RASonly

INDIAN ECONOMY

PART - B

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PREFACE

Welcome to Indian Economy for RAS Preparation – a carefully curated and exam-focused resource designed exclusively for aspirants of the Rajasthan Administrative Services (RAS) examination. This book is brought to you by **RASonly**, an institution committed to delivering high-quality, student-centric content that meets the evolving demands of RAS preparation.

The Indian Economy is a vital segment of the RAS syllabus, crucial for understanding the nation's development policies, fiscal structure, monetary framework, economic reforms, and contemporary challenges. This book aims to present economic concepts and data in a simplified yet comprehensive manner, ensuring conceptual clarity and relevance for both prelims and mains. Whether you're a beginner exploring economic fundamentals or an advanced learner revising key concepts, this book is structured to support every stage of your preparation. It provides a topic-wise breakdown of core areas such as national income, planning, banking, inflation, fiscal policy, budgeting, agriculture, industry, and international trade, along with current economic issues and government schemes. Strictly aligned with the latest RPSC syllabus and exam trends, the book emphasizes clarity, factual accuracy, and analytical depth. It not only helps you grasp the basics but also encourages critical thinking about India's economic direction, policy choices, and development priorities.

At **RASonly**, we believe in empowering aspirants with knowledge that goes beyond memorization. Our approach integrates conceptual understanding with real-world applications, enabling you to connect economic theories with policy implications and ground realities. We hope this book proves to be an essential part of your preparation toolkit and helps you navigate the Indian Economy with confidence and insight.

Wishing you success and clarity on your journey!

RASonly TEAM

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INDUSTRIAL SECTOR OF THE INDIAN ECONOMY

CHAPTER - 2

- The industrial or secondary sector includes all economic activities where natural products obtained from the primary sector are transformed into usable products through industrial and manufacturing processes.
- It mainly includes activities like manufacturing, processing, construction, and related services.
- This sector is associated with factories, heavy and light industries, and infrastructure development.

Role and Importance of Industrial Sector

- It represents the next stage of production after the primary sector and is essential for value addition.
- The products in this sector are not directly available from nature but are created through manufacturing.

- It increases national income, generates employment, develops infrastructure, and promotes exports.

Example:
A car manufacturing plant converts steel, rubber, glass, and other materials into finished automobiles.

Contribution to GDP (FY 2024–25 PE)

Indicator	Value
Contribution to Nominal GDP	25.30%
Real GVA Growth Rate	6.10%

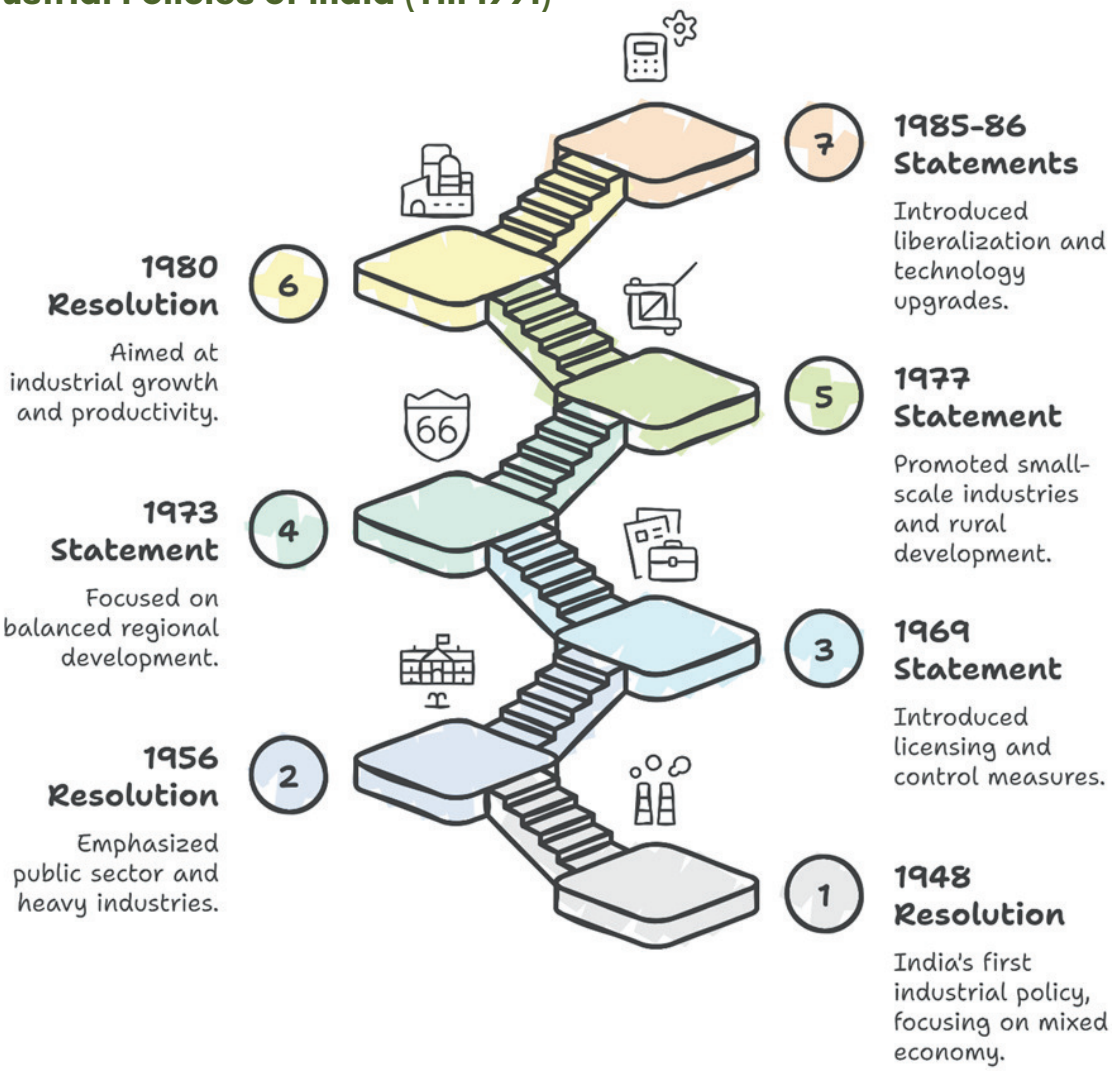
Need for Industrial Policy in Post-Independence India

- India inherited a weak industrial base in 1947 due to colonial neglect.
- The economy was burdened with poverty, food shortage, low capital, weak infrastructure, and limited technological and educational development.
- There was a consensus that industrialization was essential for economic growth and modernization.
- The State was assigned a dominant role in industrial development, leading to the emergence of PSUs (Public Sector Undertakings).
- Industrial policies have evolved to address challenges and promote reforms.

Industrialisation in India

- It refers to the increasing share of industries in GDP, employment, investment, and production.
- Industrialisation was promoted through periodic Industrial Policies, infrastructure development, and regulatory reforms.

Major Industrial Policies of India (Till 1991)



1. Industrial Policy Resolution, 1948

- Date Announced: 8 April 1948
- First industrial policy of Independent India.
- Introduced the concept of Mixed Economy — coexistence of public and private sectors.

Main Provisions:

1. Public sector reserved for strategic industries (e.g., arms, railways, coal, power).
2. Medium industries placed under State control.
3. Private sector allowed in other areas, subject to licensing.
4. 10-year review clause was added.

2. Industrial Policy Resolution, 1956

- Foundation for planned industrial development.
- Influenced by Soviet-style planning; aligned with Second Five Year Plan.
- Known as "Magna Carta" of industrial policy.

Main Provisions:

1. Three Schedule Classification:

Schedule	Industries	Remarks
A	17 industries under exclusive Central Govt.	Created major CPSUs
B	12 industries open for State/private with license	No monopoly
C	Remaining industries open to private sector	With compulsory licensing

2. Introduced License-Quota-Permit Raj.
3. Expansion of PSUs to promote heavy industry.
4. Focus on balanced regional development.
5. Promotion of Khadi, village and small-scale industries.
6. Agriculture was seen as complementary to industry.

3. Industrial Policy Statement, 1969

- Aimed to reform the rigid licensing system.

Key Provisions:

1. MRTP Act (1969) to curb monopolies and restrict big industrial houses (asset limit ₹25 crore).
2. Formation of MRTP Commission to monitor trade practices.

4. Industrial Policy Statement, 1973

- Emphasis on core industries and regulating large private entities.

Major Features:

1. Identified core industries like coal, steel, oil, electricity, etc.
2. Private investment allowed in core industries with licensing.
3. Reserved sectors for small and medium enterprises.
4. Introduced Joint Sector Concept (Centre + State + Private).
5. FERA Act, 1973 to regulate foreign exchange and restrict MNCs.

5. Industrial Policy Statement, 1977

- Shifted focus to Gandhian socialism.

Main Provisions:

1. Limited foreign investment.
2. Promotion of village and small-scale industries.
3. Set up District Industries Centres (DICs).
4. Strengthened Khadi and village industries.
5. Controlled prices of essential commodities.

6. Industrial Policy Resolution, 1980

- Shift towards liberalisation.

Key Measures:

1. Reintroduced foreign investment.
2. MRTP asset limit raised to ₹50 crore.
3. Continued support for DICs and small industries.
4. Simplified industrial licensing.
5. Encouraged private sector growth.

7. Industrial Policy Statements, 1985 and 1986

- Set the groundwork for the 1991 reforms.

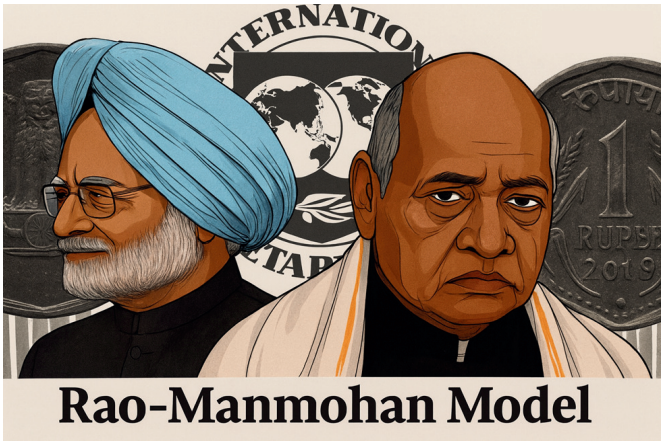
Major Features:

1. Allowed MNCs to own 49% equity in JVs.
2. MRTP limit increased to ₹100 crore.
3. Only 64 industries remained under compulsory licensing.
4. Supported sunrise industries – electronics, telecom, etc.
5. Modernisation of PSUs and import of raw materials encouraged.
6. FERA rules relaxed; scientific agriculture promoted via technology missions.

New Industrial Policy, 1991 (Rao-Manmohan Model)

Background

Indicator	Status in 1991
Inflation	~17%
Fiscal Deficit (of GDP)	8.40%
Foreign Exchange Reserves	Covered only 2 weeks of imports
Remittances	Declined due to Gulf War
Oil Prices	Sharply increased



- Severe BoP crisis led to IMF-supported structural reforms.
- Policy announced on 24 July 1991, marked a shift from "Producer State" to "Facilitator State".

Objectives of NIP-1991

- Liberalise and deregulate the economy.
- Reduce State's role; promote private and foreign investment.
- Enhance competition, efficiency, and technological innovation.

Key Features of NIP-1991

1. De-reservation of Industries:

- Reserved industries reduced to 8; now only 2 remain:

Reserved Industry	Description
Atomic Energy	Includes mining, fuel processing, etc.
Railways	Core services reserved

2. De-licensing:

- Only 4 industries now require licensing:

Industry
Aerospace & Defence Electronics
Explosives
Hazardous Chemicals
Tobacco Products

3. Abolition of MRTP Limit:

- ₹100 crore asset limit removed.
- MRTP Act replaced by Competition Act, 2002.
- Competition Commission of India (CCI) set up.

4. Promotion of Foreign Investment:

Type	Year	Features
FDI	1991	MNCs allowed 26–100% equity
FPI	1994	Only institutional investors via SEBI allowed

5. FERA Replaced by FEMA:

- FEMA Act, 2000 replaced restrictive FERA.

6. Simplified Location Policy:

Type of Industry	Location Norm
Non-polluting	Anywhere
Polluting	25 km from cities with >1 million population

7. Abolition of Phased Manufacturing Programme:

- Allowed flexibility in production and models.

8. End of Loan-to-Equity Conversion:

- Prevented indirect nationalisation by public banks.

Reaction and Impact of Reforms

- Critics called it a rollback of Nehruvian socialism.
- Resistance from bureaucracy, political circles, and interest groups.
- Eventually led to higher growth, FDI inflow, and global integration.
- Reform process continued gradually with wider acceptance.

Challenges Post-Reforms

- MSMEs struggled against global competition.
- Service sector boomed, but industry's share declined:
  - Manufacturing share in GDP fell from 16.4% (1990–91) to 14.4% (2020–21).
  - Current share of manufacturing is 17% in the GDP.
- Rigid labour laws, low R&D, and complex environmental rules remain concerns.
- Growth often jobless; rising monopolies noted.

