B.A. ECONOMICS – TELANGANA

SEMESTER – IV

INDIAN ECONOMY

Textbook for B.A. Semester – IV



1 Structure of the Indian Economy | 2 Indian Agriculture | 3 Indian Industry | 4 India's Service Sector | 5 Planning and NITI Aayog

NALGONDA ECONOMICS FORUM PUBLICATION

(Regd. No. 297/13)

M.V.N Vignana Kendram, Nalgonda

Nalgonda Economics Forum

in the News

DISTRICT PLUS • THE HINDU • Monday, JULY 30, 2007

A teacher par excellence

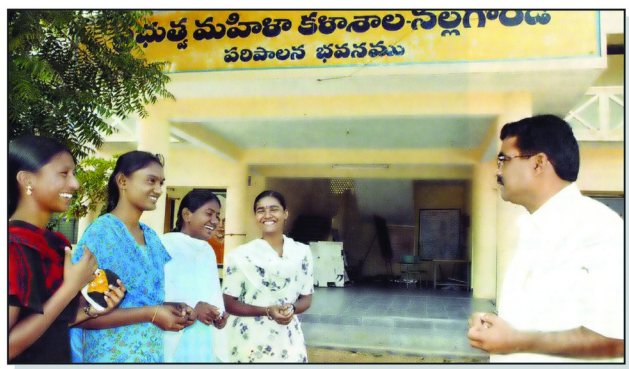
Thanks to the free coaching imparted by Akkenapalli Meenaiah, students from rural background can now hope to secure a seat in Osmania University

Getting a seat in any post graduation course in Osmania university campus is always a tough task for rural graduates. Those who are keen to get a seat there have to spend money for tailor-made coaching classes.

Realising the need to impart free coaching, Akkenapalli Meenaiah, lecturer in Economics, Government Women's Degree College, Nalgonda, offered special training for students of Economics in the district. Indeed the effort yielded good results and seven out of 25 students got seats in PG courses.

While Maroju Kavita, a bright student of the Women's Degree College could secured eighth rank, three of her friends — Koorella Himavathi, Chintapalli Sailaja and Cherukuri Seshu Kumari — got seats in the OU campus, Hyderabad. They are all eligible to get a hostel facility thus getting a wonderful opportunity to prepare for competitive exams. Five other students are all set to get seats in other institutions. "But for Mr. Meenaiah coaching, I would not fared well in the entrance test," Ka-vitha said. The convener of the Nalgonda Economics Forum, Mr. Meenaiah said that a small initiative taken by him yielded very good result. He opted out of spot valuation to train his students to prepare for the entrance test. "I might have lost about Rs.10,000 for spending my time with the students but the ranks they got gave me an immense satisfaction," he maintained. Asked for the secret of success of his mission, Mr. Meenaiah, a native of Gopulaipallypalli in Narketpally mandal, said: "Every teacher must strive hard to - create interest on the subject among the students. Motivation works wonders among the rural students." It is remains to be seen whether other teachers emulate this concerned lecturer or not.

- S. RAMU, in Nalgonda



ALL SMILES : A. Meenaiah, lecturer in economics, with his students, all rank holders in Osmania University M.A.Economics entrance test in Nalgonda. - PHOTO: NAGARA GOPAL

Free coaching for rural students — reports from The Hindu

Indian Economy

(Second Year – 4th Semester)

Revised Syllabus 2025-26

By

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Foreword

The Nalgonda Economics Forum initiated its activity on the 12th of January 2007 and was subsequently registered on 10th May, 2013 with the registered number 297/13. This purely service oriented free coaching institution primarily aimed at training up students belonging to the rurally poor and socially and economically backward classes for admission through entrance into MA Economics course, but subsequently expanded to imparting training in a variety of areas of competitive examinations. When it came into existence some 19 years ago, almost every one of not more than ten students got selected to MA Economics course in different universities. And the Forum has now gradually, year after year, grown into fetching admission into PG Economics course to a bulky strength of as many as 800 candidates over these years. It is also to be noted that candidates trained at this Forum stood in the first rank in the PG Economics entrance examinations at Osmania University in 2009 and both at the Osmania and the Kakatiya universities subsequently in 2016, 2017 and 2018. The students of Nalgonda Economics Forum brought in the top three 1st, 2nd and 3rd ranks followed by 7th, 8th, 9th and 10th ranks in CPGET-2020. In the year 2022 our students bagged state 1st, 7th and 10th ranks. We are happy to announce our forum student 10th ranker of CPGET-2022 Chanda Pranitha awarded Osmania University Gold Medal in Economics for the year 2023-24. The CPGET 2025 results released on 8th September, 2025, our forum got excellent results, first rank secured by S. Bhuvana Laxmi, Second Rank secured by N. Ajay, Third Rank secured by A. Manasa and 6th Rank secured by Y. Lokesh. And our forum students also secured 12th, 13th, 14th, 17th & 20th Ranks.

The outstanding results achieved by our students in the UGC-NET Economics Examination (February 2026) and TGSET Economics Examination (March 2026) stand as a proud testimony to this sustained commitment. In UGC-NET Economics, five (5) candidates qualified for Assistant Professor eligibility and ten (10) candidates secured Ph.D. eligibility, while Sixteen (16) students qualified in TGSET Economics. Altogether, thirty-one (31) students qualified in the NET and SET examinations, reflecting the effectiveness of our structured academic programme, dedicated mentoring, and the sincere efforts of our students. “These achievements are not merely examination results; they represent the collective perseverance of our students, the tireless dedication of our faculty, and the unwavering support of parents and well-wishers. They reaffirm our belief that quality guidance, disciplined preparation, and continuous assessment are the pillars of academic success. The remarkable accomplishments of our students inspire us to strive for even greater heights in the years to come.”

As part of the extended areas of training programmes in different areas of competitive examinations, in addition to the basically mooted out MA Economics entrance training, the following are the achievements to our credit. Larger number of students trained here were qualified to SET and NET and 10 members of forum students were awarded Ph.D. in Economics. In the year 2024, 41 candidates of our forum were selected as Govt Junior Lecturers, 10 candidates were selected as Degree Lecturers and 12 candidates were selected as Junior Lecturers at Residential Degree & Junior Colleges respectively in the state. A notable number of 100 above candidates trained here are now working as Economics faculty in different private unaided junior and degree colleges.

The Forum so far brought out Six Text Books in English and Three Text Books in Telugu for B.A Economics with ISBN number for the undergraduate students in the state, in tune with the choice based credit system that has come into vogue with the academic year 2019-20. We already published Micro Economics 1st Semester, Macro Economics 2nd Semester and Statistics for Economics 3rd Semester Text Books with ISBN number, as per new syllabus (2025-26) which is designed incorporating Artificial Intelligence concepts which are ruling present world Economy. Now we are bringing out Indian Economy 4th Semester Text Book as per new syllabus along with ISBN Number.

It is also to be mentioned here that the Forum, with a view to be in tune with the changing examination patterns year after year, has been keeping on updating itself and catering to the newest needs of the examination goers. It is particularly in this process that, apart from imparting training directly in classroom situations, Forum created a website of its own to help the students face the computer-based tests, besides providing study material on-line, bringing to the doorsteps the latest relevant information that boosts up the students' morale and self-confidence. As has already been mentioned, Forum created a website of its own to help the students in ways more than one and started providing study material on-line. The Forum started YouTube channel on 17th April 2020 and as yet uploaded 600 video lessons on Economics subject. This Forum channel was monetized on 21st November 2020. As on 7th November 2026, the channel bagged 6006 subscribers.

Another innovative achievement of the Nalgonda Economics Forum is facilitating Google Meet & Zoom meeting platforms, especially at a situation of disrupted communication on account of the prevalence of Covid-19 pandemic havoc. Thus Forum successfully conducted under this roof CPGET-2020, CPGET-2021, CPGET-2022, CPGET-2023, CPGET-2024, CPGET-2025 and Junior Lecturers & Degree Lecturers coaching classes for Economics.

As mentioned in one of the columns above, there has been a sustained growth of the student potentiality since the inception of the Forum. And, besides the unhindered growth in the size of the student strength, there has been a proportionately parallel increase of the achievements of the goals the Forum has been relentlessly endeavouring to meet year after year. More specifically, the training activity at the Forum has been continuing over so many years in no way uninterrupted at any moment of time. That there has always been an affirmatively evinced confidence in the reliability of our commitment to the interests and aspirations of the students as well as to a scientifically reasoned approach to the curriculum activity stands proof positive to the continued scalability and sustainability of the motto before the Forum and its organizers. So far, 179 Life Members have contributed Rs 5,33,198 to the Forum.

I sincerely congratulate all the successful candidates and express my heartfelt appreciation to the faculty members, staff, and every individual associated with M.V.N. Vignana Kendra and the Nalgonda Economics Forum for their invaluable contributions. I hope this publication will serve as a source of inspiration for future aspirants and further strengthen our mission of fostering academic excellence in Economics.

– Dr. Akkenapally Meenaiah, M.A, M.Phil, Ph.D.
President, Nalgonda Economics Forum

BA (Economics as Major)
Semester – IV

Indian Economy

Discipline Specific Course – Paper – IV

Module I: Structure of the Indian Economy

Indian Economy at the time of Independence. Changes in the Composition of National Income and Employment. Population: Size, Growth and Demographic dividend. Poverty and Unemployment: Concept, Causes and Remedial Measures. SDGs and India.

Module II: Indian Agriculture

Importance of Agriculture. Trends in Agricultural Production and Productivity. Land Reforms. Green Revolution. Agricultural Finance. Agricultural Marketing. Agricultural Price Policy. Food Security in India, Sustainable agriculture.

Module III: Indian Industry

Importance of Industrialization, Trends in Industrial Production. Industrial Policy Resolutions: 1956, 1991 and Economic Reforms. Definition and importance of MSMEs, Make in India - Startup India.

Module IV: India's Service Sector

Concept, Components and Role of Service Sector in Indian Economy. Infrastructure: Education, Health, Transport, Banking, Insurance, and Information Technology. Introduction to Gig and Digital Economy.

Module-V: Planning and NITI Aayog

Achievements and Limitations of Five Years Plans in India, NITI Aayog: structure, composition, objectives and Functions. Critical appraisal of NITI Aayog.

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MODULE

1

Structure of the Indian Economy

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1.0 Introduction

At Independence, India was a poor, stagnant and agrarian economy shaped by nearly two centuries of colonial rule. Since then, the share of agriculture in national income has fallen sharply, and services have become the largest sector, contributing more than half of GDP. Employment, however, has shifted slowly: nearly half of all workers still depend on agriculture, which shows low productivity and disguised unemployment. India's population grew rapidly after 1951, but fertility has now fallen below the replacement level, and India has entered the later stages of demographic transition. The country has a very large working-age population, and this demographic dividend can raise growth only if young people are educated, skilled, healthy and productively employed. Poverty has declined considerably by both income and multidimensional measures, but unemployment — especially among educated youth — and informality remain serious problems. Government programmes such as MGNREGA, NRLM, the National Food Security Act and Skill India address these problems, and India has linked its development policies to the 17 Sustainable Development Goals of the UN's 2030 Agenda, monitored by NITI Aayog.

1.1 Indian Economy at the time of Independence

India became independent on 15 August 1947 after nearly 190 years of British rule. Colonial policy treated India mainly as a supplier of raw materials to British industries and as a market for British manufactured goods. As a result, India, once famous for its fine textiles, metal work and handicrafts, was reduced to a poor agricultural economy. Economists such as Dadabhai Naoroji (*Poverty and Un-British Rule in India*), **R.C. Dutt** and **M.G. Ranade** described this as the **drain of wealth** from India to Britain.

Main features of the Indian economy at the time of Independence:

1. **Stagnant and backward economy:** National income grew by less than 1 per cent a year between 1900 and 1947, and per capita income grew by only about 0.1–0.5 per cent a year. Estimates by Dadabhai Naoroji, William Digby, V.K.R.V. Rao and others showed that India's per capita income was among the lowest in the world.

2. **Widespread poverty:** A very large proportion of the population lived in extreme poverty. Famines were frequent; the Bengal Famine of 1943 alone killed about 30 lakh people.
3. **Dominance of agriculture:** About 70–72 per cent of the workforce was engaged in agriculture, which contributed nearly half of national income. Yet agriculture was stagnant and backward, for the following reasons:
    1. Exploitative land tenure systems — the **Zamindari** system (Permanent Settlement, 1793) in Bengal, Bihar and Odisha, the **Mahalwari** system in north India and the **Ryotwari** system in Madras and Bombay.
    2. Very high land revenue and rents, absentee landlordism and sub-infeudation.
    3. Heavy rural indebtedness to moneylenders.
    4. Dependence on monsoons and lack of irrigation, fertilisers and modern technology.
    5. **Commercialisation of agriculture:** farmers were forced to grow cash crops such as indigo, cotton and jute for British industries, at the cost of food crops.
4. **Decline of handicrafts (de-industrialisation):** Indian handicrafts, especially cotton and silk textiles, were ruined by discriminatory tariffs, the import of cheap machine-made British goods and the loss of royal patronage. Lakhs of artisans were forced to depend on agriculture.
5. **Weak and lopsided industrial base:** Modern industry began only in the second half of the nineteenth century with cotton textile mills in Bombay and Ahmedabad and jute mills in Bengal. The Tata Iron and Steel Company (TISCO) was set up in 1907. However, capital goods and machine-building industries were almost absent, and industry contributed only about 10–11 per cent of national income.
6. **Poor infrastructure:** Railways (first line in 1853), roads, ports, posts and telegraphs were developed mainly to move raw materials to ports and to serve British administrative and military needs, not for the development of the economy.
7. **Pattern of foreign trade:** India exported raw materials such as raw cotton, jute, silk, indigo, sugar and food grains, and imported finished consumer goods and machinery. Britain controlled more than half of India's foreign trade. The export surplus was used to pay for the Home Charges, the expenses of British administration, pensions and interest and did not benefit India.

8. **Demographic and social backwardness:**

1. Literacy rate: about 18 per cent (Census 1951); female literacy below 9 per cent.
2. Life expectancy: about 32 years.
3. Very high crude death rate (about 25 per 1,000) and infant mortality rate (about 146 per 1,000 live births).
4. Poor public health, sanitation and medical facilities.

9. **Occupational structure:** About 72 per cent of workers were in agriculture, 10 per cent in manufacturing and 15–18 per cent in services, with little change during the colonial period. Dependence on agriculture actually increased in some regions such as Odisha, Rajasthan and Punjab.
10. **Impact of Partition:** The Partition of 1947 separated the jute- and cotton-growing areas (now in Bangladesh and Pakistan) from the mills in India, disrupted trade and communications, and created a huge refugee problem.

Although the overall effect was harmful, British rule left behind a railway network, a unified administrative and legal system, modern banking and education institutions, and the use of English, which later proved useful.

Independent India thus inherited a stagnant, poor, agrarian and dependent economy. These conditions explain why Indian leaders adopted economic planning, gave a leading role to the public sector, emphasised land reforms and heavy industry, and aimed at self-reliance and social justice.

1.2 Changes in the Composition of National Income

The composition of national income refers to the contribution of the different sectors of the economy to Gross Domestic Product (GDP) or Gross Value Added (GVA). Following the classification of Allan Fisher and Colin Clark, the economy is divided into three sectors:

1. **Primary sector:** agriculture, forestry, fishing and quarrying. These activities depend directly on natural resources.
2. **Secondary sector (industry):** manufacturing, construction, electricity, gas and water supply, and mining.

3. **Tertiary sector (services):** trade, hotels, transport, communication, banking, insurance, real estate, public administration, education, health and other services.

Theory of structural change: According to the **Fisher–Clark thesis** and **Simon Kuznets**, as an economy develops, the share of the primary sector in national income and employment falls, and the shares of first the secondary and then the tertiary sectors rise. This is because (a) the demand for food grows more slowly than income, (b) productivity rises faster in industry, and (c) at higher incomes, people spend more on services.

Changes in India's sectoral composition:

Sector	1950–51	1980–81	1990–91	2010–11	2025-26
Primary (Agriculture & allied)	53–55%	38–40%	30–32%	18–19%	19.89%
Secondary (Industry)	15–17%	24–25%	25–27%	28–29%	25.85%
Tertiary (Services)	28–30%	36–37%	41–43%	52–53%	54.26%

Figures are approximate shares of GDP/GVA at current prices; exact values differ by base year (the current base year is 2011–12)..

Main trends:

1). Declining share of agriculture: The share of agriculture and allied activities has fallen from more than half of GDP to less than one-fifth. This does not mean that agricultural output has fallen; it has grown, but more slowly than industry and services.

2). **Modest rise in industry:** The share of industry rose until the 1990s and has since remained at about 25–30 per cent. The share of manufacturing alone has stayed at about 15–17 per cent, much below countries such as China (about 27–28 per cent).

3). **Rapid rise of services:** The share of services has nearly doubled, from about 30 per cent to about 55 per cent. Since the 1980s, and especially after 1991, services have been the fastest-growing sector.

Reasons for the changes:

1). Slower growth of agriculture **due to** dependence on monsoons, small holdings and limited technology kept agricultural growth at about 2.5–3.5 per cent a year.

2). Industrialisation under the Five Year Plans, raised the share of industry in the early decades.

3). Growth of public administration and defence, and the expansion of banking, insurance, transport and communication.

4). Economic reforms of 1991, liberalisation encouraged trade, finance, telecommunications and IT services.

5). IT and software revolution in India became a global hub for software and business process outsourcing.

6). Rising incomes leads to demand for education, health, tourism, entertainment and other services increased.

