent), excluding Mexico but including the Caribbean, and Oceania (2.9 per cent), led by Australia.
Given India's population of 1.3 billion people, its total $507.6 billion spent on 2018 imports translates to roughly $400 in yearly product demand from every person living in this vast South Asian country.

The following product groups represent the highest dollar value in India's import purchases during 2018. Also shown is the percentage share of each product category represented in terms of overall imports into India.

1. Mineral Fuels Including Oil: US$168.6 billion (33.2 per cent of total imports)
2. Gems and Precious Metals: $65 billion (12.8 per cent)
3. Electrical Machinery and Equipment: $52.4 billion (10.3 per cent)
4. Machinery Including Computers: $43.2 billion (8.5 per cent)
5. Organic Chemicals: $22.6 billion (4.4 per cent)
6. Plastics and Plastic Articles: $15.2 billion (3 per cent)
7. Iron and Steel: $12 billion (2.4 per cent)
8. Animal/vegetable Fats, Oils, Waxes: $10.2 billion (2 per cent)
9. Optical, Technical, Medical Apparatus: $9.5 billion (1.9 per cent)
10. Inorganic Chemicals: $7.3 billion (1.4 per cent)

India's top 10 imports accounted for four-fifths (80 per cent) of the overall value of product purchases from other countries. Imported mineral fuels including oil had the fastest growing increase in value among India's top 10 import categories, up 37 per cent year over year.

In second place for expanding import purchases was the inorganic chemicals category, with a 29.8 per cent improvement, followed by a 25.6 per cent increase for organic chemicals and a 20.1 per cent gain for machinery including computers.

The two declining categories for India's imports were animal and vegetable fats, oils and waxes (down 14.4 per cent) and gems and precious metals (down 12.6 per cent).

Trading Partners

A list highlighting 15 of India's top trading partners in terms of countries that imported the most Indian shipments by dollar value during 2018 is given as follows. Also shown is each import country's percentage of total Indian exports.

1. United States: US$51.6 billion (16 per cent of total Indian exports)
2. United Arab Emirates: $29 billion (9 per cent)
3. China: $16.4 billion (5.1 per cent)
4. Hong Kong: $13.2 billion (4.1 per cent)
5. Singapore: $10.4 billion (3.2 per cent)
6. United Kingdom: $9.8 billion (3 per cent)
7. Germany: $9 billion (2.8 per cent)
8. Bangladesh: $8.8 billion (2.7 per cent)
9. Netherlands: $8.7 billion (2.7 per cent)
10. Nepal: $7.3 billion (2.3 per cent)
11. Belgium: $6.8 billion (2.1 per cent)
12. Vietnam: $6.7 billion (2.1 per cent)
13. Malaysia: $6.5 billion (2 per cent)
14. Italy: $5.5 billion (1.7 per cent)
15. Saudi Arabia: $5.5 billion (1.7 per cent)

About three-fifths (60.4 per cent) of Indian exports in 2018 were delivered to the 15 trade partners mentioned above.

Merchandise Trade Surpluses

India incurred the highest trade surpluses with the following countries:

1. United States: US$19 billion (country-specific trade surplus in 2018)
2. Bangladesh: $7.9 billion
3. Nepal: $6.9 billion
4. Netherlands: $5 billion
5. Sri Lanka: $3.3 billion
6. Turkey: $3.3 billion
7. United Kingdom: $2.7 billion

Merchandise Trade

S. No.	Year	Exports	Growth (per cent)	Import	Growth (per cent)	Trade Balance
1	2009–10	178.5	–3.53	288.37	–5.05	–109.62
2	2010–11	249.82	39.76	369.77	28.23	–119.95
3	2011–12	305.96	22.48	489.32	32.23	–183.36
4	2012–13	300.40	–1.82	490.74	0.29	–190.34
5	2013–14	314.41	4.66	450.20	–8.26	–135.80
6	2014–15	310.34	–1.29	448.03	–0.48	–137.70
7	2015–16	262.29	–15.48	381.01	–14.96	–118.72
8	2016–17	275.85	5.17	384.36	0.88	–108.51
9	2017–18	303.53	10.03	465.58	21.13	–162.06
10	2018–19	330.07	8.75	514.03	10.41	–183.96

Source: GOI

8. Spain: $2.4 billion
9. United Arab Emirates: $2.2 billion
10. Kenya: $2 billion

Among India's trading partners that generate the greatest positive trade balances, Indian surpluses with the Netherlands (up 60.5 per cent), Nepal (up 35.1 per cent) and Spain (up 26.6 per cent) grew at the fastest pace in 2017–2018.

Merchandise Trade Deficits

India incurred the highest trade deficits with the following countries:

1. China: US$57.3 billion (country-specific trade deficit in 2018)
2. Saudi Arabia: $22.9 billion
3. Iraq: $21.2 billion
4. Switzerland: $16.8 billion
5. Iran: $11.9 billion
6. South Korea: $11.6 billion
7. Indonesia: $11.2 billion
8. Australia: $10.4 billion
9. Qatar: $8.9 billion
10. Nigeria: $8.4 billion

Among India's trading partners that cause the greatest negative trade balances, Indian deficits with Iraq (up 50.9 per cent), Saudi Arabia (up 44.3 per cent) and Iran (up 40.9 per cent) grew at the fastest pace in 2017–2018.

Values in US$ billion

S. No.	Year	Exports	Growth (per cent)	Import	Growth (per cent)	Net of Services
1	2009–10	96.04	–9.36	60.03	15.34	36.02
2	2010–11	124.64	29.77	80.55	34.19	44.08
3	2011–12	142.32	14.19	78.23	–2.89	64.10
4	2012–13	145.68	2.36	80.76	3.24	64.91
5	2013–14	151.81	4.21	78.75	–2.50	73.07
6	2014–15	158.11	4.15	81.58	3.59	76.53
7	2015–16	154.31	–2.40	84.63	3.75	69.68
8	2016–17	164.20	6.41	95.85	13.25	68.34
9	2017–18	195.09	18.81	117.53	22.61	77.56
10	2018–19 (P)*	205.79	5.49	125.46	6.75	80.33

Note: P stands for provisional
Source: GOI

Services Sector Exports

India's services sector's contribution of 3.35 per cent to the world's services export was valued at $160 billion plus in 2016–17. It is twice that of its merchandise exports, which is 1.65 per cent of the world's merchandise exports. In absolute terms, however, merchandise exports are double that of services' exports.

India's services exports are dominated by the software sector, followed by business, travel, transportation and other services, such as financial, insurance and communication services.

More than 45 per cent of India's services exports are on account of software services, followed by business (20 per cent), travel (14 per cent), transportation (10 per cent).

With increasing demand for Indian services worldwide and sustained support from the government, services exports have the potential to reach $300 billion by 2022. That is the reason for India insisting on services in global and regional trade talks.

The services sector was considered for long as non-tradable, non-transportable and non-scalable; and, therefore, has been ignored in trade negotiations worldwide. However, with the advent of various forms of technological connectivity, this is no longer true, as services are digitized.

Steps to Boost Services Exports

- Provide assistance in identifying export destinations.
- Assistance on creating brand India image. Centre provides limited financial assistance to display Indian products in foreign exhibitions under its Market Development Assistance Scheme.
- Indian services exports are facing several issues, such as the H-1B visa issue in the United States. It needs resolution.
- The Government of India and Services Export Promotion Council should ensure that detailed and accurate information related to various regulations and standards of importing countries is provided to services exporters in reader-friendly terms.
- Indian embassies should strengthen commercial diplomacy.

Champion Services Sectors

Government in 2018 identified twelve sectors (Champion sectors) to give focused attention for development of their potential. They are: Information Technology & Information Technology enabled Services (IT&ITeS), Tourism and Hospitality Services, Medical Value Travel, Transport and Logistics Services, Accounting and Finance Services, Audio Visual Services, Legal Services, Communication Services, Construction and Related Engineering Services, Environmental Services, Financial Services and Education Services.

The share of India's services sector in global services exports was 3.3% in 2015.This scheme aims at a share of 4.2% by 2022. The share of services in Gross Value Added (GVA) is about 55% today (excluding construction services). It should rise to 60% by 2022.

A dedicated fund of ` 5000 crores has been proposed to be established to support initiatives for sectoral Action Plans of the Champion Sectors.

The initiative will make Indian service exports competitiveness; step up GDP growth; earn foreign currency; and create jobs in India.

WTO, GATS and India

General Agreement on Trade in Services (GATS) of the World Trade Organization (WTO) deals with international services trade. It classifies all major services that are globally traded into four modes based on their nature. India has advantages in Mode 2 and 3. GATS defines Mode 2 service as 'consumption abroad', which includes tourism, education, health and similar services, where foreigners visit India for consuming these services.

- Formulating a Long-term Plan to Attract a Greater Number of Foreign Tourists: In 2016, India secured 1.18 per cent and 1.88 per cent of world's foreign tourists market in terms of foreign tourists' arrival and international tourism receipts, respectively. This is very dismal, considering India's potential. A total of 8.80 million foreign tourists visited India in 2016 and brought foreign exchange worth $22.90 billion. Though the number of foreign tourists' arrival has increased, it is well below the tourism potential of the country. The Ministry of Tourism should formulate a long-term for attracting more foreign tourists. Some steps can be implemented, such as extending the list of countries eligible for visa on arrival, liberalizing business immigration regulations, etc.
- Expansion of Healthcare Services to Emerge as a Global Health Hub: It is true that India has emerged as a centre for low-cost quality health care and Indian hospitals are serving a number of foreign patients. However, this healthcare network is limited to metro cities. There is huge scope for getting more foreign patients if such hospitals are established in border areas, such as in the Northeast, where the level of education attained is high.
- Raise Standards of Indian Academic Institutions: Education has emerged as of the largest services export sector in the world. There are many higher educational institutions in India, but they are unable to attract a good number of foreign students This is mainly due to their low ranking in the world. With the FDI policies, we can attract larger numbers of foreign students and ensure that they are retained in the country.

WTO, GATS and India: Mode 3 Service

GATS defines Mode-3 service as 'commercial presence'. It is true that many Indian companies have a global presence, but that is limited to few sectors, such as information and communication technology and business services. There is a huge scope for Indian companies to expand their global operations in sectors such as finance, banking, insurance, legal, accounting, and education.

Considering the availability of skilled persons in the fields of tourism and health care; initiatives of the government such as Smart Cities, Digital India, Skill India, a robust health sector providing world-class health treatment at an affordable price to many foreign patients, vibrant tourism opportunities, global presence of Indian companies in the areas of IT, telecom, oil and gas etc., the target of $300 billion services exports by 2022 is achievable. Meeting this target will establish India as a centre of services exports and also create millions of jobs.

Trading Across Borders of World Bank

Trading Across Borders constitutes one of the three most important components of the ten parameters that the World Bank measures. This parameter assesses the efficiency of time taken in clearing imported and export goods and the cost involved in these processes.

The rank in Trading Across Borders is a part of Doing Business report released by World Bank. Among the 11 parameters based on which the rankings are determined—which include criteria like Starting a Business, Getting Electricity and Resolving Insolvency— India did very well in Trading across Borders. This positive jump is due to a series of reforms undertaken by Customs in conjunction with Ministry of Shipping and all stake- holders, such as importers, exporters, Customs Brokers, CFS operators, shipping lines and Terminal Operators.

Customs has undertaken several initiatives, which include enhanced coordination with ministries and stakeholders, extensive use of digitization and new technologies and business process re-engineering, to facilitate trade.

Customs has come out with a National Trade Facilitation Action Plan that provides a roadmap for the fulfilment of India's commitments under the Trade Facilitation Agreement of the WTO. By introducing SWIFT, a Customs Single Window, Customs has unified the entire clearance process on a single digital platform.

Challenges to Boosting India's Exports

There are both global as well as domestic issues. Globally:

- Global trade is slowing down.
- There are tariff wars that are threatening stability.
- Multilateralism is in retreat.
- Regional trading arrangements may not benefit India much as is being debated with regard to the RCEP.

Domestically:

- Infrastructure like ports, roads, power, etc., is weak.
- Transaction costs are still high due to procedural cumbersomeness.
- Skill deficit.
- Labour laws are rigid.
- Tax stability after the introduction of GST.

GST and Exports

There is no GST charged for exports. The GST paid for any of goods or services for the purpose of exports is reimbursed. IGST will be levied on the import of goods and services into the country. Basic Customs Duty (BCD) will be levied on the import of goods in addition to IGST. Both are used for claiming credit.

Simplification and input tax credit that are associated with GST are expected to reduce the cost of locally manufactured goods and services. This will increase the competitiveness of Indian goods and services in the international market and give a boost to Indian exports. The uniformity in tax rates and procedures across the country will also go a long way in reducing the compliance cost.

Market Access Initiative (MAI)

MAI scheme is intended to provide financial assistance for medium-term export promotion efforts with a sharp focus on a country/product.

Financial assistance is available for Export Promotion Councils (EPCs), Industry and Trade Associations (ITAs), Agencies of State Governments, Indian Commercial Missions (ICMs) abroad and other eligible entities, as may be notified.

A whole range of activities can be funded under the MAI scheme. These include, amongst others:

- Market studies
- Setting up of showrooms/warehouses
- Sales promotion campaigns
- International departmental stores
- Publicity campaigns
- Participation in international trade fairs
- Brand promotion
- Registration charges for pharmaceuticals and term export promotion efforts, with sharp focus on a country/product
- Testing charges for engineering products

Marketing Development Assistance (MDA) is also similar.

Export and Trading Houses

Exporters are categorized depending on total FOB export performance during the current plus previous three years (taken together) upon exceeding the limit given below in the table.

Status Category	Export Performance FOB (Rupees in Crores)
Export House (EH)	20
Star Export House (SEH)	100
Trading House (TH)	500
Star Trading House (STH)	2500
Premier Trading House (PTH)	7500

A Status Holder shall be eligible for facilities like:

1. authorization and customs clearances for both imports and exports on self-declaration basis.
2. 100 per cent retention of foreign exchange in EEFC account (Exchange Earners' Foreign Currency), etc.

FOB or free on board value is the value of goods excluding carriage, insurance and freight, i.e., approximately, the domestic price in the country of origin.

Served from India

The objective of Served from India is to accelerate growth in the export of services to create a powerful and unique Served From India brand, instantly recognized and respected world over. Eligibility is based on a certain minimum forex earnings. They qualify for Duty Credit scrip, which means that what they pay as duty on a certain amount of their imports is cred- ited to them for set-off later when they import.

Focus Market Scheme (FMS)

The objective is to offset high freight cost and other externalities to select international markets with a view to enhance our export competitiveness in those countries. Duty Credit scrip benefits are available. FOCUS (LAC), Focus (Africa), Focus (CIS) and Focus (ASEAN + 2) programmes are operational.
This helps the country diversify the geographical base and withstand any economic crisis.

Focus Product Scheme (FPS)

The objective is to incentivise the export of such products that have high employment intensity in rural and semi-urban areas, to offset infrastructure inefficiencies and other associated costs involved in marketing of these products. Some Special-Focus Initiatives are for agriculture, handicrafts, handlooms, gems and jewellery and leather and footwear sectors.
Exports of notified products to all countries (including SEZ units) shall be entitled for Duty Credit scrip.

Hitech Products Export Promotion Scheme (HPEPS)

The objective is to incentivise the export of high-technology products. Exports of high-technology products to all countries shall be entitled for Duty Credit Scrip.

100 Per Cent Export Oriented Units

Introduced in the year 1981, the EOU scheme's main thrust is to boost and attract sector-specific exports from all parts of India that have huge potential near raw material sources. The scheme covers manufacturing/processing and services. The main objectives of the scheme is to increase exports, earn foreign exchange for the country, transfer of latest technologies to stimulate direct foreign investment and to generate additional employment. Fifty per cent of physical exports can be sold in domestic market on payment of concessional duty.

GS1-India

GS1 (Global Standards) India is a not-for-profit standards body promoted by the Ministry of Commerce and Indian industry to spread awareness and provide guidance on adoption of global standards in supply chain management by Indian industry for the benefit of consumers, Industry, government, etc.

GS1 standards are the de facto global standards in identification of consumer products in retail.

Institutional Infrastructure

Board of Trade (BOT)

The Board of Trade was set up in 1989 with a view to provide an effective mechanism to maintain continuous dialogue with trade and industry for major developments in the field of international trade. The board is chaired by the Union Commerce Minister. Its role is to advise the government on measures connected to Foreign Trade Policy and achieving the desired objective of boosting India's exports. The board is required to meet at least once every quarter and make recommendations to the government on issues pertaining to its terms of reference. It met in 2019 September. The representatives of industry expressed concerns about decreasing flow of credit to export sector, delays in refund of Input Tax Credit, withdrawal of GSP benefits by US, exports to Iran, availability of incentives for exports to neighbouring countries and so on.

Inter State Trade Council

The Inter State Trade Council was set up in 2005 with a view to ensure a continuous dialogue with state governments and union territories. It advises the government on measures for providing a healthy environment for international trade in the states with a view to boost India's exports. Chairman of the Council is the Union Commerce & Industry Minister. The Council is represented by the chief ministers of the states or the state cabinet ministers nominated by chief ministers, Lt. governors or administrators of the union territories or their nominees.

Export Promotion Councils

Export Promotion Councils are generally under the administrative control of the Department of Commerce though export promotion councils related to textile sector is under the administrative control of the Ministry of Textiles.

These councils are registered as non-profit organisations under the Companies Act/ Societies Registration Act. The Export Promotion Councils perform both advisory and executive functions. These councils are also registering authorities.

Their relevance is greater to the national export effort in the context of globlization and economic liberalization. Some Export Promotion Councils are Apparel Export Promotion Council, Chemicals Pharmaceuticals and Cosmetics Export Promotion Council, (CHEMEXCIL), Carpet Export Promotion Council, Cashew Export Promotion Council of India, Cotton Textile Export Promotion Council, Electronic and Computer Software Export Promotion Council, Engineering Export Promotion Council and so on.

Commodity Boards

There are statutory Commodity Boards under the Department of Commerce. These Boards are responsible for the production, development and export of tea, coffee, rubber, spices and tobacco.

Agricultural and Processed Food Products Export Development Authority (APEDA)

APEDA was set up by an Act of Parliament in 1986. APEDA is a statutory body entrusted with the task of agricultural exports, including the export of processed foods in value added form. It is authorized to file for Geographical Indications for agricultural products.

Marine Products Export Development Authority

MPEDA was set up under MPEDA Act, 1972. It is a statutory body functioning under the Department of Commerce. MPEDA is responsible for the development of the marine products industry with special reference to exports. It has its headquarters at Kochi.

Export-Import Bank

The Export-Import Bank of India (Ex-Im Bank) is a public sector financial institution created by an Act of Parliament, the Export-import Bank of India Act, 1981. The business of Ex-Im Bank is to finance Indian exports. The bank's primary objective is to help export-related companies by offering them a comprehensive range of products and services.

Export Credit Guarantee Corporation of India Ltd. (ECGC)

In order to promote the country's exports by covering the risk of export on credit, the ECGC provides a range of insurance covers to Indian exporters against the risk of non-realisation of export proceeds due to commercial or political causes.

Exports and Employment

One important objective of trade policy has been the integration of economic development and creation of greater employment opportunities.

The government identified 12 export sectors as employment intensive—textiles and garments, leather goods, gems and jewellery, cereals, horticulture, flowers, fruits and vegetables, dairy products, processed foods, toys and sports goods, pharmaceuticals, automobiles and auto-components and consumer electronics and electronic hardware. Special efforts are needed to promote exports from these labour-intensive sectors.

According to experts, if the cumbersome labour laws are made flexible, it should be possible to provide the much-needed boost to labour-intensive exports.

Also the small and medium enterprises (SMEs), which account for over 50 per cent of our total exports and are also relatively more labour-intensive, deserve much greater financial and marketing support, testing facilities and better infrastructure to enable them to increase their exports.

GST also made an erosive impact, as there were problems with registration and refund, which impacted working capital availability initially.

States and Export Efforts

To involve states and UTs in export efforts, the following initiatives have been taken:

- ASIDE (Assistance to States for the Development of Infrastructure for Exports).
- SEZs can be set up by states.
- Agri Export Zones (AEZ) were set up in states for agro exports.
- States are encouraged to set up export promotion councils and draw up export plans.

Trade Finance

Trade finance refers to financing international trading transactions. Trade finance is necessary to reduce the risks and uncertainties associated with commercial transactions, thus, facilitating international trade. Both exporters and importers need financial assistance. Exporters want credit for production and procurement. Importers want for purchase. Importers may even pre-finance exporters on certain terms. Banks may assist by providing various forms of support, such as LoU (Letter of Understanding), LoC (Letter of Credit), which are the following:
Letter of Undertaking (LoU) is a bank guarantee under which a bank allows its customer to raise money from another, generally the foreign branch of another bank where the LoU is a credible bankable instrument. It is a short-term credit used to make payments to the customer's offshore suppliers in foreign currency. LoC is a Letter of Credit, which says that the person is credit worthy/bankable.

A Letter of Comfort is a letter issued to a lending institution by a stakeholder of the company. It merely gives reassurance to the lending institution that the parent company is aware of the credit facility being sought by the subsidiary company and supports its decision. An LoC does not imply that the parent company guarantees repayment of the loan being sought by the subsidiary company.

Bank guarantee is an undertaking by the bank on behalf of its client to pay the lender money if the borrower defaults. Other forms of trade finance can include trade credit insurance, export factoring (it is called for faiting as explained earlier). In India, trade finance is also supported by quasi-government entities known as export credit agencies, which work with commercial banks and other financial institutions.

In India, following are the agencies that support promotion of exports:

- Exim Bank (discussed in Chapter 11)

- Reserve Bank India monitors the flow of credits to exporters and extends interest subvention benefits as an incentive for promotion of exports.
- Export Credit Guarantee Corporation of India

Limited (ECGC) provides cost-effective credit insurance to Indian exporters to protect them against commercial and political risks. It also provides insurance cover for banks and financial institutions to facilitate adequate finance to the Indian exporters. ECGC also assists exporters in recovering bad debts.

Free Trade Arrangements and India

Free Trade Agreements (FTAs) are arrangements between two or more countries or trading blocs that primarily agree to reduce or eliminate customs tariff and non-tariff barriers on a substantial number of goods and services traded between them. However, each member maintains individual tariff structure for non-members.

FTAs usually cover trade in goods (such as agricultural or industrial products) or trade in services (such as banking, construction, trading, etc.). FTAs can also cover other areas, such as intellectual property rights (IPRs), investment, government procurement and competition policy, etc. The latter are generally referred to as Comprehensive Economic Partnership Agreement (CEPA) and CECA (Comprehensive Economic Cooperation Agreement). Preferential Trade Agreement (PTA) is one in which two or more partners agree to reduce tariffs on agreed number of tariff lines. The list of products on which the partners agree to reduce duty is called a positive list. India—MERCOSUR PTA is such an example. MERCOSUR, officially known as Southern Common Market, is a South American trade bloc. Its members are Argentina, Brazil, Paraguay and Uruguay. Venezuela had been a member but was suspended in 2016.

The difference between an FTA and a PTA is that while in a PTA there is a positive list of products on which duty is to be reduced; in an FTA there is a negative list on which duty is not reduced or eliminated. Thus, compared to a PTA, FTAs are more ambitious as they eliminate tariffs on a large range of goods.

India views Regional Trading Arrangements (RTAs) as 'building blocks' of trade liberalisation complementary to the multilateral trading system. About 50 per cent of world trade is now conducted within FTAs.

Recognising the importance of RTAs, India has engaged with its trading partners/blocs to begin concluding in-principle agreements to move towards Comprehensive Economic Cooperation Agreements (CECA), which cover FTA in goods, services, investment and identified areas of economic cooperation, such as the following:

- India–Sri Lanka FTA
- South Asian Free Trade Area (SAFTA)
- CECA with Malaysia and Singapore
- CEPA with South Korea and Japan
- FTA in goods and services with ASEAN

Early Harvest Scheme is a precursor to a free trade agreement (FTA) between two trading partners. This is to help the two trading countries identify certain products for tariff liberalization pending the conclusion of FTA negotiation. It is primarily a confidence-building measure. A good example of an EHS is between India and Thailand signed in 2003.

India is negotiating Broad-based Trade and Investment Agreement (BTIA) with EU. CECA/CEPA are more comprehensive and ambitious that an FTA in terms of coverage of area and the type of commitment. While a traditional FTA focuses mainly on goods; a CECA/CEPA is more ambitious in terms of holistic coverage of many areas, such as services, investment, competition, government procurement, disputes, etc.

Secondly, CECA/CEPA looks deeper at the regulatory aspects of trade than an FTA. It is on account of this that it encompasses mutual recognition agreements (MRAs) that covers the regulatory regimes of the partners.

Mutual Recognition Agreement (MRA)

A Mutual recognition agreement is an international agreement in which two or more countries agree to recognize one another's conformity assessments. The term applies in general to quality standards and is applied to agreements on the recognition of professional qualifications. For example, the educational degrees of one country being accepted in another country as they have an FTA. An MRA recognizes different regulatory regimes of its partners, so that they achieve the same end-objectives. India and France signed an MRA in education in 2018.

Foreign Trade and Economic Integration

Economic integration is the unification of economic policies between different countries through a freer flow of goods and services as tariff and non-tariff barriers are moderated, reduced and removed. Economic integration among countries takes place with the help of foreign trade and other instruments such as capital flows. The extent of integration is indicated by the type of union it is. Following are the important stages of integration from least to most:

- Most Favoured Nation (MFN) is normal trade without discrimination, either positive or negative.
- FTA
- CEPA/CECA
- Customs Union: In a customs union, partner countries may decide to trade at zero duty among themselves but have a common (unified) external tariff (CET) against non- members.
- A common market has provisions to facilitate free movements of labour, goods and services and capital. European Common Market is an example.
- Economic Union: Economic Union is a Common Market extended through further harmonization of fiscal/monetary policies and shared executive, judicial and legislative institutions. European Union (EU) is an example.
- European Union is an Economic Union with non-economic aspects of unification that are social as well as political.
- Monetary Union has members adopting a common currency. The EMU has adopted Euro.