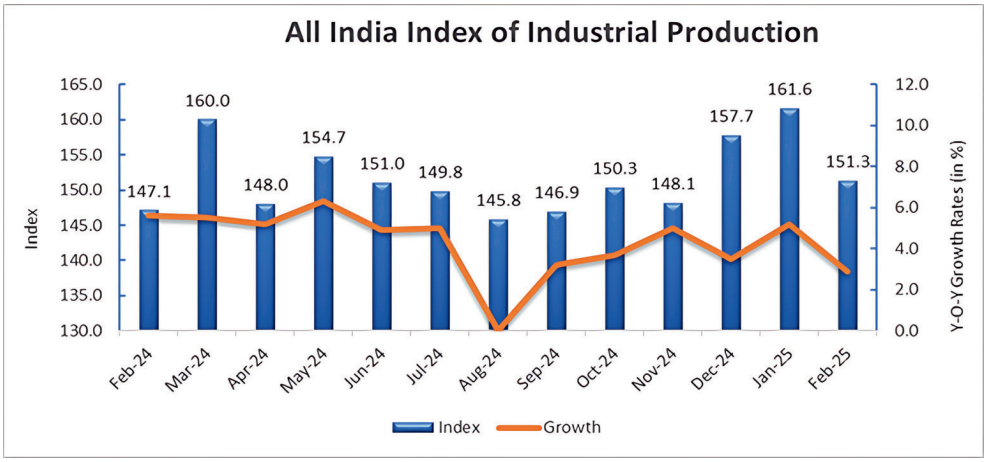
Major Public Sector Steel Plants and Partner Countries

Steel Plant	Partner Country	Year	Five-Year Plan
Bhilai	USSR	1955	1st FYP
Rourkela	Germany	1959	2nd FYP
Durgapur	UK	1959	2nd FYP
Bokaro	USSR	1964	3rd FYP

Conclusion

- Industrial sector is crucial for India's self-reliance, employment, and global competitiveness.
- The 1991 policy marked a paradigm shift and laid the foundation for a modern industrial economy.
- Yet, the goal of inclusive and balanced industrial development is still ongoing.

Index of Industrial Production (IIP)



- The Index of Industrial Production (IIP) is released every month by the National Statistical Office (NSO) under the Ministry of Statistics and Programme Implementation.
- Base Year: Updated from 2004–05 to 2011–12.
- IIP measures the volume of production in various sectors of industries in the economy.
- The IIP for May 2025 is 156.6(as per PIB).
- It tracks production in 407 items from three key sectors:
  - Manufacturing: 77.63%
  - Mining: 14.37%
  - Electricity: 7.99%

Classification by Use-Based Categories

Category	Items	Weightage (%)
Primary or Basic Goods	15	34.1
Capital Goods	67	8.2
Intermediate Goods	110	17.2
Infrastructure/Construction Goods	29	12.3
Durable Consumer Goods	86	12.8
Non-Durable Consumer Goods	100+	Remaining

Core Industries

- These 8 core industries hold 40.27% weight in the IIP. They are considered the backbone of industrial activity.

Industry	Weight (%)
Refinery	28.04
Power	19.85
Steel	17.92
Coal	10.33
Crude Oil	8.98
Natural Gas	6.88
Cement	5.37
Fertilizers	2.63

Purchasing Managers' Index (PMI)

- Predicts future trends in industrial production.
- Based on surveys of over 500 manufacturing firms.
- Considers factors like new orders, inventory levels, employment, and supplier delivery times.
- Released by HSBC & Markit.
- PMI > 50: Indicates expansion in the manufacturing sector.
- PMI < 50: Indicates contraction in the manufacturing sector.
- FOR June 2025 PMI was 58.4.

Standing Committee on Economic Statistics (SCES)

- **Established**: December 2019.
- **Headed by**: Pronab Sen (former Chief Statistician).
- **Members**: Includes experts from the UNO, RBI, Ministry of Finance, NITI Aayog, Tata Trusts, and academia.
- **Mandate**: To review data from various surveys and indexes, including:
  - Periodic Labour Force Survey.
  - Annual Surveys (Industry, Services, Unorganised Sector).
  - Time Use Survey.
  - Indexes like IIP and Economic Census.
- Govt has renamed and reconstituted SCES as Statistical Committee on Statistics (SCoS) and expanded its coverage.
- SCoS will have 4 non-official members, 9 official members and a member secretary.

Types of Industries in India

1. Cottage Industries

- Run by families using simple tools and traditional skills.
- Low investment and technology.
- Examples: Papad, pickles, clay pots, handicrafts.

2. Village Industries

- Located in villages with population less than 10,000.
- Investment up to ₹15,000.
- Promoted by the Khadi and Village Industries Commission (KVIC), 1956.

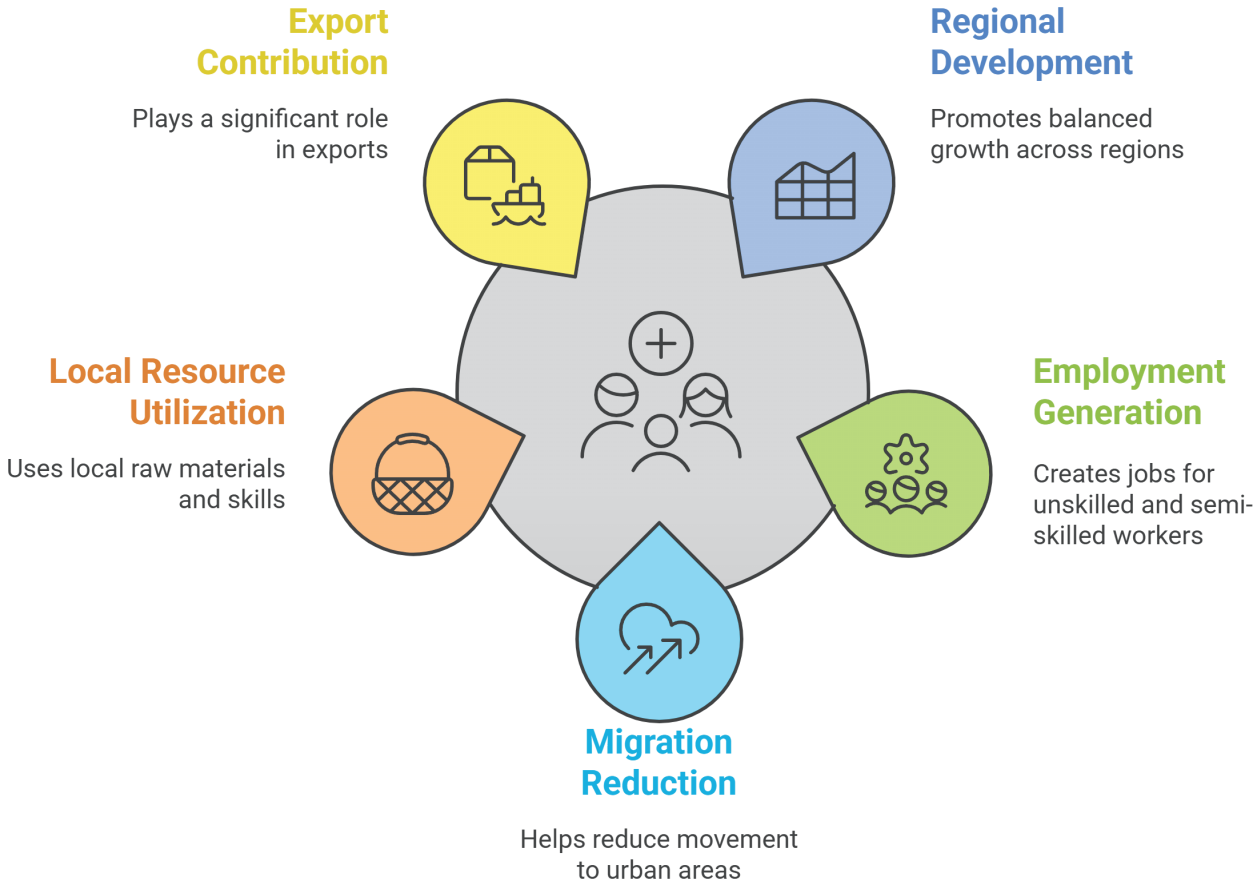
3. Micro, Small and Medium Enterprises (MSMEs)

(Revised definition effective from 1 July 2020)

Type	Investment Limit (Plant & Machinery)	Annual Turnover Limit
Micro	Up to ₹2.5 crore	Up to ₹10 crore
Small	₹2.5 crore – ₹25 crore	₹10 crore – ₹100 crore
Medium	₹25 crore – ₹125 crore	₹100 crore – ₹500 crore
Heavy	Above ₹125 crore	Over ₹500 crore

Importance of Small and Cottage Industries

- Promote inclusive and balanced regional development.
- These are labour-intensive and generate employment for unskilled and semi-skilled workers.
- Help reduce migration to urban areas.
- Use local raw materials and skills.
- Play a big role in exports: handicrafts, garments, leather, gems, etc.
- **Contribution**:
  - 45% of industrial output
  - 40–45% of exports
  - Second largest employment provider after agriculture
  - Share in GVA (2022-23): 30.1%



Challenges Faced by MSMEs

1. High production costs due to outdated technology and poor storage.
2. Poor infrastructure and power shortages.
3. Tough global competition after LPG reforms.
4. Low capital and investment access.
5. Lack of skilled workers and poor market access.

Government Support to MSMEs

Initiative/Scheme	Purpose
SIDO (1954)-Small Industries Development Organisation	Apex body for small industry development.
NSIC-National Small Industries Corporation	Provides low-cost machinery finance.
SIDBI (1990)-Small Industries Development Bank of India	Apex financial institution for MSME loans.
MUDRA Bank (2015)-Micro Units Development and Refinance Agency	Offers loans up to ₹10 lakh to small businesses.
UDAY Scheme-Ujwal Discom Assurance Yojana	Ensures power availability for industries.
PM Gram Sadak Yojana	Builds roads for rural industrial connectivity.
e-Commerce Linkage	Digital marketing support for MSMEs.
Skill India	Provides skill training and capacity building.
FDI Retail Conditions	Reserves product space for MSMEs.
State Finance Corporations	Provides financial help at the state level.
Udyam Registration (2020)	Online, paperless MSME registration.
CHAMPION Portal	Single-window grievance redressal for MSMEs.
PM Vishwakarma Yojana (2023–28)	Loans of ₹1–2 lakh at 5% interest, ₹500/day stipend, ₹1,500 tool aid; ₹13,000 crore budget.
Other Schemes	Make in India, Startup India, PLI, Stand-Up India, Self-Reliant India.

Company and Its Features

- A company is a voluntary body formed to carry out business activities.
- In India, companies are governed by the Companies Act, 2013.
- **Key features of a company:**
  - Independent legal entity
  - Limited liability of owners
  - Continuous succession
  - Separate property ownership
  - Transferable shares
  - Common seal
  - Independent management

Types of Companies

Type of Company	Key Features
Limited Liability Company	Liability limited to company assets. No personal liability for owners.
Unlimited Liability Company	In case of bankruptcy, both company and promoters must pay off debts.
Public Limited Company	Shares open to public. Needs minimum 7 promoters and 3–15 directors.
Private Limited Company	2 to 200 members allowed. Shares not available to the public.
Government Company	51%+ shares held by Centre/State. Examples: Maharatna, Navratna, Miniratna.

Public Sector Undertakings (PSUs)

- PSUs are government-owned companies at Central or State level.

Objectives of PSUs

1. Promote industrialization in backward areas.
2. Utilize national resources to reduce poverty and unemployment.
3. Promote social and economic justice by:
   - Offering affordable services/products.
   - Ensuring employee welfare.
   - Promoting regional development.

Types of PSUs

Type	Description	Examples
Departmental PSU	Works directly under a ministry	Indian Railways, India Post
Statutory Corporation	Set up through Parliament Acts	LIC, FCI, SBI
Company-based PSU	Registered under Companies Act, govt. holds 51%+ shares	Maharatna, Navratna, Miniratna

Maharatna Companies (Launched in 2010)

Objective:

- Provide more autonomy to large PSUs for global competitiveness.

Eligibility Criteria:

1. Must be a Navratna company.

2. Listed on Indian stock exchange with SEBI-mandated public shareholding.
3. Average annual turnover of ₹25,000 crore in last 3 years.
4. Average net worth of ₹15,000 crore.
5. Average net profit of ₹5,000 crore.
6. Significant global presence.

Benefits:

- Can invest up to 15% of net worth or ₹5,000 crore (whichever is less) without government approval.

Maharatna Central Public Sector Enterprises (CPSE):

1. NTPC Limited (NTPC)
2. Oil and Natural Gas Corporation Limited (ONGC)
3. Steel Authority of India Limited (SAIL)
4. Bharat Heavy Electricals Limited (BHEL)
5. Indian Oil Corporation Limited (IOCL)
6. Hindustan Petroleum Corporation Limited (HPCL)
7. Coal India Limited (CIL)
8. GAIL India Limited (GAIL)
9. Bharat Petroleum Corporation Limited (BPCL)
10. Power Grid Corporation of India Limited (POWERGRID)
11. Power Finance Corporation Limited (PFC)
12. Rural Electrification Corporation Limited (REC)
13. Oil India Limited (OIL)

Navratna Companies (Introduced in 1997)

Eligibility:

- Must be a Mini Ratna Category-I company.
- Received "Excellent" or "Very Good" performance ratings in 3 of last 5 years.
- Must score at least 60 out of 100 on the following six criteria:

Navratna Parameters:

- Net Worth
- Net Profit
- Total Labour Cost
- Cost of Production
- Earnings per Share (EPS)
- Service Performance
- Total Navratna Companies: 16

Benefits:

- Can invest up to ₹1,000 crore or 15% of project cost (whichever is less) without approval.