7). Urbanisation and the growth of the middle class.

In most developed countries, the share of industry rose first and services expanded later. India has moved directly from agriculture to services, a pattern economists describe as service-led growth or leapfrogging the manufacturing stage. This has made India strong in IT and services exports, but it has also meant that low-skilled workers leaving agriculture have not found enough factory jobs.

1.3 Changes in the Composition of Occupational Structure

The occupational structure of a country is the distribution of its working population among the various occupations — primary, secondary and tertiary. It reflects the level of economic development: in developed countries, less than 5 per cent of workers are in agriculture, while in poor countries the share is very high.

Changes in India's occupational structure:

Sector	1951	1971	1993–94	2011–12	2026 PLFS
Primary	72%	72%	64%	49%	38.7%
Secondary	11%	11%	15%	24%	26.7%
Tertiary	17%	17%	21%	27%	34.6%

Key observations:

1. **Slow change for decades:** Between 1951 and 1971, the occupational structure remained almost unchanged; about 72 per cent of workers stayed in agriculture.

2. **Faster shift after the 1990s:** The share of agriculture fell to below 50 per cent by 2011–12, as workers moved to construction and services.
3. **Reversal during COVID-19:** During 2019–21, many migrant workers returned to villages, and the share of agriculture in employment temporarily rose.
4. **Mismatch between output and employment:** Agriculture produces about 18 per cent of output but employs about 46 per cent of workers. Hence output per worker in agriculture is only about one-third of the national average. This indicates disguised unemployment and underemployment in agriculture.
5. **Construction as the main absorber:** Much of the labour leaving agriculture has gone into construction rather than manufacturing; manufacturing employs only about 11–12 per cent of workers.
6. **Informal employment:** More than 80–90 per cent of workers are in the informal or unorganised sector, without written contracts, regular wages or social security.
7. **Self-employment dominates:** About half of the workforce is self-employed; regular salaried workers are about one-fifth, and casual workers form the rest.
8. **Low female participation:** The female labour force participation rate was very low (around 23 per cent in 2017–18), though it has risen to above 40 per cent in recent PLFS rounds, mainly in rural self-employment.

Reasons for the slow change in occupational structure:

1. **Rapid growth of population and labour force:** new entrants exceeded the jobs created outside agriculture.
2. **Capital-intensive industrialisation:** the plans emphasised heavy industry, which created few jobs.
3. **Slow growth of labour-intensive manufacturing**, partly because of infrastructure gaps, rigid labour laws and competition from China.
4. **Low levels of education and skills**, which keep workers from moving to non-farm jobs.
5. **Low urbanisation and limited mobility of labour.**
6. **Jobless growth of services:** high-growth services such as IT and finance need few, highly skilled workers.

Measures to change the occupational structure

1. Promotion of labour-intensive manufacturing (textiles, footwear, food processing, electronics assembly).
2. Development of MSMEs and rural industries.
3. Skill development — Skill India Mission, PM Kaushal Vikas Yojana, ITIs and apprenticeships.
4. Growth of rural non-farm employment through agro-processing, dairying, tourism and handicrafts.
5. **Labour reforms** — the four Labour Codes consolidating 29 central laws.
6. Expansion of infrastructure and urbanisation to create jobs in construction and services.

1.4 Population: Size and Growth

Population is both a resource and a challenge. A large, healthy and skilled population can be an asset for development, but rapid population growth puts pressure on food, land, employment and public services. The study of population is called demography, and population data in India are collected mainly through the decennial Census (first synchronous Census in 1881) and the Sample Registration System (**SRS**).

Size of India's population:

1901: 23.8 crore

1951: 36.1 crore

1971: 54.8 crore

1991: 84.6 crore

2011: 121.09 crore (Census 2011)

2026: 148 (Projected)

India became the most populous country in the world around 2023, overtaking China; its population is now estimated at more than 140 crore (UN estimates).

India has about 17.8 per cent of the world's population but only 2.4 per cent of the world's land area and about 4 per cent of its fresh water resources.

Growth of population — four phases (Census data):

Phase	Period	Nature	Reasons
I	1901–1921	Stagnant population	High birth rate and high death rate; famines, plague and the influenza epidemic of 1918. Population fell in 1911–21.
II	1921–1951	Steady growth	Death rate began to fall due to better control of famines and diseases. 1921 is called the *Year of the Great Divide*.
III	1951–1981	Rapid growth (population explosion)	Death rate fell sharply due to modern medicine and public health, while the birth rate remained high. Annual growth exceeded 2 per cent.
IV	1981 onwards	High growth with signs of decline	Birth rate began to fall due to family planning, education and urbanisation. Decadal growth fell from 24.7% (1971–81) to 17.7% (2001–11).

Theory of Demographic Transition: India's experience fits the **theory of demographic transition**, which explains population change in stages:

1. **Stage I — High stationary stage:** both birth and death rates are high; population grows slowly (India before 1921).
2. **Stage II — Early expanding stage:** the death rate falls rapidly while the birth rate stays high; population grows very fast (India 1951–1981).
3. **Stage III — Late expanding stage:** the birth rate also begins to fall; growth slows down (India since the 1980s).
4. **Stage IV — Low stationary stage:** both birth and death rates are low; population becomes stable (developed countries).

India is now in the late third stage. Its Total Fertility Rate (TFR), the average number of children per woman, has fallen from about 6 in 1951 to about 2.0, below the replacement level of 2.1. However, because of the large number of young people, the population will continue to grow for some decades before stabilising.

Other demographic features (Census 2011):

1). Sex ratio: 943 females per 1,000 males (child sex ratio 919).

2). Literacy rate: 74.04 per cent (male 82.1 per cent, female 65.5 per cent).

3). Density: 382 persons per sq. km.

4). Urbanisation: 31.2 per cent urban, 68.8 per cent rural.

5). Age structure: about 30.8 per cent below 15 years, 60.3 per cent in the working ages 15-59 and about 8.9 per cent aged 60 and above.

Causes of rapid population growth

Causes of high birth rate:

1. Early and universal marriage.
2. Illiteracy, especially among women.
3. Poverty, children are seen as a source of income and old-age security.
4. Preference for sons.
5. Religious and social beliefs and traditions.
6. Lack of awareness and access to family-planning methods.
7. High infant mortality, which leads parents to have more children.

Causes of the falling death rate:

1. Control of epidemics such as plague, cholera and smallpox.
2. Better medical facilities, vaccines and antibiotics.
3. Improved food supply and famine relief.
4. Better sanitation and safe drinking water.

Effects of rapid population growth:

1. Pressure on food supply and land; fragmentation of holdings.
2. Unemployment and underemployment.
3. Low per capita income and slower improvement in living standards.
4. Low savings and capital formation, because a large part of income is spent on consumption.
5. Pressure on social infrastructure — schools, hospitals, housing, transport and water.
6. Environmental degradation — deforestation, pollution and depletion of groundwater.
7. Growth of slums and urban congestion.

Population policy in India:

1). India was the **first country in the world** to adopt an official family planning programme (1952).

2). National Population Policy, 1976: proposed raising the legal age of marriage and linked central assistance to population control.

3) The Emergency period (1975–77) saw coercive sterilisation, which made the programme unpopular; it was later renamed the Family Welfare Programme.

4). National Population Policy, 2000:

i. Immediate objective: meet the unmet need for contraception and health infrastructure.
ii. Medium-term objective: bring TFR to replacement level (2.1) by 2010.
iii. Long-term objective: achieve a stable population by 2045.

5). National Health Mission and **Mission Parivar Vikas (2016)** for high-fertility districts.

1.5 Demographic Dividend

Demographic dividend refers to the accelerated economic growth that can result from a change in the age structure of a country's population, when the share of the working-age population 15–64 years becomes larger than the share of the dependent population, children 0–14 years and the elderly 65 years and above. The United Nations Population Fund describes it as the economic growth potential that can result from shifts in a population's age structure. The dependency ratio is the number of dependants 0–14 years age and 65 years age above per 100 persons of working age 15–64. When fertility falls, the dependency ratio declines, creating a window of opportunity for faster economic growth

India's demographic position:

1). About two-thirds of India's population is in the working-age group.

2). India's median age is about 28–29 years, compared with about 38–39 in China and the USA and nearly 49 in Japan.

3). India will contribute a large share of the world's new workers in the coming decades.

4). The window of the demographic dividend opened around 2005–06 and is expected to remain open until about the 2040s.

Demographic dividend - Economic growth:

1. **Labour supply effect:** A larger working-age population increases the labour force and potential output.
2. **Savings effect:** With fewer dependants, households save more, raising the rate of saving.
3. **Investment effect:** Higher savings finance higher investment in physical and human capital.
4. **Human capital effect:** Smaller families can spend more on the education and health of each child.
5. **Women's participation effect:** Falling fertility allows more women to join the labour force.
6. **Demand effect:** A young earning population increases demand for housing, consumer goods and services.
7. **Innovation and entrepreneurship:** Young people are more open to new technology and enterprise.

The demographic dividend is not automatic. If young people remain unemployed, unskilled or unhealthy, the dividend can become a demographic burden or disaster, leading to frustration, unrest and crime. Specific challenges are:

1. Low quality of education and poor learning outcomes.
2. Low skill levels, only a small proportion of the workforce has formal vocational training, compared with much higher levels in Germany or South Korea.
3. Lack of productive jobs, especially in manufacturing.
4. Low female labour force participation.
5. Malnutrition and poor health, which reduce productivity.
6. Regional imbalance, the dividend in India is uneven across states.

Measures to reap the demographic dividend:

1. **Quality education:** National Education Policy 2020, National Initiative for Proficiency in Reading with Understanding and Numeracy (NIPUN Bharat), and the expansion of higher education.
2. **Skill development:** Skill India Mission (2015), PM Kaushal Vikas Yojana, apprenticeship schemes and vocational education in schools.
3. **Health and nutrition:** Ayushman Bharat, Prime Minister's Overarching Scheme for Holistic Nourishment (POSHAN) Abhiyaan and the National Health Mission.
4. **Employment generation:** labour-intensive manufacturing, MSMEs, Make in India, Startup India and the PLI schemes.
5. **Women's empowerment:** education of girls, safe workplaces, childcare facilities and Stand-Up India.
6. **Entrepreneurship and self-employment:** Micro Units Development and Refinance Agency Ltd. (MUDRA) loans and PMEGP.
7. **Planning for an ageing population** in states with early ageing.

1.6 Poverty: Concept, Causes and Remedial Measures

Poverty is a condition in which a person or household cannot meet the minimum basic needs of life, food, clothing, shelter, health care and education. In economic terms, poverty is a situation of low income and low consumption.

Types of poverty:

1. **Absolute poverty:** measured against a fixed minimum standard of living called the poverty line. A person whose income or consumption is below the poverty line is considered poor. This concept is used in developing countries such as India.
2. **Relative poverty:** measured by comparing the income of one group with that of others in the same society. It reflects inequality and is used in developed countries. Measures include the Lorenz curve and the Gini coefficient.
3. **Multidimensional poverty:** considers deprivation in several dimensions at the same time, health, education and standard of living, as in the United Nations Development Programme (UNDP) and Oxford Poverty and Human

Development Initiative (OPHI) two organisations prepare together: Global Multidimensional Poverty Index (MPI) and NITI Aayog's National MPI.

4. **Chronic and transient poverty:** chronic poverty lasts for a long time; transient poverty is temporary, due to a shock such as drought or illness.

The poverty line in India:

1. **1962 Working Group:** a minimum consumption of ₹20 per person per month at 1960–61 prices.
2. **Dandekar and Rath (1971):** a minimum intake of 2,250 calories per day.
3. **Alagh Task Force (1979):** 2,400 calories per person per day in rural areas and 2,100 calories in urban areas; the poverty line was based on the expenditure needed for this.
4. **Lakdawala Committee (1993):** state-specific poverty lines adjusted by consumer price indices.
5. **Tendulkar Committee (2009):** moved away from calories to a broader consumption basket including health and education; uniform poverty line baskets for rural and urban areas.
6. **Rangarajan Committee (2014):** raised the poverty line to about ₹32 per day in rural areas and ₹47 in urban areas (2011–12 prices).

Causes of poverty in India:

Economic causes:

1. Low growth of the economy in the early decades (about 3.5 per cent a year until 1980).
2. Slow growth and low productivity of agriculture, on which most of the poor depend.
3. Unemployment and underemployment.
4. Unequal distribution of land and assets: most rural poor are landless labourers or marginal farmers.
5. Inflation, especially of food prices, which reduces the real income of the poor.
6. Lack of capital and a low rate of capital formation.
7. Lack of infrastructure in backward regions.

Demographic causes:

8. Rapid population growth and large family size among poor households.

Social and political causes:

9. Illiteracy and lack of skills.
10. Caste system and social discrimination, which restrict access to land, education and jobs.
11. Gender inequality.
12. Poor implementation of programmes and leakages through corruption.

Regional causes:

13. Regional imbalances: poverty is concentrated in states such as Bihar, Jharkhand, Uttar Pradesh, Madhya Pradesh and Odisha, and among Scheduled Castes and Scheduled Tribes.

Remedial measures

1. **Wage employment programmes:** Food for Work Programme (1977), NREP (1980), RLEGP (1983), Jawahar Rozgar Yojana (1989). **Mahatma Gandhi National Rural Employment Guarantee Act (MGNREGA), 2005:** a legal guarantee of 100 days of unskilled wage employment per year to every rural household that demands it.
2. **Self-employment programmes:** Integrated Rural Development Programme (IRDP, 1978–80), Swarnajayanti Gram Swarozgar Yojana (1999). **Deendayal Antyodaya Yojana – National Rural Livelihoods Mission (DAY-NRLM, 2011)** — organises poor women into Self-Help Groups and links them with bank credit. **DAY-National Urban Livelihoods Mission** for the urban poor; **PM SVANidhi** for street vendors.
3. **Food security:** Public Distribution System, Antyodaya Anna Yojana and the **National Food Security Act, 2013**; free foodgrains under **PM Garib Kalyan Anna Yojana**.
4. **Housing and basic amenities:** Pradhan Mantri Awas Yojana (Gramin and Urban), Swachh Bharat Mission, Jal Jeevan Mission (tap water), Saubhagya (electricity) and Ujjwala (LPG).
5. **Social security:** National Social Assistance Programme (old-age, widow and disability pensions), Atal Pension Yojana, PM Jeevan Jyoti and PM Suraksha

Bima Yojana.

6. **Health:** Ayushman Bharat – PM Jan Arogya Yojana.
7. **Financial inclusion and Direct Benefit Transfer:** the **JAM trinity** — Jan Dhan accounts, Aadhaar and Mobile — has reduced leakages in welfare payments.
8. **Land reforms** and redistribution of surplus land.
9. **Education and skill development** for the long-term removal of poverty.

1.7 Unemployment: Concept, Types, Causes and Remedial Measures

Unemployment is a situation in which persons who are able and willing to work at the prevailing wage rate do not find work. Persons who are not willing to work, or who are unable to work, are not counted as unemployed. In India, the working age is taken as 15 years and above.

The labour force consists of employed persons together with unemployed persons who are seeking or available for work. The Labour Force Participation Rate (LFPR) is the labour force expressed as a percentage of the population, while the Worker Population Ratio (WPR) is the number of employed persons expressed as a percentage of the population. The Unemployment Rate (UR) is the number of unemployed persons expressed as a percentage of the labour force, not of the total population.

Types of unemployment in India:

1. **Disguised unemployment:** More people are engaged in a work than are actually needed, so that the marginal productivity of the extra workers is zero. If some of them are withdrawn, total output does not fall. It is common in Indian agriculture, where all members of a family work on a small plot. The concept was developed by Joan Robinson and applied to developing countries by Ragnar Nurkse.
2. **Seasonal unemployment:** Workers are employed only during certain seasons like sowing and harvesting and remain idle for 4–6 months of the year. This is Common in agriculture and agro-based industries such as sugar mills.
3. **Industrial unemployment:** Workers who migrate from rural areas fail to find jobs in industries, which grow slowly and use capital-intensive methods.

4. **Educated unemployment:** Educated persons, especially graduates, are unable to find suitable jobs. This is due to the mismatch between the education system and the needs of the job market. Unemployment rates are highest among youth with higher education.
5. **Structural unemployment:** caused by long-term changes in the structure of the economy, new technology, changes in demand, or a mismatch of skills. Common in developing countries because of a lack of capital.
6. **Frictional unemployment:** temporary unemployment when workers change jobs or new workers search for jobs.
7. **Cyclical unemployment:** caused by a fall in aggregate demand during recessions; more relevant to developed countries.
8. **Technological unemployment:** caused by automation and new technology that replaces workers.
9. **Underemployment:** A person works for fewer hours than he or she is willing to work, or works in a job that does not use his or her skills fully.
10. **Open unemployment:** persons who are willing and able to work have no work at all.

The National Statistical Office (NSO) measures unemployment through the **Periodic Labour Force Survey (PLFS)**, launched in 2017 (earlier through NSSO employment–unemployment surveys). Three approaches are used:

1. **Usual Status:** Usual Status is a concept used in the Periodic Labour Force Survey (PLFS) in India to measure a person's employment or unemployment situation over a long reference period of 365 days (one year). Based on the person's activity during the major part of the previous 365 days. It measures chronic unemployment.
2. **Current Weekly Status (CWS):** based on the activity during the previous 7 days. It measures weekly and seasonal unemployment.
3. **Current Daily Status (CDS):** based on the activity on each day of the previous week. It is the most comprehensive measure, covering chronic and seasonal unemployment and underemployment.