This integration has reasons that are economic as well as political. The economic reasons are many and will be discussed ahead. Political reasons are to bring the countries together. For example, SAFTA in South Asia is meant to achieve peace, security and development. India's FTAs with ASEAN, Japan and South Korea are a part of its Act East Policy. So is the FTA with BIMSTEC—Bay of Bengal Initiative for Multi-Sectoral Technical and Economic Cooperation, with seven member countries: Bangladesh, India, Myanmar, Sri Lanka, Thai- land, Nepal and Bhutan.

Free Trade Agreements (FTAs): Pros and Cons

Countries negotiate Free trade Agreements for a number of reasons:

- By eliminating tariffs and some non-tariff barriers, FTA partners get easier market ac- cess into one another's markets.
- Exporters prefer FTAs to multilateral trade liberalization because they get preferential treatment over non-FTA member country competitors. For example, in the case of ASEAN, it has an FTA with India but not with Canada. ASEAN's custom duty on leather shoes is 20 per cent, but under the FTA with India, it reduced duties to zero. Now assuming other costs being equal, an Indian exporter, because of this duty preference, will be more competitive than a Canadian exporter of shoes.
- Possibility of increased foreign investment from outside the FTA as it gets the MNC advantages as an exporter.

- Such occurrences are not limited to tariffs alone but is also true in the case of non-tariff measures, especially when a Mutual Recognition Agreement (MRA) is reached between countries.
- Some experts are of the view that slow progress in multilateral negotiations (Doha Round) due to complexities arising from a large number of countries reaching a consensus on polarising issues may have provided the impetus for FTAs.
- FTAs make the economy competitive.
- FTAs give access to cheaper imports for value addition and export.
- FTAs help a member become a part of global value chain.

The debit side is:

- Domestic economy may not be able to withstand competition from imports and may get de-industrialised.
- Foreign MNCs may crowd out domestic industries.
- Revenue foregone with tariff abolition is huge.
- Environmental damage due to 'growth at any cost' is irreversible and will cause damage to health and well-being.
- Food security will suffer if agriculture is compromised.
- Domestic economy may not have the scale to reap the inherent advantages.
- It may cause trade diversion instead of trade creation

FTAs, Trade Creation and Trade Diversion

Trade creation means that a free trade area creates trade that would not have existed other- wise. It is because of price advantage, specialization, benefits of scale as well as the general buoyancy in the economy due to a durable larger market. It means more employment, more domestic taxes and general welfare all round is more.

Trade diversion means that a free trade area diverts trade away from a more efficient supplier outside the FTA towards a less efficient supplier within the FTA. It means tariffs are the only influential factor and there is no realisation of aims of FTAs.

Regional Comprehensive Economic Partnership (RCEP)

Negotiations for the Regional Comprehensive Economic Partnership (RCEP), proposed free trade agreement (FTA) between the ten member states of the Association of South- east Asian Nations (ASEAN)—Brunei, Cambodia, Indonesia, Laos, Malaysia, Myanmar, the Philippines, Singapore, Thailand, Vietnam—and the six Asia-Pacific states with which ASEAN has existing free trade agreements—Australia, China, India, Japan, South Korea and New Zealand began in 2012. After seven years of talks, India dissociated from it in 2019 as there were apprehensions that it did not suit India's stage of development.

- India registered a trade deficit with as many as 11 RCEP member nations in 2018-19
- With China the trade deficit is almost $60 billion.
- Indian agriculture is vulnerable to import surges from other countries- dairy from New Zealand; spices from Vietnam and others; plantation products from ASEAN countries, and so on
- India was not being given favourable terms in services.
- A large number of Indian industries, including iron and steel, dairy, marine products, electronic products, chemicals and pharmaceuticals and textiles have expressed concerns that the proposed tariff elimination under RCEP would render the uncompetitive.
- Indian industry is also fearful that China will flood its goods into India once the pact is signed.
- India's stand on intellectual property rights in the context of free trade agreements, including the RCEP, is that it would not go beyond WTO, as medicines will become costlier.

India decided that it should reform its factor markets- land, labour and capital to become competitive and become a vibrant part of global value chains.

South-South Trade

When developing countries trade with one another, it is called South-South Trade. The rising prominence of South–South trade and economic integration is borne out in the figures since the 1980s—these show that till the current decade, the volume of exports from the developing world has risen nearly five-fold, while the corresponding world growth figure amounted to a threefold rise. More than half of total exports from the South were accounted for by South–South trade flows. By 2014, the value of South–South trade reached nearly USD 5.5 trillion, which is close to the scale of North–North trade. The higher potential residing in South–South trade rests on a number of factors:

- Higher growth performance and future growth potential.
- Greater scope for trade liberalization, given that import tariffs remain elevated in the developing world.
- Greater scope for production sharing, given the similarity of levels of development and competitiveness.

- Strong complementarity in production and resource endowments between various segments of the developing world, including between the BRICs economies and low-in- come countries.

According to the WTO, GDP growth in the developing world is set to accelerate, while the corresponding figures for developed economies point to a deceleration in growth. With respect to exports, developing countries are expected to exceed developed countries' growth trajectory by around two percentage points, with Asia being the main growth locomotive in terms of trade flows.
Most recently, South–South cooperation started to receive more of a boost from the BRICS economies.

Non-Tariff Barriers

Customs duties are the means through which the domestic economy is protected against competition from foreign goods and services. WTO mandate requires that customs tariffs be reduced to promote globalization. However, the developed world and other countries are still resorting to barriers in the form of NTBs. For example, the social clause that is sought to be brought into the scope of the WTO to exclude imports from developing countries on grounds of weak labour laws, child labour, human rights, weak green laws and so on are the prime examples. It is a form of back-door protectionism, such as restricting the number of H-1B visas in the USA and hiking fees. Quantitative restrictions (QRs) are another form of NTB.
NTBs that are allowed are:

- Sanitary and phytosanitary measures (SPS)
- Technical barriers

SPS barriers relate to the protection of animal, plant and human life within WTO members due to the entering and spreading of diseases, pests, toxins, etc.
Technical barriers relate to laying down product characteristics and related processes of production, including packaging, labelling, marketing, etc.

Quantitative Restrictions

There are four types of restrictions on imports:

- Tariffs
- Quantitative restrictions
- Banning
- Non-tariff barriers, such as quality norms and so on.

In general, QRs are measures other than tariffs that curb exports or imports. It can be in the form of quotas, licensing requirements and canalization (bulk imports/exports are allowed through a designated agency/agencies). WTO rules do not allow them unless there are severe BOP pressures. Therefore, they had been lifted progressively.

WTO expects members to convert QRs into tariffs. The advantage is that those who can afford import government gains with customs revenue helps the economy face competition, etc.

Some Important terms

DGFT: Directorate General of Foreign Trade is headed by the Director General of Foreign Trade.

The office of the DGFT is responsible for the formulation and execution of exim policy, including licensing.

EPZs and EOUs: EPZ means Export Processing Zones, which are special enclaves separate from the Domestic Tariff Area (DTA which is the national market) to provide an inter- nationally competitive duty-free environment for export production.

EOU means Export Oriented Units. The EOU scheme is complementary to the EPZ scheme, except that it is widely dispersed in location, unlike EPZs, which are set up at specific locations.

Forfaiting: There are finance companies that collect the money that is due to the exporters from the importers, for a commission. The forfaiter will take all the risks involved with the receivables.

RoDTEP: Government of India (GoI) in 2019 introduced Remission of Duties or Taxes on Export Product (RoDTEP) scheme to replace the existing Merchandise Exports from India Scheme (MEIS). RoDTEP scheme will be monitored by the Ministry of Finance (MoF). It is said to be WTO-compatible.

Deemed Exports: They are inputs into exports, and concessions are given to them just as exports for export promotion.

EPCG: EPCG refers to the Export Promotion Capital Goods (EPCG) Scheme, which gives the manufacturer the facility for import of capital goods for export production at concessional rate against a certain level of export obligation.

Exchange Earners Foreign Currency (EEFC) Account Scheme: It was introduced in 1992, which enabled exporters and other exchange earners to retain a portion of their receipts in foreign exchange with an authorised dealer in India.

ITC (HS): It refers to Indian Trade Classification (Harmonised System). It is a system of classification of products for the purposes of export and import.

Counter Trade is international barter, where goods are paid for in goods.

Assistance to States for Development of Export Infrastructure and other activities (ASIDE) Scheme.

महाज्योती
ज्ञानदीप समतेचा

SRIRAM's IAS

महाराष्ट्र शासन

महात्मा ज्योतिबा फुले संशोधन व प्रशिक्षण संस्था (महाज्योती), नागपूर

(महाराष्ट्र शासनाच्या इतर मागास बहुजन कल्याण विभागाची स्वायत्त संस्था)

महाज्योती

UPSC (नागरी सेवा) परीक्षांच्या मुलाखतीसाठी अर्थसहाय्य

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१. रहिवासी दाखला २. जात प्रमाणपत्र ३. नॉनक्रिमिलेयर प्रमाणपत्र
४. आधारकार्ड ५. शैक्षणिक गुणपत्रक

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Chapter - 24
Infrastructure-I

Introduction

Infrastructure is the foundation for economic growth and includes the physical, natural and organizational structures that are the preconditions for sustainable economic development—roads, ports, airports, bridges, railways, water supply, sewers, power, telecommunications, irrigation, etc.

A robust infrastructure facilitates production of quality goods and services and distribution of final products to the markets and basic social institutions like schools and hospitals.

Infrastructure can be hard or soft. Hard infrastructure is basically the large physical networks, like roads, ports, airports, pipelines, and so on, which are necessary for the functioning of a modern industrial nation. Soft infrastructure refers to institutions that are required to maintain the economic system, such as financial, education, health care, law enforcement.

Types of Infrastructure

Transport Infrastructure

- Roads and highway network, including structures (bridges, tunnels, culverts)
- Mass transit systems (commuter rail systems, subways, tramways and bus transportation)
- Railways (rail track, railway stations), level crossings, signaling and communications systems
- Canals and navigable waterways (inland waterways)
- Seaports
- Airports

Adequate transportation infrastructure is essential for economic development and growth. Apart from facilitating cheaper and more efficient movements of goods and people, thus enabling growth, it also helps in national integration. Transportation infrastructure impacts the distribution of economic activity and development across regions, helps businesses multiply, consumer welfare, productivity enhancement, balanced regional development, employment, and Enables the government access higher levels of fiscal resources for direct and indirect taxes. It is seen in the case of Golden Quadrilateral, Bharat Mala, PMGSY—the latter accounting for benefits in agriculture too.

Energy Infrastructure

- Electrical power network, including generation plants, electrical grid, substations and local distribution
- Natural gas pipelines, storage and distribution terminals
- Petroleum pipelines
- Specialized coal handling facilities for washing, storing, and transporting coal
- Renewable energy infrastructure, such as wind power, solar power, hydro power, geothermal power and biomass or biofuel facilities
- Coal mines, oil wells and natural gas wells (may also be classified as being part of the mining and industrial sector of the economy)

Water Management Infrastructure

- Drinking water supply
- Sewage collection and disposal of wastewater
- Drainage systems
- Major irrigation systems (reservoirs, irrigation canals)
- Major flood control systems

Communications Infrastructure

- Postal service
- Telephone networks, including mobile phone networks
- Television and radio transmission stations
- Internet
- Communication satellites
- Undersea cables

Critical Infrastructure

Critical infrastructure consists of those assets on which the rest of the economy depends:

- Electricity generation, transmission and distribution
- Gas production, transport and distribution
- Oil and oil products production, transport and distribution
- Telecommunication
- Water supply (drinking water, waste water/sewage, stemming of surface water, such as dikes and sluices)
- Agriculture, food production and distribution
- Public health (hospitals, ambulances)
- Transportation systems (fuel supply, railway network, airports, harbours, inland shipping)
- Financial services (banking, clearing)
- Security services (police, military)

Urban Infrastructure

Urban or municipal infrastructure refers to hard infrastructure systems owned and operated by municipalities, such as streets, water distribution and sewerage. It may also include some of the facilities associated with soft infrastructure, such as parks, public pools and libraries.

Green Infrastructure

Green infrastructure is a concept that highlights the importance of the natural environment. There is an emphasis on the life support functions provided by a network of natural ecosystems.
Examples include green belts, wildlife sanctuaries, eco sensitive regions, tiger, lion and elephant reserves, bird sanctuaries, Western Ghats being conserved, etc.

National Critical Information Infrastructure Protection Centre (NCIIPC)

NCIIPC is an organization of the Government of India created under Information Technology Act, 2000. Based in New Delhi, it is designated as the National Nodal Authority with respect to Critical Information Infrastructure Protection. The Information Technology Act, 2000 defines Critical Information Infrastructure (CII) as 'those computer resource, the incapacitation or destruction of which, shall have debilitating impact on national security, economy, public health or safety'. NCIIPC broadly identified the following as Critical Sectors:

- Power and Energy
- Banking, Financial Services and Insurance
- Telecom
- Transport
- Government
- Strategic and Public Enterprises

NCIIPC

NCIIPC is a nodal agency for all measures to protect the nation's critical information infra- structure. NCIIPC functions under the guidance of the National Technical Research Organization (NTRO). NCIIPC is the nodal agency that coordinates the cyber security operations related to critical infrastructures in India. NCIIPC set up sectoral Computer Emergency Response Teams (CERTs).

Financing Infrastructure

Investment in infrastructure builds capital stock needed for economic development. Traditionally, infrastructure is financed by the government. However, given the scarcity of public resources and the need to shift scarce public resources to health and education, efforts have been made to bring in private participation in the development of this infrastructure.

Currently, the source of financing varies significantly across sectors. Some are government monopolies, such as the railways and nuclear power. Some sectors are dominated by government spending, others by Overseas Development Aid (ODA) and yet others by private investors. PPP is emerging as the dominant model.

Debt and equity are, like anywhere else, ways of raising resources.

The total investment in the infrastructure sector in the Twelfth Plan (2012–17) is estimated to be `55.7 lakh crore. The share of private investment in within the total investment in infrastructure was 48 per cent during the Twelfth Plan.

India Infrastructure Finance Company Limited (IIFCL)

IIFCL was incorporated in 2006 for providing long-term loans to finance infrastructure projects that typically involve long gestation periods. IIFCL provides financial assistance both through direct lending to project companies and by refinancing banks and financial institutions as takeout financing. IIFCL raises funds from both domestic and overseas markets on the strength of government guarantees. IIFCL is a wholly owned Government of India company. The sectors eligible for financial assistance from IIFCL are mainly transportation, energy, water, sanitation, communication, social and commercial infrastructure. IIFCL has been registered as an NBFC with RBI.

By the year 2017, IIFCL made cumulative gross sanctions of `77,000 Crore to 442 projects under direct lending as well as cumulative disbursements of `56,000 Crore under refinance and takeout finance.

Public Private Partnership(PPP)

Governments in most developing countries face the challenge of meeting the growing demand for new and better infrastructure services. As available funding from traditional sources and capacity in the public sector to execute and maintain multiple projects concurrently remain limited, governments have found that partnership with the private sector is a viable alternative to increase and improve the supply of infrastructure services.

In a PPP, the government along with private partners, through a legally binding contract, agree to share responsibilities related to the execution and operation and management of an infrastructure project. This collaboration is based on appropriate allocation of:

- resources
- risks

* responsibilities
* rewards

The Government of India has identified public–private partnerships (PPP) as a way of developing the country's infrastructure for economic growth. PPPs in infrastructure rep- resent a valuable instrument to speed up infrastructure development in India. Since the first half of the 2000s, PPPs were successfully implemented. India offers today the world's largest market for PPPs.

PPPs have become attractive to governments for infrastructure development as:
* They can enhance the supply of much-needed infrastructure services.
* They provide relief from the burden of design and construction costs.
* They allow the transfer of many project risks to the private sector.
* They promise better project design, choice of technology, construction, operation and service delivery.
* Rationalize tariff for services like power and roads without any resistance from the public.

Kelkar Committee (2016) defines PPPs as Public Private Partnerships (PPPs) as provision of a public asset and service by a private partner who has been conceded the right (the Concession) for the purpose, for a specified period of time, on the basis of market deter- mined revenue streams that allow for commercial return on investment.

Investment Models in PPP

There are many models of PPPs being followed in India.

BOT and BOOT

Build–operate–transfer (BOT) and build–own–operate–transfer (BOOT) are forms of project financing in which a private entity receives a project (concession) from the corporate or public sector to finance, design, construct, own, and operate (toll collection) a facility stated in the concession contract. This enables the concessionaire to recover investment for operating and maintenance expenses in the project.

In BOOT, the concessionaire owns the project temporarily so that he can use it as collateral for raising capital for further investment.

During the period of concession, the private party is entitled to retain all revenues generated by the project. The facility will then be transferred to government at the end of the concession agreement.

V-BOT

There are instances in a BOT project where the contractor realizes the investment and profit ahead of the contract period, and there are cases where the contractor does not realize it even after the contract period is over. There should thus be flexibility taking this variability into consideration.

Under the variable build operate and transfer (V-BOT) model, if toll collection increases beyond the projection due to high traffic growth, the contractor will recover the cost before the quoted period and National Highways Authority of India (NHAI) will terminate the contract.

NHAI will then collect toll. When that amount is recovered, toll will be cut. All such projects will compulsorily have 100 per cent electronic toll collection, installation of automatic traffic count, video image detection and other systems. If the collections are inadequate relative to investment and operation costs, the period of concession is extended. That is why it is called variable model of BOT.

Delhi-Noida Direct (DND) Flyway

The Allahabad High Court in 2016 scrapped toll levied on commuters using the Delhi–Noida Direct (DND) Flyway, a major traffic artery connecting southeast Delhi with Noida across the Yamuna in Uttar Pradesh. Noida Toll Bridge Company Ltd (NTBCL) is a special purpose vehicle to develop, construct, operate and maintain DND. The Allahabad High Court order followed a public interest litigation (PIL) petition. The court considered several aspects of the case before ruling that NTBCL had 'recovered all reasonable returns' on its investment and was no longer entitled to collect toll.

Concession

A concession or concession agreement is a grant of rights, land or property by the government, a corporation, an individual or other legal entity to an entity that gets to build and/operate a project like a road, port, hospital, school, airport and so on. In case of a public service concession, a private company enters into an agreement with the government to get an exclusive right to operate, maintain and carry out investment in a public utility for a given number of years. Typical concession periods range from 5 to 50 years.

Hybrid-Annuity Model (HAM)

HAM was introduced in 2016 essentially for road infrastructure projects awarded by the National Highway Authority of India (NHAI).

As per HAM model, 40 per cent of the capital cost quoted is paid upfront by the government, while the remaining 60 per cent of the cost is paid over the life of the project as annuities. That is the meaning of hybrid.

HAM is a financial innovation in funding for infrastructure that emerged from a practical need. The BOT model was not considered viable by private players to invest, as the private player had to fully mobilise finances and bear the risk. Banks were unwilling to lend to these projects as they accumulated NPAs. Risks were unevenly distributed between the government and a private builder, as developers had to take the entire risk of low passenger traffic. Projections on traffic go wrong, affecting returns, hence the reluctance to commit large sums of money in such models. It helps by distributing the risk between developers and the government.

The government has many incentives: roads are built, businesses are enabled, tax buoyancy is boosted as it triggers economic growth, land prices go up in the vicinity, which helps the owners, etc. Also, there is less traffic congestion. HAM projects are also being tested in urban infra developments, such as metro rail projects.

In 2017, a hybrid-annuity-based PPP model was adopted for the first time in the country in the sewage management sector in two major cities of the Ganga river basin—Varanasi and Haridwar.

Toll-Operate-Transfer (TOT)

The government approved a model under which toll highways operated by the National Highways Authority of India (NHAI) for over two years will be leased to entities that will collect toll and operate the project for a specified duration, in return for an upfront fee. The money raised will be used to invest in developing more highways.

GOI identified 75 national highway projects, adding up to 4,500 km for the toll-operate-transfer model. Projects under the TOT model will be awarded through international competitive bidding where foreign funds can also take part.
TOT model will bring new investments to the highways sector. Under the TOT model, the investor will collect toll and be responsible for the operation and maintenance of the project.

Proceeds from TOT auctions will free up valuable taxpayer capital and augment resources for new infrastructure projects.

The model is likely to help NHAI raise capital to fund road projects based on the engineering, procurement and construction (EPC) and hybrid-annuity models. It will also be an opportunity for pension funds and infrastructure investors to invest in India's road sector profitably.

BOLT

BOLT stands for Build, Own, Lease, Transfer. It is a non-traditional procurement method of project financing whereby a private or public sector client gives a concession to a private entity to build a facility, own the facility, lease the facility to the client, then at the end of the lease period transfer the ownership of the facility to the client.

Advantages are that the private entity, contracted by the client, has the responsibility to raise the project finance during the construction period. Thus, it removes the burden of raising the finances for the project from the client (for example, public enterprise) and places it on the private entity. Thus, the BOLT developer assumes all the risk, the risk of raising the project financing and the risk during the construction period. The developer/owner leases it to the client to recover the cost and add profit. The operational and maintenance responsibility for the facility is the developer's, as the facility is owned by them until the lease period ends.

At the end of the lease period, ownership of and the responsibility for the facility are transferred to the client from the developer at a previously agreed price.

Swiss Challenge

Under the Swiss challenge method, any party with credentials can submit an infrastructure development proposal to the government. That proposal will be put online, and a second party can suggest improvements to that proposal. In case the original proposer is able to match the more attractive and competing counter proposal, the project will be awarded to him. An expert committee will decide on the best proposal. The Swiss challenge method is one that has been used in India by various states, including Karnataka, Andhra Pradesh, Rajasthan, Madhya Pradesh, Bihar, Punjab and Gujarat, for roads and housing projects.

This method can be applied to projects that are taken up on a PPP basis, EPC, etc. The union cabinet gave its approval to redevelop hundreds of railway stations using the Swiss challenge method. It helps with passenger service, modernization, mega investments, job creation and so on.

The advocates of Swiss challenge cite the following benefits: efficiency in the use of capital, good citizen services, transparency, genuine competition, cost saving for the government and speeds up the process of awarding projects. The critics of this method point to the absence of real competition as unsolicited bidders may not be in reality unsolicited because of the politics–business nexus. In an age of crony capitalism, companies may employ questionable means to win mega projects. Thus this method has the potential to encourage large-scale corruption and erosion of precious public resources.

Effective legal and regulatory regime is necessary to make the most of the Swiss challenge method.

Kelkar Committee report on Revisiting and Revitalising the PPP Model of Infrastructure Development, presented to GOI in 2016 discouraged the government from following the Swiss challenge model of auctioning infrastructure projects.

Viability Gap Funding

The VGF scheme aims to enhance the financial viability of infrastructure projects which do not have commercial viability, to be taken up by the private parties under the Scheme. Government gives a grant of up to 20 per cent of capital costs to PPP project of any central ministry, state government, statutory entity or local body, thus leveraging budgetary resources to access a larger pool of private capital. An additional grant of up to 20 per cent of project costs may be provided by the sponsoring ministry, state government or project authority.

UDAN (Ude Desh ka Aam Naagrik) is an ambitious regional air connectivity scheme for which GOI set up a trust for disbursing viability gap funds to the participating airline companies. Airports Authority of India (AAI) is the nodal authority for the scheme, which aims to connect unserved as well as underserved airports and make flying affordable for the masses. As at least half of the seats in UDAN flights are to be offered at subsidised fares, the participating carriers would be provided a certain amount of Viability Gap Funding (VGF)—an amount shared between the centre and the state concerned.

Take-out Financing

Banks attract deposits whose average life is about 3–5 years and so cannot be lent to finance infrastructure whose returns will have to wait for much longer. However, takeout financing can be helpful as banks lend long term, but after 3–5 years, a firm like India Infrastructure Finance Company Limited (IIFCL) takes out the account from the banks' books. It pays the bank what the borrower owes and collects the money from the borrower. It is an accepted international practice for releasing long-term funds for financing infrastructure projects.

Take out financing can be used to effectively address the asset–liability mismatch of commercial banks that is arising out of financing infrastructure projects. It can also help to free up capital of banks for financing new projects.

Objectives of the Takeout Finance Scheme are:
- To boost the availability of longer tenor debt finance for infrastructure projects.
- To address issues of asset–liability mismatch.
- To expand sources of finance for infrastructure projects by facilitating participation of new entities, i.e., medium-and small-sized banks, insurance companies and pension funds.

Plug and Play Model
In the Union Budget of 2015–16 a plug-and-play model was proposed for big-ticket infra- structure projects, such as power plants, airports and roads, where all the regulatory clearances are supposed to be put in place before they are awarded to private developers through a transparent auction.

In a plug-and-play model, the winners of the contract can start implementing the project immediately, without worrying about all the regulatory clearances and coal or gas link- ages—the cause for so many stalled projects in the country. This should unlock investments to the extent of lakhs of crores; it will help the government attract foreign and domestic investments into much-needed infrastructure projects as it will significantly cut down project implementation time and cost and time overruns.