Navratna Central Public Sector Enterprises (CPSE):

1. Bharat Electronics Limited (BEL)
2. Container Corporation of India Limited (CONCOR)
3. Engineers India Limited (EIL)
4. Hindustan Aeronautics Limited (HAL)

5. Mahanagar Telephone Nigam Limited (MTNL)
6. National Aluminium Company Limited (NALCO)
7. National Buildings Construction Corporation Limited (NBCC)
8. National Mineral Development Corporation (NMDC)
9. NLC India Limited (NLCIL)
10. Oil India Limited (OIL)
11. Power Finance Corporation Limited (PFC)
12. Rashtriya Ispat Nigam Limited (RINL)
13. Rural Electrification Corporation Limited (REC)
14. Shipping Corporation of India Limited (SCI)

Mini Ratna Companies

Category-I (Since 1997)

Criteria	Benefit
Profit in last 3 years or ₹30 crore in any 1 year	Can invest up to net worth or ₹500 crore (whichever is less)
Total Companies	49

Category-II

Criteria	Benefit
Profit in last 3 years + Positive net worth	Can invest up to ₹300 crore or 50% of net worth (whichever is less)
Total Companies	10

Net Worth of a Company

- Net Worth = Paid-up Capital + Reserves
- It indicates the total value and financial strength of a company.

Steps for Economic Reforms in India (Post-1991)

Overview of Key Economic Reforms

Reform	Description
Liberalization	Reducing government control over industries and making trade easier.
Privatization	Selling public sector undertakings (PSUs) to private companies.
Globalization	Integrating Indian economy with the global market.

FERA to FEMA	Replacing strict foreign exchange law (FERA) with liberal FEMA.
SEZs	Creating export-friendly industrial zones with tax and policy incentives.
Economic Reforms (1991)	Initiated to modernize the economy and accelerate growth.

Liberalization

- Liberalization means removing excessive government control over the economy.
- It simplified trade, production, finance, and investment-related activities.
- Focus was on making the Indian economy more efficient and globally competitive.

Key Measures under Liberalization:

1. **Abolition of License Raj –** Removed the need for multiple approvals to start industries.
2. **Repeal of MRTP Act –** Removed restrictions on expansion of big businesses.
3. **Financial Sector Reforms –** Introduced private and foreign banks; deregulated interest rates.
4. **Tax Reforms –** Reduced tax rates and simplified the tax system.
5. **Foreign Exchange Reforms –** Simplified rules for foreign currency transactions.
6. **FERA Replaced with FEMA –** Made foreign exchange management easier.
7. **Trade and Investment Policy Reforms –** Liberalized imports and encouraged exports.
8. **Reduction in Tariff Rates –** Made imports cheaper and promoted competition.

Privatization

- Privatization means increasing the role of private companies and reducing government control over production and services.

Key Features:

- Disinvestment of Public Sector Undertakings (PSUs).
- Encouragement to private investment and management.

Benefits of Privatization:

1. Improved investment and efficiency due to private management.
2. PSUs began working on a profit-making basis.
3. Competition reduced monopoly and improved services.
4. Consumers got more choices and better quality products.
5. Prices reduced due to market competition.

Globalization

- Globalization refers to connecting Indian economy with global markets.
- It allows free movement of goods, services, capital, technology, and people.

Steps Taken:

- Reduced trade barriers (tariffs, quotas).
- Encouraged Foreign Direct Investment (FDI).
- Allowed entry of Multinational Corporations (MNCs).
- Relaxed rules for technology imports and joint ventures.

Benefits of Globalization:

- Increased foreign investment and job opportunities.
- Access to modern technology and better infrastructure.
- Boost to entrepreneurship and skill development.
- Availability of high-quality global standard products.
- Improvement in living standards and global competitiveness.
- Domestic companies became more efficient due to global competition.

FERA vs FEMA Comparison

Feature	FERA (1973)	FEMA (1999)
Government	Indira Gandhi	Atal Bihari Vajpayee
Nature of Offence	Criminal	Civil
Arrest Power	Allowed	Not Allowed
Penalty	5 times fine + Jail	3 times fine only
Burden of Proof	On the accused	On the investigation agency

- Increased foreign investment and job opportunities.
- Access to modern technology and better infrastructure.
- Boost to entrepreneurship and skill development.
- Availability of high-quality global standard products.
- Improvement in living standards and global competitiveness.
- Domestic companies became more efficient due to global competition.

Special Economic Zones (SEZs)

- SEZs are industrial areas treated as foreign territory for trade and taxation purposes.
- Created to promote exports, attract FDI, and improve infrastructure.

Key Features of SEZs:

- 100% production aimed for export.
- Customs duties applicable if goods are sold in domestic market.
- First SEZ Policy: 1st April 2000.
- SEZ Act passed in 2005, implemented from Feb 2006.
- Inspired by China's 1979 SEZ model.

Incentives Provided:

Category	Exemption/Incentive
Indirect Taxes	GST, customs, and other tax exemptions
Direct Taxes	100% exemption for first 5 years, 50% for next 5 years
FDI Policy	100% Foreign Direct Investment allowed
Labour Laws	Relaxed norms
Land	Government allocated land for SEZs

Challenges of SEZs:

1. Many SEZs built on fertile agricultural land, reducing farming activity.
2. Lack of long-term planning and policy stability unlike China.
3. Infrastructure problems and misuse of land.
4. Idle SEZ lands and bureaucratic delays.
5. Conflict with WTO rules on subsidies.

SEZs in Rajasthan:

Location	SEZ Name
Jaipur	Mahindra World City
Bhiwadi	Somani Worsted Ltd.
Jaipur	Genpact Infrastructure
Jaipur	Vatika SEZ
Jodhpur	Mansarovar IDC
Bikaner	RNB Infrastructure Pvt. Ltd.

Major Schemes and Financial Support Related to Industry in India

1. Make in India (2014)

- Launched in September 2014 by the Government of India.
- Aimed at encouraging both domestic and foreign companies to manufacture and invest in India.

- Envisions India as a global manufacturing hub, surpassing countries like China and the USA in attracting FDI and technology.
- It promotes entrepreneurship not only in manufacturing, but also in infrastructure and services.

Vision of Make in India

- To attract global capital, innovation, and technology.
- To make India the top investment destination in the world.
- To increase manufacturing share in GDP to 25%.
- To generate 100 million new jobs by 2022.

Objective of the Initiative

- Job creation and skill development across multiple sectors.
- Promote high-quality production standards and environmental sustainability.
- Encourage innovation, R&D, and ease of doing business.

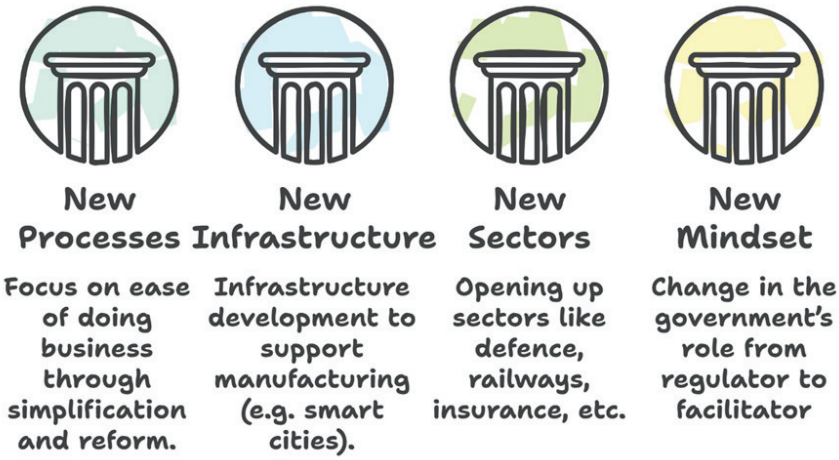
Logo of Make in India

- Depicts a lion made of cogs/gears, inspired by the Ashoka Chakra.
- Symbolizes strength, pride, dynamism, and manufacturing prowess.

Focus Sectors (25 Key Industries)

Includes high-potential sectors			
Automobiles	Aviation	Biotechnology	Chemicals
Construction	Defence manufacturing	Electrical machinery	Electronics
Food processing	Information Technology and BPM	Leather	Media and Entertainment
Mining	Oil & Gas	Pharmaceuticals	Ports and Shipping
Railways	Renewable energy	Roads and Highways	Space
Textiles and Garments	Thermal Power	Tourism and Hospitality	Wellness sector

Four Pillars of Make in India



Policy Focus Areas:

- Improving Ease of Doing Business rankings.
- Repealing obsolete and cumbersome laws.
- Development of 100 Smart Cities.
- Disinvestment in Public Sector Undertakings (PSUs).
- Focus on youth employment and skill development.
- Promoting sustainability and high quality in production.

Key Institutional and Digital Support:

- Interactive investor portal launched for transparency and real-time query resolution.
- Establishment of Invest India — the national investment promotion and facilitation agency.
- Creation of a dedicated Investment Facilitation Cell to guide and support investors.
- Implementation of eBiz Portal as a one-stop-shop for business and regulatory clearances.

Associated Campaigns and Missions:

- Start-up India and Stand-up India to promote innovation and entrepreneurship.
- Atal Innovation Mission (AIM) to encourage innovation in schools, universities, and R&D centres.
- SETU (Self-Employment and Talent Utilisation) programme to support tech-based startups.

Financial Support Initiatives:

Scheme / Institution	Purpose
India Aspiration Fund (SIDBI)	Venture capital funding for MSMEs and startups.
SIDBI Make in India Loan (SMILE-Make in INDIA Soft Loan for MSME)	Liberal term loans for small and medium manufacturing enterprises.
MUDRA Bank	Provides micro-credit and promotes financial literacy among micro units.

2. Start-Up India (2016)

- Aimed at promoting innovation and entrepreneurship in the country.
- Startups are provided various benefits to grow rapidly and create jobs.

Major Benefits under the Scheme:

- Income tax exemption for 3 consecutive years.
- Self-certification for compliance in 9 labour and environment laws with no inspections for the first 3 years.
- 80% rebate in patent filing fees.
- ₹10,000 crore Fund of Funds for Startups (FFS).
- January 16 is celebrated as National Startup Day.
- India is ranked 3rd globally in the number of startups.

Types of Startups and Their Valuations:

Type	Meaning
Minicorn	Startup valued at over $1 million
Soonicorn	A startup on the path to becoming a unicorn, often backed by venture capital
Unicorn	Startup valued at over $1 billion (e.g., BYJU'S, Flipkart)
Decacorn	Startup valued at over $10 billion (e.g., Swiggy)
Hectocorn	Firm valued at over $100 billion (e.g., Apple, Google)

3. Stand-Up India (2016)

- Promotes entrepreneurship among Scheduled Castes (SCs), Scheduled Tribes (STs), and women.
- Provides bank loans ranging from ₹10 lakh to ₹1 crore to at least one SC/ST borrower and one woman borrower per bank branch.

4. Production Linked Incentive Scheme (PLI) – 2020

- Launched to promote manufacturing and exports in 14 industrial sectors with a total outlay of ₹1.97 lakh crore.
- It gives financial incentives on incremental production to boost domestic manufacturing.

Main Objectives:

- Reduce import dependence.
- Encourage local production and create jobs.
- Make Indian products competitive in global markets.

Sectors Covered under PLI:

Sector	Sector
ACC Battery	Food Products
Electronics	Solar PV
Auto & Auto Components	White Goods
Pharmaceuticals	Specialty Steel
Telecom	Textile

5. Design Linked Incentive (DLI) – 2022

- Focused on boosting innovation and design in electronics.
- Supports development and commercialization of 5G and networking products.
- Aims to encourage local companies to design and manufacture telecom equipment.

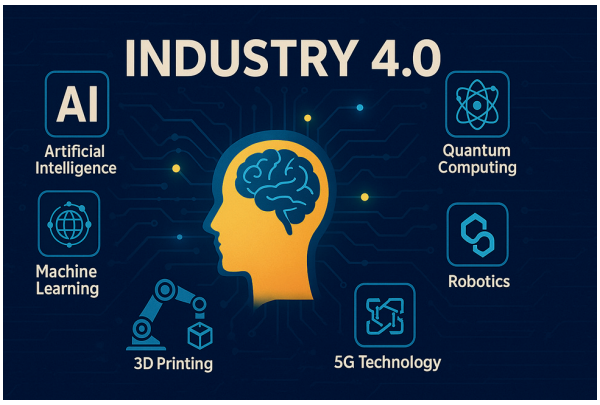
6. Atma-Nirbhar Bharat Abhiyan (ABA) – 2020

- Launched on 12 May 2020 as a comprehensive ₹20 lakh crore economic package to make India self-reliant in key sectors, including industry.

Five Pillars of ABA	
Pillar	**Description**
Economy	Shift from incremental change to big reforms
Infrastructure	Symbol of modern India
Technology	Tech-based development
Demography	Youth as nation's energy
Demand	Strengthening of supply-demand chain

7. Fourth Generation Economic Reforms (Industry 4.0)

- Focuses on adoption of emerging and futuristic technologies.
- These sectors are also known as Sunrise Industries.