According to recent PLFS reports, the unemployment rate by usual status for persons aged 15 years and above has fallen from about 6.1 per cent in 2017–18 to

around 3–4 per cent recently. However, youth unemployment (15–29 years), especially among graduates in urban areas, is much higher.

Causes of unemployment in India:

1. **Rapid growth of population and labour force:** millions of new workers enter the labour market every year.
2. **Slow growth of employment:** the economy has grown, but employment has grown much more slowly, the problem of jobless growth.
3. **Capital-intensive technology:** industries prefer machines to labour because of cheap capital, labour laws and global competition.
4. **Slow growth of agriculture and lack of non-farm rural jobs.**
5. **Decline of cottage and small industries** due to competition from large firms and imports.
6. **Defective education system:** emphasis on general education with little vocational or skill content; mismatch between skills and jobs.
7. **Low mobility of labour** due to family ties, language, culture and the cost of migration.
8. **Inadequate infrastructure** — power, transport and credit — which limits the growth of enterprises.
9. **Seasonal nature of agriculture.**
10. **Social factors** — caste and gender restrictions on occupations.

Effects of unemployment:

Unemployment means that people who are willing and able to work at the prevailing wage cannot find work. It is one of the most serious problems of a developing economy like India, and its effects reach beyond economics into society and politics.

1. Loss of Output and Income: Every unemployed worker is output that could have been produced but was not. The economy operates below its potential GDP. The unemployed person loses income. As a result, consumption, savings and investment in the economy also fall. Lower demand causes further layoffs, so unemployment tends to perpetuate itself. This is the **vicious circle** of low income → low demand → low employment.

2. Poverty: In India, most people depend on wage income or self-employment for their living. Loss of work leads directly to loss of livelihood. Unemployment and poverty are closely linked. A large part of India's poverty is caused by underemployment and disguised unemployment in agriculture and the informal sector. Poor families cannot afford adequate nutrition, health care or education for their children. Poverty therefore passes on to the next generation.

3. Inequality: When jobs are scarce, the benefits of growth go mainly to those who own capital and to the skilled and employed. The unemployed fall further behind. This widens **income and wealth inequality** in several directions: between rich and poor, urban and rural areas, educated and uneducated people, and men and women. Concentration of income reduces aggregate demand and slows balanced development.

4. Wastage of Human Resources: Labour is the only factor of production that cannot be stored. A day of labour lost is lost forever. India's **demographic dividend**, its large working-age population, becomes a **demographic burden** if it is not productively employed. Educated unemployment wastes the investment that society and families have made in education and training. Long periods without work also cause skills to erode and workers to lose confidence. This is called **de-skilling**.

5. Social Problems: Crime and Drug Abuse: Idle and frustrated people, especially young people, are more vulnerable to theft, violence, gambling and other anti-social activities. Unemployment is associated with **alcoholism and drug abuse** as a means of escape. It also strains family life and can lead to domestic conflict, family breakdown, and migration under distress conditions.

6. Frustration among Youth: Educated youth who cannot find jobs that match their qualifications feel disappointment, loss of self-respect and hopelessness. This can lead to **mental stress and depression**, a loss of faith in education and in the system, and brain drain as qualified people go abroad. Frustrated youth may also be drawn into extremist or violent movements.

7. Political Instability: Widespread unemployment creates **discontent with the government** and can lead to agitations, strikes and protests. It can fuel regional, caste-based or communal tensions as groups compete for scarce jobs and reservations. Extremist movements often recruit from unemployed youth. Persistent unemployment therefore weakens democratic institutions and social harmony.

Governments facing such pressure may adopt short-term populist measures instead of long-term development policies.

Unemployment is a loss to the individual, to society and to the nation. It reduces national output, deepens poverty and inequality, wastes human potential, and threatens social peace and political stability. Generating productive employment is therefore one of the central objectives of India's economic planning and policy. Examples of this include MGNREGA, skill development programmes such as PMKVY, Start-up India, and the promotion of MSMEs.

Remedial measures:

1. Raising the rate of investment and economic growth.
2. Labour-intensive industrialisation — textiles, garments, leather, food processing, toys and electronics assembly.
3. Development of agriculture — irrigation, multiple cropping, horticulture, dairying and fisheries.
4. Promotion of MSMEs and rural industries.
5. Population control.
6. Educational reform with emphasis on vocational and technical education (NEP 2020).
7. Development of infrastructure — roads, housing, power and irrigation create large employment.
8. MGNREGA — rural wage employment.
9. Prime Minister's Employment Generation Programme (PMEGP, 2008) — credit-linked subsidy for micro-enterprises.
10. Skill India Mission and PM Kaushal Vikas Yojana (2015) — short-term skill training.
11. Pradhan Mantri MUDRA Yojana (2015) — collateral-free loans for small businesses (limit raised to ₹20 lakh).
12. Startup India and Stand-Up India (2016).
13. Deendayal Upadhyaya Grameen Kaushalya Yojana, placement-linked skilling for rural youth.
14. Employment-Linked Incentive (ELI) schemes announced in the Union Budget 2024–25.

1.8 Sustainable Development Goals (SDGs) and India

The Brundtland Commission report Our Common Future (1987) defined sustainable development as development that meets the needs of the present without compromising the ability of future generations to meet their own needs. It has three pillars: economic growth, social inclusion and environmental protection.

The Millennium Development Goals (MDGs) — 8 goals adopted by the UN in 2000 for the period 2000–2015, focused mainly on poverty, hunger, education, health and gender equality in developing countries. They were followed by the Sustainable Development Goals (SDGs), adopted by the 193 member countries of the United Nations in September 2015 as part of the 2030 Agenda for Sustainable Development. The SDGs consist of 17 goals and 169 targets, measured through about 230 indicators, to be achieved by 2030. Their central principle is to leave no one behind.

The 17 Sustainable Development Goals:

No.	Goal	No.	Goal
1	No Poverty	10	Reduced Inequalities
2	Zero Hunger	11	Sustainable Cities and Communities
3	Good Health and Well-being	12	Responsible Consumption and Production
4	Quality Education	13	Climate Action
5	Gender Equality	14	Life below Water
6	Clean Water and Sanitation	15	Life on Land
7	Affordable and Clean Energy	16	Peace, Justice and Strong Institutions
8	Decent Work and Economic Growth	17	Partnerships for the Goals
9	Industry, Innovation and Infrastructure		

The goals are often grouped into the **5 Ps**: People, Planet, Prosperity, Peace and Partnership.

Features of the SDGs:

1. **Universal** — they apply to both developed and developing countries.
2. **Integrated and indivisible** — progress in one goal affects others.
3. **Comprehensive** — they cover economic, social and environmental dimensions.

4. **Voluntary and nationally owned** — each country sets its own targets and reports progress through Voluntary National Reviews.

India and the SDGs — institutional framework:

1. NITI Aayog is the nodal agency for coordinating the implementation of SDGs in India. It maps each goal to central ministries and schemes.

2. The Ministry of Statistics and Programme Implementation (MoSPI) has developed the National Indicator Framework to monitor progress.

3. NITI Aayog publishes the SDG India Index (first in 2018), which ranks states and union territories on their performance. India's composite score has improved in successive editions (from 57 in 2018 to 71 in 2023–24, approximately). Kerala, Uttarakhand and Tamil Nadu have usually been among the front-runners.

4. States have prepared their own SDG vision documents, and some districts have SDG dashboards (localisation of SDGs).

Linking major Indian schemes with the SDGs:

SDG	Indian schemes and programmes
1 No Poverty	MGNREGA, DAY-NRLM, PM Awas Yojana, NSAP
2 Zero Hunger	National Food Security Act, POSHAN Abhiyaan, PM POSHAN, PM-KISAN
3 Good Health	Ayushman Bharat, National Health Mission, Mission Indradhanush
4 Quality Education	Samagra Shiksha, NEP 2020, NIPUN Bharat
5 Gender Equality	Beti Bachao Beti Padhao, Stand-Up India, Women's Reservation Act 2023
6 Clean Water and Sanitation	Swachh Bharat Mission, Jal Jeevan Mission, Namami Gange
7 Clean Energy	PM Ujjwala Yojana, Saubhagya, National Solar Mission
8 Decent Work	Skill India, MUDRA, Startup India, Labour Codes
9 Industry and Infrastructure	Make in India, Bharatmala, Sagarmala, Digital India
11 Sustainable Cities	Smart Cities Mission, AMRUT, PM Awas Yojana (Urban)
13 Climate Action	National Action Plan on Climate Change, Mission LiFE, net-zero by 2070

India has made notable progress in reducing extreme poverty, expanding access to sanitation, electricity, clean cooking fuel and drinking water, increasing school enrolment, and expanding renewable energy. The SDGs provide a comprehensive framework for inclusive and sustainable development. India's success in achieving them is crucial for the world, because India has about one-sixth of the world's population.

1.9 Model Examination Questions

Short Answer Questions

1. State any four features of the Indian economy at the time of Independence.
2. What is meant by occupational structure?
3. What is demographic dividend?
4. Distinguish between absolute poverty and relative poverty.
5. What is disguised unemployment?

Essay Questions

1. Describe the state of the Indian economy at the time of Independence.
2. Explain the changes in the composition of national income and employment in India since 1950–51.
3. Discuss the size and growth of India's population. How can India reap its demographic dividend?
4. Explain the causes of poverty in India and the measures taken to reduce it.
5. What are the types and causes of unemployment in India? Suggest remedial measures.

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MODULE

2

Indian Agriculture

2.0 Introduction

2.1 Importance of Agriculture

2.2 Trends in Agricultural Production and Productivity

2.3 Land Reforms

2.4 Green Revolution

2.5 Agricultural Finance

2.6 Agricultural Marketing

2.7 Agricultural Price Policy

2.8 Food Security in India

2.9 Sustainable Agriculture

2.10 Model Examination Questions

2.0 Introduction

Agriculture remains the backbone of the Indian economy: it employs nearly half of the workforce; feeds more than 140 crore people and supplies raw materials to industry, even though its share in national income has fallen below one-fifth. Food grain production has risen more than six-fold since 1950–51, mainly because of higher yields after the Green Revolution, yet productivity is still low compared with other countries because of small holdings, dependence on monsoons and inadequate investment. Land reforms abolished intermediaries and protected tenants, but ceiling laws and consolidation of holdings achieved only partial success. Institutional credit from cooperatives, commercial banks, Regional Rural Banks and NABARD has replaced much of the moneylender's role, while regulated markets, e-NAM and the minimum support price system aim to give farmers fair prices. The National Food Security Act, 2013 provides subsidised or free foodgrains to about two-thirds of the population. The challenge now is to make agriculture sustainable by saving water and soil, promoting organic and natural farming, diversifying crops and adapting to climate change, while raising farmers' incomes.

2.1 Importance of Agriculture

Agriculture in the broad sense includes the cultivation of crops together with allied activities such as animal husbandry, dairying, poultry, fisheries, forestry and horticulture. In India, agriculture is not merely an occupation but a way of life for the majority of the rural population. Mahatma Gandhi said that India lives in her villages, and the prosperity of the villages depends on agriculture.

Importance of agriculture in the Indian economy:

1. **Share in national income:** Agriculture and allied activities contributed more than half of India's national income in 1950–51. Their share has now fallen to about 17–18 per cent of GVA. Although the share has declined, the absolute output has increased steadily, and agriculture still contributes a large part of rural income.
2. **Largest source of employment:** About 46 per cent of India's workforce depends on agriculture for its livelihood (PLFS). In rural areas, the share is even higher. No other sector employs so many people.

3. **Source of food supply:** Agriculture supplies food to the world's largest population. A shortage of food leads to inflation, hunger and dependence on imports, as India experienced in the 1960s. Self-sufficiency in food is essential for national security.
4. **Supply of raw materials to industry:** Many important industries, cotton and jute textiles, sugar, vegetable oils, tea, coffee, rubber, tobacco, leather and food processing, depend on agriculture for raw materials. About half of the income of the manufacturing sector is estimated to come from agro-based industries.
5. **Market for industrial goods:** Rural households form a large market for industrial products, fertilisers, pesticides, tractors, pump sets, electricity, as well as consumer goods such as clothes, soaps, two-wheelers and mobile phones. A good monsoon and rising farm incomes increase demand for industrial goods.
6. **Contribution to foreign trade:** India is a leading exporter of rice, spices, tea, coffee, cotton, sugar, marine products, fruits and vegetables. Agricultural and allied exports form a significant part of total exports (about 11–12 per cent) and earn valuable foreign exchange.
7. **Contribution to capital formation:** In the early stages of development, the surplus from agriculture, through savings, taxes and the transfer of labo, provides resources for industrialisation.
8. **Importance for transport and trade:** Railways and roads carry large quantities of agricultural produce; internal trade depends largely on farm products.
9. **Source of government revenue:** Land revenue was once the main source of revenue of state governments. Agriculture also contributes indirectly through taxes on agro-industries and trade.
10. **Control of inflation:** Food items have a large weight in the Consumer Price Index. Good agricultural production keeps food prices and overall inflation under control.
11. **Poverty reduction:** Studies show that growth in agriculture reduces poverty two to three times more than growth in other sectors, because most of the poor live in rural areas.
12. **Basis of rural life and culture:** Festivals such as Sankranti, Pongal, Vijayadashimi and Diwali are linked to the agricultural calendar.

Because of its many roles, agriculture is described as the **backbone of the Indian economy**. Balanced economic development is not possible without the growth of agriculture.

2.2 Trends in Agricultural Production and Productivity

Agricultural production refers to the total output of crops in a year. It is measured by the Index of Agricultural Production and by the output of individual crops in tonnes.

Trends in food grain production

Year	Food grain production (million tonnes)
1950–51	51
1970–71	108
1990–91	176
2010–11	245
2025-26	376.56

Achievements in production:

1. India is the largest producer of milk in the world (about one-fourth of world output) and of pulses.
2. India is the second largest producer of rice, wheat, sugarcane, fruits, vegetables and cotton.
3. India is a major producer of tea, spices and fish.
4. India changed from a food-deficit country dependent on imports (PL-480) in the 1960s to a food-surplus country with large buffer stocks and exports.

Phases of agricultural growth:

1. **1950–1965 (pre-Green Revolution period):** Growth of about 3 per cent a year came mainly from the expansion of cultivated area, major irrigation projects and institutional reforms such as abolition of Zamindari.
2. **1966–1980 (Green Revolution period):** High Yielding Variety (HYV) seeds, fertilisers and irrigation raised yields of wheat and, later, rice. Growth was concentrated in Punjab, Haryana and western Uttar Pradesh.
3. **1980–1991 (spread of the Green Revolution):** The new technology spread to eastern and southern states and to more crops; growth became broad-based at about 3–3.5 per cent a year.

4. **1991–2004 (slowdown):** Public investment in irrigation and research fell, input subsidies rose, and growth slowed to about 2 per cent a year.
5. **2004 onwards (recovery and diversification):** Increased credit, investment, horticulture, livestock and fisheries pushed growth up to about 3.5–4 per cent a year. Allied activities now grow faster than crops.

Changes in the cropping pattern:

The share of food crops in total cropped area has fallen, while the share of non-food crops (cotton, oilseeds, sugarcane) and high-value crops (fruits, vegetables) has risen. Within foodgrains, wheat and rice have gained at the cost of coarse cereals (jowar, bajra, ragi) and pulses.

Agricultural productivity:

Productivity means output per unit of input. **Land productivity** is the yield per hectare, and **labour productivity** is output per worker. Yields of rice and wheat in India have risen three to four times since 1950–51. However, Indian yields remain well below those of China, the USA and many other countries. For example, the yield of rice in China is roughly one and a half times that in India.

Causes of low agricultural productivity:

General causes:

1. **Heavy pressure of population on land** and disguised unemployment.
2. **Rural social environment**, illiteracy, conservatism and resistance to new methods in some areas.

Institutional causes:

3. **Small and fragmented holdings:** The average size of operational holdings has fallen to about 1.08 hectares (Agricultural Census 2015–16); about 86 per cent of holdings are small and marginal (below 2 hectares).
4. **Defective land tenure** and insecurity of tenants.
5. **Inadequate credit** and dependence on moneylenders.
6. **Defective marketing** and lack of storage.

Technological causes:

7. **Dependence on monsoons:** only about half of the net sown area is irrigated.
8. **Low use of improved seeds, fertilisers and machinery** in many regions.

9. **Soil degradation** — loss of fertility, salinity and imbalanced use of fertilisers (excess urea).
10. **Inadequate research and extension services.**
11. **Crop losses** due to pests, diseases and natural calamities.

Measures to raise productivity:

1). **Expansion of irrigation** — PM Krishi Sinchayee Yojana (2015) with the slogans Har Khet Ko Pani and More Crop per Drop.

2). **Soil Health Card Scheme (2015)** for balanced use of fertilisers.

3). **PM Fasal Bima Yojana (2016)** — crop insurance.

4). Better seeds, mechanisation and agricultural research by ICAR.

5). Consolidation of holdings, land leasing reforms and Farmer Producer Organisations (FPOs).

6). Improved credit and marketing (KCC, e-NAM).

2.3 Land Reforms

Land reforms refer to the institutional changes in the system of land ownership, land use and tenancy, made to remove exploitation of cultivators, give land to the tiller and increase agricultural productivity. Land reform is a state subject under the Constitution, so laws were passed by state governments.

Need for land reforms in India:

1. To abolish the exploitative intermediaries created by British land revenue systems.
2. To give security and ownership rights to tenants.
3. To reduce inequality in land ownership.
4. To increase agricultural productivity by giving incentives to the actual cultivator.
5. To create a socially just rural society.