Infrastructure Debt Fund
Infrastructure projects are capital intensive and have long payback periods and therefore require long-term funds at comparatively low costs. Infrastructure projects in India are financed mainly by commercial banks and NBFCs. The bond market, at present, lacks depth while addressing the needs for a long-term debt. With a view to overcome such shortcomings, Infrastructure Development Funds (IDFs) are being set up for channelizing long-term debt from domestic and foreign pension and insurance funds, as well as from other sources. The Reserve Bank of India and the Securities and Exchange Board of India (SEBI) have already laid down a regulatory framework for the IDFs.

An IDF can be structured either as a company or as a trust. If set up as a trust, it would be regulated by SEBI under the Mutual Fund Regulations. If set up as a company, the IDF would be structured as a Non-Banking Finance Company (NBFC) and will be under the regulatory oversight of RBI. Some infra debt funds have been recently.

An IDF-NBFC would issue either rupee or dollar denominated bonds to mobilise money to be invested in infrastructure PPPs.

InvITs and REITs

Infrastructure Investment Trust (InvITs) is like a mutual fund, which enables direct investment of small amounts of money from individual/institutional investors in infrastructure to earn income as returns. InvITs work like mutual funds. They are regulated by SEBI.

Real estate investment trust (REITs) are securities linked to real estate that can be traded on stock exchanges. The structure of REITs is like that of a mutual fund. The difference is: mutual funds invest in bonds, stocks and gold. REITs invest in physical real estate. The money gained is reinvested in income-generating real estate. This income is distributed among the unit holders. Gains from capital appreciation of real estate also form an income for the unit holders.

Engineering, Procurement, Construction (EPC) Contract and Turnkey

EPC contracts make the contractor responsible for design and construction on a turnkey basis and for a fixed price. Turnkey is a traditional procurement model for infrastructure facilities, where the contract is given to build a project.
The party that gives the contract has the entire project delivered and just has to turn the key for its operation. Generally, a private contractor is selected through a bidding process. The private contractor designs and builds a facility for a fixed payment. The contractor assumes risks involved in the design and construction phases. This type of private sector participation is also known as design-build. Both EPC and turnkey projects for general purposes are similar.

NIIF

National Investment and Infrastructure Fund (NIIF) is a fund created by the Government of India for strengthening infrastructure financing in the country. It must be noted that this is different from the National Investment Fund, which is raised from public sector disinvestment. India needs investments worth an estimated `43 lakh crore (about $600 billion) in the infrastructure sector over the next five years. As much as 70 per cent of this requirement will be in power, roads and urban infrastructure. Since most public-sector banks are struggling to cope with NPAs, their ability to fund large infrastructure projects is very

limited. So, funds for infrastructure from other sources, including NIIF, assume importance.
The NIIF and its sub-funds invest in infrastructure projects—greenfield (new), brown- field (existing) and stalled. The NIIF has an initial corpus of `40,000 crore, of which 49 per cent is contributed by the government. The remaining 51 per cent is to be raised from sovereign wealth funds, other global long-term investors and public-sector units.

The NIIF was set up as a trust under the provisions of the Indian Trusts Act, 1882. The NIIF was registered with SEBI as investment fund in 2015. NIIF aims to raise debt to invest in the equity of infrastructure finance companies such as Indian Rail Finance Corporation (IRFC) and National Housing Bank (NHB). It could also consider other nationally important projects, for example, in manufacturing, if commercially viable.

The idea is that these infrastructure finance companies can then use this extra equity manifold. It is a fund of funds and may invest in other SEBI-registered funds.

Green Bonds

Green bonds are debt instruments that raise money to fund clean energy projects. Companies that raise money through these bonds have to invest it only in areas that are environment-friendly, such as renewable energy, waste management, clean transport or sustainable land use. Though the green bond market has been in existence globally since 2007, in India it took off only in 2015. Their significance lies in the clean environment that it will create, reverse climate change, augment financial resources for investment, provide foreign currency, etc.

Since India signed the Paris Climate Deal in 2015, a number of public and private companies have sold green bonds to raise money. Companies such as IDBI Bank, Axis Bank and NTPC Ltd raised large sums through green bonds. There has been an aggressive commitment towards renewable energy by the government that has set ambitious renewable energy target of 175 gigawatts by 2022 with an estimated requirement of $ 200 billion. Hence, in the next five years, we will see a huge amount of infrastructure spending on such projects. SEBI, in 2015, endorsed the green bond principles, which are internationally recognized standards.

Mainly, the SEBI-proposed norms relate to disclosure requirements by the companies who intend to issue such bonds, and also to the periodic reporting of fund allocation—the list of projects to which green bond proceeds have been allocated. This may include the details of expected environmental impact of such projects.

Green Bond Principles 2015

As the market for green bonds grew rapidly, a group of banks initiated the development of the Green Bond Principles (GBP)—a set of voluntary guidelines framing the issuance of green bonds. Green Bond Principles encourage transparency, disclosure, and integrity in the development and growth of green bond market. It suggests a process for designating, disclosing, managing, and reporting on the proceeds of the bond. It also recognizes several broad categories of potential eligible projects, which include, but are not limited to, the following:

- Renewable energy
- Energy efficiency (including efficient buildings)
- Sustainable waste management
- Sustainable land use (including sustainable forestry and agriculture)
- Biodiversity conservation
- Clean transportation
- Sustainable water management (including clean and/or drinking water)
- Climate change adaptation

PPP: Right Model

Every model has its pros and cons and is suited for achieving major objectives of private–private partnership to varying degrees.

Special Purpose Vehicle (SPV)

Most of the PPPs create a separate commercial venture called a Special Purpose Vehicle (SPV).

The SPV is a legal entity that undertakes a project and negotiates contract agreements with other parties, including the government. It has its specific purpose and dedicated finances which are non-divertible.

SPV has many advantages. Protected finance is available. That is, the funds available for the project through an SPV cannot be diverted. A project may be too complicated and large to be undertaken by a single investor, looking at the risk involved, its investment size, management and operational skills required. In that case, the SPV mechanism has a provision to join hands with other investors who can invest, bring in technical and management capacity and share risks, as necessary. The government may also contribute to the long-term capital of an SPV.

PPPs in Social Sectors

GOI lays special emphasis on the development of social sectors in view of their impact on human development and quality of life, especially of the underprivileged sections. The physical targets set by GOI cannot be met out of public resources alone. It is, therefore, imperative that resources are attracted from the private sector to ensure that targets, in physical and financial terms, are met.

The main advantages of adopting a PPP approach in the social sectors are enhanced investment, reduction in time and cost overruns, improvement in efficiencies and better quality of performance.

PPP in Health Care Services

Several state governments are experimenting with the delivery of health services through different models. GOI is also considering a scheme for setting up secondary and tertiary care hospitals through PPPs at various district headquarters. The principal objective of the scheme is to create a health care delivery mechanism comprising multi-specialty hospital to meet the growing health care needs of the poor and to supplement human resources in the sector by setting up nursing schools and medical colleges.

National Health Policy, 2017 advocates the case of increased role for private sector in urban areas: 'Given the large presence of private sector in urban areas, the policy recommends exploring the possibilities of developing sustainable models of partnership with for profit and not-for-profit sector for urban health care delivery.'

NITI Aayog and the Union Ministry for Health and Family Welfare have proposed a model contract to increase the role of private hospitals in treating non-communicable dis- eases (NCDs) in urban India. According to the model contract, the district hospitals will need to share their back-end services, such as blood banks and ambulance services with private players. The state government can extend its help by providing part of the funds needed by the private players to set up new hospitals. Under the model contract, these private hospitals will provide secondary and tertiary medical treatment for cancer, heart diseases and respiratory tract ailments at prices that are not higher than those prescribed under government health insurance schemes.

The rationale for coming up with this model is the fact that these three diseases account for almost 35–40 per cent of total mortality in the country. It is also a fact that three-quarters of the specialists, equipment and beds are in the private sector. Partnership with them is therefore inevitable.

Ayushman Bharat is an important example where the private hospitals and insurance agencies are used for a public health care programme.

PPP in health sector is justified on the following grounds:

- Rampant absenteeism of government doctors—ranging from 28 per cent to 68 per cent in different states.
- The increase in government expenditure to 2–2.5 per cent of GDP for the expansion of public health services fails to fructify and has hovered in the range of 0.9–1.3 percent from 1990 till date.
- Community health centres have reported a 65 per cent vacancy rate of specialists since governments are simply unable to attract and retain talent.
- The private sector continues to grow at 15 per cent per annum, accounting for 58 per cent of rural and 68 per cent of urban in-patient care with 80–90 per cent of health facilities and a five-fold higher doctor density.
- Non-communicable diseases account for 60 per cent of premature mortality in India and cardiovascular diseases, pulmonary diseases, cancer, hypertension, diabetes and stroke, which are among the leading killers, account for four of the top five causes of death.
- The aim is to ensure that district hospitals provide basic services for the diagnosis and treatment of NCDs at affordable rates or free of cost for those patients for whom the government chooses to cover such costs through insurance or budgetary grants. This will help decongest tertiary level health facilities, help the geographic dispersal of skills required for NCD care and provide quality care to people closer home at a lower cost.

Criticism is based on the following points:

- One sided ness of the agreement, with the government bearing all the risk and the private partner gaining all the profits. That is, the risk is unequally spread.
- The challenge of the NITI Aayog hybrid model is its implementation. It may not be possible for public and private managements to coexist in the same physical space. Salary streams, motivation levels, working methods, prescription practices, monitoring and accountability systems, work expectations, all vary. Every day, there are instances of patients being denied treatment in private hospitals till payments are made or hospitals preferring paying patients to that of government-insured ones or levying additional charges in addition to the sum reimbursed. Private hospitals are also known

to over- charge devices like stents and drugs, which are key revenue earning centres. In other words, such a model will have conflicts of interest.

(Primary health care is the first level of contact between a patient and the health system: immunization, treatment of common diseases or injuries, provision of essential facilities, health education, provision of food and nutrition and adequate supply of safe drinking water.

Secondary health care means patients from primary health care are referred to specialists in higher hospitals for treatment.

Tertiary health care involves specialized consultative care provided on referral from primary and secondary medical care. Specialised intensive care units, advanced diagnostic sup- port services and specialized medical personnel are the key features of tertiary health care.)

PPP in Skill Development

As part of the government's initiative to augment the programmes for skill development, GOI announced setting up 1,500 ITIs through PPP in unserved blocks. The objective is to create centres of excellence in vocational education, especially for youth from low-income families to improve their prospects of gainful employment. GOI bears part of the cost of creating the infrastructure for setting up the ITIs.

PPP in Digital India

Digital India is a campaign launched by the Government of India in 2015 that includes plans to connect rural areas with high-speed internet networks. Digital India consists of three core components. They are

- Development of secure and stable digital infrastructure
- Delivering government services digitally
- Universal Digital Literacy

The BharatNet project, which was earlier the National Optical Fibre Network or NOFN, seeks to bring high-speed broadband to all 2.5 lakh gram panchayats through optical fibre. It was approved by the cabinet in 2011. It is to be funded by Universal Service Obligation Fund (USOF). The project intends to enable the government of India to provide e-services and e-applications nationally.

(USOF: New Telecom Policy 1999 Aimed at universal service. The resources for meeting the Universal Service Obligation (USO) were to be generated through a Universal Access Levy (UAL), at a prescribed percentage of the revenue earned by the telecom licensees or telcos.)

PPP in Swachh Bharat

Swachh Bharat Abhiyan (SBA) was started in 2014 with objectives to eliminate open defe- cation by constructing of household-owned and community-owned toilets and establishing an accountable mechanism of monitoring toilet use. It aimed at achieving an Open-Defecation Free (ODF) India by 2 October 2019, the 150th anniversary of the birth of Mahatma Gandhi, by constructing 12 million toilets in rural India at a projected cost of `1.96 lakh crore.

Swachh Bharat Abhiyan (SBA) is India's largest cleanliness drive to date, with around 3 million government employees, school students, and college students from all parts of India participating in 4,041 statutory cities, towns and associated rural areas.

The mission contains two sub-missions: Swachh Bharat Abhiyan (Gramin or rural), which operates under the Ministry of Drinking Water and Sanitation, and Swachh Bharat Abhiyan (Urban), which operates under the Ministry of Housing and Urban Affairs.

Swachh Bharat is a very important part of CSR and public–private partnership (PPP). The government's commitment that every person should have access to safe drinking water, a toilet and a hygiene facility by 2019 needs CSR and PPP framework for funds as well as quality interventions and programs, which can maximize social impact and the focus on behaviour change to influence positive behaviours. Waste-to-energy projects can be taken up by PPP model.

Affordable Housing

Affordable housing addresses the housing needs of the lower-or middle-income house- holds. The Government of India has taken various measures to meet the increased demand for affordable housing along with some developers under public-private partnerships (PPP). There were many problems initially in developing affordable housing, such as lack of land and high construction costs, unfavourable tax environment and lack of incentives.

In 2015, GOI announced the Housing for All by 2022 scheme. Under this scheme, affordable houses will be built in selected cities and towns using eco-friendly construction methods for the benefit of the urban poor population in India. Also, under the Credit Linked Subsidy Scheme, beneficiaries under PM Awas Yojana are eligible for interest subsidy if they avail a loan to purchase or construct a house.

2017–18 Union Budget granted infrastructure status to affordable housing, giving developers access to cheaper sources of funding, including external

commercial borrowings (ECBs). Affordable housing promoters have been granted more time for project completion.
The qualifying criteria for affordable housing are to 30 square meters and 60 square meters on the carpet, for metros and non-metros respectively. This effectively increases the size of the affordable housing market across India. A new Credit Linked Subsidy Scheme (CLSS) for the middle-income group was announced.

Government Policies (Like the Real Estate)

Regulatory Authority (RERA) made the buyer confident. The availability of cheap finance is also driving the demand for affordable housing. Refinance of housing loans by the National Housing Banks (NHBs) give a further boost to the sector.

There are, however, challenges. The biggest challenge for creating affordable housing is the unlocking of land in urban areas. According to an estimate, close to 57,392 acres will be required to build 2 crore homes. This will require unlocking non-essential lands currently being held by large government bodies. The housing shortage in India is estimated at 1.9 crore units, and the government has recognized the need to fill the gap in urban housing. It will bring a colossal \$1.3 trillion investment to the housing sector over the next seven years. The government's financial and policy thrust, regulatory support, rising urbanization, and increasing affordability is converting demand for affordable homes into a commercially viable opportunity.

PPP Policy for Affordable Housing

A new PPP Policy for Affordable Housing was announced by the Central government, which allows extending central assistance of up to `2.50 lakh per house to be built by private builders even on private lands, besides opening up immense potential for private investments in affordable housing projects on government lands in urban areas.

The policy gives eight PPP (public–private partnership) options to the private sector to invest in the affordable housing segment. It seeks to divide risks among the government, developers and financial institutions.

It proposes eight implementation models for affordable housing using PPP, six of those using government lands and two using private land. These are

- **Government Land-based Subsidised Housing:** The public authority will allot land to the selected private developer, who will design, build, and transfer the housing units back to the authority. The public authority will pay the developer based on pre-deter- mined milestones.

- **Mixed Development Cross-subsidised Housing:** Instead of receiving payments from the public authority, the developer can cross-subsidise the project by developing high- end housing on a part of the allotted land.
- **Annuity-based Subsidised Housing:** The public authority will allot the land and pay the developer in annuity payments (for up to 10 years). The developer will maintain the project for this period and will be monitored by the authority.
- **Annuity cum Capital Grant-based Subsidised Housing:** A significant proportion of the cost (40–50 per cent) will be paid by the authority during the construction phase. The remainder will be paid as an annuity (up to 10 years).
- **Direct Relationship Ownership Housing:** The land will be allotted to the developer by the authority. The beneficiary will directly pay to the private developer.
- **Direct Relationship Rental Housing:** The developer will own the housing units and receive rent from the beneficiaries.
- **Credit-Linked Subsidy Scheme (CLSS) Approach:** The private developer will be responsible for providing land as well as the development of the project. Under the CLSS component of the Pradhan Mantri Awas Yojana (PMAY), the central government will provide an interest subsidy of `2.50 lakh per house on loans taken by beneficiaries.
- **Affordable Housing Partnership (AHP) Approach:** The private developer will be responsible for providing land as well as the development of the project. The central government will provide the allottees an assistance of `1.50 lakh for each economically weaker section housing unit.

Infrastructure Status

In the 2017–18 Union Budget, GOI gave affordable housing infrastructure status to facilitate higher investment in the sector and achieve the government's ambitious goal of Housing for All.

The grant of infrastructure status means

- Builders will be eligible for government tax and subsidy incentives
- institutional funding at affordable rates for low-cost homes
- funding through insurance companies for long-term
- higher limit on External Commercial Borrowings (ECB), which will attract more investments as credit is cheaper.

Concerns

Resort to PPPs in the social sector often raises concerns about the commercialization of services that are normally expected to be provided free or at highly subsidized rates. But it can be addressed by well-drafted concession agreements and strict monitoring to ensure that PPP concessionaires abide by their commitments. This must be reinforced with penal- ties for non-compliance.

While extending the concept of PPP to social sector projects, the need for people's participation in the design and monitoring of PPP schemes becomes crucial. Local citizens are direct stakeholders in such projects and therefore their support becomes crucial. Therefore, some cities and states have begun to shape PPPs in the social and urban sectors as People–Public–Private Partnerships (PPPPs). This is a valuable innovation that should be applauded.

Kelkar Committee 2015

The Committee on Revisiting and Revitalizing the PPP model of Infrastructure Development headed by Dr Vijay Kelkar in 2015 made the following recommendations:

- **Revisiting PPPs:** Currently, PPP contracts focus more on fiscal benefits. The committee recommended that the focus should instead be on service delivery for citizens.
- Further, fiscal reporting practices and performance monitoring of PPPs should be improved.
- 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.
- **Risk Allocation and Management:** The Committee noted that inefficient and inequitable allocation of risk can be a major factor leading to the failure of PPPs. 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 life cycle.
- **Strengthening Policy and Governance:** The Ministry of Finance may develop a national PPP policy document that is endorsed by the parliament. The Committee also recommended formulating a PPP law, if feasible. Further, the Prevention of Corruption Act, 1988 should be amended to distinguish genuine errors in decision making and acts of corruption by public servants.

- **Strengthening Institutional Capacity:** The capacity of all stakeholders, including regulators, authorities, consultants, financing agencies, and others, should be built. A national-level institution should be set up to support institutional capacity-building activities and to encourage private investments with regard to PPPs. Independent regulators must be set up in sectors that are going for PPPs. An Infrastructure PPP project review committee may be set up to evaluate PPP projects. An infrastructure PPP adjudication tribunal should also be constituted. Also, a quick, efficient, and enforceable dispute resolution mechanism must be developed for PPP projects.
- **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 losses of bargaining power. This could be ensured by amending the terms of the PPP contracts to allow for renegotiations.

Chapter - 25
Infrastructure-II

Introduction

Special Economic Zones (SEZs)

India was among the first in Asia to recognize the importance of exports and so set up Asia's first Export Processing Zone (EPZ) in Kandla (Gujarat) in 1965 and many more later. They were converted into Special Economic Zones (SEZs) in 2000 to take the concept forward.

Special Economic Zones Act, 2005 was passed for:
- generation of additional economic activity,
- promotion of exports of goods and services,
- promotion of investment from domestic and foreign sources,
- creation of employment opportunities, and
- development of infrastructure facilities.

The amount of land that the proposal requires will determine what type of SEZ it will be. The different types are:
- Multi sector SEZ (minimum of 1000 hectares of land);
- Sector specific SEZ (minimum of 100 hectares);
- Free Trade and Warehousing Zone (FTWZ) (minimum of 40 hectares); and
- IT/ITeS/handicrafts/bio-technology/non-conventional energy/gems and jewelry SEZ (a minimum of 10 hectares).

(A free-trade zone (FTZ) is a type of SEZ where goods may be landed, stored, handled, manufactured and re-exported.)

Features of SEZ are as follows:
- It is a designated duty free enclave to be treated as a territory outside the customs terri- tory of India
- No licence required for import;
- Manufacturing or service activities allowed;
- The Unit shall achieve positive net foreign exchange to be calculated cumulatively for a period of five years from the commencement of production; freedom for sub-contracting;
- No routine examination by customs authorities of export or import cargo; and
- SEZ developers, co-developers and units enjoy direct tax and indirect tax benefits as prescribed in the SEZs Act.

SEZs being set up under the SEZ Act, 2005 and SEZs Rules, 2006 are primarily private investment driven. No funds are sanctioned by the Central Government for setting up of SEZ.
The SEZ Act, 2005 envisages a key role for the state governments in export promotion and the creation of related infrastructure. A single-window SEZ approval mechanism is provided through an inter-ministerial SEZ Board of Approval (BoA). SEZ Rules provide for different minimum land requirement for different classes of SEZs.

The developer submits the proposal for the establishment of SEZ to the concerned state government or directly to the Board of Approval which is constituted by the central government. SEZ is headed by a Development Commissioner. About 225 SEZs are in operation.

By 2019, exports from SEZs were Rs 3,34,000 crore; employment generation was about 19.96 lakh persons and investment of Rs 4,90,000 crore is made.

Group of Eminent Persons

Government had constituted a Group of eminent persons under the Chairmanship of Baba Kalyani to study the Special Economic Zone (SEZ) Policy of India in 2018. One of the terms of the reference for the group was to make the SEZ Policy WTO compatible. The Group has submitted its report to the Government.

WTO and SEZs

World Trade Organization (WTO) ruled that the SEZ Scheme should be closed because the tax subsidies enjoyed by SEZ units are not compatible with the WTO. WTO rules prohibit middle-income nations from providing market distorting export subsidies at all. A limited exception to this rule is given to specified developing countries temporarily. India crossed the threshold in 2015. Export subsidies are allowed in countries with less than $1,000 per capita income for fair global trade. India's per capita income went above $1,000 few years back.

National Investment and Manufacturing Zones (NIMZs)

The government notified the National Manufacturing Policy (NMP) in 2011 with the objective of enhancing the share of manufacturing in GDP to 25 per cent and creating 100 mil- lion jobs over a decade or so. The government has granted in-principle approval to fourteen NIMZs (outside the DMIC region). These are:

- Nagpur in Maharashtra

- Prakasam in Andhra Pradesh
- Chittoor in Andhra Pradesh
- Medak in Telangana
- Hyderabad Pharma NIMZ at Rangareddy and Mahabubnagar districts in Telangana.
- Tumkur in Karnataka
- Kolar in Karnataka
- Bidar in Karnataka
- Gulbarga in Karnataka
- Kalinganagar, Jajpur district in Odisha
- Ramanathapuram district in Tamil Nadu
- Ponneri Taluk, Thiruvallur district in Tamil Nadu
- Auraiya district in Uttar Pradesh and
- Jhansi district in Uttar Pradesh

Of these, the NIMZ at Prakasam in Andhra Pradesh, Medak in Telangana and Kalinganagar in Jajpur district of Odisha were granted final approval in 2019.

Eight investment regions along the Delhi–Mumbai Industrial Corridor (DMIC) project have also been announced as NIMZs. The details are as under:

- Ahmedabad-Dholera Investment Region, Gujarat
- Shendra-Bidkin Industrial Park City near Aurangabad, Maharashtra
- Manesar-Bawal Investment Region, Haryana
- Khushkhera-Bhiwadi-Neemrana Investment Region, Rajasthan
- Pithampur-Dhar-Mhow Investment Region, Madhya Pradesh
- Dadri-Noida-Ghaziabad Investment Region, Uttar Pradesh
- Dighi Port Industrial Area, Maharashtra
- Jodhpur-Pali-Marwar region in Rajasthan

State government selects the land and applies to the central government to accept its proposal to set up an NIMZ. If the central government accepts, it notifies the same and sets up an SPV that manages it. The state government owns it itself or makes any other arrangement of ownership.

NIMZs are developed as greenfield industrial townships benchmarked with the best manufacturing hubs in the world. NIMZs aim to address infrastructural bottlenecks holding back the growth of manufacturing.

NIMZ is an all-inclusive mega structure, combining production units, public utilities, logistics, environmental protection mechanisms, residential areas and administrative services. It may also include one or more SEZs, industrial parks and warehousing zones, Export Oriented Units (EOUs) and Domestic Tariff Area (DTA) units.

An NIMZ has an area of at least 5000 hectares. NIMZs are different from SEZs in terms of size, purpose, governance and federal coordination While SEZs are mainly concentrated on exports, NIMZs may export if they choose to.

SEZs have the services sectors as well, while NIMZ does not. Internal infrastructure of NIMZ be provided by a developer while external linkages will be provided by the Government—centre and state. Thus, it requires centre–state coordination.
While the central government is responsible for notifying the NIMZ and issuing necessary clearances, the state governments have many tasks to perform.
Apart from selecting and acquiring, the state government must ensure water requirements, power connectivity, infrastructure linkages, etc. Other functions of the state government include, among other things:

- Funding of initial cost of land
- State roads connectivity
- Sewerage and effluent treatment
- Health, safety and environmental issues, and others

The NIMZ functions as a self-governing and autonomous body and will be declared by the State Governments as an Industrial Township under Art 243 Q (c) of the Constitution.

NIMZ and SEZ

NIMZs are different from SEZs in terms of size, level of infrastructure planning, and governance structure related to regulatory procedures and exit policies.' NIMZs may also have SEZs located within them. While SEZs are mainly concentrated on exports, NIMZs have no such role, though they may export if they choose to. SEZs exist for the services sectors as well, while NIMZ does not.
Thus, NIMZ is an all-inclusive gigantic structure, combining production units, public utilities, logistics, environmental protection mechanisms, residential areas and administrative services. It may also include one or more Special Economic Zones (SEZs), industrial parks and warehousing zones, Export Oriented Units (EOUs) and Domestic Tariff Area (DTA) units.