Major Technologies Covered:

- Artificial Intelligence (AI)
- Machine Learning (ML)
- Internet of Things (IoT)
- Quantum Computing
- Blockchain
- Robotics
- 3D Printing and Bio-printing
- 5G Technology

Industrial Finance

- Industrial finance refers to the capital required by industries for setup, operations, and expansion.

Types of Capital:

Capital Type	Description
Fixed Capital	Used for long-term assets like land, buildings, and machinery
Working Capital	Used for day-to-day operations like wages, raw material, admin

Sources of Finance:

Internal Sources	External Sources
Share Capital (IPO/FPO)	Commercial Banks (mainly for working capital)
Debentures (Convertible/Non)	Public Deposits (short and long-term)
Reinvestment of Profits	Institutional Finance (SIDBI, IFCI, SFC, IDBI)

Major Financial Institutions for Industrial Finance:

Institution	Established	Objective
SIDBI	Apr 2, 1990	Focused on financing and development of **MSME** sector
IFCI Ltd.	Jul 1, 1948	Provides **long-term finance** to large industries
State Finance Corporations (SFCs)	Under 1951 Act	Present in **19 states** to provide regional industrial finance

Disinvestment in India

Introduction

- Public Sector Undertakings (PSUs) and Public Sector Enterprises (PSEs) have been essential in building India's post-independence industrial and economic foundation.
- Government Investment in PSUs:
  - 1951: ₹29 crores in 5 PSUs.
  - 1991: ₹2.4 lakh crores in 244 PSUs.
  - 2019: ₹16.41 lakh crores in 348 companies.
- With the 1991 economic reforms, the role of PSUs shifted from being dominant players to strategic and commercial entities under disinvestment and privatisation drives.

The difference between Public Sector Undertakings (PSUs) and Public Sector Enterprises (PSEs)

Basis	Public Sector Undertakings (PSUs)	Public Sector Enterprises (PSEs)
Meaning	PSUs are companies where the majority (51% or more) stake is held by the government (Central or State).	PSE is a broader term used for all enterprises owned by the government, including statutory corporations and departmental undertakings.
Examples	Bharat Heavy Electricals Limited (BHEL), ONGC, NTPC, etc.	Includes PSUs like BHEL and also statutory bodies like LIC, FCI, etc.

What is Disinvestment?

- Disinvestment refers to the sale or liquidation of the government's share in public sector undertakings.
- Although applicable to private firms globally, in India, disinvestment typically pertains to government-owned companies.

Objectives of Disinvestment

1. Promote public sector reforms and improve efficiency.
2. Support economic liberalisation and remove public sector monopoly.
3. Mobilise resources to meet fiscal and budgetary needs.
4. Encourage private sector participation and attract investment.
5. Increase market discipline and corporate governance in PSUs.

Initial Phase and Reforms (Post-1991)

- Disinvestment began with 1991 economic reforms.
- C. Rangarajan Commission (1991): Proposed systematic disinvestment strategies.

- Disinvestment Commission (1997): Set up for sectoral advice and PSU evaluation.
- A dedicated Ministry of Disinvestment was created in 1999–2000 (later reduced to a department under Ministry of Finance).

Types of Disinvestment in India

Type	Key Features
Token Disinvestment (Minority Stake Sale)	Government sells a small portion (usually 5–10%, not exceeding 49%). Used to raise funds but criticised for not improving PSU efficiency.
Strategic Disinvestment	Began in 1999. Classifies PSUs into **strategic** and **non-strategic**. Involves transfer of **51% or more** to a private/strategic partner. Government retains control only in **strategic sectors** like defence, atomic energy, and railways.

Examples: Modern Food Industries, BALCO, VSNL, HZL, ITDC Hotels.
Note: 13 enterprises underwent strategic disinvestment before the policy was paused.

Current Disinvestment Policy

Ideological Foundation:

- PSUs are considered national wealth.
- Government retains minimum 51% stake in minority sales.
- Can sell up to 50% or more under strategic disinvestment.

Two Modes of Current Policy

1. **Minority Stake Sale (Post-2009)**
   - Applicable to listed PSUs (must maintain 25% public shareholding).
   - New PSUs are encouraged to get listed.
   - Follow-on Public Offers (FPOs) are considered case-by-case.
   - Managed by DIPAM in consultation with ministries.
2. **Strategic Disinvestment (February 2016)**
   - NITI Aayog identifies PSUs for disinvestment.
   - Recommendations are reviewed by Core Group of Secretaries (CGD).
   - Final decision lies with Cabinet Committee on Economic Affairs (CCEA).

Key Figures:

- As of April 2020:
  - 57 PSUs listed.
  - Market capitalisation: ₹13 lakh crore.
  - Over 2 dozen PSUs under strategic disinvestment.
  - LIC IPO (Budget 2020–21) marked a major policy move.

Foreign Direct Investment (FDI)

FDI is a capital investment by a person resident outside India in:

- An unlisted Indian company, or
- 10% or more of the post-issue paid-up equity capital (fully diluted basis) in a listed Indian company.

It is considered a long-term, non-debt creating capital flow.

Routes of FDI in India

Route	Description
Automatic Route	No prior government approval needed; investor must inform **RBI** post-investment.
Government Route	Requires prior approval from the relevant **Ministry/Department**.

Regulatory Framework

- **FDI in India is regulated by:**
  - FDI Policy 2020
  - FEMA (Non-debt Instruments) Rules, 2019
- **Key Regulatory Bodies:**
  - DPIIT (Department for Promotion of Industry and Internal Trade)
  - Reserve Bank of India (RBI)

FDI vs. Foreign Portfolio Investment (FPI)

Parameter	FDI	FPI
Nature	Investment in business enterprises for long-term operations	Investment in **financial assets** like stocks and bonds
Asset Type	Financial + Non-financial (e.g., technology, factories)	Only financial (e.g., shares, bonds)
Control	Investors often have **managerial control**	Passive investors with **limited control**
Volatility	Less volatile, long-term focus	More volatile, depends on market sentiment
Liquidity	Less liquid, difficult to exit quickly	High liquidity, easy to enter and exit

Benefits of FDI:

- Provides non-debt capital.
- Boosts economic growth and productivity.
- Generates employment and modern technology.

Challenges for FDI in India

- **Complex Regulations and Policy Uncertainty**
  - Difficulties in compliance with tax laws, transfer pricing.
  - **Example**: Retrospective taxation on Vodafone led to legal battles.
- **Institutional Deficiencies**
  - Regulatory bodies like CCI often fail to prevent anti-competitive practices.
  - **Example**: Flipkart controversy led to India's removal from US GSP.
- **Concentration of FDI**
  - Major inflows limited to service sectors and urban areas (e.g., Maharashtra, Karnataka), creating regional inequalities.
- **Infrastructure Gaps**
  - Inadequate infrastructure in rural and backward regions discourages FDI.
- **Impact on Local Businesses**
  - Entry of global players threatens small Indian businesses.
  - **Example**: Protests against Walmart entry into India.
- **Labour Market Concerns**
  - Concerns about job security, working conditions, and displacement of local workers.
  - **Example**: Criticism against Amazon and Uber for poor labour practices.

Challenges for Indian Economy Due to FDI

- **Dependency on Foreign Capital**
  - Vulnerable to global economic shocks.
  - **Example**: Russia-Ukraine war and global recession fears led to drop in FDI in 2023.
- **Capital Flight Risk**
  - Sudden withdrawal during downturns affects currency stability and balance of payments.
- **Environmental Impact**
  - Mismanaged FDI projects can cause ecological damage.
  - **Example**: Mining by Vedanta Resources in Niyamgiri Hills faced massive opposition.
- **Intellectual Property Concerns**
  - Weak protection and improper transfer of technology/IP.
  - **Example**: Bio-piracy issues in pharmaceutical sector.

Steps Taken to Promote FDI

1. Flagship Schemes

- Several major government initiatives have been launched to enhance India's attractiveness as an FDI destination:
  - Make in India – to boost domestic manufacturing.
  - Start-up India – to support innovation and entrepreneurship.
  - PM Gati Shakti – for multimodal infrastructure and logistics efficiency.
  - Production Linked Incentive (PLI) Scheme – to boost industrial output and exports.
  - National Industrial Corridor Programme – to create advanced industrial infrastructure.

- All are aligned under the broader Atmanirbhar Bharat vision.

2. Ease of Doing Business (EoDB)

- Published annually by World Bank Group since 2004.
- Ranks countries based on 10 parameters (out of 12 total assessed):

Parameters Included in Rankings

- Starting a business
- Dealing with construction permits
- Getting electricity
- Registering property
- Getting credit
- Protecting minority investors
- Paying taxes
- Trading across borders
- Enforcing contracts
- Resolving insolvency

Parameters Not Included

- Employing workers
- Contracting with government

India's EoDB Performance

- Rank in 2020: 63rd (among 190 countries)
- Rank in 2014: 142nd
- Recognised as a Top 10 Improver.

India still lags in:

- Starting a business
- Registering property
- Paying taxes
- Enforcing contracts

NOTE: In September 2021, the World Bank officially discontinued the report following data irregularities

New 'Business Ready' (B-READY) Report

- In May 2023, the World Bank introduced methodology for a replacement index, later named Business Ready (also called B-READY).
- The first B-READY report was officially released in 2024, covering 50 economies, and evaluates three main pillars:
  a. Regulatory framework
  b. Public services
  c. Operational efficiency.
- This revamped framework does not provide a single overall "rank," but scores and assessments across these pillars.
- The B-READY dataset is set to expand to 110 economies in 2025 and 180 by 2026, targeting a broader global reach
- India was not included in the B-READY 2024 report.

Assemble in India for the World

- India can benefit from global supply chain realignments (post-US-China trade war).
- Export-led growth model like China can be adopted.

Target Year	Export Share	Job Creation Potential
2025	3.50%	4 crore jobs
2030	6%	8 crore jobs

- Also boosts import substitution and manufacturing competitiveness.

Action Plan Highlights

- Self-certification for labour & environment laws.
- Creation of Startup India Hub for networking.
- Dedicated mobile app and web portal.
- Relaxed norms for public procurement.
- Fast-track patent approvals with legal support.
- Easy exit policies for startups.
- Fund of Funds: ₹10,000 crore corpus.
- Credit Guarantee Fund and tax exemptions.
- Support for biotech startups: seed funds, TTOs, incubators.
- Innovation support: Atal Innovation Mission (AIM) and SETU.

Progress and Impact

- India ranked 3rd globally in number of new startups.
- **New firms:**
  - **2014**: 70,000
  - **2018**: 1.24 lakh
- **By Jan 2020:**
  - 27,084 startups recognised across 551 districts.
  - 43% had at least one woman director.
- **Startup growth rate:**
  - **2006–14**: 3.8% annual
  - **2014–18**: 12.2% annual

Economic Impact

- A 10% increase in startups raises GDDP by 1.8%.
- Highest impact in manufacturing and services.
- Turns youth into job creators, supports India's demographic dividend.

3. Project Development Cells (PDCs)

- PDCs established in all concerned Ministries and Departments.
- **Aim**: To coordinate and facilitate FDI proposals, provide support for project structuring and remove bottlenecks.

4. Technological Interventions

Initiative	Purpose
National Single Window System (NSWS)	A **digital platform** for investors to get approvals and clearances through a **single interface**.
Foreign Investment Facilitation Portal (FIFP)	An online portal for **Government route FDI approvals**.

5. State Investment Summits

- Many Indian states are organizing global investor summits to showcase economic potential and attract FDI.

Example:

- Vibrant Gujarat Global Summit
  - Organized by the Government of Gujarat.
  - Attracted $55 billion in FDI between 2002 and 2022.
- **RISING RAJASTHAN GLOBAL SUMMIT**
  - Organized by Govt. of Rajasthan
  - Participation of 32 countries and 20 international organizations

6. Key FDI Reforms (Till 2017)

Sector	FDI Limit & Route
Insurance & Pension	49% (26% via automatic route)
Defence	49% via automatic route
Medical Device Manufacturing	100% via automatic route
White Label ATMs	100%
Railway Infrastructure	100%
Food Product Marketing	100% (for food produced and manufactured in India)

FDI Inflows (US$ Billion)

Period	FDI Inflows
2024-25	USD 81.04 Billion

- Top FDI come from: Singapore(30%), Mauritius(17%), USA(11%),

Way Forward

- **Infrastructure & Skill Development:**
  - Improve multimodal logistics, high-speed rail, expressways.
  - Promote sunrise sectors like EVs, renewables, semiconductors.
- **Balanced FDI Policy:**
  - Create separate FDI policies for manufacturing and services SEZs.
  - Based on Baba Kalyani Committee recommendations.
- **Legal Reforms:**
  - Establish more arbitration and commercial courts.
  - Ensure efficient contract enforcement to boost investor confidence.
- **Promote Smaller Cities:**
  - Push FDI in Tier-II and Tier-III cities.
  - Use cluster-based models like Bulk Drug Parks and Mega Food Parks.
- **Strengthen Bilateral Investment Treaties (BITs):**
  - Revise and reinforce BITs to define investor rights and improve trust.