Components (measures) of land reforms:

1. Abolition of intermediaries:

1). The Zamindari, Jagirdari and Inamdari systems were abolished by laws passed in all states in the early 1950s (the first in Uttar Pradesh, 1950).

2). About 2 crore tenants came into direct contact with the state and became owners.

3). Compensation was paid to the zamindars.

4). Evaluation: This was the most successful land reform. However, zamindars were allowed to keep large areas for personal cultivation, and many tenants were evicted in the name of resumption.

2. Tenancy reforms:

1). Regulation of rent: Rents were fixed at not more than one-fourth to one-fifth of the gross produce (earlier tenants paid half or more).

2). Security of tenure: Tenants could not be evicted except on grounds laid down in law, such as non-payment of rent.

3). Conferment of ownership rights: Tenants were given the right to purchase the land they cultivated on payment of reasonable compensation.

4). Evaluation: Tenancy reforms were weakly implemented because most leases were oral, records were not maintained, and landlords evicted tenants or converted them into sharecroppers.

3. Ceiling on landholdings:

1). A ceiling is the maximum limit of land that an individual or family can own. Surplus land above the ceiling was to be taken over by the government and distributed to landless labourers and small farmers.

2). Ceiling laws were passed in the 1960s, and revised national guidelines in 1972 fixed the ceiling at 10–18 acres for irrigated land with two crops, and up to 54 acres for other land, with the family as the unit.

3). Evaluation: Results were disappointing. Only a small fraction of the estimated surplus land was declared, acquired and distributed, because of loopholes, benami and mala fide transfers to relatives, exemptions for orchards and plantations, and long court cases.

4. Consolidation of holdings:

1). Consolidation means combining the small and scattered plots of a farmer into one or two compact blocks.

2). It saves time and labour, makes irrigation and mechanisation easier, and reduces boundary disputes.

3). It was successful mainly in Punjab, Haryana and western Uttar Pradesh, but made little progress in other states.

5. Cooperative farming: Small farmers were encouraged to pool their land and cultivate it jointly to get economies of scale. Because of farmers' attachment to their land and the dominance of large farmers in societies, it had little success.

6. Bhoodan and Gramdan movements: Acharya Vinoba Bhave started the Bhoodan (land gift) movement on 18 April 1951 at Pochampally in Nalgonda district (now Yadadri Bhuvanagiri district), Telangana, when a landlord donated land to landless Dalit families. Landlords were persuaded to donate land voluntarily for the landless. In Gramdan, a whole village donated its land to the village community. Though inspiring, much of the donated land was uncultivable or never distributed.

7. Modernisation of land records: The Digital India Land Records Modernisation Programme (DILRMP) computerises land records, maps and registration, so that land titles are clear and disputes are reduced. Telangana's Dharani portal and Andhra Pradesh's Mee Bhoomi are examples of state initiatives.

Limitations and causes of failure:

1. Lack of political will, as many legislators were landowners.
2. Loopholes in the laws and delays in implementation.
3. Absence of up-to-date land records.
4. Oral and concealed tenancy.
5. Benami transfers to evade ceiling laws.
6. Lack of organisation and awareness among the rural poor.
7. Long legal disputes in courts.

2.4 Green Revolution

The term **Green Revolution** was coined by William Gaud of United States Agency for International Development (USAID) in 1968. It refers to the large increase in the production and productivity of foodgrains, especially wheat and rice, that followed the introduction of High Yielding Variety (HYV) seeds, together with chemical fertilisers, irrigation and pesticides, in India from 1966–67 onwards. The strategy is also known as the New Agricultural Strategy (NAS) or the HYV Programme.

Background:

1). During 1950–65, food production did not keep pace with population growth.

2). Severe droughts in 1965–66 and 1966–67 caused food shortages; India had to import large quantities of wheat from the USA under the PL-480 scheme.

3). The Indo-Pak war of 1965 underlined the need for food self-sufficiency.

4). In 1966, the government, with Agriculture Minister C. Subramaniam, adopted the new strategy. Dr. M.S. Swaminathan is known as the Father of the Green Revolution in India; he worked with Dr. Norman Borlaug, who developed the dwarf wheat varieties in Mexico and received the Nobel Peace Prize in 1970.

Components of the Green Revolution:

1. **High Yielding Variety (HYV) seeds** of wheat (Mexican dwarf varieties.
2. **Chemical fertilisers** in larger quantities.
3. **Assured irrigation** — tube wells and canals.
4. **Plant protection** — pesticides, insecticides and weedicides.
5. **Farm mechanisation** — tractors, threshers and pump sets.
6. **Multiple cropping** — growing two or three crops a year.
7. **Institutional support** — credit through cooperatives and banks, **Minimum Support Prices** (Agricultural Prices Commission, 1965), procurement by the **Food Corporation of India** (1965), and research and extension by agricultural universities and ICAR.
8. **Intensive Agricultural District Programme (IADP, 1960)** and **Intensive Agricultural Area Programme (IAAP, 1964)**, which preceded and supported the strategy.

Achievements (positive effects):

1. **Increase in production:** Wheat production rose from about 11 million tonnes in 1965–66 to more than 20 million tonnes by 1970–71 and kept rising; rice production also increased steadily.
2. **Increase in productivity:** Yields per hectare of wheat and rice increased sharply.
3. **Self-sufficiency in food:** India ended its dependence on food imports and built large **buffer stocks**; it became a net exporter of rice and wheat.
4. **Higher farm incomes** in irrigated regions, and better living standards for farmers.
5. **Commercialisation of agriculture:** farmers began producing for the market rather than for subsistence.
6. **Growth of agro-industries** — fertilisers, pesticides, tractors, pump sets and food processing.
7. **More employment** due to multiple cropping, although mechanisation later reduced some jobs.
8. **Change in farmers' attitudes** towards science and modern technology.
9. **Strengthening of the economy**, as stable food supplies helped control inflation and saved foreign exchange.

Limitations and adverse effects:

1. **Crop imbalance:** The revolution was mainly a wheat revolution, later extended to rice. Pulses, oilseeds and coarse cereals did not benefit, and their area and production lagged behind.
2. **Regional imbalance:** Benefits were concentrated in irrigated regions — Punjab, Haryana and western Uttar Pradesh, and later Andhra Pradesh and Tamil Nadu. Dry-land and rain-fed areas of eastern and central India gained little.
3. **Inequality among farmers:** Large farmers, who could afford the costly inputs and irrigation, gained much more than small and marginal farmers; rural income inequality increased.
4. **Labour displacement:** Mechanisation with tractors and harvesters reduced the demand for agricultural labour in some areas.
5. **Environmental damage:** Excessive use of fertilisers and pesticides reduced soil fertility and polluted water. Over-exploitation of groundwater led to a sharp fall

in water tables in Punjab and Haryana. Water-logging and salinity in canal-irrigated areas. Loss of biodiversity because of mono-cropping of rice and wheat.

6. **Health problems** caused by pesticide residues in food and water.
7. **Increased dependence on purchased inputs** and rising costs, leading to farm indebtedness.

Second Green Revolution and Evergreen Revolution:

To overcome these limitations, the government launched Bringing Green Revolution to Eastern India (BGREI, 2010) for states such as Bihar, Odisha, West Bengal, Assam and eastern Uttar Pradesh. M.S. Swaminathan called for an Evergreen Revolution, increasing productivity in perpetuity without associated ecological harm, through sustainable practices, water conservation and crop diversification.

Other colour revolutions in Indian agriculture:

Revolution	Related to
White Revolution (Dr. Verghese Kurien)	Milk
Blue Revolution	Fisheries
Yellow Revolution	Oilseeds
Golden Revolution	Horticulture and honey
Pink Revolution	Onions, pharmaceuticals and prawns
Silver Revolution	Eggs and poultry

2.5 Agricultural Finance

Agricultural finance means the provision of credit to farmers for agricultural and allied activities. Since most Indian farmers are poor, they cannot finance their needs from their own savings. Timely and adequate credit at reasonable interest rates is essential for buying inputs, adopting new technology and making long-term investments.

Need for agricultural credit:

1. To purchase seeds, fertilisers, pesticides and fuel.
2. To buy cattle, implements and machinery.

3. To make permanent improvements on land, wells, tube wells, drainage and fencing.
4. To pay wages to labourers.
5. To meet consumption needs between harvests and to avoid distress sales.
6. To meet losses due to droughts, floods and crop failure.

Classification of agricultural credit:

On the basis of time (period):

1). Short-term credit (up to 15 months): for seeds, fertilisers, pesticides and wages; also called crop loans.

2). Medium-term credit (15 months to 5 years): for cattle, pump sets, small machinery and land improvement.

3). Long-term credit (more than 5 years): for buying land, tractors, digging wells and planting orchards.

On the basis of purpose: productive credit and consumption credit.

I. Non-institutional sources: moneylenders, landlords, traders and commission agents, and relatives and friends. In 1951, these sources supplied more than 90 per cent of rural credit; moneylenders alone supplied about 70 per cent (All India Rural Credit Survey). They charge very high rates of interest, manipulate accounts, take land as security and often force farmers to sell their produce to them at low prices. Their share has declined to about one-third, but they are still important for small and marginal farmers (NSSO All India Debt and Investment Survey).

II. Institutional sources:

1. Cooperative Credit Societies: A cooperative credit society is a voluntary association of people, mainly farmers, who pool their resources to give credit to members at reasonable rates of interest. Its purpose is to free rural borrowers from moneylenders. The movement began in India with the **Cooperative Credit Societies Act, 1904**.

India's cooperative credit structure has **two wings**.

A. Short-term and medium-term credit (three-tier structure)

1. **Primary Agricultural Credit Societies (PACS)** work at the village level. They deal directly with farmers and give crop loans and medium-term loans.
2. **District Central Cooperative Banks (DCCBs)** work at the district level. They finance the PACS and balance surplus and deficit funds among them.
3. **State Cooperative Banks (SCBs)** are the apex bodies at the state level. They link the cooperative system with NABARD and the RBI.

B. Long-term credit

1. **State Cooperative Agriculture and Rural Development Banks (SCARDBs)** work at the state level.
2. **Primary Cooperative Agriculture and Rural Development Banks (PCARDBs)** work at the district or taluk level.

These banks were earlier called **Land Development Banks**. They give long-term loans for land improvement, minor irrigation, tractors and farm machinery, mainly against the mortgage of land.

2. Commercial banks: Before 1969, commercial banks were mainly urban-oriented and lent very little to agriculture; the All India Rural Credit Survey (1951) found they supplied only about 1 per cent of farmers' borrowings. After the nationalisation of 14 major banks in 1969 and 6 more in 1980, banks opened a large number of rural branches under the Lead Bank Scheme, and Regional Rural Banks were set up in 1975 to serve small farmers. Agriculture was made a priority sector, and banks must now lend 18 per cent of their Adjusted Net Bank Credit to it, including a sub-target of 10 per cent for small and marginal farmers. Schemes such as the Kisan Credit Card (1998), interest subvention on crop loans and refinance from NABARD have increased the flow of credit. As a result, commercial banks are now the largest source of institutional agricultural credit. However, large farmers still benefit more than small farmers and tenants, banks insist on collateral, NPAs are rising, and credit flow remains uneven across regions

3. Regional Rural Banks (RRBs):

1). Set up from 2 October 1975 on the recommendation of the Narasimham Working Group, to provide credit to small and marginal farmers, landless labourers, artisans and small entrepreneurs.

2). They are jointly owned by the Central Government (50 per cent), the sponsor bank (35 per cent) and the state government (15 per cent).

3). After amalgamation, their number has been reduced, with branches in most districts.

4). NABARD (National Bank for Agriculture and Rural Development):

1). Established on 12 July 1982 on the recommendation of the Shivaraman Committee (CRAFICARD), as the apex institution for agricultural and rural credit.

2). It does not lend directly to farmers; it provides refinance to cooperative banks, RRBs and commercial banks.

3). It manages the Rural Infrastructure Development Fund (RIDF), supervises cooperatives and RRBs, and promotes Self-Help Group–Bank Linkage (since 1992), Farmer Producer Organisations and watershed development.

Government schemes for agricultural credit:

1). Kisan Credit Card (KCC) scheme (1998): provides farmers with easy, flexible and timely short-term credit through a card; extended to animal husbandry and fisheries in 2018–19.

2). Interest Subvention Scheme: short-term crop loans up to ₹3 lakh at 7 per cent interest, reduced to an effective 4 per cent for prompt repayment.

3). PM-KISAN (2019): direct income support of **₹6,000 per year** in three installments to all landholding farmer families.

4). PM Fasal Bima Yojana (2016): crop insurance at a low premium of 2 per cent for kharif, 1.5 per cent for rabi crops and 5 per cent for commercial and horticultural crops.

5). Agriculture Infrastructure Fund (2020): ₹1 lakh crore financing facility for post-harvest infrastructure.

6). Formation and promotion of 10,000 FPOs (2020).The Central Sector Scheme for the "Formation and Promotion of 10,000 Farmer Producer Organisations (FPOs)" was launched by the Government of India in February 2020 with a budget outlay of ₹6,865 crore.

7). Loan waiver schemes — the Agricultural Debt Waiver and Debt Relief Scheme (2008) and several state waivers.

Problems of agricultural finance:

1. Inadequate credit to small and marginal farmers and tenants, who lack land titles for collateral.
2. Continued dependence on moneylenders in backward regions.
3. Regional imbalance — southern states receive a much larger share of agricultural credit than eastern and north-eastern states.

4. Heavy overdues and non-performing assets in cooperatives and banks.
5. Procedural delays, paperwork and corruption.
6. Diversion of agricultural credit for non-agricultural purposes.
7. Growing rural indebtedness, this has been linked to farmer distress.

2.6 Agricultural Marketing

Agricultural marketing covers all the activities involved in moving agricultural produce from the farm to the final consumer. These include assembling, grading and standardisation, storage, transport, processing, packaging, financing, risk-bearing and selling. According to the National Commission on Agriculture (1976), agricultural marketing begins with the decision to produce a saleable farm commodity and ends with its sale to the consumer.

Marketable surplus and marketed surplus:

1). Marketable surplus is the surplus left with the farmer after meeting family consumption, seed requirements, payments to labour in kind and other needs.

2). Marketed surplus is the quantity actually sold in the market. It may be more than the marketable surplus if the farmer is forced to sell to repay debt.

Channels of agricultural marketing in India:

1. Sale in the village to moneylenders, traders and landlords.
2. Sale in weekly markets.
3. Sale in regulated markets through commission agents.
4. Sale to cooperative marketing societies.
5. Sale to government agencies (FCI, NAFED, CCI) at MSP.
6. Direct sale to consumers, processors and retail chains; contract farming.
7. Online sale through **e-NAM**.

Defects of agricultural marketing in India:

1. **Lack of storage facilities:** Farmers lack scientific warehouses; storage losses due to rats, insects and moisture are high. They are forced to sell immediately after harvest, when prices are lowest.
2. **Distress sales:** Because of debt and the need for cash, farmers sell their produce soon after harvest to moneylenders and traders at low prices.

3. **Too many intermediaries:** A long chain of middlemen, village traders, commission agents, wholesalers and retailers, takes a large share of the consumer's rupee. The farmer often receives only one-third to half of the final price for fruits and vegetables.
4. **Malpractices in unregulated markets:** false weights and measures, heavy and unauthorised deductions, delays in payment, and secret bidding.
5. **Lack of grading and standardisation:** Produce of different qualities is mixed and sold at one price, so good farmers get no incentive.
6. **Inadequate transport:** Poor roads in rural areas increase costs and spoilage.
7. **Lack of market information:** Farmers do not know prices in different markets.
8. **Inadequate credit**, which makes farmers dependent on traders.
9. **Small marketable surplus** of most farmers and their weak bargaining power.

Measures taken by the government to improve agricultural marketing:

1). Regulated markets: Under State **Agricultural Produce Market Committee (APMC) Acts**, markets are regulated by market committees with representatives of farmers, traders and the government. They fix market charges, ensure correct weights, prevent malpractices and settle disputes. India has about 7,000 regulated markets.

2). Grading and standardisation: The **AGMARK** quality certification mark was introduced under the Agricultural Produce (Grading and Marking) Act, 1937.

3). Standard weights and measures: the metric system was introduced in 1958.

4). Warehousing: the **Central Warehousing Corporation (1957)** and State Warehousing Corporations provide scientific storage. The **Warehousing (Development and Regulation) Act, 2007** introduced negotiable **warehouse receipts**, on which farmers can obtain bank loans.

5). Cooperative marketing: primary cooperative marketing societies, state-level federations and **NAFED** (1958) help farmers obtain better prices.

6). Minimum Support Prices and procurement by FCI and other agencies.

7). Dissemination of market information through radio, TV, the AGMARKNET portal and the Kisan Suvidha app.

8). e-NAM (National Agriculture Market), 2016: a pan-India electronic trading portal that links APMC mandis to create a unified national market. More than 1,400 mandis have been integrated (approx.). It promotes transparent online bidding and online payment.

9). Model APMC Act (2003) and **Model Agricultural Produce and Livestock Marketing Act (2017):** encouraged private markets, direct marketing, contract farming and a single licence.

10). Rural Haats / Gramin Agricultural Markets (GrAMs) and support for **Farmer Producer Organisations (FPOs)**.

11). Export promotion through **APEDA** (Agricultural and Processed Food Products Export Development Authority, 1986).

12). Kisan Rail and **Krishi UDAN** for faster transport of perishables.

Note: The three Farm Laws of 2020, which sought to allow trade outside APMC markets, were repealed in 2021 after farmers' protests.