An NIMZ would have an area of at least 5000 hectares. As regards the internal infra- structure of NIMZ, it will be provided by a developer or a group of co-developers, while external linkages will be provided by the Government of India and the concerned state government. Thus, it requires centre–state coordination.
While the central government is responsible for notifying the NIMZ and issuing necessary clearances, the state governments have many tasks to perform. Apart from selecting and acquiring, the state government must ensure water

requirements, power connectivity, infra- structure linkages, etc. Other functions of the state government include, among other things:

- Funding of initial cost of land
- Exploring funding arrangements, including from international funding institutions, long-term tax-free debentures, and so on
- State roads connectivity
- Sewerage and effluent treatment
- Health, safety and environmental issues, and others

In NIMZ, states may reserve a certain share of the land for MSMEs. Ownership of an NIMZ will either be with the state government, a state government undertaking in joint ownership with a private partner or under any other appropriate model.
NIMZs will put in place a comprehensive exit policy that will promote productivity while providing flexibility by removing rigidities in the labour market and ensuring protection of workers' rights as laid down in the statute.

Industrial Corridors

Corridor approach for industrial development is driven by the existence of proven, inherent and underutilized economic development potential within a region.

Industrial corridor develops infrastructure in a specific geographical area for crowding in investment and boosting industrial development. Industrial corridors constitute world- class infrastructure, such as high-speed transportation (rail, road) network, ports with state- of-the-art cargo handling equipment, modern airports, special economic regions/industrial areas, logistic parks/trans-shipment hubs, knowledge parks focused on feeding industrial needs, complementary infrastructure such as townships/real estate, and other urban infra- structure along with an enabling policy framework.

Industrial Corridors recognize the inter-dependence of various sectors of the economy and offer effective integration between the industry and infrastructure, leading to overall economic and social development. An industrial corridor provides opportunities for private sector investment in the provision of various infrastructure projects associated with the exploitation of industrial opportunity.

Apart from the development of infrastructure, long-term advantages to business and industry along the corridor include benefits arising from smooth access to the industrial production units, decreased transportation and communications costs, improved delivery time and reduction in inventory cost. The strategy of an industrial corridor is thus intended to develop a sound industrial base, served by worldclass competitive infrastructure as a prerequisite for attracting investments into export-oriented industries and manufacturing.

DMIC

The Delhi–Mumbai Industrial Corridor (DMIC) project is a flagship programme of the Government of India that aims to significantly enhance India's competitiveness in manufacturing through the creation of world-class infrastructure and reduced logistics costs.

The project aims to create smart, sustainable industrial cities by leveraging the high- speed, high-capacity connectivity backbone provided by the Western Dedicated Freight Corridor (DFC) to reduce logistic costs in an enabling policy framework. These new cities will come up in the states of Uttar Pradesh, Haryana, Rajasthan, Madhya Pradesh, Gujarat and Maharashtra. This is the first time that a geographical planning has been integrated with digital planning and Information and Communication Technology (ICT) to create Smart cities of the future. In essence, technology is being used to enable India to leapfrog in the process of urbanisation.

The Perspective Plan prepared for DMIC identified 24 investment nodes (11 Investment Regions or IRs and 13 Industrial Areas or IAs), spanning across six states after wide consultations with stakeholders, including the state governments and the concerned central government ministries. Out of 24 investment nodes, the following 8 industrial cities have been taken up for development in the first phase of the DMIC project, on the recommendations of the respective state governments. This is the first time India has embarked on the process of planned urbanisation with manufacturing as the key economic driver.

Industrial Corridors of India include:
- Delhi–Mumbai Industrial Corridor Project
- Chennai–Bangalore Industrial Corridor
- Mumbai–Bangalore Economic Corridor
- Amritsar–Delhi–Kolkata Industrial Corridor
- Udhana–Palsana Industrial Corridor (It is in the state of Gujarat, in a region comprising more than 1000 industries of metal, textile, pharmaceuticals, plastic and chemical. The region is a 32 km-long belt which is one of the busiest industrial zones in Asia.)
- East Coast Economic Corridor (2,500-kilometer) long East Coast Economic Corridor or the ECEC is expected to spur development on India's eastern coast in line with the Government of India's Make in India policy to

stimulate manufacturing and Act East policy to integrate the Indian economy with Asia's dynamic global production networks. The Asian Development Bank (ADB) and the Government of India signed $375 million in loans and grants to develop the 800-kilometer Visakhapatnam–Chennai Industrial Corridor, which is the first phase of ECEC.

Defence Corridor

A defence corridor refers to a route or a path along which domestic production of defence equipment by public sector, private sector and MSMEs are located to enhance the operational capability of the defence forces. Apart from improving the connectivity of the defence forces, it will encourage domestic production of defence equipment and benefit small and medium manufacturers along the corridor. The government already opened up private investment in defence production, including liberalizing foreign direct investment.

GOI decided to set up two Defence Industrial Corridors in the country, one in Uttar Pradesh and the other in Tamil Nadu. Subsequently, six nodes have been identified for Uttar Pradesh Defence Corridor: Agra,. Aligarh, Chitrakoot, Jhansi, Kanpur and Lucknow. The government inaugurated a defence corridor connecting Chennai and Bengaluru as well. The locations of these corridors are strategically decided by the Defence Ministry.

Industrial Parks

Industrial Parks An industrial park is a 'self-contained island providing high-quality infra- structural facilities. Integrated industrial parks offer industrial, residential, and commercial areas with developed plots/ pre-built factories, power, telecom, water and other social infra- structure'.

Industrial parks are usually promoted by the State Industrial Development Corporations (SIDC). There are different schemes under which industrial parks could be promoted, including Growth Centre, Export Processing Zone, Free Trade Zone, Export Promotion Industrial Park, Software Technology Park, Electronics Hardware Technology Park. Primarily, industrial parks have been promoted by the government and its agencies with minimal private sector participation (PSP). PSP have primarily been restricted to IT parks.

A few examples of the private initiative in industrial parks development are Information Technology Park (ITPL) in Bangalore, Infocity in Hyderabad, Technopark in Thiruvananthapuram and others.
Often, the decision to set up an industrial park reflects the social objectives of the government.

Dedicated Freight Corridor (DFC)

Based on the Eleventh Five-Year Plan of India (2007–12), the Ministry of Railways is constructing a new Dedicated Freight Corridor (DFC) in two long routes:

- the Eastern and Western freight corridors. The two routes cover a total length of 3,360 kilometres (2,090 mi), with the Eastern Dedicated Freight Corridor stretching from Ludhiana in Punjab to Dankuni in West Bengal, and
- the Western Dedicated Freight Corridor from Jawaharlal Nehru Port in Mumbai (Maharashtra) to Dadri in Uttar Pradesh. Upgrading of transportation technology, increase in productivity and reduction in unit transportation cost are the focus areas for this project.

Dedicated Freight Corridor Corporation of India Limited (DFCCIL), a Public Sector Undertaking (PSU) has been designated by the Government of India as a special purpose vehicle to undertake planning and development, mobilization of financial resources and construction, maintenance and operation of the Dedicated Freight Corridors. DFCCIL has been registered as a company under Companies Act, 2013.

China is setting up two industrial parks, one in Gujarat and another in Maharashtra. India wants Chinese goods to be made in India as that can help in reducing trade deficit; create employment; improve supplies; and increase exports from India. The Indian market is large and also cuts labour costs for China.

However, India has to protect its small and medium enterprises (SMEs) against Chinese competition.

Bharatmala Pariyojana

The Bharatmala Pariyojana is a road and highways project of the Government of India. The project will build highways from Gujarat, Rajasthan, Punjab, Haryana and then cover the entire string of Himalayan states—Jammu and Kashmir, Himachal Pradesh, Uttarakhand and portions of the borders of Uttar Pradesh and Bihar alongside Terai before moving to West Bengal, Sikkim, Assam, Arunachal Pradesh, right up to the Indo-Myanmar border in Manipur and Mizoram. Special emphasis will be given on providing connectivity to far-flung border and rural areas, including the tribal and backward areas. The Bharatmala Project will interconnect 550 district headquarters (from the current 300) through a minimum

4-lane highway by raising the number of corridors to 50 (from the current 6) and move 80 per cent freight traffic (40 per cent currently) to National Highways by connecting 24 logistics parks, 66 inter-corridors (IC) of a total of

8,000 kms, 116 feeder routes (FR) of total 7,500 km and 7 north-east multi-modal waterway ports.

The ambitious umbrella programme will subsume all existing highway projects, including the flagship National Highways Development Project (NHDP) in 1998.
It is both an enabler and beneficiary of other key Government of India schemes, such as Sagarmala, Dedicated Freight Corridors, Industrial corridors, UDAN-RCS, BharatNet, Digital India and Make in India.

National Highways Development Project (NHDP)

This is a project to upgrade, rehabilitate and widen major highways in India. The project was started in 1998 and is managed by the National Highways Authority of India (NHAI) under the Ministry of Road, Transport and Highways. The NHDP represents 49,260 km of roads and highways work and construction in order to boost economic development of the country. The government plans to end the NHDP program and subsume it under a larger Bharatmala project.

The Golden Quadrilateral (5,846 km) connects the four major cities of Delhi, Mumbai, Chennai and Kolkata is a part of the Bharatmala project.

North–South and East–West corridors, comprising national highways connecting four extreme points of the country is also a part of it. The North–South–East–West Corridor (NS-EW) is the largest ongoing highway project in India. It is the second phase of the National Highways Development Project (NHDP) and consists of building 7300 kilometres of four/six lane expressways, associating Srinagar, Kanyakumari, Kochi, Porbandar and Silchar. The NS–EW project is managed by the National Highways Authority of India.

Sagarmala Project

For long, the growth of India's maritime sector has been hampered by many procedural and policy-related challenges, the most important among them being the presence of a dual institutional structure that has led to the development of major ports (those owned by the central government) and non-major ports (those owned by the state governments) as individual projects.

Lack of infrastructure for evacuation of cargo at major and non-major ports leading to a sub-optimal transport modal mix; limited hinterland linkages and its impact on transportation costs, limited development of coastal areas for manufacturing and economic activities, low penetration of coastal and inland shipping, lack of scale and deep draft at ports also contributed to the skewed growth.

Sagarmala aims to modernize India's ports so that port-led development can be augmented and coastlines can be developed to contribute in India's growth. It aims at 'transforming the existing ports into modern world-class Ports and integrate the development of the ports, industrial clusters and the hinterland and ensure efficient evacuation systems through road, rail, inland and coastal waterways, resulting in ports becoming the drivers of economic activity in coastal areas. It aims at harnessing India's 7,500-km long coastline, 14,500-km potentially navigable waterways and strategic location on key international maritime trade routes.' Indian coastline will be developed as Coastal Economic Regions (CER). The Sagarmala Development Company was given the nod for incorporation in 2016 to give a push to port-led development. The Sagarmala National Perspective Plan was released in 2016 with details on Project Plan and Implementation.

Sagar Mala project—of the shipping ministry—seeks to allow the central government to have a say in the development of non-major ports. The initiative will strive to tackle all the challenges by focusing on port modernization, efficient evacuation and coastal economic development through a structured framework for ensuring inter-agency collaboration and integrated development. It will provide the necessary institutional framework to enable the central and state authorities to work together to ensure inclusive growth.

Coastal Economic Regions (CER)

As a part of the flagship Sagarmala (string of ports) project, the government will develop 10 Coastal Economic Regions (CERs), which will be the focal point for economic development along India's vast coastline of over 7,000 km. Each CER will hold an integrated and comprehensive plan of the area, combining the growth potential of various industrial clusters and economic activities with the upgradation and development of both major and non-major ports simultaneously. The CER will also develop transport systems for land-and water-borne evacuation of cargo from and to the ports on a regional basis, thus ensuring an optimal modal mix. By linking major and non-major ports, industrial clusters and evacuation infrastructure into a single system at a larger regional level, a CER will enable seam- less and efficient movement of cargo through gateways, thereby allowing ports to enhance competitiveness and offer multiple freight options to customers.
Ports will thus be able to actively participate in driving the economic development of a wider region, which is similar to the role that large global

ports are playing in their respective countries. This will need enabling policies, institutional framework and appropriate funding mechanism for promoting collaborative development.

The Sagarmala project is implemented by a company set up at the national level—The Sagarmala Development Company. Each CER will be developed through a special purpose vehicle having equity participation from the state government concerned and the company. The management of the CER special purpose vehicle would vest with the state government.

The port-led development model was successfully delivered in Gujarat. This includes the development of port-based industrial parks, captive industries and ancillary facilities such as ship repair, shipbuilding, ship-breaking, bunkering, container freight stations, warehousing facilities, industries requiring significant import of raw materials and industries with large export potential. This will ultimately result in more cargo for ports. The states, too, have much to gain from such a collaboration, because it would ensure funding and other institutional support from the centre.

While this will primarily focus on major and minor ports, the government is also going for its other agenda to attract private investment in the inland waterway sector, which can provide a competitive alternative to road and rail network for cargo transport. Thus, the Make in India programme gets a boost.

India's Inland Waterways

India has an extensive network of inland waterways in the form of rivers, canals, backwaters and creeks. The total navigable length is 14,500 km (9,000 mi), out of which about 5,200 km (3,200 mi) of the river and 4,000 km (2,500 mi) of canals can be used by mechanized crafts. Freight transportation by waterways is under-utilized in India, compared to other large countries and geographic areas such as the United States, China and the European Union. The total cargo moved (in tonne kilometres) by inland waterway was just 0.1 per cent of the total inland traffic in India, compared to the 21 per cent figure for United States. Cargo transportation in an organized manner is confined to a few waterways in Goa, West Bengal, Assam, and Kerala.

The cost of water transportation in India is barely 50 paise per kilometer, as com- pared to `1 by railways and `1.5 by roads. Hence water transportation has been receiving significant attention in recent times. Inland waterways in India consist of the Ganges (Ganga)—Bhagirathi-Hooghly rivers, the Brahmaputra, the Barak river, the rivers in Goa, the backwaters in Kerala, inland waters in

Mumbai and the deltaic regions of the Godavari- Krishna rivers. About 44 million tonnes of cargo is moved annually through these water- ways using mechanized vessels and country boats.

Inland Waterways and National Waterways Act 2016

In 2016, National Waterways Act came into force. It declares 106 additional inland water- ways as the national waterways in addition to five existing national waterways. Declaring these National Waterways would enable Inland Waterways Authority of India (IWAI) to develop the feasible stretches for shipping and navigation. The right over the use of water, riverbed and land will remain with the state government.

The legislation provides converting 15 rivers into waterways in West Bengal, 14 each in Assam and Maharashtra, 11 in Karnataka, 12 in Uttar Pradesh, 9 in Tamil Nadu and 6 each in Bihar and Goa and 5 each in Gujarat, Meghalaya, Odisha and Telangana, among others. It also includes a plan to convert the Yamuna in Delhi and Haryana into a waterway. Five of the river-stretches that have been declared National Waterways include Allahabad– Haldia on Ganga (1,620 km), Brahmaputra's Dhubri–Sadiya (891 km), West Coast Canal Kottapuram–Kollam (205 km), Kakinada–Puducherry canals (1,078 km) and East Coast Canal, integrated with Brahmani river and Mahanadi delta rivers (588 km).

The act highlights the crucial importance of waterways in the economic development of the country, which for long remained a backburner. India's trade through the waterways constitutes only 3.5 per cent. Inland water development is cost-effective, and it has often been said that it is far easier and less expensive to transport goods from Mumbai to London than it is from Mumbai to Delhi. In this context, the minister said that inland waterways cost only 30 paise to move cargo through waterways in comparison to `1.5 through road and Re 1 by rail.

The act also ensures that it is equally environment-friendly, especially in protecting the riverine ecology and fisheries and, importantly, tackling pollution. Inland waterways inter- link three important issues:

- **Tool for Industrial Development:** The competitive edge of key industries (steel, agro, oil and minerals) on the global market strongly relies on cost-effective inbound and outbound shipments of raw materials by waterways. A positive chain effect is established that can directly benefits non-waterway regions through competitive pricing of end-products.
- **Tool for Economic Growth:** In densely populated parts of India with strong industry presence, inland waterways will help keep goods moving by avoiding a traffic gridlock when economic growth leads to rising freight

volumes again. Investments in waterways infrastructure will serve, besides sustainable transport, regional development and tourism. The neighbourhood-first approach of the government will get an adequate boost by developing India's inland waterways.

- **Tool for Sustainable Development:** Clearly, inland waterway transport will reduce negative externalities. Investments in waterways will serve biodiversity and integrated water management.

The social and environmental benefits of inland water transport are potentially high. Reduced fuel consumption, reduced global warming, cheaper goods and services for customers, more fisheries and wildlife, fewer accidents on road, de-congested highways and cheaper travel opportunities for riverine communities are some very immediate benefits. Fishing can become a viable livelihood option again for the riverine communities. Importantly, it will also force cities and towns to reduce untreated sewage into rivers as they will tend to decrease the economic value of the river.

Other benefits are the creation of business opportunities and jobs, and public benefits, such as recreation. Some of the key benefits provided by inland waterways may lie in those areas that are currently not quantified and valued, such as drainage and community benefits, including a sense of civic pride. Further evidence on the benefits of green transport opportunities is also required as these may prove to play a significant role in reducing carbon emissions of travel. These are high on the government's agenda.

Jal Marg Vikas

Jal Marg Vikas is a project on the river Ganga being developed between Varanasi and Haldia to cover a distance of 1620 kms. The project envisages the development of a waterway with three metres depth that would enable commercial navigation for large vessels weighing up to 1,500 tonnes to 2,000 tonnes.

Its objective is to promote inland waterways as a cheap and environment-friendly means of transportation, especially for cargo movement. The Inland Waterways Authority of India (IWAI) is the project implementing agency. The project entails the construction of three multi-modal terminals (Varanasi, Sahibganj and Haldia), two inter-modal terminals, five roll-on-roll-off (Ro–Ro) terminal pairs, a new navigation lock at Farakka in West Bengal, assured depth dredging, integrated vessel repair and maintenance facility, differential global positioning system (DGPS), river information system (RIS), river training. Conservancy works are to be undertaken as part of the project. The project is being implemented with technical and investment support from World Bank and would be completed over a period of six years at an estimated cost of `4200 crores. In 2018, India's first multi-modal terminal on the Ganga river at Varanasi was inaugurated and received the country's first container cargo transported on inland waterways from Kolkata.

Land Pooling Vs Land Acquisition

Land acquisition has been a challenging area for promoting manufacturing and infrastructure in the country. One way to overcome this issue is to opt for land pooling. Land pooling is a technique for promoting efficient, sustainable and equitable land development in the urban fringes. States, such as Maharashtra, Gujarat, Tamil Nadu, Punjab, Andhra Pradesh and Kerala have used land pooling as a viable alternative to land acquisition.

The concept of land pooling involves amassing small land parcels into a large parcel, providing it with infrastructure and returning approximately 60 percent of the redeveloped land to the owners after the development is complete and appropriating the costs of infra- structure and public spaces. Of the 40 per cent that remains with the local town planning or state government authority, a substantial portion is reserved for setting up infrastructure such as roads, hospitals, schools, parks, provide electricity, water, sewerage and such like. The local planning or developing authority usually sells the rest for financing the costs for infrastructure and amenities. The target parcels are usually agricultural holdings that are converted for urban use.

Since contiguous parcels are required by the government authority, the landowner usually gets a percentage of his land back at another location within a radius of 5 km from his original holding. He may also get additional floor space index (FSI), due to which the value of the returned land will be multiple times that of the worth of his original holding, even though the plot size has shrunk. A land readjustment scheme like this is initiated by Government.

As the method is based on public/private cooperation, the majority of the landowners should support the use of the technique. Forceful acquisition of land should be avoided.
It provides an opportunity for planned development of the land and infrastructure net- work and avoids the problem where different types of land uses and densities are mixed.
Land pooling is an attractive method to influence the location and timing of new urban development since it is becoming increasingly difficult to obtain public support for land acquisition. This method is supported and sometimes even initiated by the landowners since they would make considerable profit on the project.

Farmers became partners in a land pooling scheme proposed by the Andhra Pradesh Capital Region Development Authority (APCRDA) for the development of the Andhra Pradesh state capital at Amaravati. The Delhi Development Authority (DDA) identified 200 villages along the outskirts of Delhi in a land pooling scheme, to convert around 90 villages into development areas and another 90 into urban villages. DDA recently passed a land pooling policy within Master Plan Delhi 2021.

Pooling is seen as a viable alternative to land acquisition primarily because of the difficulties involved in acquiring clear, marketable and litigation-free appropriately-sized contiguous land parcels for development—it is a sensitive issue in various parts of the country.

Logistics Performance Index (LPI)

It is a benchmarking tool created to help countries identify the challenges and opportunities they face in their performance on trade logistics and what they can do to improve their performance. It is the weighted average of the country's scores on key dimensions: quality of logistics services, track-and-trace consignments, timeliness of shipments in reaching the destination within the scheduled or expected delivery time and so on. This measure indicates the relative ease and efficiency with which products can be moved into and inside a country.

Logistics Performance Index is reported by World Bank every 2 years. The LPI is based on a worldwide survey of stakeholders on the ground providing feedback on the logistics friendliness of the countries in which they operate and those with which they trade. In the 2016 logistics performance index, the top position is held by Germany. India had 35th position, a significant improvement from 2014.

LEADS (Logistics Ease Across Different States)

Union Ministry of Commerce and Industry comes out with LEADS (Logistics Ease Across Different States) 2019, an index prepared in collaboration with consultancy firm Deloitte.

The index aims at enhancing the focus on improving logistics performance across states which is essential for improving the country's trade and reducing transaction costs. The index is based on perception with regard to nine parameters, including infrastructure, quality of logistics, services, timeliness of cargo delivery, regulatory process and safety of cargo.

The findings are expected to help in identifying the problem areas in the sector and pre- pare policy responses to deal with them.

Chapter - 26
Foreign Direct Investment

Introduction

A growing economy like India with large domestic market and huge export potential needs capital that is both internally generated and externally sourced. A globalised economy that has set the target of $ 5 trillion dollars requires foreign investments in multiple sectors that carry a variety of benefits like setting up economies of scale, joining regional and global value chains, boosting productivity and so on.

A foreign direct investment is when a multinational corporation (MNC) owns 10 per cent or more of a foreign company. If an investor owns less than 10 per cent, the International Monetary Fund (IMF) classifies it as ownership of financial assets (shares). A 10 per cent ownership is not a controlling interest but gives influence over the company's management, operations, and policies. Ten per cent shows that the MNC has a lasting interest and that the MNC can contribute to long term production decisions effectively.

Less than 10 per cent in shares is called Foreign portfolio investment (FPI), which does not come to produce goods and services but only to buy and sell financial assets, and thus not having lasting interest.

FDI can take two routes:
- Greenfield investment, where a new project is set up.
- Brownfield investment, where a company is acquired—for example, Tata Motors' acquisition of Jaguar Land Rover company in the UK.

Foreign direct investments can be inward or outward. When India finds investment from other nationals, it is inward; when Indian nationals invest abroad in production, it is called outward.

Benefits of FDI

- Foreign direct investment can stimulate the host country's economic development.
- Ancillarization, that is, local input/component industries come up.
- Having FDIs make in India is better than importing goods and services. Defence manufacturing in India is an example.
- Can help export globally competitive goods and services.
- Creates employment
- Human capital with world-class education, training and skills
- Greater productivity
- Tax collections from economic activity
- Technology development occurs when FDIs comes into the R&D sector

Costs of FDI

- Domestic investors may not be able to with stand competition.
- MNC profits are repatriated home.
- Technology-intensive investment may not be job-intensive.
- If an MNC acquires an Indian company, it may even lead to job losses.
- Tax concessions are enjoyed by investors who take the DTAA route: Double Taxation Avoidance Agreement, which India has with many countries, such as Mauritius, Singapore and so on. It means tax revenues may not materialize.
- May lead to erosion of sovereign space for public policy making.

Precautions

- Open up FDI in non-strategic sectors. For example, exclude sectors like atomic energy.
- Hike the equity participation levels gradually.
- Impose local sourcing norms.
- Ensure profits are reinvested within the country.
- A certain portion of production should be for exports to earn foreign currency.
- Following the banking sector model, where in private banks, 74 per cent FDI via the automatic route is allowed in private sector banks, but voting rights are capped at 10 per cent.

Indian Economy: FDI-Friendly

- Open economy without much government control
- Growing economy
- Low wages
- Ease of doing business
- Substantial domestic market, as in India
- Availability of skills
- Adequate infrastructure
- Pro-business government
- Membership of Multilateral Investment Guarantee Agency (MIGA) of World Bank Group ensures risk protection
- A country with sound bilateral investment treaties with clear procedures of arbitration

Incentives to FDI

FDI incentives may take the following forms:

- Higher levels of equity being allowed
- Low rates of corporate tax
- Tax holidays

- DTAA
- Special economic zones
- R&D support

India's FDI Policy

Since 1991, when economic reforms began, India has been liberalizing its FDI policy. FDI can come into the country through two routes:

Automatic Route

Under the automatic route, a non-resident investor or an Indian company does not require any approval from the Government of India for the investment.

Government Route

Under the government route, approval from the Government of India is required prior to investment. Proposals for foreign investment under the government route are considered by respective administrative ministry/department.

FDI is prohibited in gambling, lottery and so on as well as in sectors that are not open to private investment, such as atomic energy, railway operations (other than permitted activities mentioned under the FDI policy). Different sectors have different levels of FDI allowed through different routes.