Infrastructure: Meaning and Nature

- Infrastructure refers to that part of a country's capital stock that provides essential services required to support production, improve productivity, and enhance human welfare.
- It is a foundational support system for economic and social development.
- Infrastructure includes both:
  - Physical Infrastructure: Such as roads, railways, power grids, electricity, transport, and communication systems.
  - Social Infrastructure: Such as schools, colleges, hospitals, drinking water, sanitation, and housing facilities.
- The effective use of physical infrastructure often depends on the strength of social infrastructure.

Types of Infrastructure

- Infrastructure is broadly divided into two categories:

1. Physical Infrastructure

- Directly supports economic activities and production.
- **Examples**: Roads, highways, electricity supply, irrigation, railways, airports, and ports.

2. Social Infrastructure

- Enhances the productive capacity of human capital.
- Examples: Education, health services, housing, sanitation, clean drinking water.
- A balanced development of both is essential. While physical infrastructure facilitates production and logistics, social infrastructure enhances human capabilities to use physical facilities efficiently.

Importance of Infrastructure in the Indian Economy

1. Connectivity

- Infrastructure links remote and rural areas to towns and cities.
- Helps in the efficient movement of goods, services, labour, and capital across the country.

2. Improved Availability

- Facilitates the supply of rural products to urban centres and vice versa.
- Ensures accessibility of essential goods and services.

3. Employment Generation

- Infrastructure projects require labour, thus creating jobs in both rural and urban areas.
- Indirect employment is also generated in manufacturing and services linked to infrastructure.

4. Rural Development

- Leads to higher rural incomes and better quality of life.
- Provides access to education, healthcare, clean water, and modern energy sources.

5. Attracting Investment

- Good infrastructure reduces transaction and operational costs.
- Increases investor confidence—both domestic and foreign—by improving business efficiency.

Infrastructure and Indian Economy: Overview

- Infrastructure is often compared to protein in the human body—a vital component for sustained economic growth.
- It is critical across all three sectors of the economy:
  - Primary Sector (e.g., irrigation, storage)
  - Secondary Sector (e.g., industrial parks, power supply)
  - Tertiary Sector (e.g., telecommunication, transport)

Core Infrastructure Sectors in India:

1. Power
2. Transportation (road, rail, ports, airports)
3. Communication (telecom, broadband)

- These sectors require large-scale and long-term capital investments, especially in urban services like water, sanitation, public transport, and housing.

Funding of Infrastructure in India

- Given that infrastructure has positive externalities and economy-wide impact, the government has an important role in financing it.

Key Funding Mechanisms:

Public sector investment backed by:

- Power sector reforms
- User charges (e.g., road tolls)
- Fare reforms (e.g., in Indian Railways)

Suggestions to Attract Private Investment:

- Transparency in project clearance processes
- Project unbundling—breaking large projects into smaller components
- Independent regulators to ensure a fair, competitive environment

NITI Aayog's Infrastructure Strategy

- NITI Aayog considers infrastructure crucial for:
  - Enhancing India's competitiveness
  - Improving ease of living for the population
- The strategy emphasises:
  - Massive and sustained investment
  - Use of innovative models like:
    - Public-Private Partnerships (PPP)
    - Hybrid Annuity Model (HAM) for risk-sharing between government and private players. It is a mix of EPC (engineer, procure and construct) and BOT (build, operate and transfer) models.

UDAY Scheme – Ujwal DISCOM Assurance Yojana (2015)

Background

- India aims for 100% village electrification, 24x7 power supply, and clean energy access.
- However, state DISCOMs (Distribution Companies) were heavily loss-making due to inefficiencies and poor governance.

Launch

- UDAY was launched in November 2015 to improve the financial health of DISCOMs and ensure efficient power supply.
- The objective was to make DISCOMs financially viable and help them achieve break-even in 2–3 years.

Four Key Reform Areas Under UDAY

1. Operational Efficiency

- **Steps**: Use of smart meters, efficient transformers, LED lights, energy-efficient appliances.
- **Targets**:
  - Reduce Aggregate Technical and Commercial (AT&C) losses from 22% to 15%.
  - Bridge the gap between Average Revenue Realised (ARR) and Average Cost of Supply (ACS) by 2018–19.

2. Reduction in Power Costs

- Encouraging the use of cheaper domestic coal, rationalising coal linkages, and strengthening transmission networks.

3. Reduction in Interest Costs

- States took over 75% of DISCOM debt:
  - 50% in FY 2015–16
  - 25% in FY 2016–17
- Resulted in reduced interest burden (from 14–15% to 8–9%).

4. Financial Discipline

- Better governance through reforms in metering, auditing, and IT-enabled systems.

Key Features of UDAY

- **Debt Restructuring Mechanism:**
  - States issued bonds to repay high-cost DISCOM loans.
  - Remaining debt was restructured or guaranteed by states at lower interest rates.
- **Central Support through Priority Schemes:**
  - Well-performing states/DISCOMs were given preference under:
    - Deendayal Upadhyaya Gram Jyoti Yojana (DDUGJY) - Scheme under Ministry of Power aimed at ensuring 24x7 power supply in rural areas.
    - Integrated Power Development Scheme (IPDS) - Targeted at strengthening transmission and distribution networks in urban areas
    - Power System Development Fund (PSDF) - used for creating power infrastructure.
- **Coal Incentives:**
  - Priority access to cheaper, notified coal prices.
  - Access to surplus low-cost electricity from NTPC and other Central PSUs.
- **Voluntary Participation:**
  - States had the option to join UDAY.
  - Almost all states (except a few UTs) joined the scheme by March 2019.

Understanding AT&C Losses in Power Distribution

- **Technical Losses:**
  - Caused due to poor quality and outdated transmission infrastructure.
  - **Example**: Line losses from old cables or transformers.
- **Commercial Losses:**
  - **Due to:**
    - Electricity theft,
    - Inaccurate metering,
    - Poor billing and collection mechanisms.
- **Remedial Measures**
  - Installation of accurate smart meters
  - Feeder-level metering to identify local losses
  - Robust billing software and consumer grievance redressal mechanisms

Indian Railways – Reforms and Modernisation

Challenges Faced by Indian Railways

- **Inadequate Capacity:** Many routes and stations are overcrowded due to the rising number of passengers and freight demands.
- **Delay in Upgradation:** Upgradation of tracks, signalling systems, and rolling stock is slow, affecting speed and safety.
- **Limited Financial Resources:** Railways need massive capital for infrastructure, rolling stock, and technological upgrades.
- **Need for Energy Efficiency:** To reduce costs and environmental impact, railways need to move toward cleaner energy.
- **Freight Modernisation Requirement:** The freight sector lacks modern facilities, integrated logistics, and timely delivery systems.

Focus Areas for Investment

- **Dedicated Freight Corridors (DFCs):** Separate tracks for goods trains to reduce congestion on passenger routes and improve efficiency.
- **High-Speed Rail Projects:** Projects like bullet trains to increase connectivity and travel speed between major cities.
- **High-Capacity Rolling Stock:** Introduction of modern trains with higher passenger and cargo capacity.
- **Port and Last-Mile Connectivity:** Improving connectivity from ports to production centres and markets.
- **Private and Foreign Direct Investment (FDI):** Encouraging private companies and foreign investment to bring in funds, technology, and efficiency.

Recent Initiatives for Reforms and Technology Use

- **Parichaalan App:** A digital tool introduced for efficient freight management and operations monitoring.
- **Solar Panels on Train Roofs:** Installed to reduce dependence on fossil fuels and to move towards clean energy.
- **Solar Power Generation Plans:** Installation of 50 MW capacity solar plants on railway buildings to meet energy needs.
- **Make in India Initiative:** Promoting indigenous manufacturing of railway equipment and systems.
- **Green Railways Mission:** Railways aim to become net-zero carbon emitter by adopting renewable energy and electrification.
- **Resource Mobilisation Efforts:** Raising funds from multiple sources including private investors and multilateral agencies.

Major Railway Projects

1. Diamond Quadrilateral High-Speed Rail Network

- **Aim**: To build a network of high-speed railways connecting India's four major metro cities—Delhi, Mumbai, Kolkata, and Chennai.
- **Objective**: To enhance inter-city connectivity, reduce travel time, and improve economic integration of metro regions.

2. Mumbai–Ahmedabad High-Speed Rail Project (Bullet Train)

Feature	Details
Approval Year	Dec 1, 2015
Basis	Japan International Cooperation Agency (JICA) feasibility study
Total Cost	₹97,636 crore
Funding Support	₹79,165 crore loan from Japan at 0.1% interest rate
Loan Terms	50 years repayment with a 15-year moratorium
Route	Bandra Kurla Complex (Mumbai) to Sabarmati (Ahmedabad)
Total Length	508 km
Number of Stations	12
Design Speed	350 kmph
Operating Speed	320 kmph
Execution Model	Through a Special Purpose Vehicle (SPV) set up by Indian Railways, Maharashtra & Gujarat
Target Completion	By 2029

3. Train 18 – Vande Bharat Express (Launched 2019)

- India's first semi-high-speed, engine-less train, with a maximum speed of 160 kmph.
- Fully designed and manufactured by Integral Coach Factory (ICF), Chennai under the Make in India initiative.

Key Features of Vande Bharat Express

- Reclining and 180-degree rotating chairs for comfortable seating.
- Diffused lighting and onboard charging points at every seat.
- CCTV cameras and talkback system for passenger safety.

- GPS-based passenger information system.
- Vacuum toilets and facilities for differently-abled passengers.
- Train 20 is being planned as a long-distance version of Train 18.

Dedicated Freight Corridors (DFCs) and Freight Modernisation

Need for Dedicated Freight Corridors

- Indian Railways carries both passengers and freight on the same tracks, leading to congestion, delays, and reduced speed for both.
- Freight traffic is often delayed or slowed down to prioritise passenger trains.
- There is a growing need to modernise freight transport to support India's industrial growth, logistics competitiveness, and ease of doing business.
- Energy efficiency and reduction in logistics costs are key goals of the freight modernisation programme.

Dedicated Freight Corridor (DFC) Project

- DFC is a flagship infrastructure initiative under the Ministry of Railways aimed at separating freight movement from passenger trains by creating exclusive freight rail tracks.
- Launched under the aegis of the Dedicated Freight Corridor Corporation of India Limited (DFCCIL), a Special Purpose Vehicle created in 2006.

Two Major Corridors under Implementation

Corridor Name	Details
Eastern DFC (EDFC)	From Ludhiana (Punjab) to Dankuni (West Bengal) – about 1,856 km
Western DFC (WDFC)	From Dadri (Uttar Pradesh) to JNPT (Mumbai) – about 1,504 km

- These two corridors are expected to handle over 70% of the total freight traffic.
- These corridors will decongest high-density routes and reduce transit time for goods movement.
- Supported by loan assistance from the World Bank (EDFC) and Japan International Cooperation Agency (WDFC).

Objectives and Benefits of DFCs

1. Increase Freight Capacity: Separate freight corridors ensure faster, reliable goods movement.
2. Speed Enhancement: Freight trains will run at speeds of 100 kmph or more, compared to the current average of 25 kmph.
3. Energy Efficiency: Electric traction and modern locomotives reduce fuel consumption.
4. Reduction in Transit Time and Costs: This will improve the logistics performance of India, making it globally competitive.

5. Boost to Industrial Development:

- Industrial corridors, logistics parks, and multi-modal terminals will develop along the DFCs.
- Will lead to generation of jobs and development in backward areas.

5. Environmental Benefits: Reduced carbon footprint due to shift from road to rail transport.

7. Passenger Rail Improvement: With freight traffic shifting to DFCs, passenger trains will experience less congestion and better punctuality.

Future Expansion of DFC Network

- The Indian government is planning additional freight corridors to extend the benefits:
  - **East-West Corridor:** Kolkata to Mumbai
  - **North-South Corridor:** Delhi to Chennai
  - **South-South Corridor:** Goa to Chennai
  - **East Coast Corridor:** Kharagpur to Vijayawada
- These are part of the National Rail Plan (NRP) to be implemented by 2030.

Roads in India

- India has the second-largest road network in the world, spanning a length of approximately 6.4 million kilometres.
- This road network includes National Highways (NHs), State Highways, District Roads, and Rural Roads.
- Despite NHs covering only 1.32 lakh km, they handle about 40% of the total road traffic, indicating their strategic importance.

Financing of National Highways Development Project (NHDP)

Source	Explanation
Fuel Cess	A portion of the tax collected on petrol and diesel is allocated to the National Highways Authority of India (NHAI).
Market Borrowing	NHAI raises funds through 54EC bonds and short-term overdrafts to finance highway projects.
Multilateral Loans	These are international loans taken by the Government of India and passed to NHAI:
	- World Bank: US$ 1,965 million
	- Asian Development Bank (ADB): US$ 1,605 million
	- Japan Bank for International Cooperation (JBIC): ¥32,060 million
	- Direct ADB loan: US$ 180 million for the Surat–Manor Expressway

Special Road Development Programmes

1. SARDP-NE (Special Accelerated Road Development Programme for North East)

- **Objective**: Improve road connectivity in the North Eastern Region by linking state capitals, district headquarters, and remote areas.

2. Road Development in LWE (Left Wing Extremism) Areas

- Targeted at Naxal-affected districts in states like Andhra Pradesh, Bihar, Chhattisgarh, Jharkhand, Madhya Pradesh, Maharashtra, Odisha, and Uttar Pradesh.

3. PMRP (Prime Minister's Reconstruction Plan) – 2004

- Launched specifically for Jammu & Kashmir to strengthen the road infrastructure and integrate the state with the national economy.