Conclusion: An efficient marketing system ensures remunerative prices to farmers, reasonable prices to consumers, and a smaller share for middlemen, and thus encourages farmers to adopt better technology and increase production.

2.7 Agricultural Price Policy

Agricultural price policy refers to the measures adopted by the government to influence the prices of agricultural commodities, so as to protect the interests of both producers and consumers and to promote the growth of agriculture. Agricultural prices fluctuate widely because farm output depends on the monsoon and weather, supply is seasonal, and much of the produce is perishable and cannot be stored for long. A bumper crop can cause prices to crash, which harms farmers, while a poor crop can cause prices to soar, which harms consumers, especially the poor. Most Indian farmers are small and marginal, so they have little holding capacity and weak bargaining power. They are often forced to sell immediately after harvest at low prices to traders and moneylenders. Since food takes a large share of household spending, food prices also affect overall inflation, wage demands and industrial costs. Without price support, farmers have no incentive to invest in better inputs and

technology or to raise production. An agricultural price policy is therefore needed to:

1. Assure farmers remunerative prices
2. Protect consumers from sharp price rises
3. Keep balanced terms of trade between agriculture and industry
4. Encourage production of the crops the country needs
5. Ensure food security through procurement and buffer stocks

Instruments and institutions of agricultural price policy:

1). Commission for Agricultural Costs and Prices (CACP): Set up in **1965** as the Agricultural Prices Commission (renamed in 1985). It recommends **Minimum Support Prices** to the government. While doing so, it considers the cost of production, demand and supply, price trends in domestic and international markets, inter-crop price parity, terms of trade, and the likely effect on consumers.

2). Minimum Support Price (MSP):

1. MSP is the minimum price guaranteed by the government at which it will buy the produce from farmers if market prices fall below it.
2. MSP is announced for 22 mandated crops, 14 kharif crops, 6 rabi crops and 2 commercial crops (jute and copra) and a Fair and Remunerative Price (FRP) for sugarcane.
3. Since 2018–19, MSP has been fixed at a minimum of 1.5 times the all-India weighted average cost of production.
4. The **Swaminathan Commission (National Commission on Farmers, 2006)** recommended MSP at 1.5 times the comprehensive cost.

3). Procurement price: the price at which the government purchases foodgrains for the central pool; it is now the same as MSP.

4). Food Corporation of India (FCI): Established in **1965**, the FCI procures, stores, transports and distributes foodgrains and maintains buffer stocks. Under decentralised procurement, some states procure and distribute grains themselves.

5). Buffer stocks: stocks of foodgrains maintained by the government to stabilise prices, meet emergencies and supply the PDS. Buffer stocking norms fix the minimum stocks to be held at different times of the year.

6). Public Distribution System (PDS): distributes foodgrains to consumers at subsidised prices through fair price shops.

7). Open Market Sale Scheme (OMSS): FCI sells surplus grain in the open market to control prices.

8). Price Stabilisation Fund (2015): for pulses, onions and potatoes; Market Intervention **Scheme** for perishable crops.

9). PM-AASHA (2018): includes the Price Support Scheme for pulses and oilseeds and the **Price Deficiency Payment** scheme, under which farmers are paid the difference between MSP and the market price.

10). Export and import policy — restrictions or duties on exports and imports to stabilise domestic prices.

Achievements of agricultural price policy:

1. It provided incentives that supported the Green Revolution and increased the production of wheat and rice.
2. It protected farmers from price crashes in the main procurement states.
3. It helped build large buffer stocks and ensured food security.
4. It stabilised food prices and protected poor consumers through the PDS.

Criticism and limitations:

1. **Limited coverage:** Effective procurement is mainly for wheat and rice, and mainly in a few states such as Punjab, Haryana, Madhya Pradesh, Chhattisgarh and Telangana. Only a minority of farmers sell at MSP (the Shanta Kumar Committee, 2015, estimated about 6 per cent).
2. **Small farmers benefit less**, as they have little surplus to sell.
3. **Distortion of the cropping pattern:** assured prices for rice and wheat discouraged pulses, oilseeds and millets.
4. **Environmental damage:** over-cultivation of water-intensive paddy in Punjab and Haryana has depleted groundwater.
5. **Huge stocks and storage losses:** stocks often exceed buffer norms, increasing costs and wastage.
6. **Rising fiscal burden** of the food subsidy.
7. **Inflationary effect** of rising MSPs on food prices.

2.8 Food Security in India

According to the Food and Agriculture Organization (FAO) (World Food Summit, 1996), food security exists when all people, at all times, have physical and economic access to sufficient, safe and nutritious food to meet their dietary needs and food preferences for an active and healthy life.

Dimensions of food security:

1. **Availability:** adequate production of food within the country, imports, and stocks in government granaries.
2. **Accessibility:** food must be within the reach of every person physically, and people must have enough income to buy it.
3. **Absorption:** the body's ability to make use of food, which depends on health, clean drinking water, sanitation and nutrition knowledge.
4. **Stability:** access to food must be stable at all times, including during droughts, floods, pandemics and price rises.

Need for food security in India:

1). A large population, much of which is poor or near poverty.

2). High levels of malnutrition: according to National Family Health Survey-5 (NFHS) (2019–21), about 35 per cent of children under five are stunted, 19 per cent are wasted, and 32 per cent are underweight; more than half of women are anemic.

3). Vulnerability of agriculture to monsoons and climate change.

4). Periodic food inflation.

India's food security system has three main parts: **buffer stocks**, the **Public Distribution System**, and **nutrition and welfare programmes**.

1. Buffer stocks: The FCI procures wheat and rice from farmers at MSP and stores them in the **central pool**. Buffer stocks are used to supply the PDS, meet emergencies and stabilise market prices.

2. Public Distribution System (PDS):

1). PDS began during the Second World War (1942) and became a major policy instrument after the food shortages of the 1960s.

2). It distributes foodgrains; sugar and kerosene through about 5 lakh **fair price shops** (**ration shops**).

3). Revamped PDS (1992) — focused on backward, hilly and tribal areas.

4). Targeted PDS (TPDS, 1997) — different prices for Below Poverty Line (BPL) and Above Poverty Line (APL) households.

5). Antyodaya Anna Yojana (AAY, 2000) — 35 kg of foodgrains per month at highly subsidised rates (₹2/kg wheat, ₹3/kg rice) to the poorest households.

3. National Food Security Act (NFSA), 2013:

1). It gives a legal right to food to about two-thirds of the population, up to 75 per cent of the rural and 50 per cent of the urban population.

2). Priority households receive 5 kg of foodgrains per person per month at ₹3/kg for rice, ₹2/kg for wheat and ₹1/kg for coarse grains.

3). AAY households continue to receive 35 kg per household per month.

4). Pregnant women and lactating mothers are entitled to free meals and maternity benefit of at least ₹6,000.

5). Children aged 6 months to 14 years are entitled to nutritious meals through ICDS and school meals.

6). The eldest woman of the household (18 years or above) is the head of the household for issuing ration cards, a step towards women's empowerment.

7). Grievance redressal through District Grievance Redressal Officers and State Food Commissions.

8). A food security allowance if foodgrains are not supplied.

4. Recent initiatives:

1). PM Garib Kalyan Anna Yojana (PMGKAY): launched in 2020 during COVID-19; since January 2024, foodgrains under NFSA are given **free of cost** to about 81 crore beneficiaries, extended for five years.

2). One Nation One Ration Card (ONORC, 2019): allows beneficiaries, especially migrant workers, to draw their rations from any fair price shop in the country.

3). End-to-end computerisation of the TPDS, Aadhaar seeding of ration cards and electronic point-of-sale (ePoS) machines to reduce leakages.

4). Rice fortification with iron, folic acid and vitamin B12.

5. Nutrition programmes:

1). Integrated Child Development Services (ICDS, 1975) through Anganwadi centres.

2). PM POSHAN (earlier the Mid-Day Meal Scheme, 1995) — hot cooked meals in government schools.

3). Prime Minister's **O**verarching **S**cheme for **H**olistic **N**ourishment (**POSHAN**) **Abhiyaan** (**2018**) — the National Nutrition Mission to reduce stunting, undernutrition and anaemia.

4). Pradhan Mantri Matru Vandana Yojana — maternity benefit.

2.9 Sustainable Agriculture

Sustainable agriculture is a system of farming that meets the present needs for food, fibre and income without damaging the natural resource base, soil, water, air and biodiversity, so that future generations can also meet their needs. It is farming that is ecologically sound, economically viable, socially just and culturally appropriate.

Need for sustainable agriculture in India:

1. **Depletion of groundwater:** Excessive extraction for irrigation has caused water tables to fall sharply in Punjab, Haryana, Rajasthan and parts of Telangana and Tamil Nadu; many blocks are classified as over-exploited.
2. **Soil degradation:** About one-third of India's land area suffers from some form of degradation, erosion, salinity, alkalinity and loss of organic carbon.
3. **Overuse of chemical fertilisers and pesticides:** Imbalanced use, especially of urea, has reduced soil health and polluted water.
4. **Climate change:** rising temperatures, erratic rainfall, droughts, floods and heat waves threaten crop yields.
5. **Loss of biodiversity** due to mono-cropping of rice and wheat and the disappearance of traditional varieties.
6. **Rising costs of cultivation** and falling profitability for small farmers.
7. **Health hazards** from pesticide residues.
8. **Burning of crop residue** (stubble) causing air pollution in north India.

Principles of sustainable agriculture:

1). Conservation of natural resources — soil, water and biodiversity.

2). Minimum use of external chemical inputs.

3). Use of renewable resources and local knowledge.

4). Economic viability and a fair income for farmers.

5). Equity and social justice in rural communities.

Methods and practices of sustainable agriculture:

1. **Organic farming:** use of compost, farmyard manure, vermicompost, green manure and bio-fertilisers; no synthetic chemicals. Sikkim became India's first fully organic state in 2016.
2. **Natural farming:** low-cost, chemical-free farming using local inputs such as cow dung and urine, mulching and soil aeration.
3. **Crop rotation and diversification:** alternating cereals with pulse, which fix nitrogen in the soil, and growing millets, oilseeds and horticultural crops.
4. **Integrated Pest Management (IPM):** a combination of biological, cultural and mechanical methods, with the minimum use of chemical pesticides.
5. **Integrated Nutrient Management (INM):** balanced use of organic manures, bio-fertilisers and chemical fertilisers based on soil testing.
6. **Water conservation and efficient irrigation:** drip and sprinkler irrigation, rainwater harvesting, farm ponds, check dams and **watershed development** (for example, Telangana's Mission Kakatiya for restoring tanks).
7. **Conservation agriculture:** minimum or zero tillage, permanent soil cover with crop residue, and the use of machines such as the Happy Seeder instead of burning stubble.
8. **Agroforestry:** growing trees along with crops and livestock.
9. **Integrated Farming Systems (IFS):** combining crops, dairying, poultry, fisheries and horticulture on the same farm, so that the waste of one becomes the input of another.
10. **Climate-resilient varieties:** drought-, flood- and heat-tolerant seeds developed by ICAR.

Government initiatives:

1). National Mission for Sustainable Agriculture (NMSA, 2014–15) — one of the eight missions under the National Action Plan on Climate Change (2008).

2). Paramparagat Krishi Vikas Yojana (PKVY, 2015) — promotes organic farming through clusters of farmers.

3). National Mission on Natural Farming (2024) — to bring one crore farmers into natural farming.

4). Mission Organic Value Chain Development for the North Eastern Region (MOVCDNER).

5). Soil Health Card Scheme (2015) — soil testing and crop-wise recommendations of nutrients.

6). PM Krishi Sinchayee Yojana (2015) — *More Crop per Drop* through micro-irrigation.

7). National Innovations in Climate Resilient Agriculture (NICRA) by ICAR.

8). PM-PRANAM (2023) — incentives to states to reduce chemical fertiliser use.

9). Neem-coated urea to improve nutrient efficiency.

10). Promotion of **millets** (**Shree Anna**), which need less water; **2023** was celebrated as the **International Year of Millets** at India's initiative.

Benefits of sustainable are improvement of soil health, conservation of water, reduction in input costs, higher net incomes for small farmers, safer food, protection of the environment, and resilience to climate change. Challenges are lower yields in the initial years of conversion, lack of certification and marketing for organic produce, limited awareness and training, and the need for research and extension support.

Sustainable agriculture is essential for India's long-term food security, farmers' welfare and environmental protection. It is directly linked to SDG 2 (Zero Hunger), SDG 12 (Responsible Consumption and Production), SDG 13 (Climate Action) and SDG 15 (Life on Land).

2.10 Model Examination Questions

Short Answer Questions

1. State any four points showing the importance of agriculture in the Indian economy.
2. What is meant by the Green Revolution?
3. What is the role of NABARD?
4. What is Minimum Support Price (MSP)?
5. What is sustainable agriculture?

Essay Questions

1. Explain the trends in agricultural production and productivity in India. What are the causes of low productivity?
2. Critically evaluate the land reforms implemented in India.
3. Discuss the achievements and limitations of the Green Revolution.
4. Explain the sources of agricultural finance in India and the problems of rural credit.
5. Describe the defects of agricultural marketing in India and the measures taken to remove them.

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MODULE

3

Indian Industry

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3.0 Introduction

Industrialisation is the key to raising productivity, creating employment, modernising agriculture and making an economy self-reliant. After Independence, India followed a strategy of planned industrialisation led by the public sector, based on the Industrial Policy Resolution of 1956 and the Mahalanobis model, which reserved basic and strategic industries for the state and controlled private industry through licensing. This built a broad and diversified industrial base, but it also led to inefficiency, delays, losses in public enterprises and the so-called licence-permit raj. The New Industrial Policy of 1991 began the era of Liberalisation, Privatisation and Globalisation: industrial licensing was largely abolished, the public sector's reserved area was cut sharply, and foreign investment and technology were welcomed. Industrial growth has since been uneven, and manufacturing's share in GDP has stayed at about 15–17 per cent. Micro, Small and Medium Enterprises (MSMEs) are the second largest source of employment after agriculture and a major contributor to exports. Make in India (2014) aims to turn India into a global manufacturing hub, and Startup India (2016) promotes innovation and entrepreneurship.

3.1 Importance of Industrialization

Industrialisation is the process by which an economy is transformed from a mainly agricultural one into one based on the large-scale manufacture of goods, using machines, modern technology, factories and organised capital. It involves the growth of manufacturing, mining, construction and power, and the spread of modern methods of production to all sectors.

The history of developed countries, Britain after the Industrial Revolution, the USA, Germany, Japan, and more recently South Korea and China, shows that industrialisation has been the main route to rapid economic growth. Economists such as Kaldor described manufacturing as the engine of growth, because productivity rises faster in industry than in agriculture.

Importance of industrialisation for India:

1. **Increase in national and per capita income:** Industry has much higher productivity per worker than agriculture. Shifting resources to industry raises national income and living standards.
2. **Employment generation:** Industries can absorb the surplus labour from agriculture, reduce disguised unemployment and provide regular, better-paid jobs.
3. **Modernisation of agriculture:** Industry supplies tractors, pump sets, fertilisers, pesticides, electricity and processing facilities, raising agricultural productivity. It also provides a market for agricultural raw materials.
4. **Balanced and diversified economic structure:** Industrialisation reduces over-dependence on agriculture and the monsoons, making the economy more stable.
5. **Development of infrastructure:** Industrial growth requires transport, power, communication and banking, and also encourages their development.
6. **Self-reliance:** Basic and capital goods industries, steel, machine tools, chemicals and heavy engineering, reduce dependence on imports.
7. **Defence and national security:** A strong industrial base is necessary for producing arms, ammunition, aircraft and ships. The wars of 1962 and 1965 showed India the importance of defence industries.
8. **Higher rate of capital formation:** Industries generate profits, which are reinvested; industrial incomes have a higher propensity to save.
9. **Export earnings and improvement in the balance of payments:** Manufactured goods earn more foreign exchange than primary products, whose prices fluctuate and whose terms of trade tend to decline.
10. **Technological progress:** Industrialisation spreads scientific knowledge, skills, research and a modern outlook.
11. **Urbanisation and social change:** Industrial growth leads to urban development, education and the weakening of traditional barriers such as caste.
12. **Government revenue:** Industries are a major source of direct and indirect taxes, which finance development.
13. **Economies of scale:** Large-scale production lowers costs and prices.

The Second Five Year Plan (1956–61), based on the Mahalanobis model, gave the highest priority to heavy and basic industries (steel, coal, machine building, and

power) in the public sector, on the reasoning that a strong capital goods sector would make India self-reliant and laid the foundation for long-term growth. Small and cottage industries were to provide consumer goods and employment. Industrialisation is essential for India to provide jobs to its large workforce, achieve the demographic dividend and become a developed economy.

3.2 Trends in Industrial Production

In India, industrial growth is measured mainly through the Index of Industrial Production (IIP), compiled and released monthly by the National Statistical Office (NSO) under the Ministry of Statistics and Programme Implementation (MoSPI). It measures changes in the volume of industrial production in a period compared with a base year. On 1 June 2026, MoSPI revised the base year of the IIP from 2011-12 to 2022-23, under the guidance of the Technical Advisory Committee for Base Year Revision of IIP (TAC-IIP). The new series covers four sectors: manufacturing (about 76 per cent weight), mining and quarrying (about 11 per cent), electricity and gas supply (about 11 per cent), and the newly added water supply, sewerage and waste management (about 2 per cent).