Foreign Investment Promotion Board (FIPB)

Foreign Investment Promotion Board (FIPB) in the Department of Economic Affairs in the Union Ministry of Finance was set up after India embarked on globalization in 1991. It had the mandate to clear the FDI proposals upto ` 5000 crores if it needed government permission. The FDI proposals above ` 5,000 crore need to be cleared by the Cabinet Commit- tee on Economic Affairs (CCEA). FIPB was abolished in 2017. The reason was presently, only 11 sectors, including defence and retail trading, require government approval for FDI. About 90-95 per cent of FDI proposals are under the automatic route.

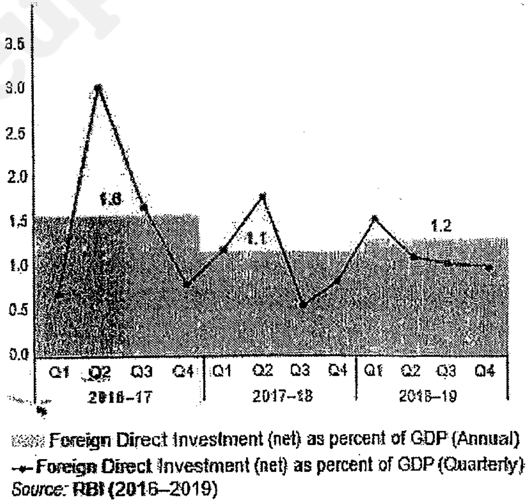

Figure: Foreign Direct Investment as per cent of GDP

FDI Inflows

Due to the open-door policy of the government and the advantages of investing in India for the reasons cited above, FDI inflows into India have been robust despite global headwinds. India's FDI inflows in

2018–19 remained strong at USD 64.375 billion, marking a 6 per cent growth over the previous year. The value of the achievement is understood against the following background: Global foreign direct investment (FDI) flows slid by 13 per cent in 2018 to USD 1.3 trillion from USD 1.5 trillion the previous year—the third consecutive annual decline according to UNCTAD's World Investment Report 2019.
FDI commitments are much more than actual flows because investors may be apprehensive about the bipartisan support for the policy; infrastructural bottlenecks; policy stability; policy on repatriation of profits and so on. Based on it, inflows may be less than pledges.

Recent FDI Liberalisation Measures

The Government of India is working on a road map to achieve its goal of US$ 100 billion worth of FDI inflows.

In February 2019, the Government of India released the Draft National e-commerce Policy, which encourages FDI in the marketplace model of e-commerce.

In December 2018, the Government of India revised FDI rules related to e-commerce. As per the rules, 100 per cent FDI is allowed in the marketplace-based model of e-commerce.

In September 2018, the Government of India released the National Digital Communications Policy, 2018, which envisages increasing FDI inflows in the telecommunications sector to US$ 100 billion by 2022.

In January 2018, the Government of India allowed foreign airlines to invest in Air India up to 49 per cent with government approval.

No government approval will be required for FDI up to an extent of 100 per cent in real estate broking services.

In September 2017, the Government of India asked the states to focus on strengthening single window clearance system for fast-tracking approval processes, in order to increase Japanese investments in India.

Foreign Investment Promotion Board (FIPB) was abolished in 2017 to make FDI less cumbersome.

August 2019

- Government of India allowed 100 per cent FDI in Insurance intermediaries in India to give a boost to the sector and attract more funds. Insurance intermediaries are brokers or agents who function as links between insurance companies and their customers.

- Open India's coal sector to 100 per cent foreign direct investment.
- Permit 26 per cent FDI under government route for uploading/streaming of news and current affairs through digital media,' along the lines of print media.

FDI In Defense Sector

India is the largest arms importer in the world with tens of billions of dollars of foreign currency outgo annually. There is uncertainty as to whether the equipment will be sold or not. If the manufacturer invests and makes in India, it has all the advantages of FDI along with earnings of foreign currency. Therefore, since 2016, India has been following a liberal FDI policy in the defense sector.

Foreign Direct Investment (FDI) policy in defence sector allows up to 49% under the automatic route; and foreign investment beyond 49% and upto 100% is permitted through Government approval, wherever it is likely to result in access to modern technology or for other reasons to be recorded.

It benefits India if there is a war as defense goods are manufactured in the country itself. Defence OEMs (Original Equipment Manufacturers) of India can invest in cutting edge research, design and manufacturing. Transfer of critical technology is another attraction. India can emerge as a global aerospace and defence hub. Defense exports will fetch the country foreign currency also. Self-reliance efforts of permit bodies like the Defence Research and Development Organisation (DRDO) may suffer.

Offset Policy

Offset agreements are a part of defense deals between two parties. When India buys defense equipment from another country, we seek compensation in the form of investments and transfer of technology in return. Some components should be sourced from India. The defence offset policy is a part of Defence Procurement and Procedure (DPP).

- The 2013 DPP mentions the objectives of the offset policy:
- fostering development of internationally competitive enterprises
- augmenting capacity for Research, Design and Development related to defence products and services and
- encouraging development of synergistic sectors like civil aerospace and internal security.

Offsets are crucial for India as India is the world's largest importer of military equipment and needs to adopt self-reliance.

महाज्योती
ज्ञानदीप समतेचा

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महाज्योती

M.Phil विद्यार्थ्यांना अधिछात्रवृत्ती (Fellowship)

महाज्योती, नागपूर मार्फत महाराष्ट्रातील इतर मागासवर्ग प्रवर्ग विमुक्त जाती-भटक्या जमाती व विशेष मागास प्रवर्गातील उमेदवारांना भारतातील मान्यताप्राप्त विद्यापीठ/ महाविद्यालय / संस्था / यामध्ये कोणत्याही विषयात पूर्णवेळ व नियमितरित्या M.Phil करण्यासाठी कमाल २ वर्षांसाठी अर्थसहाय्य करण्यात येणार आहे.

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* योजनांचा लाभ घेण्यासाठी आवश्यक कागदपत्रे:

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२. जात प्रमाणपत्र
३. नॉनक्रिमिलेयर प्रमाणपत्र
४. आधारकार्ड
५. शैक्षणिक गुणपत्रक

* योजनेचा लाभ घेण्यासाठी अर्ज कुठे व कसा करावा.

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Chapter - 27
Indian Agriculture

Introduction

Agriculture plays a vital role in India's economy. India is the world's largest producer of milk, pulses and spices. India has the largest area under wheat, rice and cotton. It is the second largest producer of rice, wheat, cotton, sugarcane, farmed fish, sheep and goat meat, fruit, vegetables and tea.

At the beginning of the First Five Year Plan (1951–56), the share of agriculture and allied activities in GDP was 53 per cent. Working population in agriculture was 72 per cent. Today it is about 17 per cent and 50 per cent, respectively.

The share of agriculture in gross domestic product (GDP) reached 19.9 per cent in 2020-21 for the first time in the last 17 years.

The resilience of the farming community in the face of pandemic induced economic recession, with a positive growth of 3.4 per cent at constant prices in 2020-21 is one reason for it. The other one was the shrinkage of the GDP size. The last time the contribution of the agriculture sector in GDP was at 20 per cent was in 2003-04.

Importance of Agriculture

Importance of agriculture to the Indian economy is seen as follows:

- The large proportion of people it supports directly and indirectly
- Its contribution to GDP
- Agriculture accounts for about 10 per cent of the total export earnings
- Provides raw material to multiple industries (textiles, silk, sugar, rice, flour
- mills, milk products)
- Provides markets for consumer goods, including consumer durables
- Rural domestic savings are an important source of resource mobilization
- The sector is crucial in maintaining food security
- Allied sectors like horticulture, animal husbandry, dairy and fisheries, have an important role in improving the overall economic conditions and health and nutrition of the rural people.

Thus, any change in this sector, positive or negative, has a multiplier effect on the entire economy. That is the reason for saying in earlier decades that Indian socio-economic planning was a gamble on monsoons.

India is the world's largest producer of milk, pulses and spices, and has the world's largest cattle herd (buffaloes), as well as the largest area under wheat,

rice and cotton. It is the second largest producer of rice, wheat, cotton, sugarcane, farmed fish, sheep and goat meat, fruit, vegetables and tea.
Food Grain Production 2019-20
Major crop during 2019-20 is as under:

- Foodgrains – 295.67 million tonnes.
- Rice – 117.94 million tonnes.
- Wheat – 107.18 million tonnes.
- Nutri / Coarse Cereals – 47.54 million tonnes
- Maize – 28.98 million tonnes.
- Pulses – 23.01 million tonnes.
- Tur – 3.75 million tonnes.
- Gram – 10.90 million tonnes.
- Oilseeds – 33.50 million tonnes.
- Soyabean – 12.24 million tonnes
- Rapeseed and Mustard – 8.70 million tonnes
- Groundnut – 9.35 million tonnes
- Sugarcane – 358.14 million tonnes

Food Deficit to Food Surplus

After remaining a food deficit country for about two decades after Independence, India became self-sufficient in food grains.
From the mid-1960s, food security improved with:

- the onset of resource-intensive green revolution: the introduction of High Yielding Varieties (HYVs) of crops;
- development of irrigation;
- input supply;
- storage; and
- marketing.

HYVs incentivised farmers to adopt improved production technologies with assured water, fertilizers and pesticides. Extension services for production technology and the marketing support through procurement operations encouraged farmers to invest and step up production.

Economic Reforms and Agriculture

When the economy was opened up with the LPG policies, agriculture was also impacted though less than the other two sectors—industry and services. The impact is by way of

- Boosting agri-exports
- Selective removal of restrictions on intra and inter zonal movement of agricultural produce

- Introduction of genetically modified organisms (GMOs) like Bt. Cotton
- Subsidy reforms to comply with WTO norms
- Promotion of food processing industry
- Contract farming, wherein the farmer produces for an assured market offered by a buyer
- Food inflation reflects global trends as India exports and imports food items
- Agricultural products are traded on the commodities exchanges in India
- Farm Laws of 2020

Accounting for Success in Agriculture

The main factors for the all-round success of agriculture have been:

- Increase in net sown area
- Expansion of irrigation facilities
- Land reforms, especially consolidation of holdings
- Development and introduction of high yielding seeds
- Fertilizers
- Improved implements and farm machines
- Technology for pest management
- Price policy based on MSP and procurement operations
- Infrastructure for storage/cold storage
- Improvements in trade system
- Increase in investments, etc.

Government Initiatives

Some of the recent major government initiatives in the sector are:

- Urea subsidy to the farmers
- Agriculture Export Policy, 2018
- Pradhan Mantri Fasal Bima Yojana (PMFBY)
- Around 100 million Soil Health Cards (SHCs)
- With an aim to boost innovation and entrepreneurship in agriculture, the Government of India launched a new AGRI-UDAAN programme to mentor start-ups and to enable them to connect with potential investors.
- Pradhan Mantri Krishi Sinchai Yojana (PMKSY) with an investment of `50,000 crore aimed at development of irrigation sources for providing a permanent solution from drought.
- The Government of India plans to triple the capacity of food processing sector in India from the current 10 per cent of agriculture produce and has also committed `6,000 crores as investments for mega food parks in the country, as a part of the Scheme for Agro-Marine Processing and Development of Agro-Processing Clusters (SAMPADA).

- The Government of India allowed 100 per cent FDI in marketing of food products and in food product e-commerce under the automatic route.
- A new platform for selling agricultural produce named e-RaKam has been launched by the Government of India and will operate as a joint initiative of Metal Scrap Trade Corporation Limited and Central Railside Warehouse Company Limited (CRWC).
- e-NAM
- PM-AASHA (Pradhan Mantri Annadata Aay SanraksHan Abhiyan)
- PM-KISAN
- Farm laws of 2020

Capital Formation in Indian Agriculture

Capital formation means addition to the physical stock of dams, roads, power plants in rural areas, land reclamation and other infrastructure. Capital formation helps in:

- Judicious use of natural resources for sustainable agriculture.
- Adoption of advanced technology and development of infrastructure for facilitating higher production
- Ensuring food security
- Making agriculture a profitable commercial sector

There is a difference between capital formation for agriculture and capital formation in agriculture. Rural roads and factories do have an impact on agriculture, but the impact is indirect. They help investments, transport, marketing, consumption etc but they are not direct inputs into agriculture. Hence, should be considered capital formation for agricultural growth. Irrigation is an example of capital formation in agriculture. Factories producing agro-chemicals and HYV seeds are both.

Capital investment in agriculture and allied sectors had risen from 13.5 per cent of the GDP in 2004–05 to 20.1 per cent in 2010–11.

Government is faced with fiscal pressures as it has to subsidise food, fertlizer and fuel for agricultural growth and farmer welfare. At the same time, capital formation in agriculture is crucial for its sustainability and development and needs adequate budgetary resources. The solution lies in rationalising subsidies and better targeting by adopting measures like direct benefit transfer (DBT) and spend allot more financial resources for infrastructure.
Both government and private sector should spend on capital stock in agriculture. Investment in public sector includes irrigation works, command area development, land reclamation, afforestation and development of state farms.

Private sector investment includes construction activities including improvement/reclamation of land, construction of non-residential buildings, farm-houses, wells and other irrigation works, it said.

Public sector investment will induce private sector to increase investment in agriculture—'crowd in' effect. The improved availability of credit for agriculture and liberalized trade for agricultural products along with the evolution of national market for agricultural goods (National Agriculture Market or eNAM) is expected to enhance investment in agriculture.

Government steps for capital formation include:

- rural roads and rural employment programmes (Pradhan Mantri Gram Sadak Yojana, MGNREGA, etc.)
- roadmap for agricultural diversification has been prepared with focus on horticulture, floriculture, animal husbandry and fisheries
- Strengthening of agriculture marketing infrastructure
- National scheme for the repair, renovation and restoration of water bodies
- Focus on micro irrigation, micro finance, micro-insurance and rural credit
- Provision of urban amenities in rural areas through creation of new growth poles
- New fertiliser subsidy regime that is nutrient based to fortify soil

As the agricultural sector is diversified, capital formation is needed in cold storage, rural roads, communication, marketing network and facilities, warehouses, etc.

Also, investments are necessary in R&D in biotechnology—be it biofertilizers, biopesticides, biofuels or GMOs.

Doubling Farmers' Income

The first challenge for the government after Independence was to step up foodgrain production as India was in deep deficit of food. Therefore, the strategy for development of the agriculture sector in India focused primarily on raising agricultural output and improving food security. The plan involved boosting productivity through better technology and HYVs along with irrigation and agro chemicals. Incentives like the MSP, cheap and accessible credit and subsidies complemented it. Capital formation in and for agriculture took place. In short, the green revolution strategy and inclusive agricultural growth strategy was adopted As a result, India progressed from food deficit to surplus country. Except for the MSPs that paid the farmer remuneratively, the strategy lacked income generation for farmer as a primary goal. Growth did not bring higher incomes.

Government policy evolved to setting the target to double the income of 2015–16 by 2022–23. Ashok Dalwai Committee on Doubling Farmers' Income was set up. The Committee submitted report with a strategy.

The DFI (doubling farmers' income) strategy time-frame is from 2016 to 2022. DFI has four important pillars

- increasing the total agricultural output by raising productivity
- ensure cost-effectiveness through efficient use of resources
- ensure remunerative prices to farmers
- Financial support

The first pillar is showing results. Total output of foodgrains and horticulture went substantively: from 264 million tonnes of foodgrains in 2014–15 to 291 mt 2018–19. Fruits and vegetable production in 2014–15 was at 265 mt and went upto 315. Output of pulses increased to 24 mt. Likewise, milk, fish and all agri commodities have seen an uptrend.

The second pillar and its success is as follows: Reducing the cost of cultivation is done, for example, through the soil health card and micro irrigation. Soil health card and expert advice benefited farmers in terms of higher productivity and lower cost of cultivation. Under micro-irrigation, around 7 lakh hectares was the annual average coverage earlier and it went upto 1.2 million hectares a year. Micro-irrigation saves water, reduces the cost of cultivation and increases productivity. Neem coated urea reduces the amount of urea or nitrogen farmers have to use, helps in better absorption, keeps soil healthy and saves money for the farmer.

Marketing occupies a central place in the DFI strategy as a third pillar. Examples are APMC Act changes by states; eNAM; GrAMs (Gramin Agricultural Markets); and Model Contract Farming Act of Niti Aayog 2018.

Fourth pillar of financial support can be explained with farmers' credit volume going up from 8.2 lakh crore in 2014–15 to 11.5 lakh crore; PM Fasal Bima Yojana for risk management; PM Kisan for direct transfer of `6,0000 a year to farmers; Pradhan Mantri Kisan Maan-Dhan Yojana (PM-KMY) 2019 which is an old age pension scheme for all land hold- ing Small and Marginal Farmers (SMFs) in the country. It is voluntary and contributory for farmers in the entry age group of 18 to 40 years and a monthly pension of `3000/- will be provided to them on attaining the age of 60 years. The farmers will have to make a monthly contribution of `55 to `200, depending on their age of entry, in the Pension Fund till they reach the retirement date, i.e., the age of 60 years.

The three structural reforms made in agricultural produce price, sale, and storage are likely to bring about major gains for the farmers:

1. The Farmers' Produce Trade and Commerce (Promotion and Facilitation) Act, 2020
   - expands the scope of trade areas of farmers' produce from select areas to "any place of production, collection, aggregation".
   - allows electronic trading and e-commerce of scheduled farmers' produce.
   - prohibits state governments from levying any market fee, cess, or levy on farmers, traders, and electronic trading platforms for the trade of farmers' produce conducted in an 'outside trade area'.
2. Farmers (Empowerment and Protection) Agreement on Price Assurance and Farm Services Act, 2020
   - provides a legal framework for farmers to enter into pre-arranged contracts with buyers including mention of pricing.
   - defines a dispute resolution mechanism.
3. Essential Commodities (Amendment) Act, 2020
   - removes foodstuff such as cereals, pulses, potato, onions, edible oilseeds, and oils, from the list of essential commodities, removing stockholding limits on agricultural items produced by Horticulture techniques except under "extraordinary circumstances"
   - requires that imposition of any stock limit on agricultural produce only occur if there is a steep price rise

But the challenges are to ensure the proper implementation through quality extension services.

Agricultural Price Policy in India

Farming should viable and profitable for agricultural growth and food security. Price fluctuations and uncertainty need to be removed by ensuring remunerative prices for the farm produce so as to encourage higher investment and adoption of modern farm technology for higher production and productivity; and sustainability. Such inclusive price policy can be dovetailed into the larger welfare policy of safeguarding the interests of consumers by making available grains at reasonable prices.

Minimum Support Price (MSP)

Government announces Minimum Support Price (MSP) for 24 major agricultural commodities and organises purchase operations through public and cooperative agencies every year twice—before the Kharif and Rabi sowing operations start. It is meant to reassure the farmers that their produce will be bought at a remunerative price to give them profit for continued investment.

After harvesting at the time of actual procurement, the government increases the MSP and purchases produce at 'procurement price'. The minor increase is warranted by the inflation between sowing and harvesting time. State governments may add a bonus to it.

Food Corporation of India actually procures the stock for the PDS and buffer stock operations. The grain is sold at the PDS outlets at issue price. The FCI's economic cost is made up of what it costs to procure, store, distribute, etc. The government decides on the MSP based on the recommendations of the Commission for Agricultural Costs and Prices (CACP) which is an advisory body of Ministry of Agriculture and Farmers Welfare. CACP, while recommending prices considers all important and relevant factors:

- Cost of Production
- Changes in Input Prices
- Input/Output Price Parity
- Trends in Market Prices
- Inter-crop Price Parity
- Demand and Supply Situation
- Effect on Industrial Cost Structure
- Effect on General Price Level
- Effect on Cost of Living
- International Market Price Situation
- Parity between Prices Paid and Prices Received by farmers (Terms of Trade)
  CACP recommends MSPs for 24 important crops. Criticism of MSP is that
- it promotes rice and wheat while the need is for diversification;
- rice and wheat consume enormous amounts of water;
- it helps the big farmer while most farmers in India are subsistence-based;
- food subsidy burden is increasing and needs to be rationalized to spend on infrastructure; and
- food habits are changing towards protein, but rice and wheat cultivation does not diminish as MSP is available; it is a hurdle to crop diversification.

Bhavantar Bhugtan Yojana (BBY) and Telangana Model

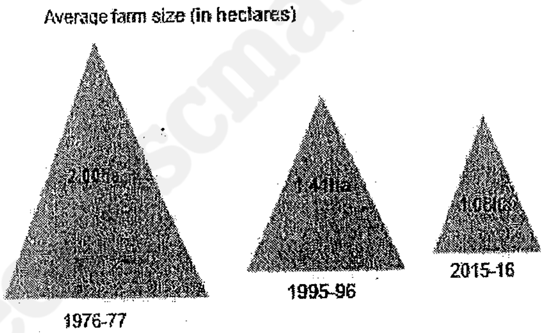
Apart from the MSP, there are other models being debated across the country. First is Bha- vantar Bhugtan Yojana (BBY), a price deficiency payment (PDP) scheme, implemented by the government of Madhya Pradesh. It covers eight notified Kharif crops (soybean, maize, urad, tur, moong, groundnut, til and ramtil). Haryana adopted a similar scheme for four vegetables—potatoes, onions, tomatoes and cauliflower. Government sets the MSP and arrives at a market price from field surveys. The difference is paid to the farmers who sell their produce. As per the BBY, farmers must register on a portal. Their sown area is to be verified by government officials. They bring their produce to mandis during the specified period. Based on average productivity of a crop in the district and the area cultivated by the farmer, the quantity so produced eligible for BBY determined. It is an alternative to the costly physical procurement of commodities at MSP in vogue for decades. However, the scheme did not take off as the traders manipulated the prices and the farmers lost. Registration also posed problems for the digitally non-literate farmers.

Rythu Bandhu

Second is the Telangana model called Rythu Bandhu. Telangana government gives 5,000 per acre per season to all farmers as investment support for their working capital needs.
Under the Telangana model, there is no such need for farmer to register the area and crop cultivated by him. The farmer is free to grow any crop of his choice and he is free to sell it any time in any mandi of his choice. This model is crop-neutral, more equitable, more transparent, and empowers farmers with freedom to choose. It does not distort the market as the MSP mechanism to which the WTO objected.
Third is KALIA of Odisha.

Krushak Assistance for Livelihood and Income Augmentation– KALIA

Under this programme of Odisha state government, financial assistance of `25,000/- per farm family over five will be provided to small and marginal farmers so that farmers can purchase inputs like seeds, fertilizers, pesticides, make use of assistance (towards labour) and other investments. This scheme is implemented from the rabi season 2018–19 onwards.



Source: Department of Agriculture

Figure: India's Shrinking Farms

Financial Assistance of `12,500/– will be provided to each landless agricultural house- hold for agricultural-allied activities such as small goat rearing unit, mini-layer unit, duckery units, fishery kits for fisherman, mushroom cultivation, bee-keeping, etc.

Vulnerable cultivators/landless agricultural laborers will get financial assistance of `10,000/- per family per year to for their sustenance.

Vulnerable landless laborers, cultivators, sharecroppers and agricultural families identified by Gram Panchayats will be provided with crop loans up to ` 50,000 (at 0 per cent interest).

Fourth is PM-KISAN of the GOI. In the Interim Budget 2019–20, GOI announced a direct income support of `6,000 per year in three equal instalments to 12.5 crore small and marginal farmers with land below two hectares or five acres under the PM Kisan Samman Nidhi Yojana. It was extended later to all farmers.

Swaminathan Formula

The National Commission on Farmers, chaired by Prof. M. S. Swaminathan, submitted five reports between 2004 and 2006 and recommended attractive ways of paying the farmers for their produce.

Paying the farmer for the purchase of his produce can be done by fixing the price in a variety of ways:

- A2 Cost: actual paid out costs of the farmer (cost of inputs like fertilizers, seeds, etc.,) or
- A2+FL: cost of inputs like fertilizers, seeds; and the imputed value of family labour or
- C2 cost (comprehensive cost) includes the paid out costs(A2), the imputed cost of family labour (FL) and the rent of land and cost of capital foregone on account of cultivation.
- C2 plus 50 per cent is recommended by Swaminathan Commission.

PM-AASHA (Pradhan Mantri Annadata Aay SanraksHan Abhiyan)

It is a scheme to rationalise the government agricultural produce price and policy for efficiency, savings by way of reduction of wastages and leakages in storage and make fiscal gains. It has three wings:

- Price Support Scheme (PSS)
- Price Deficiency Payment Scheme (PDPS)
- Pilot of Private Procurement and Stockist Scheme

PSS involves physical procurement by the government. For example, paddy, wheat and nutri-cereals/coarse grains. Price Deficiency Payment Scheme (PDPS) does not involve procurement. It provides for direct payment of the difference between the MSP and the market price to the farmer as in the BBS of Madhya Pradesh.

Private Procurement Stockist

Scheme (PPSS) involving the participation of private stockist involves procurement of produce like oilseeds.
By introducing PDPS and PPSS, there are efficiency gains and financial savings to be made.

System of Rice Intensification (SRI)

The System of Rice Intensification (SRI) involves cultivating rice with abundant organic manure and young seedlings which are planted in a single row and spaced wide. Use of a weeder besides controlling weeds also actively aerates the soil contributing to promotion of root growth and beneficial soil organisms.

SRI method does not require continuous flooding. Irrigation is given to maintain soil moisture. Irrigation is given at intervals which varies with soil texture. Soils having low water holding capacity require frequent irrigation. As the soil is not flooded, the roots of the paddy plants grow healthy and deeply in all directions. The root growth is extensive also due to the wide spacing. As the field is intermittently irrigated and dried, the micro organ- isms grow well which make nutrients available to the plants.

SRI is not a new technology. It is a comprehensive farm management and conservation strategy that changes the way that land, seeds, water, nutrients, and human labour are used to increase productivity. SRI is an amalgamation of multiple beneficial practices.