4. New Government Initiatives

- Bharatmala Programme: Focuses on connecting non-major ports and building economic corridors. It aims to develop 26000Km of economic corridors along with north-south and east-west corridors.
- Backward Areas / Religious / Tourist Places Connectivity Programme: Develop roads in less-developed regions and pilgrimage destinations.
- Setu Bharatam Project: Launched to build around 1,500 major road bridges across India. The project aims to eliminate level crossings located on national highways by building over bridges and under bridges. It's a scheme of Ministry of Road Transport and Highways.
- District HQ Connectivity Scheme: Aims to develop 9,000 km of newly declared NHs to connect district headquarters.

PMGSY – Pradhan Mantri Gram Sadak Yojana

- **Objective**: Provide all-weather road connectivity to unconnected rural habitations.
- **Criteria**:
  - Plains: Villages with population ≥500
  - Hill/Tribal/Desert/LWE areas: Villages with population ≥250
- PMGSY is also a component of Bharat Nirman, aiming to connect villages with population:
  - ≥1,000 in general areas
  - ≥500 in special category areas
- PMGSY-IV has been approved by the union govt. which aims to develop 62500km new all weather roads from 2024-25 to 2028-29.

Bharatmala Pariyojana (Launched 2015–16)

- An umbrella programme for highway development, focusing on freight and passenger movement.
- Aims to bridge infrastructure gaps in road networks through development of:
  - Economic corridors
  - Inter-corridors & feeder routes
  - National corridor efficiency enhancement

  - Border and international connectivity roads
  - Port and coastal roads
  - Greenfield expressways
- Focus is on optimal resource allocation and holistic planning of road networks.

Civil Aviation Infrastructure in India

- India is witnessing rapid growth in civil aviation but suffers from infrastructure bottlenecks, especially in non-metro areas.
- Upgradation of 18 non-metro airports is in progress to meet growing passenger and cargo demands.
- The Airport Authority of India (AAI) is setting up modern Air Traffic Services (ATS) Automation Systems for better air navigation and safety.

Working Group Recommendations (2011) for Airline Viability

1. Rationalise VAT on Aviation Turbine Fuel (ATF) to reduce operational costs.
2. Allow foreign airlines to invest in domestic carriers to boost capital.
3. Permit airlines to directly import ATF for cost savings.
4. Airlines should prepare turnaround plans to improve financial performance.
5. Review fare structures to ensure operational sustainability.
6. Create an economic regulatory framework to prevent predatory pricing and promote fair competition.

Maritime Infrastructure – Maritime Agenda 2010–20

- The Maritime Agenda 2010–20 was launched to modernise Indian ports and make them globally competitive.

Feature	Details
Port Capacity Target	3,130 million tonnes (MT) by 2020
Share of Non-Major Ports	Expected to be over 50% of total capacity (~1,280 MT)
Transaction Costs	Expected to reduce due to faster cargo handling and larger capacities
Total Investment Target	₹2,96,000 crore
FDI Policy	100% FDI under automatic route allowed in port infrastructure
PPP Models Used	BOT (Build-Operate-Transfer), BOOT (Build-Own-Operate-Transfer), etc.
Public Sector Role	Limited to deepening channels and providing rail/road access to ports
Technological Modernisation	Achieved through private sector participation and digital platforms

Government Initiatives

1. **Ship Building Financial Assistance Policy 2.0 -** Funding for shipbuilding industry for contracts secured between 2016 and 2026.
2. **Maritime Development Fund -** Govt. has earmarked Rs25000 crores for financing shipbuilding industry. The fund will provide low cost finance to shipbuilding industry.
3. **Shipbreaking Credit Note Scheme -** The scheme offers 40% credit on the scrap value of ship recycled at an Indian shipyard. This credit can be used to buy a new 'Made in India' ship.
4. **Maritime Triad Vision -** The vision is to propel India as a force to reckon with in shipbuilding, repairing and recycling industry.
5. **Coastal Shipping Bill -** The bill removes the distinction between riverine and coastal shipping vessels. This will reduce the shipment costs.

Smart Cities Mission (SCM)

- Launched in June 2015 to promote citizen-friendly and sustainable cities.
- Jointly implemented by the Central Government, States, and Urban Local Bodies (ULBs).

Objectives

- Drive economic growth.
- Improve quality of life of citizens.
- Promote local area development.
- Use technology and data for smart outcomes.

Core Infrastructure Elements in Smart Cities

- 24x7 water and electricity supply
- Sanitation and scientific waste management
- Efficient public transport
- Affordable housing for the poor
- Robust IT and digitalisation
- E-governance and citizen participation
- Sustainable environment
- Safety and security
- Quality education and healthcare

Strategic Development Approaches

Strategy	Explanation
Retrofitting	Upgrading existing built-up areas (>500 acres) to make them more liveable.
Redevelopment	Complete replacement of built environment with new design (>50 acres).
Greenfield Development	Planning on previously unused land (>250 acres), including affordable housing.
Pan-city Initiative	Use of smart solutions across the entire city (e.g., integrated traffic management).

Financing

- **Target**: 100 Smart Cities
- **Total Central Funding:** ₹48,000 crore (₹100 crore per city per year for 5 years)
- **Matching Contribution:** States and ULBs to contribute equal amount
- **Total Expected Investment:** ₹1 lakh crore
- 20 cities were selected in the first phase of implementation.

Current Status

- 94% of the 8067 projects have been completed.

Citizen Participation

- Citizens are involved in:
  - Decision-making processes
  - Urban planning reforms
  - Feedback mechanisms
- Essential for success due to growing urban migration and middle-class aspirations.

Other Urban Infrastructure Initiatives

Scheme	Objective	Key Features
SBM (Swachh Bharat Mission)	Eradicate open defecation and improve waste management	Targets all 4,041 statutory towns. Deadline: 2 October 2019.
SBM 2.0	It aims to clear 2400 legacy landfill sites in the country by 2025-26.	Waste to energy - Refuse Derived Fuel (RDF)
HRIDAY (Heritage City Programme)	Preserve heritage and cultural identity of cities	12 cities including Ajmer, Amritsar, Varanasi, Puri were selected.
AMRUT (Urban Rejuvenation)	Upgrade basic urban infrastructure in 500 cities	Funded by Centre, State, and Local Bodies. Focus on water, sewage, and transport.
AMRUT 2.0	Universal coverage of water supply in statutory 4900 towns	Circular economy of water through City Water Balance Plan (CWBP)

Public Asset Management & DIPAM

- In 2016, the Department of Disinvestment was renamed to Department of Investment and Public Asset Management (DIPAM).
- Aimed at maximising returns from Central Public Sector Enterprises (CPSEs) and better management of government equity.

Functions of DIPAM

1. Maximise returns and accelerate asset growth.
2. Restructure capital and financial performance.
3. Improve transparency and investor confidence.
4. Rationalise asset and investment decisions.

New Tools Introduced

- Debt monetisation to raise funds
- Buyback of shares from surplus PSUs
- Exchange Traded Funds (ETFs) as instruments for disinvestment
- PSU Mergers in the same sector to enhance scale and efficiency

National Investment Fund (NIF)

Formation and Purpose

- Formed in January 2005 to manage disinvestment proceeds outside the Consolidated Fund of India.
- **Managed by:**
  - UTI Asset Management
  - SBI Funds Management
  - LIC Mutual Fund

Utilisation of NIF Income

Usage Area	Share of Annual Income
Education, health, employment schemes	75%
Strengthening of profitable PSUs	25%

Restructuring (2009–13)

Due to global slowdown, proceeds were directly used for:

- Social sector funding
- Budgetary support

Revised Utilisation (Post-2013)

- Subscription to rights issues of CPSEs to maintain 51% govt. ownership
- Preferential equity allotment in CPSEs
- Recapitalisation of PSBs and public insurers
- Investment in RRBs, IIFCL, NABARD, Exim Bank, and metro/railway projects

National Investment and Infrastructure Fund (NIIF)

- Set up in 2015 it is India's first ever Sovereign Wealth Fund (SWF) of India.
- Its an investment platform for domestic and international investors.
- NIIF invests in domestic infra companies.
- 49% contributed by the Indian govt. and 51% contributed by Japan Bank for International Cooperation.

Disinvestment Proceeds: Use in 3 Phases

Phase	Period	Key Focus
Phase I	1991–2000	Used to bridge fiscal deficits
Phase II	2000–03	Used partly for PSU reforms and partly for social sectors
Phase III	Post-2005	Utilised via NIF for both PSU capitalisation and socio-economic schemes

Public–Private Partnership (PPP)

- Public–Private Partnership (PPP) is a collaborative model in which the government and private sector work together to finance, construct, and operate infrastructure projects and public services.
- It is a long-term contractual agreement between a government agency (central, state, or local) and a private company to provide public assets or services.
- The main aim is to combine:
  - Efficiency, innovation, and finance of the private sector
  - With authority, regulation, and public accountability of the government

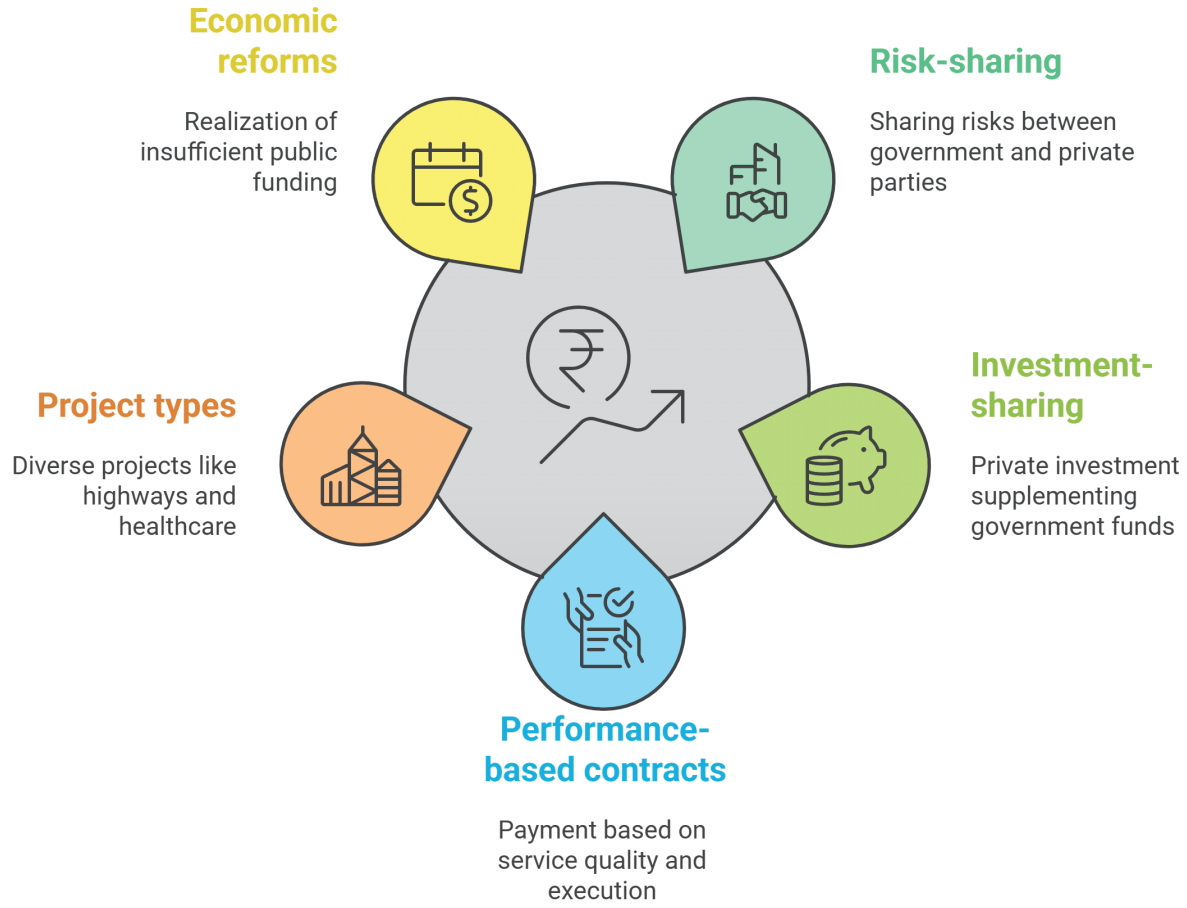
PPP is Not Privatisation

Aspect	PPP	Privatisation
Ownership	May remain with the public sector	Ownership fully transferred to private sector
Operation	Operated by private sector for a fixed period	Operated permanently by private sector
Purpose	Joint service delivery	Full transfer of service responsibility
Example	Delhi Metro, Toll Highways	Private power companies

Key Features of PPP

- **Risk-sharing:** Risks (construction, operation, revenue) are shared between government and private party.
- **Investment-sharing:** Private investment supplements limited government funds.
- **Performance-based contracts:** Payment and returns depend on service quality and timely execution.

- **Project types:** Used in highways, railways, airports, power, water supply, education, healthcare, and smart cities.
- PPP gained momentum in India after the 1991 economic reforms, when the government realised that public funding alone was not enough for infrastructure growth.