Under the old series the weights were manufacturing about 78, mining about 14 and electricity about 8 per cent. A related indicator is the Index of Core Industries (ICI), released monthly by the Office of the Economic Adviser, Department for Promotion of Industry and Internal Trade (DPIIT). Its base year was also revised to 2022-23 on 20 July 2026, and it now covers nine core industries: coal, crude oil, natural gas, refinery products, fertilisers, steel, cement, electricity and the newly added iron ore. Together these carry about 33 per cent weight in the IIP, down from about 40 per cent earlier, with electricity having the highest weight. Detailed data on registered factories come from the Annual Survey of Industries (ASI), conducted by NSO, and the share of industry in GDP is obtained from the national accounts, which also now use 2022-23 as the base year.

Phases of industrial growth in India:

Phase I (1951–1965): During Phase I India laid the foundation of its industrial structure and achieved rapid industrial growth, with industrial production rising at about 7–8 per cent a year during the first three Five Year Plans. This growth rested on large public investment in basic and heavy industries such as steel, heavy

engineering, machine tools, chemicals, fertilisers and power. Notably, steel plants were set up at Bhilai with Soviet help, Rourkela with German help and Durgapur with British help. Consequently, the share of capital goods and basic industries in the industrial sector increased significantly.

Phase II: 1965–1980: During Phase II, India's industrial sector went through a period of stagnation or deceleration, with industrial growth falling to about 4–5 per cent a year. Several factors caused this slowdown. The wars of 1962, 1965 and 1971 diverted resources and the severe droughts of 1965–67 hit the economy hard. The oil price shocks of 1973 and 1979 raised costs and worsened the balance of payments. At the same time, real public investment declined, and infrastructure such as power, coal and railways performed poorly, creating supply bottlenecks.

Phase III: 1980–1991: During Phase III, India's industrial sector recovered, with growth reviving to about 7–8 per cent a year. Several factors contributed to this revival. Industrial licensing was partially liberalised and imports of technology were eased. Public investment in infrastructure increased. Demand for consumer durables grew, for example automobiles such as Maruti cars and electronics, and agriculture performed better, which raised rural incomes and demand. However, this growth was partly financed by heavy domestic and external borrowing, which led to the balance of payments crisis of 1991.

Phase IV: 1991 onwards: 1991 onwards is the post-reform period of India's industrial development, marked by alternating phases of growth and slowdown. In 1991–92, there was a short slowdown because of the balance of payments crisis and the cuts in imports. Between 1993 and 1997, industry grew rapidly, at about 10–12 per cent in some years, helped by economic reforms and foreign investment. From 1997 to 2002, growth slowed again because of the East Asian crisis and weak domestic demand. The years 2003–2008 were a boom period, with industrial growth of 8–10 per cent led by investment, exports and infrastructure. After the global financial crisis of 2008, growth slowed during 2008–2013, made worse by policy paralysis and stalled projects. During 2014–2019, growth was moderate. In 2020–21, industrial output fell sharply because of the COVID-19 lockdown, followed by a recovery from 2021–22 onwards.

Structural changes in Indian industry:

1. **Diversification:** India now produces a wide range of goods, from consumer goods to capital goods, automobiles, aircraft parts, satellites, pharmaceuticals

and electronics.

2. **Growth of capital and intermediate goods:** the share of basic and capital goods rose sharply in the early plans.
3. **Decline of traditional industries:** the share of cotton textiles, jute and sugar has fallen.
4. **Rise of modern industries:** automobiles, pharmaceuticals, chemicals, petroleum refining and, more recently, mobile phones and electronics.
5. **Growing role of the private sector and FDI** after 1991.

Problems of Indian industry:

1. **Low share of manufacturing** in GDP (about 15–17 per cent) and employment.
2. **Infrastructure bottlenecks:** high cost of power, logistics and land.
3. **High cost of credit** and limited access for small firms.
4. **Rigid labour laws** and skill shortages (now being addressed through the four Labour Codes).
5. **Regional concentration** of industry in Maharashtra, Gujarat, Tamil Nadu, Karnataka and the National Capital Region.
6. **Industrial sickness** of many units, especially small ones.
7. **Low spending on research and development** (less than 1 per cent of GDP).
8. **Competition from imports**, especially from China.
9. **Dependence on imported components** in electronics, solar panels.

3.3 Industrial Policy Resolution, 1956

Industrial policy is a comprehensive statement of the government's approach to industrial development. It states the respective roles of the public and private sectors, policies towards small and large industries, foreign capital, licensing, location of industries, labour and technology.

The first industrial policy 1948 of independent India was announced on 6 April 1948. It established a **mixed economy** and divided industries into four categories: (i) exclusive state monopoly (arms and ammunition, atomic energy, railways); (ii) mixed sector (coal, iron and steel, aircraft, shipbuilding, telephone and telegraph, mineral oils), where new units would be set up by the state; (iii) industries

controlled and regulated by the government; and (iv) the private sector. The Industries (Development and Regulation) Act, 1951 provided for licensing of industries.

A new industrial policy became necessary in 1956 for four main reasons: the adoption of the Constitution with its Directive Principles of State Policy; the Lok Sabha's acceptance of the goal of a 'socialistic pattern of society' in December 1954; the launch of the Second Five Year Plan, which, following the Mahalanobis model, emphasised heavy industry; and the need to expand the public sector. Accordingly, the new Industrial Policy Resolution (IPR) was adopted on 30 April 1956. It remained the basis of India's industrial policy until 1991 and is often described as the 'Economic Constitution of India'.

Objectives of the IPR, 1956:

1. To accelerate the rate of economic growth and speed up industrialisation.
2. To develop heavy and machine-building industries.
3. To expand the public sector.
4. To build up a large and growing cooperative sector.
5. To prevent the concentration of economic power in private hands and reduce disparities in income and wealth.
6. To expand employment opportunities.
7. To reduce regional imbalances in industrial development.

Main features of the IPR, 1956:

1. Classification of industries into three schedules:

The Industrial Policy Resolution of 1956 classified industries into three schedules according to the role of the State in their development.

Schedule A: Schedule A listed 17 industries that were the exclusive responsibility of the State, and new units in these industries could be set up only by the State. These included arms and ammunition, atomic energy, iron and steel, heavy castings and forgings, heavy machinery, heavy electrical plant, coal and lignite, mineral oils, mining of iron ore and other important minerals, aircraft, air transport, railway transport, shipbuilding, telephones and telegraph, and the generation and distribution of electricity.

Schedule B: Schedule B listed 12 industries that were to be progressively State-owned. The State would generally set up new units in these industries, but the private sector was allowed to supplement its efforts. These included other minerals, aluminium and non-ferrous metals, machine tools, ferro-alloys and tool steels, basic and intermediate chemicals, antibiotics and essential drugs, fertilisers, synthetic rubber, road transport and sea transport.

Schedule C: Schedule C comprised all the remaining industries, which were left to the private sector. Their development was, however, subject to regulation and licensing under the Industries (Development and Regulation) Act, 1951. This schedule mainly covered consumer goods industries such as textiles, sugar, paper and cement.

The classification was not rigid: the state could start any industry, and private units in Schedule A could be allowed in the national interest.

2. Encouragement to small-scale and cottage industries: The resolution recognised their role in providing employment, mobilising capital and ensuring a more equitable distribution of income. They were to be helped by restricting the output of large industries, differential taxation and direct subsidies, through institutions such as the Small Industries Development Organisation and the Khadi and Village Industries Commission.

3. Removal of regional disparities: Industries were to be located in backward areas through the provision of infrastructure and incentives.

4. Fair treatment of labour: Better working conditions, incentives for higher productivity, and the participation of workers in management.

5. Policy towards foreign capital: Foreign capital was accepted cautiously, with majority ownership and effective control in Indian hands, as far as possible.

6. Technical and managerial personnel: The need to train technical and managerial personnel was emphasised.

7. Public sector to work on commercial principles and earn profits for further investment.

Industrial Policy Resolution 1956 - Merits

The Industrial Policy Resolution of 1956 had several merits. It helped build a strong base of heavy and basic industries such as steel, heavy engineering, power and

petroleum. It led to a rapid expansion of the public sector, which came to occupy the 'commanding heights' of the economy. By developing domestic capacity in capital goods, it promoted self-reliance and reduced India's dependence on imported machinery. It also supported small-scale industries, which helped to generate employment. Finally, it contributed to balanced regional development by locating public enterprises in backward areas, for example the steel plants at Bhilai, Rourkela and Bokaro.

Industrial Policy Resolution 1956 - Demerits:

The Industrial Policy Resolution of 1956 also had several demerits. Excessive controls and industrial licensing caused delays and corruption, giving rise to the 'licence-permit raj'. Many public sector enterprises incurred losses because of overstaffing, poor management and political interference. The policy failed to prevent the concentration of economic power, since large business houses obtained most of the licences, as shown by the Hazari Report (1967) and the Dutt Committee (1969). Protection from both domestic and foreign competition made industries inefficient and their products poor in quality. The relative neglect of consumer goods and agriculture led to shortages and inflation. As a result, industrial growth slowed down during 1965–80.

Later policy statements of 1973, 1977, 1980 and 1985–86 made some changes, such as the MRTP Act (1969), FERA (1973), the concept of joint sector, and partial liberalisation in the 1980s. But the comprehensive reform came only in 1991.

3.4 New Industrial Policy, 1991

By 1990–91, India was facing a severe economic crisis that formed the background to the reforms of 1991. The most serious problem was the balance of payments crisis: foreign exchange reserves fell to about US$ 1 billion, enough to pay for only about two weeks of imports. The Centre's fiscal deficit was high, at about 8 per cent of GDP, and public debt was rising, while inflation reached about 13–14 per cent. The Gulf War of 1990–91 worsened the situation by raising oil prices and cutting off remittances from Indian workers in the Gulf. As confidence fell, India's credit rating was downgraded and non-resident Indians withdrew their deposits. The new government under Prime Minister P.V. Narasimha Rao, with Dr. Manmohan Singh as Finance Minister, announced the New Industrial Policy (NIP) on 24 July 1991, along with the Union Budget, as part of a programme of economic reforms.

Objectives of the New Industrial Policy, 1991:

1. To free industry from unnecessary bureaucratic controls.
2. To liberalise the economy and integrate it with the world economy.
3. To remove restrictions on foreign direct investment.
4. To make the public sector more efficient and competitive.
5. To improve the productivity, quality and competitiveness of Indian industry.
6. To build on past achievements and correct the distortions and weaknesses.

Main features of the New Industrial Policy, 1991:

1. Abolition of industrial licensing (de-licensing): Industrial licensing was abolished for all projects except a short list of 18 industries related to security and strategic concerns, social reasons, hazardous chemicals and environmental reasons, and items of elitist consumption. The list has been reduced further; today only a few industries require a licence, such as defence equipment, industrial explosives, hazardous chemicals, and cigars and cigarettes of tobacco.

2. Reduced role of the public sector (dereservation): The number of industries reserved for the public sector was reduced from 17 to 8 in 1991. It has since been reduced further to only two: atomic energy and railway operations. Even areas such as defence, mining, power, telecommunications, airlines and banking were opened to private firms.

3. Reform of public sector enterprises: The New Industrial Policy of 1991 also introduced important reforms of public sector enterprises (PSUs). Part of the government's equity in PSUs was disinvested to mutual funds, financial institutions, the general public and workers. Sick PSUs were referred to the Board for Industrial and Financial Reconstruction (BIFR), which decided on their revival or closure. Memoranda of Understanding (MoUs) were signed between the government and PSUs to give them greater autonomy while making them accountable for performance. Later, to give profitable PSUs more financial and operational freedom, the government introduced the Navratna and Miniratna categories in 1997 and the Maharatna category in 2010.

4. Liberalisation of foreign direct investment (FDI): The New Industrial Policy of 1991 liberalised foreign direct investment (FDI). Automatic approval was given for FDI up to 51 per cent in 34 high-priority industries, and a Foreign Investment

Promotion Board (FIPB) was set up to consider other proposals; the FIPB was abolished in 2017. FDI limits have since been raised steadily, and today most sectors allow 100 per cent FDI under the automatic route. Telecom has allowed 100 per cent FDI under the automatic route since 2021. Following the Sabka Bima Sabki Raksha (Amendment of Insurance Laws) Act, 2025, a notification of 2 May 2026 raised the limit for insurance companies from 74 per cent to 100 per cent under the automatic route, although LIC remains capped at 20 per cent.

5. Liberalisation of foreign technology agreements: Automatic permission was given for foreign technology agreements in high-priority industries, within specified limits for royalty and lump-sum payments.

6. Amendment of the MRTP Act: The Monopolies and Restrictive Trade Practices Act, 1969 required large firms (assets above ₹100 crore) to obtain prior approval for expansion, mergers and new units. This requirement was removed; the Act now focused on controlling unfair and restrictive trade practices. In 2002, the MRTP Act was replaced by the Competition Act, 2002, and the Competition Commission of India (CCI) was set up.

7. Liberalisation of industrial location policy: No approval was needed for setting up industries except in cities with a population of more than 10 lakh, where non-polluting industries were to be located at least 25 km away from the city limits.

8. Abolition of the phased manufacturing programme — the requirement to use more domestic components over time was removed.

9. Removal of mandatory convertibility clause — banks and financial institutions were no longer required to convert loans into equity.

10. Support to small-scale industries: A separate policy for small, tiny and village enterprises (August 1991) increased credit and allowed equity participation by large firms up to 24 per cent.

Merits:

1. **Higher industrial growth** in the mid-1990s and 2003–08.
2. **Increase in competition**, efficiency, product quality and consumer choice.
3. **Large inflows of FDI** and modern technology; India became one of the top destinations for FDI.

4. **Growth of new industries** such as automobiles, telecommunications, electronics and pharmaceuticals.
5. **Expansion of exports** of manufactured goods.
6. **End of the licence-permit raj** and reduction in corruption in industrial approvals.

Demerits:

1. **Jobless growth:** industrial growth did not generate enough employment; many firms became more capital-intensive.
2. **Closure of small units** due to competition from large firms and imports.
3. **Growing regional imbalances**, as investment flowed to already developed states.
4. **Undervaluation in disinvestment** of PSUs and loss of public assets.
5. **Growing dependence on foreign capital and technology** and the risk of foreign control of key sectors.
6. The share of **manufacturing in GDP did not rise** significantly.
7. **Rising inequality** of income and wealth.

3.5 Economic Reforms: Liberalisation-Privatisation-Globalisation

The economic reforms that began in July 1991 are known as the New Economic Policy (NEP) or the LPG model, Liberalisation, Privatisation and Globalisation. The reforms had two parts:

Stabilisation measures-short-term: to correct the balance of payments crisis and control inflation and the fiscal deficit, devaluation of the rupee, reduction of government expenditure and loans from the IMF.

Structural reform measures-long-term: to improve the efficiency and international competitiveness of the economy by removing rigidities, industrial, trade, financial, fiscal and public sector reforms.

1. Liberalisation: Liberalisation means the removal of unnecessary government controls and restrictions on economic activity, so that markets and private enterprise can function freely. Liberalisation measures are**:**

Industrial sector: abolition of industrial licensing; dereservation of industries for the public sector; removal of MRTP restrictions; freedom to expand capacity and choose technology; and dereservation of most products reserved for small-scale industries.

Financial sector reforms (Narasimham Committee, 1991 and 1998):

1). Reduction of the Cash Reserve Ratio (CRR) and Statutory Liquidity Ratio (SLR), releasing more funds for lending.

2). Deregulation of interest rates; banks became free to fix most lending and deposit rates.

3). Entry of new private sector banks (such as HDFC Bank and ICICI Bank) and foreign banks.

4). Prudential norms for income recognition, asset classification and capital adequacy (Basel norms).

5). SEBI (1988, statutory body in 1992) to regulate capital markets; the National Stock Exchange (1992) and electronic trading.

6). Tax reforms (Raja Chelliah Committee): reduction and rationalisation of income-tax and corporate tax rates; widening of the tax base; introduction of VAT (2005) and the Goods and Services Tax (GST) on 1 July 2017 under the slogan One Nation, One Tax.

7). Foreign exchange reforms**:** devaluation of the rupee by about 18–19 per cent in July 1991; a market-determined exchange rate (1993); current-account convertibility (1994); replacement of FERA by FEMA (1999).

8). Trade policy reforms**:** removal of import licensing and quantitative restrictions; reduction of peak customs duties from about 300 per cent to around 10 per cent; abolition of export duties.

2. Privatisation: Privatisation means the transfer of ownership, management or control of public sector enterprises to the private sector, or the opening of areas earlier reserved for the public sector to private firms. Privatisation in India has taken several forms. The first is denationalisation, which means the complete transfer of ownership of a public enterprise to the private sector. The second is disinvestment, which means selling a part of the government's equity in public sector undertakings (PSUs); when the government sells more than 50 per cent of its equity along with management control, it is called strategic disinvestment. The third is opening up of

reserved areas, which allows private firms to enter sectors earlier reserved for the public sector, such as telecommunications, power, airlines, banking, insurance, mining and defence. The fourth includes contracting out of public services to private firms and public–private partnerships (PPP), especially in infrastructure, where the government and private companies share investment, risks and returns.

Privatisation measures in India:

India has taken several measures to promote privatisation. The number of industries reserved for the public sector was reduced from 17 to just 2, namely atomic energy and railway operations. Disinvestment was organised through the Department of Disinvestment, set up in 1999 and now called the Department of Investment and Public Asset Management (DIPAM). The New Public Sector Enterprise Policy of 2021 provides that the public sector will be retained only in strategic sectors, with a bare minimum presence, while enterprises in non-strategic sectors are to be privatised or closed. At the same time, profitable PSUs have been given greater autonomy through Maharatna, Navratna and Miniratna status.