Proponents of SRI claim its use increases yield, saves water, reduces production costs, and increases income and that benefits have been achieved in 40 countries. Irrigated rice yields double the present world average were reported without relying on external inputs and also offering environmental and equity benefits.

Farm and Non-Farm Employment

As the economy advances, the share of the population working in agriculture declines significantly. While about two-thirds of the population in poor and developing countries work in agriculture, it is less than 5 per cent in developed countries. The reason is when the land, labour and capital productivity increases, it makes the reduction in labor possible.

In India, about 50 per cent work on agriculture to produce about 17 per cent of GDP. Much of the work force in agriculture is unnecessary (disguised unemployment) but has no opportunities in other sectors as the economy is not growing adequately fast nor are they skilled. India Rural Development Report 2012–13 prepared by IDFC Foundation in collaboration with others advocates creation of non-farm growth opportunities on a mass scale for income augmentation and rural development.

The rural non-farm sector includes all economic activity in rural areas other than farming. The need for non-farm employment arises because of the need to increase incomes of the small and marginal farmer families; accelerate growth; increase agri- cultural wages; incentivise skilling; inclusive growth; and check migration. Non-farm work is predominantly casual and informal in nature with most work in the construction and trade sectors. Even manufacturing employment has become increasingly informal over time. This denies workers job security and benefits of formal employment. It can be addressed by creating durable jobs with agro-processing and agricultural infrastructure like cold storage.

There are both push and pull factors operating in the creation of non-farm jobs: back- ward areas due to stagnant growth and vagaries of weather have low and uncertain farm incomes and non-farm avenues for labour. Backwardness is the push factor. In agriculturally developed areas, there is surplus income that is invested in buildings, services, and so on, thus acting as pull factor. There are barriers to non-farm livelihoods: lack of access to credit, marketing and skills. Financing skill training is difficult: trainees are not assured job placement or higher wages.

In recent years, village-level connectivity has improved, especially roads, electricity and telecommunications in India. Pradhan Mantri Gramin Awaas Yojana, (previously Indira Awaas Yojana) provides housing for the rural poor in India; PMGSY; Pradhan Mantri Krishi Sinchai Yojana are some flagships of GOI that are crowding in private investments into the rural areas creating non-farm employment.

Deen Dayal Antyodaya Yojana or DAY (National Rural Livelihoods Mission (NRLM)) for helping the poor by providing skill training (previously Aajeevika) is enabling gainful employment.

Feminisation of Agriculture

The term feminization of agriculture, generally, refers to the sizeable increase of women's participation in the agricultural sector, particularly in the developing countries. Due to the increase in literacy, skills and awareness, women are playing a much larger role in the management of the farm and also as labourers.

While the global meaning of feminisation of agriculture is greater participation of women in agricultural production, distribution and value addition which is positive and progressive, in India, it has a different meaning. Economic Survey 2017–18 says that with growing rural to urban migration by men, there is 'feminisation' of agriculture sector. That is, increasing number of women in multiple roles in the household and also as cultivators, entrepreneurs, and labourers. The burden on women is multiplying.

According to Census 2011, there has been a 24 per cent increase in the number of female agricultural labourers between 2001 and 2011. Nearly 98 million Indian women have agricultural jobs, but around 63 per cent of them are agricultural labourers, dependent on the farms of others.

Besides, mechanisation of agriculture pushed women to traditional roles such as harvesting, sowing seeds and rearing livestock, which are low paying. Burden of household chores and a lower wage rate than men add to the misery. The fact that women have no land rights denies them credit, insurance, irrigation and other entitlements of agriculture-related schemes.

United Nations observes October 15 as International Rural Women's Day to highlight the contribution of rural women to the world's economic development. Government of India declared October 15 as Rashtriya Mahila Kisan Diwas in 2017.

Government should make policies by which women farmers will have enhanced access to resources like land, water, credit, technology and training which warrants critical analysis in the context of India.

There are many programmes of the Government that help improve the entitlements of women farmers:

- Earmarking at least 30 per cent of the budget allocation for women beneficiaries in all ongoing schemes/programmes and development activities.
- Focusing on women self-help group (SHG) to connect them to micro-credit through capacity building activities.
- Provide information and ensuring their representation in different decision-making bodies.

Farmer Producer Organisation (FPO)

Indian farms are highly fragmented, making it difficult for farmers to adopt modern practices and technology. The small and marginal land holding area was 47.4 per cent in 2015–16. They need inputs cheap, assistance to market their produce and also mechanise. Their resourcefulness is limited and needs augmentation. FPOs are a part of the solution.

A Producer Organisation (PO) is a legal entity formed by primary producers, viz. farmers, milk producers, fishermen, weavers, rural artisans, craftsmen. FPO is a type of PO where the members are farmers. Producer Organisation can be registered Cooperative Societies, Producer Company under Indian Companies Act 2013, Societies, etc.

FPO takes up the responsibility of any one or more activities in the value chain of the produce from procurement of raw material to selling to the consumers. FPO could under- take the following activities:

- Procurement of inputs
- Disseminating market information
- Dissemination of technology and innovations
- Facilitating finance for inputs
- Aggregation and storage of produce
- Primary processing like drying, cleaning and grading
- Brand building, Packaging, Labeling and Standardization
- Marketing to institutional buyers
- Export

NABARD, Small Farmers' Agri-Business Consortium (SFAC), Government Departments, Corporates and Domestic and International Aid Agencies provide financial and/or technical support to the Producer Organisation Promoting Institution (POPI) for promotion and hand-holding of the FPO.

The 2019–20 Union Budget proposed to form 10,000 FPOs in the next five years. This is expected to help small and marginal cultivators as FPOs will ensure economies of scale when the government helps them with capital. In 2018, five-year tax holiday for FPOs with turnover of upto ` 100 crore was declared.

The success of the FPO requires funding, capacity building and value chain investments. FPO depends on other elements such as banks, retailers and corporate sector and laws need to be amended to promote in these sectors.

Terms of Trade (ToT)

Terms of Trade refer to the relative profitability of agriculture in comparison to other sec- tors of the economy. For agriculture, it can be found out by comparing the change in input costs to the change in output prices. In simple terms, what the farmer pays for his inputs and what he receives for his output.

Favourable ToT is important for investment, capital formation, food security, livelihood security, sustainable farming and so on. If the ToT are not favourable, we witness flight of capital and vice-versa.

Globalization since 1991 in India boosted ToT for agriculture as it allowed exports; FDI in food processing and e-commerce; better seed technology and so on. Lack of taxation for agricultural income also contributed to improve terms. Rural infrastructure by way of power and roads (PMGSY) further complemented the process. CACP takes ToT as one of the criteria for its recommendation of MSP.

Agri Exports (Percentage)

Year	2016–17	2017–18	2018–19
Share of agriculture sector in total exports	12.07	12.66	11.76

Taxing Agricultural Income

The subject is in the State List. Opinion is divided about whether there should be agricultural income taxation. Proponents say that:

- It adds to budgetary receipts;
- It helps capital formation when re-spent in agriculture;
- It conforms to the principle of horizontal equity in fiscal policy (when other sectors are taxed, agriculture should not be left out), and
- There are rich agriculturists who need to be taxed, etc. Those who argue against it say that:
- It may lead to flight of capital.
- Food security will be impacted negatively.
- There is no need for formal tax according to some since the intra and inter-zonal restrictions of movement of agricultural prices, price controls and limits on exports for domestic price stability are implicit forms of tax.

Agricultural Subsidies

Indian agriculture receives the following subsidies from government

- Food
- Fertiliser
- Credit
- Electricity

Food subsidy is incurred by the Union Government when it buys from the farmer at a remunerative price and sells to the consumer at an affordable price. The difference between what it costs the government to supply and what the government collects from the consumer is the food subsidy. There is enormous scope for rationalization by way of selective introduction of DBT. It is `1,85,000 crore 2018–19.

Fertiliser subsidy involves making available chemical fertilizers to small and marginal farmers affordably. Government of India pays the fertiliser companies a certain price that includes post-indirect tax profit (retention price) for every tonne of fertiliser and supplies to the farmer cheap. Fertiliser subsidy is ` about 80,000 crore in 2019–20.

Government gives rural credit at a subsidised rate through the banks and at times government writes off loans of distressed farmers.

Electricity is subsidised by states and at times is given free with perverse effects like wastage; substandard equipment that inefficiently uses power; excess of drawal of water that degrades the land; fiscal pressures; NPAs for banks when Discoms are not in a position to service loans and so on.

The challenge associated with agricultural subsidies is
- Rationalising them for savings that can be spent on infrastructure
- Better targeting
- Selectively substitute with DBTs.

Sustainable Agriculture

Agriculture often places unviable pressure on natural resources and the environment in terms of land pollution; water depletion; food safety; erosion of crop diversity and so on. Thus, future needs are compromised while meeting current needs. In India sustainable agriculture is referred to as ever green revolution. The farm practices that enable it are
- Organic farming
- ZBNF
- Micro irrigation
- Water users association for best practices in use of irrigation water
- Calibrated permission for genetically modified organisms (GMOs) due to threats to natural varieties
- Biofertilizers and biopesticides
- CMSA: Community Managed Sustainable Agriculture (CMSA) which is essentially an alternative to the conventional-input intensive-agriculture

model. It promotes the use of locally available, organic external inputs—including cow dung, chickpea flour, and palm sap—and the use of traditional organic farming methods such as polycropping and systems of rice intensification (SRI). 1.2 million farmers across 9000 villages are practicing this sustainable method of agriculture across 1.2 million hectares in Andhra Pradesh. It is centered around SHGs.

Sustainable Agriculture and Water Management

Sustainable development of land and water resources becomes important for a nation like India which has about 16 per cent of the global population but has only 2.4 per cent of the total land and 4 per cent of the total water resource. Ground water resources are dwindling fast due to poor water harvesting

- excessive run off and
- excessive withdrawal/exploitation for commercial agriculture

Water is a critical input for agriculture and crisis can be solved by effective utilisation of existing irrigation potential by multi cropping and micro irrigation; expansion of cost-effective irrigation where it is possible; and better water management in rainfed areas where assured irrigation is not possible.
There is need for not only expansion of irrigation facilities, but also equitable, efficient and sustainable use of water. Usually, tail-enders in the irrigated areas are denied water because upper-end users appropriate it for highly water intensive crops and also use it wastefully.

Participatory Irrigation Management (PIM) by water user associations (WUA) who are authorised to set, collect and use water cess can help maintain field channels, expand irrigated area, distribute water equitably and provide the tail-enders their just share of water. Experience in Andhra Pradesh and Gujarat has shown the effectiveness of the PIM.

Watershed management, rainwater harvesting and ground water recharge help augment water availability in rainfed areas. Micro-irrigation is also an important tool to improve efficiency of water usage.

Warabandi: It means fixing of turns for irrigation water use for each farmer so as to make it available to all farmers. It aims at use of water judiciously and equitably.

Command Area Development

Availability of adequate, timely and assured irrigation is a critical determinant of agricultural productivity. Irrigation facilities address the need. What is equally important is to use the irrigation facility optimally. Thus, there is a need for command area development.

Command area is the area that is served by an irrigation source. Command area development (CAD) aims at improving the utilization of created irrigation potential and optimizing agriculture production and productivity from irrigated agriculture. It does so by encouraging multiple cropping; use of HYVs, enhancing literacy, etc.

CAD has led to an increase in the irrigated area, productivity and production, irrigation efficiency, equity and sustainability, etc. However, the problem of water logging (along with alkalinity and salinity of soil due to it) has surfaced in many irrigated commands. CAD programme of the government is addressing the issue by extension services.

Drought

Drought is an extended period of unusually dry weather. India Meteorological Department (IMD) defines a rainfall range of 96–104 per cent of the Long Period Average (LPA) as being 'near normal', while 90–96 per cent is considered 'below normal', 104–110 per cent 'above normal', above 110 per cent 'excess' and below 90 per cent 'deficient'. There are three types of droughts:

- Meteorological drought is when the actual rainfall in an area is significantly less than the average of that area. The country may have a normal monsoon, but different meteorological districts and sub-divisions can have below normal rainfall.
- Hydrological drought means marked depletion of surface water causing very low stream flow and drying of lakes, rivers and reservoirs.
- Agricultural drought means inadequate soil moisture resulting in acute crop stress and fall in agricultural productivity.

Droughts can be detrimental to the rural and national economy. Cattle, human beings and crops suffer water shortage.

With wide variations in agro-climatic zones, drought occurs every year in some parts of India. About 50 million Indians are affected every year. Symptoms of drought

- Delay in onset of SW monsoon
- long 'break' within a monsoon
- less rain in July
- fall in water reservoir levels

- dwindling water supply and
- slower crop sowing. Drought becomes severe when
- there is virtually no rain during the sowing period
- monsoon withdraws mid-season and
- a dry spell for more than a month.

Drought is classified as a potential disaster when there is no rain for more than six weeks in a crop area and the monsoon withdraws early. If 20–40 per cent of India's area is affected, it is called a drought year. If more than 40 per cent of the country is affected, it is called All India Severe Drought Year.

The primary responsibility of catching the early signs, offering relief and managing droughts lies with States.

Government intervention is by way of advisories to farmers
- to grow less water-intensive crops
- increase fodder supply
- Keep Centre's National Crisis Management Committee (NCMC) informed.

Government takes following steps:
- Importing food grains to meet likely demand-supply gap and check inflation
- loan rescheduling
- insurance premium waivers
- moving water and fodder by rail
- increasing food allocation to poor families
- creating more jobs
- Essential Commodities Act is used to prevent hoarding

Drought impacts as below:
- Landless labourers and marginal farmers move to cities in search of casual jobs.
- Families with loans from moneylenders are entrapped in poverty.
- Health suffers
- Schooling of children is disrupted as income dwindles
- Animals die as fodder prices go up unaffordably
- The impact on cities is by way of migration stress and food inflation.

Remedies to drought are:
- Sustainable water management
- drought-resistant agriculture
- income diversification
- sprinkler irrigation
- shifting to dairy and other animal husbandry activities.

Rainfed Agriculture

Rainfed regions are those where crop production is exclusively dependent on rainfall. The Union Ministry of Agriculture classifies areas, which receive less than 750 mm rainfall annually, and have less than 30 per cent land under irrigation (both surface and ground water) as drylands. Rainfed regions in India cover 177 districts and exist in all agro-climatic zones. Most of these districts are country's poorest. Rainfed regions account for 68 per cent of the total net sown area in the country.

Rainfed agriculture plays an important role in India's economy.
- Rainfed crops account for 48 per cent of the total area under food crops and 68 per cent of the area under non-food crops in the country.
- Nearly 50 per cent of the total rural workforce and 60 per cent of the livestock in the country are concentrated in the dry districts.

As opportunities for further agricultural growth in irrigated regions get exhausted, food security and productivity growth in agriculture in India in the coming years will increasingly depend on improved utilisation of resources and productivity growth in rainfed regions.

Steps necessary are:
- Most agricultural lands in rainfed areas in Orissa, West Bengal, Bihar and Chhattisgarh suffer from sulphur and phosphorous deficiency. Thus, soil has become acidic in nature. These areas need interventions from agriculture scientists for soil reclamation.
- Promotion of appropriate cropping patterns and livestock development is necessary.
- Development of suitable varieties and lab to land transfer is required.
- Region specific watershed programmes need to be developed along with micro irrigation.
- The policy should go beyond crop production and rainwater management as agriculture cannot sustain large farming community in rainfed areas. There is a need for agro- processing and horticulture.

Agricultural Productivity

Productivity shows the efficiency of use of the inputs. It is the ratio of output to inputs. The factors that drive agricultural productivity are:
- Availability of water
- Quality of soil
- Size of the farm
- Mechanization

- HYV seeds
- Optimum application of fertilizers
- Extension services
- Farmer knowledge
- Timely, adequate and affordable credit
- Tenant security

Benefits of higher productivity are seen in the following:
- More production
- Food security
- Minimisation of wastage of resources
- More incomes for the farmers
- Higher wages
- Checks labour migration
- More exports due to comparative advantage
- More agricultural growth and less poverty

However, productivity gains should be sustainable unlike the green revolution in India that polluted soil and depleted water making farming unviable.

Crop productivity in India is low. For rice, it is less than 3 tons per hectare; wheat has 3.15 tonnes; for soya bean it is one ton; for pulses it is 841 kg/ha. Reasons for low productivity are small and dwindling size of agricultural land holdings; grossly insufficient irrigation facility; lack of remunerative and secure marketing policy; lack of financial inclusion; quality of soil; extent and quality of extension services is sub-optimal; and knowledge gaps.

It is clear from rest of this chapter that in India many schemes are operating for enhancing agricultural productivity.

NDRF and SDRF

Government created State Disaster Response Fund (SDRF)/National Disaster Response Fund (NDRF) through Disaster Management Act, 2005 to mitigate hardships due to natural calamities including drought. There is ready availability of funds with State Governments under SDRF to take immediate relief measures. Government of India supplements efforts of State Governments with financial assistance and logistic support. All states will contribute 10 per cent to the SDRF and rest 90 per cent will be contributed by the Union Government during 2018–19 and 2019–20 as per the recommended allocation by the 14th Finance Com- mission.
Additional financial assistance, over and above SDRF, is considered from NDRF for natural calamities of severe nature.

Micro Irrigation Fund (MIF)

Micro-irrigation is the slow application of water as discrete or continuous drips, tiny streams or miniature spray on, above, or below the soil by surface drip, subsurface drip and micro-sprinkler systems. It is applied through low-pressure delivery. It is localised irrigation.

As the agriculture sector consumes 80 per cent of the freshwater in India, micro-irrigation is promoted by government to tackle the growing water crisis. This is because drip and sprinkler irrigation deliver water to farms in far lesser quantities than conventional gravity flow irrigation. Due to recurring droughts in years 2012, 2015 and 2016, micro-irrigation has become a policy priority in India. Pradhan Mantri Krishi Sinchai Yojana (PMKSY or Prime Minister's Agriculture Irrigation Programme) is based on the goal of 'Per Drop More Crop'. Micro-irrigation aims to 'save' water and boost crop yields.

The government in 2018 approved a dedicated 5,000 crore fund to bring more land area under micro-irrigation as part of its objective to boost agriculture production and farmers income. The fund has been set up under NABARD, which will provide this amount to states on concessional rate of interest to promote micro-irrigation, which currently has a coverage of only 10 million hectares as against the potential of 70 million hectares. Borrowings from NABARD shall be paid back in seven years including the grace period of two years. The lending rate under MIF has been proposed at 3 per cent lower than the cost of raising the fund by NABARD.

Long Term Irrigation Fund (LTIF)

Union Budget 2016–17 announced creation of a dedicated Long Term Irrigation Fund (LTIF) in NABARD with an initial corpus of `20,000 crore for funding and fast tracking the implementation of incomplete major and medium irrigation projects. A Mission has been established in the Ministry of Water Resources, River Development and Ganga Rejuvenation (MoWR, RD and GR) for overall implementation of the scheme. The Long Term Irrigation Fund (LTIF) aims to bridge the resource gap and facilitate completion of these projects during 2016–2020.

Soil Health

Soil health is a critical factor for agricultural productivity and human health. The following steps are being taken to improve it:

- Government issues Soil Health Cards to all farmers in the country detailing the deficiencies in the soil and the amount of fertilizers needed. Soil Health Cards would give farmers information about the quality of the soil and what is the normal quantity of fertiliser to be used for a particular crop. For this, setting up of new (also mobile) soil testing laboratories is taken up.

- The government is encouraging use of neem-coated urea and organic fertiliser and vermicompost as overdose of conventional fertilizers has been found to affect fertility of the soil in many places. Land under organic farming has increased.
- Government is giving subsidy for all fertilizers and nutrients to enhance soil health Earlier only urea was subsidised and so most farmers used it only because there is subsidy and soil was spoilt. Now all nutrients are subsidised, and farmers are purchasing the fertilizers according to the requirements of the soil and thus it is a positive step towards sustainable agriculture.

Soil Reclamation

Soil erosion, whether it is by water, wind or tillage reduces agricultural productivity and farmers' incomes. Therefore, there is a need to reclaim such soil. Vast areas of cultivated land are acidic. Indian soils generally are relatively deficient in organic matter and thus there is inadequate manuring and composting. It is aggravated in many regions by unbalanced use of chemical fertilizers, especially excessive application of nitrogen. The current comsumption ratio of nitrogen, phosphorus and potassium (NPK) is 6.7:2.4:1 against their desirable ratio of 4:2:1.
Micronutrients have been seriously depleted.
There is sulphur deficiency in large parts of the country that can be treated effectively, particularly for pulses and oilseeds.

Soil reclamation is being done with agricultural waste, efficient use of irrigation water, chemicals, scientific use of fertilizers and neem coated urea that absorbs all the nitrogen. Because of neem coated urea nitrogen consumption is falling.
Soil health cards, agriclinics, ZBNF, biofertilizers and government programmes including MGNREGA are contributing to soil reclamation.

Zero Budget Natural Farming in India

Zero Budget Natural Farming (ZBNF) is a set of farming methods which has spread to various states in India. It has attained wide success in southern. India, especially the southern Indian states of Andhra Pradesh and Karnataka where it first evolved. ZBNF is inspired by Subhash Palekar, who has been advocating it for decades.

'Zero budget' farming promises to drastically cut production costs. The word 'budget' refers to credit and expenses. 'Zero Budget' means without using any credit and without spending any money on purchased inputs. 'Natural farming' means farming with nature and without chemicals. Union Budget 2019–20 emphasised zero budget natural farming for promotion on mass scale.

The agrarian crisis in India is making small scale farming unviable. Privatised seeds, inputs, and markets are inaccessible and expensive for peasants. Under such conditions, 'Zero budget' farming offers a viable solution.

Indian Agriculture and Climate Change

According to the Indian Meteorological Department, the annual mean temperature in the country increased by 0.6 degrees Celsius between 1901 and 2018.

Climate Change, caused by the increased concentration of greenhouse gases (GHGs) in the atmosphere, has emerged as the most worrying environmental problem. Most of the countries including India are facing the problems of rising temperature, melting of glaciers, rising of sea-level leading to inundation of the coastal areas, changes in precipitation patterns leading to increased risk of recurrent droughts and devastating floods, threats to biodiversity, an expansion of pest.

Several areas have been recognized as being predominantly risk prone to the impacts of climate change. Among these are the most productive coastal areas, Indo-Gangetic plains (IGP) and the frequently drought and flood prone regions of the country. This is likely to threaten the food security and livelihoods of millions of people in India.

To ensure the food security of the country, the resilience of Indian agriculture to climatic variability and climate change needs to be enhanced. Agriculture sector in India is more vulnerable to climate change because of India's tropical location and relatively lower levels of income.

Climate change can have negative effects on crop yields across agro-ecological regions both due to temperature rise and changes in water availability. Rainfed agriculture will be primarily impacted due to rainfall variability and reduction in number of rainy days. Higher temperatures and extreme rainfall tend to reduce crop yields. Yields of major crops could decline by up to 25 per cent. In addition, they will change soil fertility, the incidence of pest infestation and the availability of water. This will impact crops, animal husbandry as well as fisheries.

महाज्योती
— ज्ञानदीप समतेचा —

SRIRAM's IAS

महाराष्ट्र शासन

महात्मा ज्योतिबा फुले संशोधन व प्रशिक्षण संस्था (महाज्योती), नागपूर

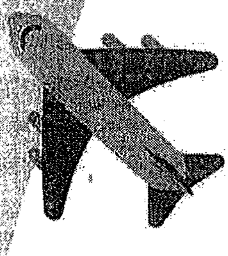
(महाराष्ट्र शासनाच्या इतर मागास बहुजन कल्याण विभागाची स्वायत्त संस्था)

महाज्योती

व्यावसायिक वैमानिक (कमर्शियल पायलट) प्रशिक्षण

महाज्योती, नागपूर मार्फत महाराष्ट्रातील इतर मागासवर्ग प्रवर्ग विमुक्त जाती-भटक्या जमाती व विशेष मागास प्रवर्गातील उमेद्वारांना व्यावसायिक वैमानिक **प्रशिक्षण** या कार्यक्रमांतर्गत प्रथम वर्षी २० विद्यार्थ्यांना नागपूर फ्लाईंग क्लब मार्फत प्रशिक्षण देण्यात येईल.

*** लाभार्थी पात्रता/ निकष :**



* उमेदवार हा महाराष्ट्राचा रहिवासी असावा.
* उमेदवार हा इतर मागास वर्गीय, विमुक्त जाती- भटक्या जमाती तसेच विशेष मागास प्रवर्गातील नॉनक्रिमीलेयर गटातील असावा.
* व्यावसायिक वैमानिक (कमर्शियल पायलट) प्रशिक्षण पात्रता पूर्ण केलेली असावी.
* महाराष्ट्र शासनाकडून वेळोवेळी होणाऱ्या बदलानुसार पात्रता असणे आवश्यक राहील.

*** योजनांचा लाभ घेण्यासाठी आवश्यक कागदपत्रे:**

१. रहिवासी दाखला २. जात प्रमाणपत्र ३. नॉनक्रिमिलेयर प्रमाणपत्र ४. आधारकार्ड
५. शैक्षणिक गुणपत्रक

*** योजनेचा लाभ घेण्यासाठी अर्ज कुठे व कसा करावा.**

महाज्योती, नागपूर कार्यालयाच्या www.mahajyoti.org.in या संकेत स्थळावरील नोटीस बोर्ड मधील "व्यावसायिक वैमानिक (कमर्शियल पायलट) प्रशिक्षण" या टॅबवर क्लिक करून आपला अर्ज आवश्यक माहिती तसेच कागदपत्रांसहित ऑनलाईन अपलोड करावा.