Steps Taken by Government of India to Promote PPP

Initiative	Purpose
PPP Appraisal Committee (PAC)	To evaluate and approve large PPP projects
Model Concession Agreements (MCAs)	To provide standard contract structures
Viability Gap Funding (VGF)	To offer financial support for unviable but socially useful projects
Hybrid Annuity Model (HAM)	A hybrid model where 40% cost is paid by government and 60% is borne by private player

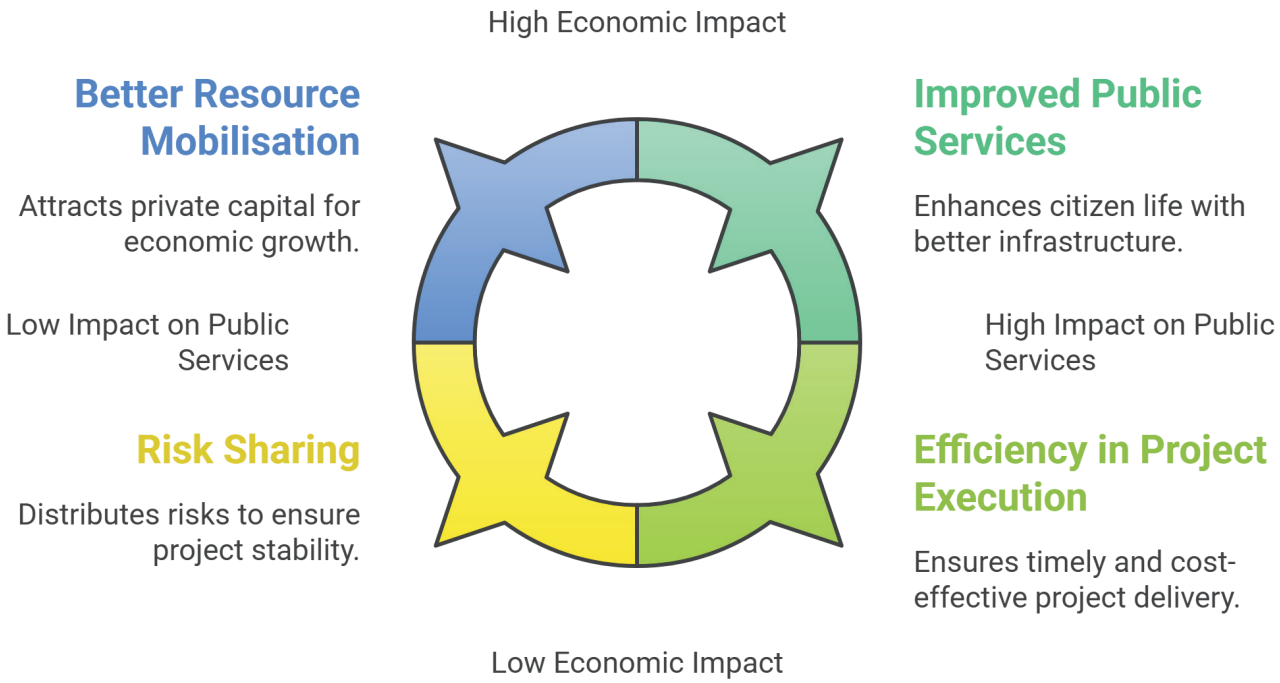
Examples of PPP Projects in India

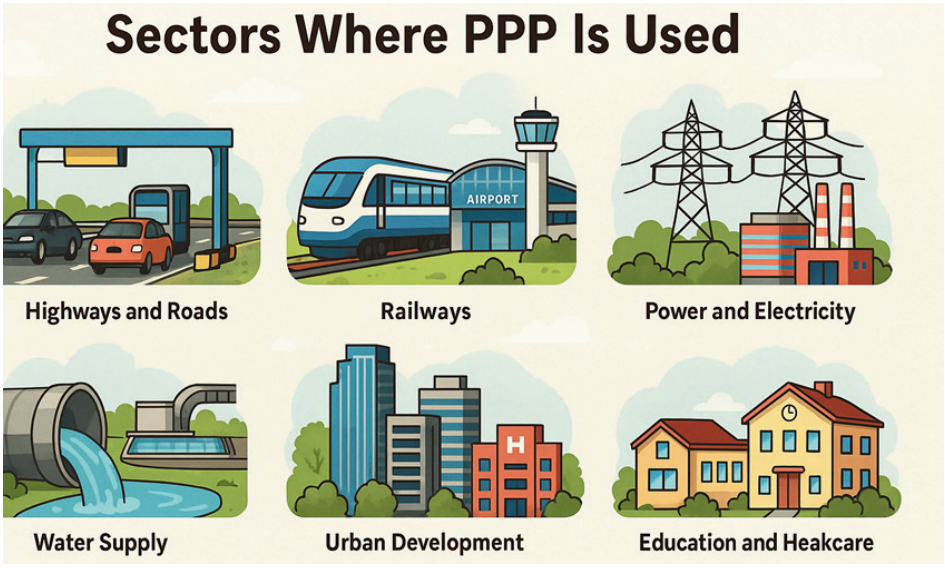
- Delhi–Gurgaon Expressway
- Delhi Metro (partnership of DMRC and private players)
- Smart Cities Mission infrastructure (integrated townships, metro rail, ICT)

- Airports Modernisation (Delhi and Mumbai airports under PPP)

Benefits of Public-Private Partnership (PPP)

- Better Resource Mobilisation: Brings private capital and expertise.
- Efficiency in Project Execution: Ensures timely delivery with cost control and quality.
- Innovation and Technology: Use of modern techniques and innovative designs.
- Risk Sharing: Risks are distributed as per contractual terms (e.g., EPC, BOT, HAM).
- Reduced Government Burden: Frees government funds for health, education, welfare.
- Improved Public Services: Better transport, water, electricity, etc., for citizens.
- Employment Generation: Creates direct and indirect jobs in various sectors.
- Boosts Private Sector Growth: Encourages private sector experience in infra development.





Public–Private–People Partnership (PPPP)

- The PPPP model is an extended form of PPP that includes active participation of the community (people) along with public and private sectors.
- Introduced in 2000–01, especially in agriculture and irrigation sectors.

Example of PPPP

- Under the Command Area Development Programme (renamed in 2004):
  - Farmers contribute around 15% of the project cost.
  - Remaining is funded by public and private entities.

Advantages of PPPP Model

- **Community Participation**: People contribute, take ownership, and monitor usage.
- **Better Maintenance**: Assets are preserved better due to local involvement.
- **Sustainability**: Long-term use and upkeep of public services ensured.
- **Accountability**: Greater transparency due to involvement of all three sectors.

Scope of PPPP

- Can be extended to:
  - **Urban Local Bodies (ULBs)**: Water supply, sanitation, waste management
  - **Rural Areas**: Irrigation, housing, drinking water, renewable energy
  - **Social Infrastructure**: Schools, health centres, community assets

PRIVATE SECTOR AND URBANISATION IN INDIA

Case Study 1: Gurgaon (from 2001 onwards)

- The Government of Haryana made land acquisition easier and gave more power to HUDA (Haryana Urban Development Authority).
- This allowed private real estate developers to create integrated townships.
- Gurgaon is currently managed by three entities:
  - HUDA
  - Municipal Corporation of Gurgaon (set up in 2008)
  - Private builders

Achievements by the Private Sector in Gurgaon

- Private players created and managed sewage systems, water supply, electricity, security, and even fire prevention services.
- The Rapid Metro system was developed with the help of private companies like DLF and IL&FS, supported by HUDA.
- Gurgaon saw the development of high-quality roads and private transport services.

Challenges in the Gurgaon Model

- There was no single urban plan, which led to scattered and uncoordinated development.
- There were multiple and overlapping authorities, which increased transaction costs for builders and delayed decision-making.
- Political connections were often needed to get approvals, which affected the transparency of the process.
- Two major failures were noted:
  a. Despite low marginal costs, the average cost of services remained high because private builders could not achieve economies of scale.
  b. The model caused negative externalities like:
     - Pollution from diesel generators
     - Depletion of groundwater
     - Dumping of sewage in open areas
     - These resulted mainly due to weak regulation and lack of active civil society oversight.

Case Study 2: Jamshedpur

- Jamshedpur is a privately developed township, primarily managed by JUSCO, a subsidiary of Tata Steel.
- It is considered one of the best-governed urban areas in India.
- There is a strong presence of civil society organisations that act as a check on resource misuse and service gaps.

Achievements of Jamshedpur

- In 2008, ORG Marg Nielsen ranked Jamshedpur as the 2nd best city in India in terms of quality of life.
- In 2010, the Ministry of Urban Development ranked it 7th out of 441 cities in terms of sanitation and cleanliness.

Lessons from Gurgaon and Jamshedpur

- The private sector has significant potential in building efficient, service-rich urban areas.
- However, without a unified governance system, private-led development leads to:
  - Delays
  - High costs
  - Poor post-growth planning
- Strong civil society institutions play a critical role in ensuring regulation, reducing negative externalities, and maintaining urban quality.
- The Jamshedpur model, where civil society played an active role, is considered more successful and sustainable compared to the Gurgaon model.

PUBLIC–PRIVATE PARTNERSHIP (PPP) MODELS IN INDIA

Background

- Infrastructure development in India faces funding constraints and implementation challenges.
- During the reform period, the Indian government introduced the concept of Public–Private Partnership (PPP) to attract both domestic and foreign private sector investments.
- Initially, the PPP model was successful, especially in sectors like road development, but post-2013–14, its attractiveness declined due to:
  - Structural flaws in the design of PPP models
  - Regulatory delays
  - Global economic slowdown

BOT – Toll (Build-Operate-Transfer – Toll Model)

- It was one of the earliest PPP models adopted in India.
- In this model:
  - The private player builds, operates, and maintains the infrastructure project.
  - The private company collects toll revenue directly from users during a fixed concession period.
  - A portion of the toll is shared with the government.
- **Challenges and Risks:**
  - High commercial risk due to traffic uncertainty.
  - Land acquisition delays and cost overruns made projects financially non-viable.
  - The private player bore all construction and revenue risks, which made this model unattractive over time.

BOT – Annuity Model

- This model was an improvement over the BOT-Toll model.
- In this model:
  - The private party builds and maintains the project.
  - The government does not allow toll collection by the private company.
  - Instead, the government pays a fixed annual annuity for the project's operation and maintenance.
- **Benefits**:
  - Commercial risk of toll collection is removed.
- **Challenges**:
  - Still vulnerable to land acquisition delays, regulatory approvals, and construction risks.

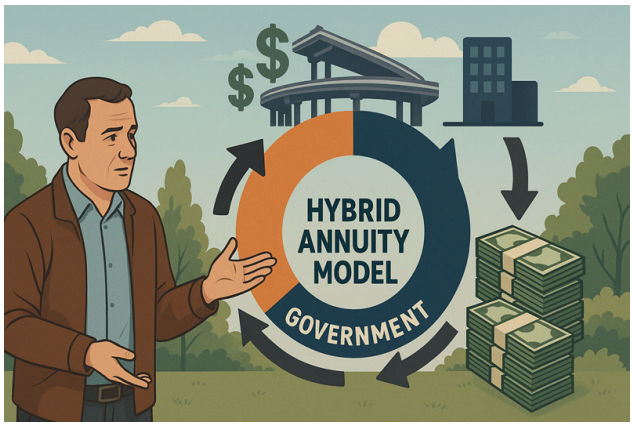
EPC (Engineering, Procurement, and Construction) Model

- This is not a PPP model, but it has been used widely.
- In this model:
  - The government funds 100% of the project cost.

- The private firm only designs and constructs the project.
- There is no toll collection or long-term involvement of the private party.

- **Advantages**:
  - Suitable for short-term solutions where private funding is not available.
- **Limitations**:
  - Does not involve private investment or innovation.
  - Entire burden remains on the government.

Hybrid Annuity Model (HAM)



- This model was introduced in 2016 as a blend of EPC and BOT-Annuity models.
- **In this model:**
  - 40% of the project cost is paid by the government during the construction phase.
  - The remaining 60% is invested by the private company.
  - The private firm does not collect tolls; instead, the government collects toll and pays the private party in fixed annual instalments (annuity) for maintenance and operation over a fixed period (usually 15 years).
- **Advantages**:
  - Risks related to land acquisition, toll collection, and regulatory approvals are borne by the government.
  - Only construction and maintenance risks are left with the private sector.
- This model is currently the most successful and widely accepted PPP model in India.

Swiss Challenge Model

- Introduced in India around 2015 (first used for redevelopment of railway stations).
- **In this model:**
  - A private player submits a project proposal voluntarily.
  - The proposal is made public, and others can challenge it with better bids.
  - The original proposer is given the chance to match the better offer.
- **Benefits:**
  - Promotes transparency, competition, and innovation.

- **Adoption**:
  - Used earlier by Karnataka, Andhra Pradesh, Rajasthan, Bihar, Madhya Pradesh, Punjab, and Gujarat.
  - Legally approved by the Supreme Court in 2009.

Build Own Operate Model(BOO)

- Ownership vests with the agecy which has excuted the project.

PPP in Other Sectors

- Originally used for roads and physical infrastructure, PPP is now being extended to other sectors such as:
  - Education
  - Healthcare
  - Agriculture
- Under the Smart Cities Mission, local governments are increasingly using PPP models.
- The Economic Survey 2016–17 recommended setting up a PPP-based institution for agricultural procurement and distribution, especially for pulses.