3. Globalisation: Globalisation means the integration of the domestic economy with the world economy through the free movement of goods, services, capital, technology and people across national borders. India adopted several measures to integrate its economy with the world under globalisation. Import tariffs were reduced, and quantitative restrictions on imports were removed, completely by 2001. The FDI policy was liberalised so that most sectors are now open to 100 per cent FDI through the automatic route, and foreign portfolio investment in Indian stock markets has been permitted since 1992. India became a founding member of the World Trade Organization on 1 January 1995, accepting its rules on trade, intellectual property (TRIPS) and trade-related investment measures (TRIMs). Exports were promoted through Export Processing Zones, Special Economic Zones under the SEZ Act of 2005, export incentives and the Foreign Trade Policy. India also signed several regional and bilateral trade agreements. In addition, India became a major global centre for the outsourcing of IT and business services.

Positive effects:

1. **Higher growth:** GDP growth rose from the "Hindu rate" of about 3.5 per cent to 6–8 per cent in many years; India became one of the fastest-growing major economies.
2. **Increase in FDI and FPI**, bringing capital, technology and management skills.

3. **Growth of services and IT**, making India a global hub for software and business services.
4. **Growth of exports** of goods and services.
5. **Better consumer choice** and quality of goods — telecom, automobiles and electronics.
6. **Reduction in poverty**, especially after 2005.

Negative effects (criticism):

1. **Neglect of agriculture:** public investment in agriculture declined in the 1990s, contributing to agrarian distress.
2. **Regional disparities:** advanced states attracted most of the investment.
3. **Pressure on small industries** due to competition from imports and multinationals.
4. **Undervaluation of public assets** in disinvestment.
5. **Commercialisation of education and health.**
6. **Environmental degradation** due to rapid industrialisation and mining.

The LPG reforms transformed India from a closed, controlled economy into an open, market-oriented one. Most economists agree that they raised growth and efficiency, but they also argue that the reforms must be made more inclusive, with greater attention to agriculture, employment, health and education, a "reform with a human face".

3.6 MSMEs: Definition and Importance

Micro, Small and Medium Enterprises (MSMEs) form a vital part of the Indian economy. Earlier, they were known as small-scale industries (SSIs) and tiny industries. Gandhiji emphasised village and cottage industries for rural self-reliance (Swadeshi). The Karve Committee (1955) and the IPR, 1956 also emphasised their role. The Micro, Small and Medium Enterprises Development (MSMED) Act, 2006 gave a legal definition to MSMEs for the first time and covered both manufacturing and service enterprises. The Ministry of MSME was formed in 2007.

Evolution of the definition:

1). MSMED Act, 2006: based only on investment in plant and machinery (manufacturing) or equipment (services). Micro: up to ₹25 lakh (manufacturing) / ₹10 lakh (services); Small: up to ₹5 crore / ₹2 crore; Medium: up to ₹10 crore / ₹5 crore.

2). Revised definition, 1 July 2020 (under the Atmanirbhar Bharat package): a composite criterion of investment and annual turnover, the same for manufacturing and services. Exports are excluded from turnover.

3). Further revision, 1 April 2025 (Union Budget 2025–26): the limits were raised 2.5 times for investment and 2 times for turnover.

Under the Micro, Small and Medium Enterprises Development (MSMED) Act, 2006, enterprises are classified on the basis of both investment in plant and machinery (or equipment) and annual turnover. Under the composite criteria introduced in 2020, a **micro** enterprise was one with investment up to ₹1 crore and turnover up to ₹5 crore. A **small** enterprise had investment up to ₹10 crore and turnover up to ₹50 crore. A **medium** enterprise had investment up to ₹50 crore and turnover up to ₹250 crore. To help enterprises grow without losing their MSME benefits, the limits were raised from 1 April 2025, following the Union Budget 2025–26, as follows:

1. **Micro:** investment up to ₹2.5 crore and turnover up to ₹10 crore.
2. **Small:** investment up to ₹25 crore and turnover up to ₹100 crore.
3. **Medium:** investment up to ₹125 crore and turnover up to ₹500 crore.

The investment limits were raised by 2.5 times and the turnover limits doubled.

Registration: MSMEs register online on the **Udyam Registration portal** (launched 1 July 2020); the **Udyam Assist Platform** (2023) allows informal micro-enterprises to register. Registration is free and paperless.

Size of the MSME sector: According to the Ministry of MSME, India has more than **6 crore MSMEs**; about **99 per cent are micro-enterprises**. Most are in the informal sector, located in rural and semi-urban areas, and owned by proprietors.

Importance of MSMEs in the Indian economy:

1. **Employment generation:** MSMEs are the second largest employer after agriculture, providing employment to more than 20–25 crore people. They are

labour-intensive and create more jobs per unit of capital than large industries.

2. **Contribution to GDP:** MSMEs contribute about 30 per cent of India's GDP and about 36 per cent of manufacturing output.
3. **Contribution to exports:** MSMEs account for about 45 per cent of India's exports, textiles and garments, leather goods, gems and jewellery, handicrafts, engineering goods and processed food.
4. **Low capital requirement:** suitable for a capital-scarce and labour-surplus economy like India.
5. **Balanced regional development:** MSMEs can be set up in rural and backward areas, reducing migration to cities and regional imbalances.
6. **Promotion of entrepreneurship:** MSMEs encourage self-employment, especially among **women, SC/ST, youth and first-generation entrepreneurs**.
7. **Mobilisation of local resources** and savings that would otherwise remain idle.
8. **Support to large industries:** MSMEs act as **ancillary units**, supplying parts, components and services to large industries (for example, automobile component makers).
9. **Use of local skills and traditional crafts** — handloom, handicrafts, pottery and khadi.
10. **Flexibility and innovation:** small firms can adapt quickly to changes in demand and technology.
11. **Short gestation period:** they start production quickly.

Problems of MSMEs:

1. **Inadequate and costly credit:** banks demand collateral; MSMEs face a large credit gap and depend on informal sources.
2. **Delayed payments** by large buyers and government departments, which cause working capital shortages.
3. **Marketing problems:** lack of brand names, market information and access to large markets.
4. **Competition** from large firms, imports (especially from China) and e-commerce.
5. **Shortage of raw materials** and high input prices.
6. **Inadequate infrastructure** — power cuts, poor roads, lack of industrial clusters.
7. **Lack of skilled labour** and managerial skills.
8. **Regulatory burden** — multiple registrations, inspections and compliance costs.

9. **Industrial sickness** — a large number of units become sick or close.
10. **Impact of shocks** — demonetisation (2016), GST transition (2017) and COVID-19 (2020).

Government measures to promote MSMEs:

1). Credit Guarantee Fund Trust for Micro and Small Enterprises (CGTMSE, 2000) — collateral-free loans guaranteed by the government.

2). Pradhan Mantri MUDRA Yojana (2015) — loans under Shishu, Kishore, Tarun and Tarun Plus categories.

3). Emergency Credit Line Guarantee Scheme (ECLGS, 2020) during COVID-19.

4). Small Industries Development Bank of India, 1990 is the principal financial institution for MSMEs.

5). Market support: Public Procurement Policy (2012) — central ministries and PSUs must purchase at least **25 per cent** of their requirements from micro and small enterprises (including 3 per cent from women-owned MSEs); the **GeM (Government e-Marketplace)** portal.

6). Cluster development: the **Micro and Small Enterprises Cluster Development Programme** and **SFURTI** for traditional industries.

7). Employment schemes: PMEGP (Prime Minister's Employment Generation Programme, 2008).

8). PM Vishwakarma (2023): support to traditional artisans and craftspeople — skill training, toolkits, collateral-free loans and marketing.

9). Khadi and Village Industries Commission (KVIC) and the National Small Industries Corporation (NSIC).

MSMEs are the backbone of India's manufacturing and the key to employment-intensive growth. Strengthening their access to credit, technology and markets is essential for Make in India and Atmanirbhar Bharat.

3.7 Make in India

Make in India was launched by Prime Minister Narendra Modi on 25 September 2014 in New Delhi. It is a major national programme to transform India into a global hub for design and manufacturing. Its logo is a lion made of gears (cogs), symbolising strength, courage and manufacturing. The Department for Promotion of Industry and Internal Trade (DPIIT) under the Ministry of Commerce and Industry is the nodal department.

Need for Make in India:

1. The share of manufacturing in India's GDP had stagnated at about 15–16 per cent, much lower than China (about 30 per cent), South Korea or Thailand.
2. India needed to create jobs for about 1 crore young people entering the labour force every year.
3. India was heavily dependent on imports of electronics, defence equipment and capital goods.
4. Service-led growth had not created enough jobs for low-skilled workers.

Objectives of Make in India:

1. To increase the growth rate of the manufacturing sector to 12–14 per cent a year.
2. To raise the share of manufacturing in GDP to 25 per cent (originally by 2022, later revised to 2025).
3. To create 100 million (10 crore) additional manufacturing jobs.
4. To attract foreign and domestic investment in manufacturing.
5. To improve the skills of the rural migrants and urban poor.
6. To increase domestic value addition and technological depth.
7. To enhance the global competitiveness of Indian manufacturing.
8. To ensure sustainable growth with environmental protection.

Four pillars of Make in India:

1. **New Processes:** improving the ease of doing business by simplifying and digitising approvals, licences, registrations and inspections; single-window clearance.
2. **New Infrastructure:** developing industrial corridors, smart cities, industrial clusters, high-speed communication and logistics networks.
3. **New Sectors:** opening up sectors such as defence production, insurance, railways, construction and medical devices to higher FDI.
4. **New Mindset:** the government to act as a facilitator and partner, not a regulator.

Originally, 25 sectors were identified, automobiles, aviation, biotechnology, chemicals, construction, defence manufacturing, electrical machinery, electronic systems, food processing, IT and BPM, leather, media and entertainment, mining, oil and gas, pharmaceuticals, ports and shipping, railways, renewable energy, roads

and highways, space, textiles and garments, thermal power, tourism and hospitality, and wellness. In Make in India 2.0, the focus was widened to **27 sectors** (15 manufacturing and 12 services).

Related initiatives:

1. **Production Linked Incentive (PLI) schemes (2020–21):** incentives linked to incremental sales for 14 key sectors, mobile phones and electronic components, pharmaceuticals, medical devices, automobiles and auto components, advanced chemistry cell batteries, telecom equipment, textile products (man-made fibres), food processing, high-efficiency solar PV modules, white goods (ACs and LEDs), speciality steel, drones and IT hardware, with an outlay of about ₹1.97 lakh crore.
2. **National Industrial Corridor Development Programme:** Delhi–Mumbai Industrial Corridor (DMIC), Chennai–Bengaluru, Amritsar–Kolkata and other corridors with smart industrial cities.
3. **PM Gati Shakti National Master Plan (2021)** and the **National Logistics Policy (2022)** for integrated infrastructure and lower logistics costs.
4. **National Single Window System (2021)** for investor approvals.
5. **Invest India** — the national investment promotion agency.
6. **Atmanirbhar Bharat Abhiyan (2020)** — self-reliant India; Vocal for Local.
7. **Make in India in defence:** positive indigenisation lists, Defence Industrial Corridors in Uttar Pradesh and Tamil Nadu, and FDI up to 74 per cent through the automatic route.
8. **India Semiconductor Mission (2021)** — incentives for semiconductor fabrication and display units.
9. **Phased Manufacturing Programme** for mobile phones and electronics.
10. **Skill India** and **Digital India** to support manufacturing.

Achievements:

1. **Electronics and mobile phones:** India became the **second largest manufacturer of mobile phones** in the world; mobile phone exports rose sharply, and most phones sold in India are now made in India.
2. **FDI inflows** increased substantially, reaching record levels of more than US$ 80 billion in some years (approx.).

3. **Ease of Doing Business:** India's rank in the World Bank's Doing Business Report improved from 142 (2014) to 63 (2019).
4. **Defence:** defence production and exports increased many times; the indigenous aircraft carrier INS Vikrant and the Tejas light combat aircraft are examples.
5. **Vaccines and pharmaceuticals:** India produced and exported COVID-19 vaccines and is the largest supplier of generic medicines.
6. **Automobiles, toys and textiles:** growth of domestic production and reduction of imports.

Limitations

1. The share of manufacturing in GDP has remained at about 15–17 per cent, far below the target of 25 per cent.
2. Job creation in manufacturing has been much lower than the target of 10 crore jobs.
3. Much of the production is assembly, with heavy dependence on imported components.
4. Infrastructure gaps, power, logistics, land acquisition.
5. Skill shortages and low labour productivity.
6. Complex regulations at the state level and frequent changes in tariff policy.
7. Global slowdown and protectionism in export markets.

3.8 Startup India

Startup India was launched by Prime Minister Narendra Modi on 16 January 2016, with an Action Plan of 19 points. Its aim is to build a strong ecosystem for innovation and entrepreneurship in India, which will drive sustainable economic growth and generate large-scale employment. The Department for Promotion of Industry and Internal Trade (DPIIT) is the nodal agency; the Startup India Hub and portal provide a single point of contact.

Meaning and definition of a startup

1. It is incorporated as a private limited company, a registered partnership firm or a limited liability partnership (LLP) in India;
2. It is not more than 10 years old from the date of incorporation (20 years for "Deep Tech Startup);

3. Its annual turnover has not exceeded ₹100 crore in any financial year since incorporation;
4. It is working towards innovation, development or improvement of products, processes or services, or it is a scalable business model with a high potential for employment generation or wealth creation; and
5. It is not formed by splitting up or reconstructing an existing business.

Objectives of Startup India:

1. To promote innovation and entrepreneurship, especially among youth.
2. To generate employment and wealth.
3. To make India a job creator rather than a job seeker nation.
4. To simplify regulations and reduce the compliance burden on startups.
5. To provide funding support and incentives.
6. To build industry–academia partnerships and incubation facilities.

Main features of the Startup India Action Plan - Three pillars:

1. Simplification and handholding:

1. Self-certification under 6 labour laws and 3 environmental laws for 3–5 years, reducing inspections.
2. Startup India Hub, a single point of contact for guidance, mentoring and information.
3. Online registration through the Startup India portal and mobile app.
4. Legal support and fast-tracking of patent applications, with an 80 per cent rebate on patent fees and a 50 per cent rebate on trademark fees; free facilitators for filing IPR applications.
5. Relaxed norms for public procurement**:** exemption from prior experience and turnover criteria in government tenders.
6. Faster exit**:** startups can be wound up within 90 days under the Insolvency and Bankruptcy Code, 2016.

2. Funding support and incentives:

1. **Fund of Funds for Startups (FFS):** a corpus of ₹10,000 crore managed by SIDBI, which invests in SEBI-registered Alternative Investment Funds (venture capital

funds), which in turn invest in startups. The Union Budget 2025–26 announced a fresh fund of funds of ₹10,000 crore.

2. **Credit Guarantee Scheme for Startups (CGSS)** — collateral-free loans.
3. **Tax exemption:** eligible startups get a 100 per cent income-tax exemption on profits for 3 consecutive years out of 10 years (Section 80-IAC).
4. **Exemption from "angel tax"** (tax on investment above fair value) for DPIIT-recognised startups; angel tax was abolished for all investors in the Union Budget 2024–25.
5. **Startup India Seed Fund Scheme (SISFS, 2021):** ₹945 crore for proof of concept, prototype development and market entry, provided through incubators.

3. Industry–academia partnership and incubation:

1. **Atal Innovation Mission (AIM)** under NITI Aayog — **Atal Tinkering Labs** in schools, **Atal Incubation Centres** and innovation challenges.
2. **Research parks and incubators** in IITs, NITs and other institutions.
3. **Startup fests**, innovation competitions and the **National Startup Awards**.
4. **States' Startup Ranking** to encourage states to support startups (for example, **T-Hub** in Hyderabad, one of India's largest incubators, and **WE Hub** for women entrepreneurs in Telangana).

Achievements of Startup India:

1. India has become the **third largest startup ecosystem in the world**, after the USA and China.
2. The number of **DPIIT-recognised startups** has grown from a few hundred in 2016 to **more than 1.5 lakh**.
3. India has more than 100 unicorns (startups valued at over US$ 1 billion), such as Flipkart, Paytm, Zomato, Swiggy, BYJU'S, Ola and PhonePe.
4. Startups have created lakhs of direct jobs.
5. Startups are spreading beyond metros to Tier-II and Tier-III cities; about half of the recognised startups are from smaller cities.
6. A large number of startups have at least one woman director.
7. Startups work in diverse sectors — fintech, e-commerce, edtech, healthtech, agritech, SaaS, mobility, renewable energy and deep tech.

Challenges faced by startups:

1. **Funding gaps**, especially at the early (seed) stage; dependence on foreign venture capital and the "**funding winter**" of 2022–23.
2. **High failure rate** — a majority of startups fail within the first few years.
3. **Regulatory and tax complexities** at the central and state levels.
4. **Concentration** in a few cities — Bengaluru, Delhi-NCR, Mumbai and Hyderabad.
5. **Lack of mentorship** and managerial experience.
6. **Limited participation** of rural and women entrepreneurs.
7. **Infrastructure and talent constraints.**
8. **Corporate governance issues** in some well-known startups.

Startup India has changed the mindset of young Indians towards entrepreneurship and has made India one of the world's most dynamic startup ecosystems. To sustain this growth, India needs better access to early-stage funding, simpler regulations, stronger research and development, and the spread of entrepreneurship to smaller towns and rural areas.