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National Innovations on Climate Resilient Agriculture (NICRA)

National Innovations on Climate Resilient Agriculture (NICRA) was started in 2011 by Indian Council of Agricultural Research (ICAR) with three major objectives:

- strategic research (long term)
- technology demonstrations and
- capacity building.

Assessment of the impact of climate change simultaneous with formulation of adaptive strategies is the prime approach under strategic research across all sectors of agriculture, dairying and fisheries. Evolving climate resilient agricultural technologies is a crucial part of NICRA. There are four pillars of NICRA—natural resource management, improving soil health, crop production and livestock.

NICRA has the objective to develop suitable technologies for production and risk management for crops, livestock and fisheries.

The research was undertaken at seven major institutions of ICAR across India. NICRA identified 151 climatically vulnerable districts. Research shows that the yield of rice in irrigated areas may decrease by 7per cent in 2050 The yield of maize in irrigated areas of kharif was projected to decline by 18per cent by 2020.

Research at the National Dairy Research Institute, Karnal has found that heat stress has a negative impact on the reproduction traits of cows and buffaloes and their fertility will be adversely impacted.

Scientists of the Central Marine Fisheries Research Institute have found that production of fish will be impacted as climate change impacts ocean current, acidification, temperature and food availability.

NICRA has projected that rice and wheat in Indo-Gangetic plains, sorghum and potato in West Bengal and sorghum, potato and maize in southern plateau are likely to see reduced productivity. Increase in temperature and rainfall pattern may also result in a lower yield of cotton in north India.

The study also found that productivity of soybean, groundnut, chickpea and potato in Punjab, Haryana and western Uttar Pradesh may go up. Similarly, the productivity of apple in Himachal Pradesh may increase.

Under the NICRA project, ICAR has collected germ-plasm from various locations. These will be used as source material for breeding programmes to develop heat and drought-tolerant wheat and pulses and flood-tolerant rice.
Research is taking place to breed varieties of different crops which are climate-resilient. One such success is Sahbhagidhan, a variety of paddy which was jointly developed by the International Rice Research Institute and Central Rainfed Upland Rice Research Station of ICAR at Hazaribagh. It matures in 105 days while most other varieties take 120-150 days to maturity. Farmers can plant another crop after harvesting this.

IRRI is also breeding a flood-tolerant variety of paddy by manipulating genes to get better strains which can enable paddy rice to survive for up to 15 days of submergence in floodwater. It has identified such varieties in Odisha and Sri Lanka which have a Sub 1 gene.

Research on climate-resilient varieties of wheat, mustard, lentil, chickpea, mung bean, groundnut and soybean is also under progress in various institutions of ICAR.

Government Steps

- NICRA
- Crop diversification
- District Agriculture Contingency Plans have been prepared by ICAR-Central Research Institute for Dryland Agriculture (CRIDA), Hyderabad for 648 districts in the country to address the adverse weather conditions.

India's National Action Plan on Climate Change 2008 has eight missions of which the above-mentioned four missions have intimate link with agriculture.

Precision Agriculture

Precision agriculture involves use of information technology, GPS guidance, control systems, sensors, robotics, drones, autonomous vehicles, GPS-based soil sampling and software.

It has the goal of optimizing returns on inputs while sustaining resources. It is a key component of the third wave of modern agricultural revolutions, the first two being mechanisation and genetic engineering.

National Mission for Sustainable Agriculture	Focuses on enhancing productivity and resilience of agriculture so as to reduce vulnerability to extremes of weather, long dry spells, flooding, and variable moisture availability.
National Mission on Strategic Knowledge for Climate Change	Identifies challenges arising from climate change and promotes diffusion of knowledge for responding to the challenges including livelihood of coastal communities.
National Mission for Sustaining the Himalayan Ecosystem	Establishes an observational and monitoring network for the Himalayan Ecosystem environment so as to assess climate impacts on the Himalayan glaciers and promote community-based management of these ecosystems
National Water Mission	Promotes the integrated management of water resources and increase of Mission water use efficiency by 20 per cent.

Precision agriculture aims to optimise field-level management with regard to:

- **Crop Science:** By matching farming practices more closely to crop needs (e.g., fertiliser inputs);
- **Environmental Protection:** By reducing environmental risks (e.g., sustainable soil and water management etc); and
- **Economics:** By boosting competitiveness through more efficient practices (e.g., improved management of fertiliser usage and other inputs).

Research found that the introduction of a low-cost, mobile phone-based agricultural extension system among 1,200 farmers in the state of Gujarat had positive and significant effects on agricultural yields and efficient input use in cotton cultivation. As a result of using this service, farmers' marginal net income increased and yields rose, at a very low cost.

Mobile phone applications which are a part of Digital India give site-specific recommendations to farmers on the correct fertiliser dose—the type of nutrients for a specific soil, right rate, right time and in the right place for optimal soil health.

Extension Services

Agricultural extension services involve application of scientific research and new knowledge to agricultural practices through farmer education. It involves imparting awareness about the best practices, knowledge transfer, advisory services, etc.

The National Commission on Farmers (NCF) has drawn attention to the knowledge deficit that exists at present and explains much of the difference between yields realized in experiments and what farmers get. One reason for this is the virtual collapse of extension services in most states. Farmers are not fully aware of the adverse consequences of unbalanced use of fertilizers or of the benefits of micronutrient application. Soil testing to determine optimal nutrient requirements is hardly practised on a regular basis even by state agriculture departments. Similarly, although many new varieties of seeds and pesticides have entered the market during the last decade and while farmers are using these, they do not appear to have significantly increased productivity and there are frequent complaints about quality. A problem is that input dealers, who have narrow commercial interests have emerged as the main vehicle for technology diffusion and farmers do not have access to reliable third-party advice which an effective and knowledgeable extension service should be able to provide. Lack of credit also pushes farmers to purchase inputs from local suppliers who often provide sub-standard inputs.

To overcome information gaps and for advice in contingencies such as pest-attacks, it is necessary to revitalise the extension system in a manner which links universities and best practices effectively to farmers. States need to take urgent steps in this area. Central initiatives on this also need to be strengthened. Krishi Vigyan Kendras set up by Indian Council of Agricultural Research (ICAR) can be better used. Agricultural Technology Management Agency (ATMA) model of extension being promoted by Department of Agriculture and Cooperation (DAC) will deliver results.

The Department of Agriculture and Cooperation, along with NABARD, has introduced a scheme for establishment of agri-clinics/agri-business centres/ventures by agricultural graduates.

Agri-clinic and Agribusiness Centre

The Ministry of Agriculture, Government of India, in association with NABARD, launched a unique programme to take better methods of farming to every farmer across the country. This programme aims to tap the expertise available in the large pool of Agriculture Graduates. Agri-clinic offers professional extension services to innumerable farmers.
Government is now also providing start-up training to graduates in agriculture, or any subject allied to agriculture such as Horticulture, Sericulture, Veterinary Sciences, Forestry, Dairy, Poultry Farming and Fisheries, etc. Those completing the training can apply for special start-up loans for ventures.

Agribusiness Centres would provide paid services for enhancement of agriculture production and income of farmers. Centres would need to advise farmers on crop selection, best farm practices, post-harvest value-added options, key agricultural information (including perhaps even internet-based weather forecast), price trends, market news, risk mitigation and crop insurance, credit and input access, as well as critical sanitary and Phytosanitary considerations, which the farmers have to keep in mind.

Farmers could make use of the clinic to undertake soil testing and get professional counsel. The programme was started in 2002 as a supplement to government's extension services.

Small Farmers' Agribusiness Consortium (SFAC)

Small Farmers' Agribusiness Consortium (SFAC), a specialised agency of the Department of Agriculture and Cooperation, Government of India, supports entrepreneurs, farmer producer groups, cooperatives, companies and other entities to set up agribusiness enterprises which add value to agriculture produce by offering risk capital through its Venture Capital Assistance Scheme.

Small and Marginal Farmers

Marginal Farmer means a farmer cultivating (as owner or tenant or share cropper) agricultural land up to 1 hectare (2.5 acres). Small Farmer means a farmer cultivating (as owner or tenant or share cropper) agricultural land of more than 1 hectare and up to 2 hectares (5 acres). Small and marginal farmers with less than two hectares of land account for 86.2 per cent of all farmers in India, but own just 47.3 per cent of the crop area, according to 10th agriculture census 2015–16 findings made public in 2018.

Between 2010–11 and 2015–16, the number of small and marginal farms rose by about 9 million. Further, the 126 million farmers together owned about 74.4 million hectares of land—or an average holding of meagre 0.6 hectares each. It cannot produce viable incomes for consumption and reinvestment. The existence of a large number of small and marginal farmers, close to 126 million, means it is challenging for the government's extension arms to reach them with new technology and farm support schemes.

Also, rise in the number of small and marginal farmers signifies that disguised unemployment is wide-spread and chronic. Also, the rest of the economy is unable to absorb the surplus. Employment intensity of growth process is low.
Problems of small and marginal farmers are

- Farming is becoming unviable due to rising cost of inputs and unremunerative prices for the produce
- Unable to modernise due to lack of awareness and financial constraints

- Do not have access to irrigation facilities
- Not able to access farm credit as banks are apprehensive
- Dependence on money lender
- Inability to market

In the 'India Rural Development Report 2012–13' prepared by the IDFC Rural Development Network, it has been observed that small farms are more efficient, especially in cultivating labour-intensive crops or tending livestock, but land holdings are too small to generate sufficient household income. Making small and marginal farmers' income viable depends on the following:

Need to encourage new crop models for them, and revive traditional crops like millets, that suit drylands. Cultivation of different varieties of millets, which are hardy and nutritious, can be promoted by procuring and distributing through the public distribution system (PDS).

Various types of collective farming have helped small farmers overcome problems of scale, insecure land tenancy and poor access to credit, modern supply chains and storage.

Small farms can be economically viable through diversification into high-value crops with capital investments in value chains. Small and marginal farmers should be encouraged and assisted to form FPOs for accessing inputs, consolidating land and marketing.

Income from farm livelihoods is no longer sufficient for a household, especially for smaller and marginal farmers.

Non-farm employment opportunities must be promoted into animal husbandry, trading, construction, etc.

Contract farming may be viable as it guarantees sale of produce and may help in land consolidation also.

Marketing Reforms

About per cent of food grains output in India is marketed. Being largely based on the production by small and marginal farmers, storage infrastructure and distribution networks are largely underdeveloped. As a result, there is wastage and under-realisation for the farmers. Post-harvest losses amount to almost `1 lakh crores in fruits and vegetables as also losses in milk, meat, eggs, etc. It has adverse implications for prices, investment, welfare and growth. Therefore, marketing, the biggest challenge for the Indian farmers needs a solution.

APMC

The concept of an agriculture produce market regulation programme in India dates back to the British Raj: raw cotton was the first farm produce to attract the attention of the Government due to the anxiety of British rulers to make available the supplies of pure cotton at reasonable prices to the textile mills of Manchester (UK). Consequently, India's first regulated market (Karanja) was established in 1886 under the Hyderabad Residency Order, with the first legislation being the Berar Cotton and Grain Market Act of 1887, which empowered British residents to declare any place in the assigned district a market for sale and purchase of agricultural produce and constitute a committee to supervise the regulated markets. This Act became the model for enactment in other parts of the country.

An important landmark in the agricultural marketing scene in the country has been the recommendation of the 1928 Royal Commission on Agriculture for regulation of marketing practices and establishment of regulated markets. One of the measures taken to improve the situation was to regulate the trade practices and to establish market yards in the countryside.

Prior to independence in 1947, the major concern of Government policy related to agricultural marketing was to keep the prices of food for the consumers and agro-raw materials for the industry in check. However, after independence, there came a need to protect the interest of farmers and to provide them incentive prices to augment the production of agricultural commodities. Common throughout the country were problems of local money lenders extorting high amounts of foodgrains from the farmer, at throwaway prices, as interest. Recognizing the problems that farmers faced—such as losses in terms of undue low prices, higher costs of marketing, and considerable physical losses of the produce in the agricultural marketing system—the Government introduced several mandatory regulations for establishing a mechanism to monitor the market. Regulation and development of primary agricultural produce markets was taken up as an institutional innovation; and construction of well laid out market yards was considered as an essential requirement for protecting interests of farmers in the wholesale markets.

States Made Agricultural Produce Markets Regulation Acts (APMRA) in the1950s and 60s to set up regulated mandis to protect the farmer from the traders. Well-laid out market yards and sub-yards were constructed and for each market area, an Agricultural Produce Market Committee (APMC) was constituted to frame the rules and enforce them. Thus, the organized agricultural marketing came into existence through regulated markets. Farmers could sell only in the APMC markets as a rule. Over the years, market infrastructure deteriorated and lost not only lost relevance but also became obstacles to efficient distribution as vested interests developed to the detriment of the farmer, buyer, consumer and the economy.

Since 2000, APMC laws were being reformed to allow direct purchase, private wholesale markets and contract farming when the Central government brought out a model Agricultural Produce Market Committee (APMC) Act in 2003.Some states adopted it fully or partly.

GrAM: In 2018, government launched a scheme to upgrade rural haats for the benefit of small farmers into Gramin Agricultural Markets (GrAMs) where farmers can sell their produce directly to consumer and bulk purchasers. GrAMs are being strengthened in physical infrastructure at local agri markets through MGNREGA and other government schemes.

In 2019, GOI approved a corpus of `2,000 crore for Agri Market Infrastructure Fund (AMIF) to be created with Nabard for development and upgrade of agricultural marketing infrastructure in rural and regulated wholesale markets including GrAMs.

e-NAM: National Agriculture Market (eNAM) is a pan-India electronic trading portal which networks the existing APMC mandis to create a unified national market for agricultural commodities. It facilitates farmers, traders and buyers with online trading in commodities. It is helping in better price discovery and smooth marketing. Over 90 commodities including staple food grains, vegetables and fruits are currently traded. The eNAM markets are proving popular as the crops are weighed immediately and the stock is lifted on the same day and the payments are cleared online.

Contract Farming

Contract Farming involves bulk purchasers including agro-processing/exporting or trading units entering into a contract with farmers, to purchase a specified quantity of any agricultural commodity at a pre-agreed price. The contract contains terms and conditions for the production and marketing of the product regarding acreage; quantities; quality standards; time and price. Farmer commits to production and buyer commits to purchase. Contract may also involve buyer supply finance, farm inputs, land preparation and technical advice.

There are Many Models of Contract Farming

Informal or oral contracts; public private partnership where government assists with credit linked inputs and insurance against loss to incentivise the farmers to produce for guaranteed purchase; Community Grower Groups (CGG) as in Tamil Nadu having large acreage can be formed on a profit-sharing basis, at times with the help of NGOs and SHGs where middlemen are eliminated; Corporate consortium consisting of a few companies can join in a contract with the farmer. For example, Hindustan Lever Ltd (HLL), Rallis and ICICI jointly promote contract farming in wheat in Madhya Pradesh in which input and finance are arranged and buying is guaranteed; 'PepsiCo model in which R&D for better products and partnership with government institutions is a part: for example, Punjab Agricultural University (PAU) and Punjab Agro Industries Corporation Ltd. PepsiCo is model covers food grains, spices (chillies) oilseeds and vegetable crops like potato; contracts that link the producer with the consumer through the formation of farmers' Self Help Groups (SHGs) and FPOs.

There are many contract farming success stories, including that of chilly and prawn farming in Andhra Pradesh and cotton farming in Tamil Nadu.

Benefits
- Creating new markets
- Enhanced productivity and economies of scale
- Dissemination of modern technologies
- Price discovery
- Sharing of Risk
- reduces the need for government procurement and the wastages and leakages involved
- increases private sector investment in agriculture.
- brings about market focus for crop selection by farmers.
- Reliable income for the farmers
- Value addition through processing
- generates gainful employment in rural communities, particularly for landless agricultural labor.
- Reduces seasonal employment
- Checks migration from rural to urban areas.

For Farmers
- Makes small scale farming competitive - small farmers can access technology, credit, marketing channels and information while lowering transaction costs
- Assured market which reduces marketing and transaction costs
- Creates new markets

- Information asymmetry does not disadvantage him (one party having disproportionately large information)
- higher productivity and better quality
- For agri-processing, it ensures consistent supply of agricultural produce with quality, at right time and lesser cost.

Benefits for companies are by way of optimally utilizing installed capacity, infra- structure and manpower; and comply with food safety and quality concerns of the consumers.

Issues

- Firms want large scale production for profit maximisation and therefore exclude small- scale farmers
- Contract farming is known to lead to an increase in monoculture farming and a loss of crop diversity, making crops more vulnerable to pests and crop diseases as only a single crop is sown to achieve efficiencies of scale. (monoculture or monocropping, where agriculturists raise the same species year after year can lead to the quicker buildup of pests and diseases and their rapid spread)
- criticized for being biased in favor of firms or large farmers
- exploit the poor bargaining power of small farmers
- often verbal or informal in nature
- Enforceability of written contracts

Public Policy

There are reforms by states of their agri-marketing laws to provide a system of registration of contract farming sponsors, recording of their agreements and proper dispute settlement mechanism by amending Agricultural Produce Marketing Regulation (APMR) Acts.

NABARD has a special refinance package for contract farming arrangements aimed at promoting increased production of commercial crops and creation of marketing avenues for the farmers. Niti-Aayog circulated a model contract farming law.

Crop Diversification

Cropping pattern is the proportion of area under various crops in a given period. It changes in response to a variety of factors- natural and manmade. As it changes, crop diversification takes place. Crop diversification involves substitution of one or more crops for existing crops.

Since the Green Revolution from the sixties, crop pattern changes have been dynamically taking place for economic and ecological considerations driven by the following broad causes

- Resource related factors covering irrigation, rainfall and soil fertility
- Size of the farm
- Technology related factors covering not only seed, fertilizer, and water technologies but also those related to marketing, storage and processing
- Price related factors covering output and input prices as well as trade policies
- Institutional and infrastructure related factors covering farm size and tenancy arrangements, research, extension and marketing systems and government regulatory policies.
- Climate change
- Changing dietary preferences
- Following examples elucidate the above points.
- Government policy—induced change. For example, in Haryana in 2019, farmers with at least 50,000 hectares shifted to maize or pulses because of cash benefit of `4,500 per hectare, free seeds; free crop insurance cover under the Pradhan Mantri Fasal Bima Yojana (PMFBY); and purchase of the maize crop at minimum support price by the government reducing risk, for example, climate change increases productivity of certain crops and so farmers opt for them availability of technology like Bt. Cot- ton made some farmers opt for cotton responding to changing consumer demands. Farmers are shifting to horticulture as the newly prosperous India is shifting away from carbohydrate to protein responding to government policy. For example, when government adopted attractive price policy for pulses, farmers diversified with a jump in production.

The reasons for government to campaign and incentivise crop diversification are better income to the farmer from high value products like millets, fruits and vegetables; fiscal savings; water use optimisation; exports; climate change; farmer welfare etc.

Rural Credit

NABARD

The National Bank for Agricultural and Rural Development (NABARD) was set up in 1982 as the apex development bank for agriculture and rural development under an Act of Parliament. The bank began by taking over the agriculture credit functions of the RBI and the refinance functions of the then Agricultural Refinance and Development Corporation (ARDC).

NABARD's mission is to 'promote sustainable and equitable prosperity in rural India through effective credit support, related services, institution development and other innovative initiatives.' Its prime function continues to be that of refinancing, supplementing the resources of co-operative banks, Regional Rural Banks (RRBs) and commercial banks against the amounts lent at the grassroots level for agriculture and rural development. Apart from its developmental role, NABARD has also been entrusted with certain supervisory functions in respect of co-operative banks and RRBs under the Banking Regulation Act, 1949. Promoting self-help groups reflects NABARD's capabilities in capacity-building and nurturing the rural credit delivery system.

Rural Credit Institutions

Rural Credit Institutions comprise cooperative banks, RRBs and LABs.

Co-operative Credit Structure

Co-operative credit institutions continue to play a crucial role in dispensation of credit for agriculture and rural development. The short-term credit structure is managed by State Co-operative Banks (SCBs) and District Central Co-operative Banks (DCCBs). Primary Agricultural Credit Societies (PACSs) are short-term co-operative credit institutions dealing directly with individual borrowers.
The long-term co-operative credit structure is managed by State Co-operative and Agriculture Rural Development Banks (SCARDBs) and Primary Co-operative Agriculture and Rural Development Banks (PCARDBs).

Regional Rural Banks (RRBs)

Regional Rural Banks were set up in 1975 under an Act of Parliament to exclusively cater to the credit needs of the rural population, especially small and marginal farmers. The ownership structure of RRBs is, the Central Government (50 per cent), the State government concerned (15 per cent) and the sponsor commercial bank (35 per cent). The sponsor bank manages the RRB concerned.

Local Area Banks

LABs are private sector banks and were started in 1996 with a view to providing institutional mechanisms for promoting rural savings as well as for the provision of credit for viable economic activities in the local areas. This is expected to bridge the gaps in cred- it-availability and enhance the institutional credit framework in the rural and semi-urban area.

The bank shall be registered as a public limited company under the Companies Act, 1956. It will be licensed under the Banking Regulation Act, 1949 and will be eligible for including in the Second Schedule of the Reserve Bank of India Act, 1934.

The minimum paid up capital for such a bank shall be `5 crore. The promoters' contribution for such a bank shall at least be `2 crore.

The area of operation of the proposed bank shall be a maximum of three geographically contiguous districts in one or more states. Backward and less developed districts are considered the area of operation of LABs.

Microfinance

Microfinance is defined as provision of credit and other financial services like insurance of very small amount to the poor in rural, semi-urban and urban areas for enabling them to raise their income levels and improve living standards. Microfinance Institutions are those which provide these facilities.

Microfinance covers not only consumption and production loans for various farm and non-farm activities of the poor but also includes their other credit needs such as housing and shelter improvements. Self-Help Group (SHG)-bank linkage programme has emerged as the dominant microfinance dispensation model in India.

SHG is a registered or unregistered group of micro entrepreneurs who have homogenous social and economic background and voluntarily come together to save small amounts regularly, to mutually agree to contribute to a common fund and to meet their emergency needs on mutual help basis.

While the SHG-bank linkage programme has surely emerged as the dominant microfinance dispensation model in India, other models too have evolved as significant microfinance channels.

Government allows 'Micro Credit/Rural Credit' (non-banking financial company, NBFC) activities for FDI/Overseas Corporate Bodies (OCB)/ NRI investment to encourage foreign participation in micro credit projects.

Types of Micro Credit Providers in India

- Domestic Commercial Banks: Public Sector Banks; Private Sector Banks and Local Area Banks
- Regional Rural Banks
- Co-operative Banks
- Co-operative Societies

- Registered NBFCs
- Other providers like Societies, Trusts, etc.

In the area of microfinance, there are many areas of concern in India. They are:

- Unjustified high rates of interest
- Lack of transparency in interest rates and other charges
- Multiple lending
- Upfront collection of security deposits
- Over-borrowing
- Ghost borrowers
- Coercive methods of recovery

Malegam Committee

The RBI Committee suggested that

- Micro Finance Institutions (MFIs) be allowed to charge a maximum interest of 24 per cent on small loans which cannot exceed `25,000.
- Creation of a separate category of Non- Banking Financial Companies (NBFC-MFI) for the microfinance sector.
- Small loans of up to `25,000 could be given to families who have an income of up to `50,000 per annum.
- 75 per cent of loans extended by MFIs should be for income generation purposes
- A borrower cannot take loans from more than two MFIs.
- Regulation of MFIs should be done by NABARD in close coordination with the RBI.
- Bank lending to NBFCs, which qualify as NBFC-MFIs, should be entitled to the 'priority lending' status.
- A borrower can be a member of only one self- help group or a joint liability group (where money is lent to a member but the whole group is responsible for repayment, called JLG).

Agriculture Reforms

Basic reforms in agriculture are necessary for three goals

- Boosting output and productivity
- Equity
- Sustainability

To achieve the goals, reforms are required in the following areas which are interrelated

- Agricultural price policy

- Agricultural subsidies and investments land issues
- Small and marginal farmers
- Equity
- Sustainable Water management research and development
- Extension services
- Agricultural Credit market reforms
- Crop diversification.

Price policy has been extensively discussed elsewhere in the chapter.

Subsidies have to be rationalized to allocate resources for investment. Use of Aadhar, DBT, better targeting are needed. Fertiliser subsidy reform is partly done. For example, under the earlier pattern, only urea was subsidised and farmers used it even when their soil was nitrogen rich. A bag of urea had more nitrogen than necessary as government was paying subsidy for all the nitrogen in a bag. Phosphorous, potash and micronutrients were not getting subsidy and were not being used. NPK ratio of the soil was grossly distorted. Government corrected the distortions and introduced nutrient based fertiliser subsidy (NBS) under which all fertilizers and nutrients were subsidised. Soil quality improved along with productivity and incomes. But the further reform needed in fertilizers is to target the delivery better by using aadhaar that will remove the rich farmer beneficiaries and create savings spend on infrastructure or UBI so that the trade-off between subsidies and investments is managed well.

Kisan Credit Cards

The scheme of Kisan Credit Card (KCC) was introduced in 1998-99 for timely, easy and flexible avail- ability of production credit to farmers. Commercial banks, cooperative banks and RRBs implement this scheme. Each farmer is provided with a Kisan Credit Card and a passbook for providing revolving cash credit facilities. The farmer is permitted any number of withdrawals and repayments within a stipulated date, which is fixed based on landholdings.

All categories of farmers including tenant farmers, sharecroppers, oral lessees are eligible for a Kisan Credit Card.

Land issues relate to the size, acquisition and distribution of agricultural land. Small plots require a package as we will see ahead. Agricultural land acquisition for non-agricultural purposes should be regulated in favour of fertile land. Government land should be distributed to women.