PETROLEUM SECTOR IN INDIA: CONCERNS AND REFORMS

Current Pricing Formula

- Since October 2014, India adopted a new pricing formula for domestic natural gas, which considers:
  - Prices in producer markets (e.g., US, Russia)
  - Prices in consumer markets (e.g., Japan, EU)
- This formula aims to balance the interests of producers and consumers.

Need for Better Pricing Mechanism

- Market-based arm's-length pricing is considered better because:
  - It reflects true value in comparison to alternative fuels.
  - It encourages investment by ensuring fair returns.
  - It helps India evolve into a regional price setter in the gas market.

Key Reforms and Suggestions

- Bring petroleum and gas under GST to ensure a uniform tax structure across states.
- Use cess collections to build an expanded gas pipeline network to reach remote areas.
- Implement Viability Gap Funding (VGF) to support unviable but socially important pipeline projects.
- Improve city gas distribution (CGD) and cross-country pipeline systems to ensure clean energy access.
- Simplify PNGRB bidding to make it easier for private firms to enter.

- Expand PNG/CNG to small towns and rural areas.
- Rationalise LPG subsidies by capping them at 10 cylinders per household annually.
- Align taxes between domestic and commercial LPG to remove distortions.
- Impose uniform 5% customs duty on LNG and remove arbitrary exemptions.
- Declare natural gas and LNG as 'declared goods' for national tax parity.

Unconventional Energy Resources

- India is exploring Coal Bed Methane (CBM) and Shale Oil & Gas.
- CBM Resources: 92 trillion cubic feet (TCF); only 9.9 TCF confirmed, with daily production of ~1 million cubic meters.
- Shale oil & gas exploration is ongoing in 50 blocks, but no commercial production has started yet.

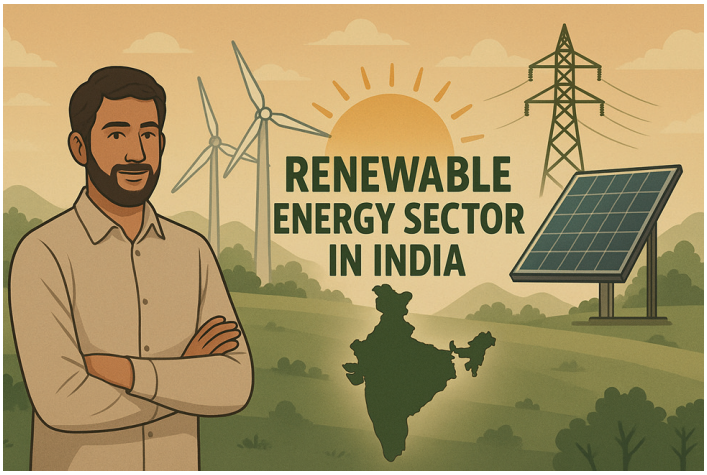
Private Sector Participation Reforms

- No production/revenue sharing for less attractive blocks (Category II & III).
- Offer fiscal incentives to encourage early monetisation of discoveries.
- Pricing and marketing freedom to gas producers.
- Encourage use of advanced technology and large-scale private investment.
- Allow more autonomy to National Oil Companies to partner with private firms.

RENEWABLE ENERGY SECTOR IN INDIA

India's Renewable Energy Potential (Mid-Term)

Source	Potential (GW)
Solar	748.99
Wind	696 (aprox.) at 120m and 1164 at 150m.
Small Hydro	20
Biomass	26.8
Total	**82655.79(Approx.)**



- India has shifted from Megawatts to Gigawatts in renewable energy production.
- Renewable energy is being used for distributed power generation in remote rural areas for lighting, pumping, and motive power.

Targets

- Target of achieving 175 GW of renewable energy capacity by 2022, with:
  - 100 GW from solar
  - 60 GW from wind
  - Remaining from hydro and biomass

Major Government Initiatives

- Solar Rooftop Systems under the National Solar Mission (NSM) by 2019–20.
- Creation of 25 Solar Parks and Ultra Mega Solar Projects (20,000 MW capacity) from 2015–2020.
- 15,000 MW Solar PV Projects announced under NSM (2015–2019).
- 1 lakh solar pumps for irrigation and drinking water targeted by 2016.
- 56 Solar Cities approved to promote sustainable urban energy use.
- Surya Mitra Scheme launched in May 2015 to train 50,000 solar technicians over 5 years (2015–2020).

Policy Measures (till March 2016)

- National Offshore Wind Energy Policy (2015) to develop coastal wind energy across India's 7,600 km coastline.
- Priority Sector Lending includes:
  - ₹15 crore limit for large projects (solar/wind/biomass/street lighting)
  - ₹10 lakh for household-level systems
- **FDI Policy:**
  - 74% foreign equity via automatic route
  - 100% FDI allowed with FIPB approval
- Amendments to National Tariff Policy (2005) to promote renewable integration.

LOGISTICS SECTOR IN INDIA

Overview and Importance

- The logistics sector includes transportation, warehousing, packaging, inventory, and material handling.
- It acts as the backbone of India's supply chain and trade infrastructure.
- The sector is largely unorganised but holds tremendous potential for job creation and efficiency improvements.

Key Data

- Size: Rs 9 trillion in FY 23
- Growth Rate (CAGR): 8%-9%
- Projected Size by 2028: Rs 13.4 trillion
- Employment: Over 22 million people

The new Logistics policy aims to cut Logistics costs by half to be near global standards by 2030 by reducing the cost of logistics from 14-18% of GDP to of 8

Logistics Performance Index (LPI) by World Bank

- India's Rank improved from 54th in 2014 to 38th in 2023 globally.

Challenges

- High cost of logistics, which reduces the competitiveness of Indian exports.
- Fragmented warehousing, poor coordination among regulatory agencies.
- Lack of multi-modal transport integration (road-rail-sea-air).
- Weak digital and IT infrastructure, outdated technology use.

Government Initiatives

- Establishment of Logistics Division under Department of Commerce to streamline efforts.
- Infrastructural bottlenecks are being addressed through better road, rail, and port linkages.
- **Measures to promote:**
  - New technologies
  - Automation
  - Single-window clearance
  - Skill development
- **PM GATI SHAKTI**- Anintegrated online platform which brings about seamless inter ministerial coordination in the implementation of mega infra projects.
- **National Logistics Policy, 2022-** It envisions India to be among top 10 nations in the Logistics Performance Index of the World Bank by 2030 by halving logistics cost as a percentage of GDP.
- **Dedicated Freight Corridor-** Railway tracks meant exclusively for goods trains. The project involves construction of six freight corridors for faster movement of goods. EDFC has been completed and WDFC is nearing completion.
- **Multi Modal Logistics Park-** An integrated transport hub combining different modes(sea, land, air) of transport at one place. First one at Jogighopa, Assam is set to be operational by next year.

Infrastructure Status for Logistics Sector (2017)

- Granted Infrastructure Status in the Harmonized Master List.

Benefits of Infrastructure Status

1. Access to cheaper credit with longer tenure.
2. Easier project approvals for logistics parks, dry ports, and transport hubs.
3. Greater private investment from pension funds and institutional investors.
4. Enhanced policy focus to support Make in India, Digital India, and export competitiveness.

Housing Policy in India

Importance of Housing Policy

- Housing is one of the key priorities of the Government of India, especially with the rise in urban migration and a floating population.
- A sound housing policy supports:
  - **Horizontal mobility:** Movement across cities for employment or better living.
  - **Vertical mobility:** Climbing the socio-economic ladder through better living standards.
- It plays a central role in ensuring inclusive urban development and enhancing economic opportunities for citizens.

Key Issues in Indian Housing Sector

1. Rental Housing

- Provides a flexible and affordable option for new urban arrivals, particularly rural migrants.
- Acts as a stepping stone for shelter and employment.
- Despite its importance, rental housing share has significantly declined:
  - **In 1961**: 54% of urban housing stock was rental.
  - **In 2011**: Declined to 28%.
- **Census 2011 Data:**
  - Urban areas: 31% rental housing.
  - Rural areas: Only 5% rental housing.
- **Regional Patterns:**
  - Northern states (excluding Himalayan) saw the sharpest drop.
  - Urbanised states maintained higher rental housing proportions.

2. Vacant Housing

- India suffers from a paradox of housing shortage along with rising number of vacant homes.
- **Census 2011 Data:**
  - Over 11.1 million urban houses were vacant.
  - **In 2001**: This figure was 6.5 million.
  - Vacant homes formed 12% of urban housing stock.
- **City-wise Vacant Houses:**

City	Vacant Houses (in millions)
Mumbai	0.48
Delhi	0.3
Bengaluru	0.3

Gurgaon	Highest vacancy rate at 26%

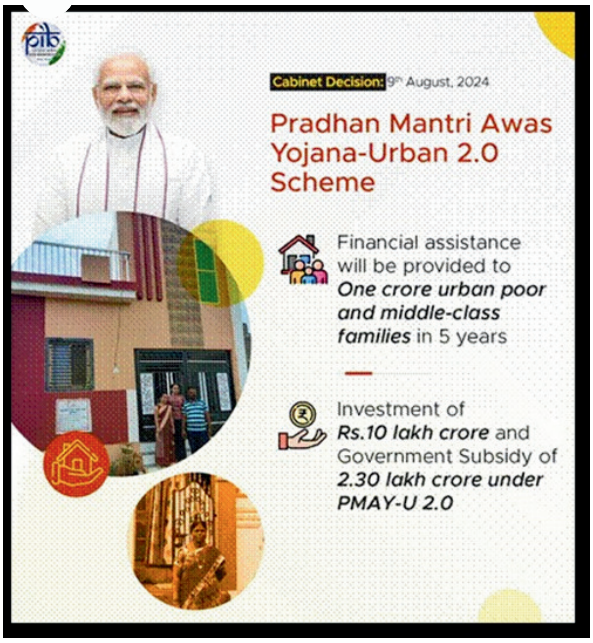
- **Causes of Vacancy:**
  - Unclear property rights.
  - Weak rental laws and enforcement.
  - Low rental yield discouraging landlords.
  - Newly developed real estate located far from city centres.

3. Need for a Balanced Approach

- Housing policy has overly focused on ownership and construction, while rental markets and legal reforms have been neglected.
- A holistic approach must include:
  - Clear property rights.
  - Strong rental law reforms.
  - Incentives for bringing vacant houses to market.
  - Transparent contract enforcement.

Pradhan Mantri Awas Yojana – Urban (PMAY-U)

- **Launched**: June 2015 under the vision of 'Housing for All by 2022'.
- **Objective**: Provide pucca houses with basic facilities for all eligible urban poor.
- **Coverage**: One of the largest urban housing schemes globally.



Key Highlights

- Validated demand as of early 2020: 1.12 crore houses.
- Urban areas contribute over 60% of India's GDP.
- Construction sector contributes 8.2% to GDP and provides jobs to 12% of India's workforce.
- PMAY-U serves as both a social welfare measure and economic stimulus.

Four Vertical Components of PMAY-U

Vertical	Description
1. In-Situ Slum Redevelopment (ISSR)	Slums are redeveloped using land as a resource with private participation. ₹1 lakh subsidy per house from Central Government.
2. Credit Linked Subsidy Scheme (CLSS)	Interest subsidy of 6.5% on loans up to ₹6 lakh for EWS (income ≤ ₹3 lakh) and LIG (income ≤ ₹6 lakh).

3. Affordable Housing in Partnership (AHP)	Houses built by public/private agencies. ₹1.5 lakh subsidy for EWS; 35% houses reserved for EWS.
4. Beneficiary Led Construction (BLC)	Direct financial assistance of ₹1.5 lakh to EWS beneficiaries for construction/enhancement of their own house.

Progress till Early 2020

- 1.03 crore houses sanctioned.
- 60 lakh houses grounded for construction.
- 32 lakh houses completed and delivered.
- The government was confident of completing the target by 2022.

RAS MAINS PRACTICE QUESTIONS

Short Answer Questions (Answer in 15 words)

1. Define the industrial sector and mention two activities included under it.
2. What was the main provision of the Industrial Policy Resolution of 1948?
3. State two major features of the Industrial Policy Resolution of 1956.
4. What is the significance of the Index of Industrial Production (IIP)?
5. Mention any two Maharatna Public Sector Undertakings (PSUs) of India.
6. What was the objective behind launching the Make in India initiative in 2014?

Medium Answer Questions (Answer in 50 words)

1. Explain the role and importance of the industrial sector in India's economic development.
2. Discuss the main objectives and features of the New Industrial Policy of 1991.
3. Describe the major challenges faced by MSMEs in India.
4. Explain the key features of the Production Linked Incentive (PLI) Scheme.
5. What is Public–Private Partnership (PPP)? Mention two of its advantages with examples.
6. Differentiate between FDI and FPI with suitable examples.

Long Answer Questions (Answer in 100 words)

1. Trace the evolution of India's industrial policy from 1948 to 1991, highlighting key shifts.
2. Critically evaluate the impact of the 1991 New Industrial Policy on India's economy.
3. Discuss the importance, contribution, and challenges of MSMEs in India's industrial sector.
4. Explain the objectives, provisions, and achievements of the Make in India programme.
5. What are Dedicated Freight Corridors (DFCs)? Explain their objectives, features, and expected benefits for industrial growth.
6. Analyse the significance of infrastructure development (roads, railways, logistics) in strengthening India's industrial competitiveness.