Problems of small farmers need policy attention. Chinese and the experience of other East Asian countries show that size of the land is not a constraint.

Subsidised inputs and marketing facilities need to be made available reliably. To help the small farmers earn steady income, contract farming is necessary. Labour-intensive crops like vegetables should be promoted for small farmers. FPOs should be encouraged so that they can lease machines and increase productivity. SRI model of rice farming should be popularised. ZBNF and community managed sustainable agriculture (CMSA) as in Andhra Pradesh should be popularised.

Equity relates to slow rate of growth in agriculture; inter-regional variations with some states growing and others not and within a state some regions growing and others not; dependence of 60 per cent of people on 17 per cent of GDP distributes incomes very inequitably; feminisation of agriculture; income divide between irrigated and rainfed areas; lack of security for tenants and sharecroppers. Remedies have been discussed through this chapter.

Structural reforms include land-related; marketing; making investment attractive; infra- structure; crop diversification; and sustainability.

High Powered Committee for Structural Reforms 2019

A nine member high-powered committee of Chief Ministers with Maharashtra Chief Minister as convenor was set up at the 5th meeting of the Niti Aayog Governing Council in mid-2019. It has Union Minister of Agriculture and Farmer Welfare, Rural Development and Panchayat Raj also as a member. Its mandate is to suggest structural reforms in agriculture to boost farmers' income; steps to attract private investments in agricultural marketing and infrastructure; policy measures to boost agriculture exports; raise growth in food processing; attract investments in modern market infrastructure; value chains and logistics; upgrade agriculture technology to global standards; and improve access of farmers to quality seed, plant propagation material and farm machinery.

Farm Laws 2020

The Farmers' Produce Trade and Commerce (Promotion and Facilitation) Act, 2020

In September, 2020, three laws "aimed at transformation of agriculture in the country and raising farmers' income" were made by the Parliament:

1. Farmers' Produce Trade and Commerce (Promotion and Facilitation) Act, 2020
2. Farmers (Empowerment and Protection) Agreement of Price Assurance and Farm Services Act, 2020; and
3. Essential Commodities (Amendment) Act, 2020.

Farmers' Produce Trade and Commerce (Promotion and Facilitation) Act, 2020 provides for the creation of an "ecosystem" where farmers and traders have 'freedom of choice' in the sale and purchase of farmers' produce "...which facilitates remunerative prices through competitive alternative trading channels." The Act aims to promote 'efficient, transparent and barrier-free' inter-state and intra-state trade and commerce of farmers' produce outside the physical premises of markets notified under various state legislations, and to provide a 'facilitative framework' for electronic trading and 'for matters connected therewith'.

Definition of farmers and traders

Farmers refer to individuals engaged in the production of 'farmers' produce', by themselves or with the help of hired labourers. It includes farmer producer organisations, which are associations or groups of farmers registered or promoted under a central or state government scheme or law.

Farmers' produce includes 'foodstuffs' intended for human consumption in their natural or processed form, such as wheat, rice or other coarse grains; pulses, edible oilseeds, oils, vegetables, fruits, nuts, spices and sugarcane; and products of poultry, piggery, 'goatery', fishery and dairy. Such produce also includes raw cotton, cotton seeds, raw jute, and oilcakes and other cattle fodder. Traders refer to 'persons' who buy farmers' produce through inter-state or intra-state trade, either for themselves or on behalf of one or more persons, for wholesale or retail trade, 'value addition', processing, manufacturing, export, consumption or other purposes. 'Persons' under this law, can mean individuals; partnership firms, companies, limited liability partnerships, societies, cooperative societies, or any body of persons incorporated or recognised as a group under central or state government programmes.

'Trade area'

A trade area refers to any area or location, place of production, collection or 'aggregation' in India – including farm gates, factory premises, warehouses, silos, cold storages or any other structure or place – where the trade of farmers' produce may be undertaken.

Such areas do not include premises, enclosures and structures, the constitute the physical boundaries of market yards managed by committees formed under State APMC (Agricultural Produce Market Committee) Acts; private market yards managed by persons holding licenses under APMC Acts; or warehouses, silos, cold storages or other structures notified as markets under any APMC Act. A 'State APMC Act' refers to any legislation in force in a state or union territory of India which regulates markets for agricultural produce in that state or territory.

Promotion and Facilitation of trade and commerce of farmers' produce

Any farmer, trader or electronic trading and transaction platform shall have the freedom to carry on inter-state or intra-state trade and commerce in farmers' produce in a trade area. Farmers, traders and electronic trading and transaction platforms shall not be charged any market fee or cess under any state government law for trade and commerce in 'scheduled' farmers' produce (agricultural produce regulated under an APMC Act) in any trade area.

Traders may engage in the inter-state or intra-state trade of farmers' produce in a trade area, provided that they have a permanent account number (PAN) as per the Income-Tax Act, 1961, or any other document mentioned by the central government. This does not apply to farmer producer organisations or agricultural cooperative societies.

The central government may – if it is of the opinion that it is necessary and expedient to do so in public interest – prescribe a system for the electronic registration of a trader, modalities for trade transactions, and modes of payment for scheduled farmers' produce in a trade area.

Traders shall make payments for the scheduled farmers' produce on the same day or within a maximum of three working days, provided that the farmer is given a receipt mentioning the due payment amount on the day of the transaction. The central government may prescribe a different procedure of payment by farmer produce organisations or cooperative societies.

Electronic trading and transaction platforms

Any person – other than individuals – with a PAN allotted under the Income-Tax Act, 1961, or such other document required by the central government, may establish and operate an electronic trading and transaction platform for trading scheduled farmers' produce in a trade area. This can be done provided the person establishing and operating such a platform shall prepare and implement the guidelines for 'fair trade practices' in the mode of trading, fees, logistical arrangements, timely payment, and such other matters. Farmer producer organisations and agricultural cooperative societies may also establish and operate such platforms.

The central government may – if it thinks it is necessary in public interest – specify the procedure, norms, manner of registration, code of conduct and technical parameters, for facilitating 'fair' trade and commerce of scheduled farmers' produce in a trade area.

The central government may develop a Price Information and Market Intelligence System for farmers' produce and "information relating thereto." The government may require any person owning and operating an electronic trading and transaction platform to provide information regarding such transactions, as may be prescribed.

Penalties

Any person who contravenes the Act's provisions on payments to farmers, shall be liable to pay a penalty of at least Rs. 25,000; where the contravention is continuing, the person shall be liable to pay a fine of up to Rs. 500,000.

If any person who owns, controls or operates electronic trading and transaction platforms, contravenes Section 5 (relating to the establishment and operation of such platforms), or Section 7 (relating to the central government's Price Information and Market Intelligence System), they shall be liable to a penalty of Rs. 50,000; where the contravention is continuing, the person shall be liable to a fine of up to Rs. 1,000,000.

Powers of the central government

The central government may – as it may deem necessary for carrying out the provisions of this Act – give instructions, directions or orders, to any state government, authority or officer appointed by the central or state government, trader or class of trader, or any electronic trading and transaction platform or owners of such platforms. The provisions of this Act shall have effect regardless of any provisions which may be inconsistent with any APMC Act or any other law.

Critics say that the Act bypasses the Agricultural Produce Market Committee altogether, creating a separate structure of trading. Before the Act, state governments levied taxes for agricultural produce that was bought outside the designated APMC mandi; this Act prohibits this and creates an incentive for buyers to purchase products outside the regulated APMC mandi. States lose tax revenue if APMCs collapse due to competition. Farmers lose MSP. Traders may grow too big for the farmers to expect a fair price for their produce.

Farmers (Empowerment and Protection) Agreement on Price Assurance and Farm Services Act

The Act provides for a national framework on farming agreements that 'protects and empowers' farmers to engage with agri-business firms, processors, wholesalers, exporters and large retailers, for farm services and selling "...future farming produce at a mutually agreed remunerative price framework in a fair and transparent manner."

Farming agreement

A farming agreement is a written agreement entered into between a farmer and a 'sponsor', another farmer, or any third party, prior to the production or rearing of any farm produce of a predetermined quality, in which the sponsor agrees to purchase such produce from the farmer and provide farm services. A sponsor refers to the person who has entered into an agreement with the farmer to purchase farming produce.

Farming agreements may include 'trade and commerce' or 'production' agreements, or a combination of the two. In a trade and commerce agreement the ownership of the commodity remains with the farmer during production, and they get the price of the produce on its delivery as per terms agreed with the sponsor. In production agreements, the sponsor agrees to provide farm services either fully or partially, and to bear the risk of output, and also agrees to make payments to the farmer for services rendered by the farmer. Farm services include supplying seed, feed, fodder, chemicals, machinery and technology, advice, non-chemical and other farm inputs.

No farmer shall enter into a farming agreement "in derogation of any rights of a share cropper." Parties to a farming agreement may – with mutual consent – alter or terminate the agreement for any 'reasonable' cause.

Contents of farming agreements

Farming agreements may contain the terms and conditions for the supply of farm produce – including the time of supply, quality, grade, standards and price of the produce – and farm services.

The minimum period of these agreements shall be one crop season or production cycle of livestock, and the maximum period shall be five years. If the production cycle of any farming produce may go beyond five years, the maximum period may be mutually decided by the farmer and the sponsor, and explicitly mentioned in the agreement. The central government may issue guidelines along with model farming agreements, as it deems fit.

The parties entering into a farming agreement may require "…the performance of such agreement to be in compliance with mutually acceptable quality, grade and standards of a farming produce." Such standards shall be compatible with 'agronomic practices', climate and other factors; they may be formulated by the state or central government, or any agency authorised by the government.

The quality, grade and standards for pesticide residue, food safety, 'good farming practices' and 'labour and social development' may also be adopted in the agreement. The parties to the agreement may require that such mutually acceptable quality, grade and standards shall be monitored and certified during the process of cultivation or rearing, or at the time of delivery, by third parties.

Payments to farmers

The price of farmers' produce may be mentioned in the farming agreement. In the event that such price is subject to variation, the agreement should expressly state a guaranteed price to be paid to the farmer for their produce, and a clear price reference for any additional amount to be paid – including a bonus or premium "...to ensure best value to the farmer." This price may be linked to prevailing prices in specified Agricultural Price Market Committee yards (which are established for regulating markets and trade in farm produce under various state government laws), or electronic trading and transaction platforms (set up to facilitate the trade and commerce of farming produce through a network of electronic devices and internet applications).

Where farming agreements relate to seed production, the sponsor shall pay the farmer not less than two-thirds of the agreed amount at the time of delivery, and the remaining amount 'after due certification', but not later than 30 days after delivery. In other cases, sponsors may pay the agreed amount at the time of accepting the delivery of farm produce and issue a receipt slip with details of the sale. The state government may prescribe the manner in which payments shall be made to farmers.
If, the delivery of any farming produce is to be taken by the sponsor under the farming agreement, they shall take such delivery within the agreed time. Before accepting the delivery, the sponsor may inspect the quality or any other feature of such produce as specified in the agreement.

A farming agreement may be linked with insurance or credit instruments under any scheme of the central or state government, or through any financial service provider, to ensure 'risk mitigation' and flow of credit to the farmer, sponsor or both.

Sponsor and farmers' land and premises

No farming agreement shall be entered into for the transfer – including sale, lease and mortgage – of the farmer's land or premises, or for raising any permanent structure or modifying the land or premises. These provisions apply unless the sponsor – at their own cost – agrees to remove such structures or restore the land to its original condition once the agreement ends. If such a structure is not removed by the sponsor, its ownership shall lie with the farmer after the conclusion of the agreement or the expiry of the agreement period.

Other state government laws

The farm produce mentioned in agreements under this Act shall be exempt from the application of any state law that aims to regulate the sale or purchase of agricultural produce. Notwithstanding the provisions of the Essential Commodities Act, 1955, or any orders in force at the time, such produce shall be exempt from 'any obligation related to stock limit'.

Settlement mechanism

An elaborate 3-level dispute settlement mechanism is described under Sections 8,9 and 10 in Chapter III: the conciliation board, Sub-Divisional Magistrate and Appellate Authority (District Magistrate) to resolve disputes – the objective being to provide local relief to farmer with no need to travel to courts and spend money. The agreement has to provide for a conciliation board as well as a conciliation process for the settlement of disputes.

Essential Commodities (Amendment) Act, 2020

'Statement of Objects and Reasons' of the Act says that it aims to remove the "...stringent restrictions on stock, movement and price control of agricultural foodstuffs for attracting private investments in agricultural marketing and infrastructure."

Purpose of the Essential Commodities Act, 1955

The 1955 Act aims to regulate the production, supply and distribution of, and trade and commerce in, certain commodities, in the interest of the general public.

Essential commodities refers to fertilisers – inorganic, organic or mixed; foodstuffs including edible oilseeds and oils; hank yarn made wholly from cotton; petroleum and petroleum products; raw jute and jute textiles; seeds of food crops, cattle fodder, fruits and vegetables; cotton and jute seeds; drugs, surgical and N95 masks, and hand sanitisers.

Amendment to the 1955 Act

The Amendment adds sub-section (1A) to section (3) of the 1955 Act. The original section (3) said that the central government may regulate or prohibit the production, supply and distribution of, or trade and commerce in, essential commodities. The government may do so if it is of opinion that it is 'necessary or expedient' for maintaining or increasing supplies of any essential commodity, ensuring its 'equitable distribution' and 'availability at fair prices', or securing such commodities for the defence of India.

The Amendment states that the supply of 'foodstuffs' – including cereals, pulses, potato, onions, edible oilseeds and oils – may only be regulated under 'extraordinary circumstances' such as war, famine, 'extraordinary' price rise and 'natural calamity of grave nature'. The central government may do this through a notification in The Gazette of India.

Stock limits on essential commodities

Any action on imposing stock limits on agricultural produce shall be based on price rise. Stock holding limit on commodities will only be imposed under exceptional circumstances like national calamities, famine or a surge in prices: only if there is a 100 per cent increase in the retail price of horticultural produce, or a 50 per cent rise in the retail price of 'non-perishable agricultural foodstuffs'. The increase should be over the price prevailing in the preceding 12 months, or the average retail price of the last five years – whichever is lower.

Such orders for regulating stock limit shall not apply to a 'processor' or 'value chain participant' of any agricultural produce, "...if the stock limit of such person does not exceed the overall ceiling of installed capacity of processing, or the demand for export in case of an exporter." A 'value chain participant' for agricultural products, includes those involved in production, processing, packaging, storage, transport and distribution – each stage where 'value is added' to the product.

Nothing in sub-section (1A) – which the Amendment inserted in the 1955 Act – shall apply to any order relating to the Public Distribution System made by the government under any law in force.

The functioning of the Essential Commodities Act 1955

The essential commodities Act was brought when the country was not a self-sufficient in food grains production. But now the situation has changed. The objective of Act was to ensure that the poor and low income people could afford essential commodities and prevent hoarding and black marketing of essential commodities. But its performance led to other results that are distortionary:

Controls limiting stockholding did not distinguish between speculative hoarders and others like food processing industry and retail chains. The Act dis-incentivized investments in cold storage and warehousing because of stock limits. Entry of large private sector players into agricultural marketing did not materialise leading to wasting of produce. Because of stock limits, traders are unable to deliver promised quantity of commodity on exchange platform which affects growth and development of commodity market. While India has become surplus in most agri-commodities, farmers have been unable to get better prices due to lack of investment in cold storage, processing and export due to lack of investments in storage and marketing.

Critics however say that exclusion of judicial courts leaves the farmer vulnerable.
Critics also object to stock holding limit on commodities being allowed only when there is a surge in prices: only if there is a 100 per cent increase in the retail price of horticultural produce, or a 50 per cent rise in the retail price of 'non-perishable agricultural foodstuffs'. It is too high a rate of inflation.

Fears of Farmers about the Farm Laws 2020

- APMC mandis will not be viable since they carry tax that farmers have to pay
- MSP will be discontinued
- Procurement by government will stop
- Private buyers outside the mandi will exploit by forcing farmers to sell at lower prices
- No information about prices prevailing in private mandis outside the APMC Mandis. Information asymmetry weakens the bargaining power even more
- Dispute Settlement mechanism is in the hands of the executive which works under the political leaders; it excludes courts

Government Response

Government accepted to bring amendments in the laws as follows:

- Agriculture Produce Market Committee (APMC) Mandis and Free Markets will have the same tax rate.
- farmers can approach civil court incase of a dispute in contract farming agreement
- an apprehension of the farmers was that since there would not be a registration of traders in free market and make purchases based on a pan-card, they would be able to exploit the farmers. The Centre has proposed an amendment that all traders would have to be registered and verified on a government portal in order to make any purchase.
- The government assured the farmers continuation of Minimum Support Price (MSP).

Globalisation of Indian Agriculture

India launched economic reforms and globalisation in 1991.In 1995, India became a founding member of the World Trade Organization and opened up its economy to the world market. WTO brought agriculture within its policy framework and prescribed market-oriented policies on agriculture that relate to market access, domestic support, export competition/subsidies, and Trade

Related Intellectual Property Rights (TRIPS). Liberalization created an unprecedented demand in all sectors of trade including agriculture.

Impact of globalization on Indian agriculture has plus and minus sides. On the positive side:

- Genetically modified organisms (GMO) became available with impact on productivity and income of farmers
- There is availability of modern agro technologies in pesticides, herbicides, and fertilizers as well as new breeds of high yield crops were employed to increase food production
- As a result there is rise in production and productivity
- growth of National Income with the share of agriculture sector in the economy is raised to 20% of the GDP (2020-21).
- increase in the export of agricultural products.
- While exporting agricultural products it is necessary to classify the products, its standardization, processing, packing etc. which has created employment in various sector like packing, exporting, standardizing, processing, transportation and cold storage etc.
- Reduction in poverty
- The social outcomes are also considerable as a result
- Rural prosperity with food processing industries

At the same time, there are negative effects too

- Debt trap and farmers suicides as they could not face competition from imports and also volatility of prices for commercial crops.
- Subsidies are reduced and so farmer had to borrow and invest which did not pay off often leading to rural misery
- Electricity tariffs have increased.

Chapter - 28
Land Reforms

After Independence, land policy in India dominated the thinking of the legislature and policy makers. It has a historical background.

The peasants of the country supported the Independence movement. The agrarian structure during British administration degraded the entire sector of agriculture and those dependent on it. However, the British neglect had its seeds in the Mughal rule itself.

The land-revenue system implemented by Todar Mal during Akbar's regime can be traced as the possible beginning of systematic efforts to manage the land. This method incorporated measurement, classification and fixation of rent as its main components. Under the various pre- British regimes, land revenues collected by the state confirmed its right to land produce, and that it was the sole owner of the land.

British rulers carried this system forward and allowed the existence of non-cultivating intermediaries called zamindars. The existence of these absentee landlords as intermediaries served as an economic instrument to extract high revenues as well as sustaining the political hold on the country.

Thus at the time of Independence the agrarian structure was characterized by intermediaries, different land revenue and ownership systems across regions, small numbers of land holders holding a large share of the land, a high density of tenant cultivators, many of whom had insecure tenancy, and exploitative production relations.

India, at Independence, was predominantly an agrarian economy with more than 60% of economic output accounted for by agriculture and more than 80% people dependent on agriculture for their livelihood. Agriculture was the principal source of government revenue. Land was the main productive asset. Peasants tilled the land and lived in poverty. Landowners/intermediaries took most of profits.

Immediately after Independence a Committee, under the Chairmanship of J. C. Kumarappa, was appointed to look into the problem of land. The Kumarappa Committee's report recommended comprehensive agrarian reform measures. India's land policy in the decades immediately following its Independence was based on problems identified by the Kumarappa Committee. Many laws were passed.

There were five main categories of reforms:

- Abolition of intermediaries (rent collectors under the pre-Independence land revenue system) and establish direct relationship between the state and the farmer
- Tenancy regulation (to improve the contractual terms including the security of tenure);
- Land to the tiller
- A ceiling on landholdings (to redistributing surplus land to the landless) for equitable distribution;
- Attempts to consolidate landholdings into viable sizes;
- encouragement of cooperative joint farming;

Many laws were passed to implement land reforms.

But Zamindars were not ready to surrender their rights over the vast tracts of land and so moved to the courts leading to prolonged litigation.

Tenancy reforms were made. Tenancy cultivation had to be regulated both for the productivity of land and also for equity and justice. If tenant is not protected, investment in land suffers along with its efficiency. Special laws were enacted and implemented.

Tenancy reforms included

- Regulation of Rent
- Security of Tenure and
- Conferment of ownership rights on tenants.

The British government was interested in maximising its land revenue collection and so entrusted the Zamindars to collect and pay as much as possible. As a result the rent charged by the Zamindars from the tenants was exorbitant. After Independence, Indian laws fixed the rent at one- fourth or one-fifth of the total produce.

In order to protect the tenants from ejectment and grant them permanent rights in land, laws were made in most of the states. They however allowed resumption of land cultivation by the owner for personal cultivation only; and, that in the event of resumption, a prescribed minimum area was to be left with the tenant.

Ownership right for tenants were also incorporated into laws in which the right to purchase given.

Redistribution of surplus land was another element of the land reforms policy. Another unfinished task is digitisation of land records. The computerisation of land records, land-property transactions and the registration processes has not matched the challenges of land revenue administration so far.

Consolidation of holdings was attempted to ensure that modernisation of agriculture was viable for which large sized holdings were necessary. Initially it was voluntary but in many states later it became compulsory. The policy was not a success.

Cooperative farming was another way to voluntarily pool land for viability and getter income generation. It was not a success in a caste-ridden rural India.

Considerable success was achieved in granting ownership and tenancy rights to the tillers of land. Some distribution of surplus government land also took place. Attempts to impose ceilings on agriculture land could not succeed. Land reforms had multiplier effect on economy and led to social development. Positive impact was seen on family income, asset growth, consumption and childhood education.

Hurdles to effective execution of land reforms were judicial delays because of litigation; lack of land records; benami landholding; red tape; landless were too weak and thus were not effective bargainers; and politician-landlord nexus.

These land reforms during 1947-1990 could be termed as the first phase of land reforms in India.

Land Reforms since 1990's

By the nineties India was to modernize its economy and the structural composition of the economy was moving away from agriculture. Industry generates more value-added per unit of land than agriculture. Industrial development also requires urbanisation, transportation and building of distribution and housing infrastructure. All this required land to be transferred from agriculture use to non-agriculture use.

Agriculture occupied about 145 million hectares- about 45% of total land. Agriculture, mining and other directly land based productive activities contribute only 20% of GDP of India. The rest of the economy, which uses 1% of land mass, contributes 80% of the GDP.

It is necessary that more land be transferred to non-agriculture use- for urbanisation, for industrialisation and for creation of infrastructure for growth. The employment intensity of non-agriculture sector is far higher. There is a need to shift the surplus workforce from agriculture to non-agricultural sectors for the development of the economy. India needs land reforms which can serve this broad objective of facilitating transfer of agriculture land to industrial and infrastructure use. The Right to Fair Compensation and Transparency in Land Acquisition, Rehabilitation and Resettlement Act, 2013 was made to ensure that agricultural land was made available to non-agricultural use with owner rights and buyer obligations and duties.

Expanding population has consistently reduced average size of operational land holding in India consistently. Average size of operational land holding declined from 2.08 hectare in 1970 to 1.05 in 2015. Leasing of land is however not legally permissible in most part of the country. Restrictive land leasing legislations in many parts of the country have led to informal and concealed tenancies without security of tenure. This has prevented modernization, investments in the agriculture sector and negatively impacted agri-productivity. Use of technology and equipment in agriculture needs to spread. Preponderance of small farms make agriculture unviable. This calls for reforms of land leasing in India.

The fear of losing right, title and ownership over one's own land by leasing out, discourages the land owners even when they are themselves unable to cultivate, to lease out their parcels of land. This is the cause behind substantive extent of land remaining fallow and land owners remaining poor. Ensuring land leasing through a legal framework incentivises tenant cultivators to invest and conserve agricultural land resources, which, in turn, leads to increased land productivity and profitability. NITI Aayog recognised that land lease should be viewed as an "economic necessity" and submitted Model Land Lease Act, 2016.

Enacting appropriate land leasing laws should be the highest priority of state governments. Such pro-farmer moves (though often viewed with suspicion by political executives and influential groups within the farming communities) are expected to benefit Indian agriculture and, ultimately, raise farmers' incomes. The committee on Doubling Farmers' Income (DFI) of the Government of India has also recommended legislating the model Agricultural Land Leasing Act (brought out by NITI Aayog) to ensure private sector investments in agriculture.

The bottleneck of credit flow to lessee farmers/sharecroppers/tenants could be addressed by legalising land leasing, as land is often used by lending financial institutions as collateral for farm loans.

The task of providing food security to our country's growing population is becoming increasingly difficult due to climate change and degradation of the finite land and water resources. There is a pressing need for enlarging area under arable lands, by way of reclaiming degraded lands. The complex interplay of natural and anthropogenic processes compounds problems of land-use planning. Nearly 30% of India's land area is degraded due to deforestation, over-cultivation, soil erosion and depletion of wetlands.
By 2030, India is committed to reclaim 26 million hectares of degraded land. Of the 320 million hectares area of the country, about 30% or 90 million hectares is wasteland, and should be put to economic use.

Constitutional Basis for Land Reforms
The Constitution of India promises justice, equity and control on concentration of wealth in few hands- in the Preamble, Fundamental Rights and the Directive Principles of State Policy. The Constitution was amended to make room for land reforms.

Art.31A, 31B and 31C allow land reforms even if Fundamental Rights are some violated.

Art.39 makes the State work against wealth concentration.

Art.300A removed the right to property as a Fundamental Right and gave it the status of a Constitutional right.