3.9 Model Examination Questions

Short Answer Questions

1. Why is industrialisation important for India?
2. What is the Index of Industrial Production?
3. State the three schedules of the Industrial Policy Resolution, 1956.
4. What is the revised definition of MSMEs?
5. What are the objectives of Make in India?

Essay Questions

1. Explain the trends in industrial production in India since 1951.
2. Discuss the main features of the Industrial Policy Resolution, 1956, and evaluate it.
3. Explain the main features of the New Industrial Policy, 1991.

4. Critically examine the impact of Liberalisation, Privatisation and Globalisation on the Indian economy.
5. Discuss the importance and problems of MSMEs in India. What measures has the government taken to promote them?

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MODULE

4

India's Service Sector

4.0 Introduction

4.1 Service Sector: Concept and Components

4.2 Role of Service Sector in Indian Economy

4.3 Infrastructure: Education

4.4 Infrastructure: Health

4.5 Infrastructure: Transport

4.6 Infrastructure: Banking and Insurance

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4.8 Introduction to Gig Economy

4.9 Introduction to Digital Economy

4.10 Model Examination Questions

4.0 Introduction

The service (tertiary) sector produces intangible outputs such as trade, transport, banking, insurance, education, health, information technology and public administration. It is now the largest and fastest-growing sector of the Indian economy, contributing more than half of GVA, the largest share of FDI and a rising share of exports, though it employs only about 30 per cent of workers. Social infrastructure, education and health, builds human capital, while economic infrastructure, transport, banking, insurance and information technology, supports production and trade. India has made major progress through the National Education Policy 2020, Ayushman Bharat, Bharatmala and Sagarmala (Bharatmala and Sagarmala are two flagship infrastructure programmes of the Government of India. Bharatmala builds **roads** and Sagarmala builds **ports and waterways**), financial inclusion through Jan Dhan and UPI, and the global success of its IT industry. New forms of work have emerged in the gig and platform economy, and digital public infrastructure such as Aadhaar and UPI has made India a world leader in the digital economy. Low public spending on health and education, uneven quality, the digital divide and the lack of social security for gig workers remain key challenges.

4.1 Service Sector: Concept and Components

The service sector, also called the tertiary sector, consists of economic activities that do not produce physical (tangible) goods but provide services to individuals, businesses and the government. Examples include teaching, medical care, banking, transport, trade, telecommunications, software development and government administration.

Characteristics of services:

1. **Intangibility:** services cannot be seen, touched or stored like goods.
2. **Inseparability:** services are generally produced and consumed at the same time.
3. **Perishability:** services cannot be stored for future use; an empty seat on a train is lost revenue.

4. **Heterogeneity (variability):** the quality of a service varies from one provider to another and from time to time.
5. **No transfer of ownership:** the consumer gets the benefit of a service but not its ownership.
6. **Labour-intensive and skill-based:** many services depend on human skills and knowledge.

The division of the economy into primary, secondary and tertiary sectors was developed by A.G.B. Fisher (1935) and Colin Clark (The Conditions of Economic Progress, 1940). According to the Fisher–Clark thesis, as per capita income rises, the share of the primary sector in national income and employment declines, the share of the secondary sector first rises, and finally the tertiary sector becomes dominant. Daniel Bell described developed economies as post-industrial societies in which services and knowledge dominate.

Components of the service sector (as classified in India's national accounts):

1. **Trade, repair, hotels and restaurants:** wholesale and retail trade, repair of vehicles and household goods, tourism and hospitality. This is the largest component in employment.
2. **Transport, storage, communication and services related to broadcasting:** railways, road transport, water and air transport, pipelines, warehousing and cold storage, postal and courier services, telecommunications, radio and television.
3. **Financial services:** banking, insurance, pension funds, mutual funds, stock markets and non-banking financial companies (NBFCs).
4. **Real estate, ownership of dwellings and professional services:** real estate activities, housing, IT and IT-enabled services (software, BPO), legal, accounting, consultancy, research and development, advertising and other business services.
5. **Public administration and defence:** services of central, state and local governments.
6. **Other services:** education, health and social work, recreation and entertainment, personal services (laundry, beauty parlours), domestic services, and religious and community services.

Note: **Construction** is classified under the secondary sector (industry) in India's national accounts.

Types of services by user:

1). Producer (business) services: used by firms as inputs, banking, transport, logistics, IT, advertising and consultancy.

2). Consumer services: used by households, retail trade, restaurants, entertainment and personal care.

3). Social or public services: provided mainly by the government for public welfare — education, health, sanitation and social security.

4). Distributive services: trade, transport and communication, which link producers and consumers.

Traditional and modern services:

1). Traditional services: small retail shops, domestic help, and repair, personal services, mostly informal, low-skilled and low-paid.

2). Modern services: IT, finance, telecommunications, and e-commerce and professional services, mostly formal, skilled and high-productivity.

4.2 Role of Service Sector in Indian Economy

The service sector has emerged as the largest and fastest-growing sector of the Indian economy since Independence. The pace of change quickened after the economic reforms of 1991. Liberalisation of telecom, banking, insurance and aviation, the boom in IT and IT-enabled services, rising services exports, large inflows of foreign direct investment, rising incomes, urbanisation and rapid digitalisation all pushed the sector forward. India’s experience, however, departs from the classical Fisher–Clark pattern of structural change, in which labour moves first from agriculture to manufacturing and only later to services. India has largely “leapfrogged” from an agriculture-based economy to a services-led one. A major imbalance results: the share of services in output rose by about 26 percentage points, but its share in employment rose by only about 13 points. Services now produce more than half of national output while providing less than one-third of jobs, and nearly 45 per cent of workers still depend on agriculture. This trend raises concerns

about jobless growth, a widening gap between a high-productivity modern segment such as IT and finance and a low-wage informal segment such as petty trade and domestic work, and the mismatch between workers' skills and the skills the sector demands. Sustained and inclusive development therefore requires making growth more employment-intensive, through labour-intensive manufacturing, skill development and the formalisation of informal services.

Role and importance of the service sector:

1. **Largest contributor to national income:** Services contribute more than half of India's GVA, and the sector accounts for more than half of the growth of GDP in most years.
2. **Employment generation:** The sector employs nearly 30 per cent of the workforce, in trade, transport, education, health, finance, IT, hotels and public administration. It is a major source of jobs for women and educated youth.
3. **Exports and foreign exchange:** Services have become a major source of export earnings and foreign exchange for India. Services exports have grown much faster than merchandise exports and reached about US$ 387.5 billion in 2024–25, which makes India the world's seventh-largest exporter of services. India's share in world services exports more than doubled, from 2 per cent in 2005 to 4.3 per cent in 2024. This is more than twice its share in world merchandise exports, which is only about 1.8 per cent, and it reflects India's comparative advantage in skill-based activities such as software, IT-enabled services and business
4. **Largest recipient of FDI:** Services (finance, banking, insurance, IT, telecom, trade) attract the largest share of FDI inflows.
5. **Support to agriculture and industry:** Transport, storage, banking, insurance, communication and marketing are essential for producing and selling agricultural and industrial goods.
6. **Development of human capital:** Education and health services raise the productivity and quality of the labour force, which is necessary to reap the demographic dividend.
7. **Infrastructure development:** Transport, power and telecommunications services form the backbone of the economy.
8. **Increase in government revenue:** The services sector is a major source of GST and income-tax revenue.

9. **Urbanisation and modernisation:** Services promote the growth of cities, modern lifestyles and new technology.
10. **Women's empowerment:** Services such as teaching, nursing, IT, banking and retail offer more employment to women than many other sectors.
11. **Global recognition:** Indian IT, pharmaceutical and professional services have earned India an international reputation as the **"back office of the world"**.

Reasons for the rapid growth of services in India:

1. **Economic reforms of 1991:** liberalisation of banking, insurance, telecom, aviation and trade; entry of private and foreign firms.
2. **IT revolution:** the growth of software and IT-enabled services, helped by low costs and outsourcing.
3. **Availability of skilled, English-speaking manpower** at relatively low wages.
4. **Rising incomes and changing consumption patterns:** higher demand for education, health, tourism, entertainment and financial services (high **income elasticity of demand** for services).
5. **Expansion of government services** — administration, defence, education and health.
6. **Outsourcing** (**"splintering"**) by firms of activities such as accounting, logistics and security to specialised service providers.
7. **Urbanisation** and the growth of the middle class.
8. **Technological progress** — mobile phones, the internet and digital payments.
9. **Globalisation** and the growth of international trade in services.

The service sector is the main engine of India's growth, exports and modernisation. However, for inclusive development, its growth must be accompanied by faster growth of manufacturing, skill development and better-quality jobs in services.

4.3 Infrastructure: Education

Infrastructure refers to the basic physical and organisational facilities and services that support economic activity and improve the quality of life. Infrastructure is like the foundation of a building: without it, development cannot take place. It is classified into two types:

1. **Economic infrastructure:** facilities that directly support production and distribution, energy (power, oil, gas), transport, communication, irrigation, banking and insurance.
2. **Social infrastructure:** facilities that improve human development and indirectly support economic activity, education, health, housing, water supply and sanitation.

Education as human capital:

Human capital refers to the stock of knowledge, skills and health embodied in people, which makes them productive. Economists T.W. Schultz and Gary Becker showed that investment in education and health yields high returns, like investment in physical capital. Amartya Sen emphasised that education expands people's capabilities and freedom.

Importance of education:

1. Raises productivity and income of workers.
2. Reduces poverty and inequality by improving employment opportunities.
3. Improves health and nutrition, educated mothers have healthier children.
4. Lowers fertility and population growth.
5. Promotes technological progress, innovation and research**.**
6. Empower women and weaker sections and promotes social equality.
7. Strengthens democracy through informed citizens.
8. Necessary for reaping the demographic dividend**.**

Structure of education in India:

1). School education: pre-primary, primary (classes I–V), upper primary (VI–VIII), secondary (IX–X) and higher secondary (XI–XII).

2). Higher education: universities (central, state, deemed and private), colleges, IITs, IIMs, NITs, AIIMS and other institutions of national importance.

3). Vocational and technical education: ITIs, polytechnics and skill centres.

4). Regulatory bodies: University Grants Commission (UGC), All India Council for Technical Education (AICTE), NCERT, CBSE and state boards. Education is in the **Concurrent List** of the Constitution since the 42nd Amendment (1976).

Progress of education in India:

India has made remarkable progress in education since Independence. In 1951 the literacy rate was only about 18 per cent. It rose to 74 per cent by the Census of 2011, and recent surveys such as the Periodic Labour Force Survey place it at around 80 per cent. Higher education has expanded even more dramatically. At the time of Independence the country had only about 27 universities and around 600 colleges. According to the latest All India Survey on Higher Education (AISHE 2023–24), released in July 2026, it now has about 1,289 universities and 48,246 colleges. This makes India's higher education system the second largest in the world, with an enrolment of about 4.5 crore students. The Gross Enrolment Ratio (GER) in higher education, which was below 1 per cent in 1951, crossed 30 per cent for the first time in 2023–24, and female GER (31.2 per cent) is now higher than male GER.

Major policies and programmes:

1. **National Policies on Education:** 1968 (Kothari Commission), 1986 (revised 1992), and the National Education Policy (NEP), 2020.
2. **Right of Children to Free and Compulsory Education (RTE) Act, 2009:** made elementary education a fundamental right (Article 21-A, 86th Amendment, 2002) for children aged 6–14; 25 per cent reservation for disadvantaged children in private schools.
3. **Samagra Shiksha (2018):** an integrated scheme merging Sarva Shiksha Abhiyan (2001), Rashtriya Madhyamik Shiksha Abhiyan (2009) and teacher education.
4. **PM POSHAN (Mid-Day Meal Scheme, 1995):** cooked meals in government schools to improve enrolment, attendance and nutrition.
5. **Higher education:** RUSA (Rashtriya Uchchatar Shiksha Abhiyan), Institutions of Eminence, the National Institutional Ranking Framework (NIRF), and scholarships for SC/ST/OBC and minority students.
6. **Digital education:** SWAYAM (online courses), DIKSHA (digital content for schools), PM e-Vidya, and the National Digital Library.
7. **NIPUN Bharat (2021):** foundational literacy and numeracy by class 3.
8. **PM SHRI schools (2022):** model schools to showcase NEP 2020.

Main features of the National Education Policy (NEP), 2020:

1). New **5+3+3+4** school structure replacing 10+2 (covering ages 3–18).

2). Mother tongue or regional language as the medium of instruction at least up to class 5.

3). Emphasis on foundational literacy and numeracy.

4). Vocational education and internships from class 6.

5). Multidisciplinary higher education, with multiple entry and exit options and an Academic Bank of Credits.

6). Target of 50 per cent GER in higher education by 2035.

7). A single regulator — the proposed Higher Education Commission of India (HECI).

8). Public spending on education to be raised to 6 per cent of GDP.

Problems of education in India:

1. **Low public expenditure:** about 4–4.6% of GDP against the long-standing target of 6%.
2. **Poor quality and learning outcomes:** surveys such as ASER show that many children in class 5 cannot read a class 2 text nor do simple division.
3. **High dropout rates** at the secondary level, especially among girls and poor children.
4. **Shortage of trained teachers**, single-teacher schools and teacher absenteeism.
5. **Inadequate infrastructure** — classrooms, toilets, libraries, laboratories and digital facilities.
6. **Gender, caste, rural–urban and regional inequalities.**
7. **Mismatch between education and employability:** many graduates lack job-ready skills.
8. **Commercialisation** and high fees in private institutions.
9. **Low research output** and few Indian universities in global rankings.
10. **Brain drain** of talented students and professionals.

Raise public spending to 6 per cent of GDP; improve teacher training and accountability; focus on learning outcomes; expand vocational education; strengthen research; and bridge the digital divide.

4.4 Infrastructure: Health

The World Health Organization (WHO) defines health as a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity. Health is both an end in itself and a means of development.

Importance of health for economic development:

1. Raises productivity and the working life of people.
2. Reduces loss of working days and income due to illness.
3. Reduces poverty, health expenditure is a major cause of households falling into poverty.
4. Improves learning, healthy children attend school regularly and learn better.
5. Increases life expectancy and the quality of life.
6. Lowers fertility as child survival improves.
7. Health is a key component of the Human Development Index (HDI).

Health indicators — Progress in India:

Since Independence, India has made remarkable progress in the health status of its people. In 1951, the average life expectancy at birth was only about 32 years. It has now risen to about 70–72 years, which means that an Indian today is expected to live more than twice as long as at the time of Independence. Female life expectancy (about 71.4 years) is now higher than that of males (about 68.6 years), reflecting improvements in women's health and nutrition.

The decline in mortality is even more striking. The Infant Mortality Rate (IMR), which measures the number of infants dying before their first birthday per 1,000 live births, was as high as 146 in 1951. According to the Sample Registration System (SRS) Report 2024, it has fallen to 24. Similarly, the Crude Death Rate has come down from 25 per 1,000 population in 1951 to about 6.4 at present. The Under-Five Mortality Rate has also declined to 28 per 1,000 live births.

Fertility has fallen sharply as well. The Crude Birth Rate declined from about 40 per 1,000 population in 1951 to about 18 in recent years. The Total Fertility Rate (TFR) now stands at 1.9, which is below the replacement level of 2.1. This shows that India has entered an advanced stage of demographic transition.

Maternal health has also improved considerably. The Maternal Mortality Ratio (MMR), which refers to the number of women dying from pregnancy-related causes per one lakh live births, was very high in the early years after Independence. It came down to 212 in 2007–09 and further to 87 in 2022–24. However, the pace of improvement has slowed in recent years, and India still has to reach the Sustainable Development Goal target of below 70 by 2030.

These achievements are the result of the expansion of public health services, mass immunisation, control of communicable diseases, better nutrition, safe drinking water, and the spread of education, especially among women. Programmes such as the National Health Mission, Janani Suraksha Yojana and institutional deliveries have played an important role in reducing infant and maternal deaths.

Achievements:

1). Eradication of smallpox (1977) and guinea worm. In February 2000, the World Health Organization certified India free from Guinea worm disease. This was one of the major achievements of India's public health programmes, showing that a disease can be eradicated through safe drinking water, community participation and simple preventive methods, even without a vaccine or medicine. India was declared polio-free in 2014; maternal and neonatal tetanus eliminated (2015).

2). Large reduction in deaths from malaria, tuberculosis and diarrhoeal diseases.

3). One of the world's largest COVID-19 vaccination drives (more than 200 crore doses).

4). India is a major producer of vaccines and generic medicines, and a destination for medical tourism.

Health infrastructure in India:

A. Public health system — three-tier rural structure:

Level	Population	Services
Sub-Centre (SC)	5,000	First point of contact; ANM and health worker; maternal and child health, immunisation
Primary Health Centre (PHC)	30,000	Medical officer; outpatient care, basic curative and preventive services
Community Health Centre (CHC)	1,20,000	Referral centre with specialists (surgeon, physician, gynaecologist, paediatrician) and 30 beds

Sub-Centres and PHCs are being upgraded as Ayushman Arogya Mandirs (Health and Wellness Centres). Above them are sub-district and district hospitals, medical colleges and tertiary hospitals such as the AIIMS.

B. Private Health Sector: Private hospitals, clinics, nursing homes and practitioners provide the majority of outpatient care and a large share of hospital care, especially in urban areas.

C.AYUSH systems: Ayurveda, Yoga and Naturopathy, Unani, Siddha, Sowa-Rigpa and Homoeopathy, under the Ministry of AYUSH (2014).

Major health policies and programmes:

1. **National Health Policies:** 1983, 2002 and 2017. The NHP 2017 aims at universal access to good-quality health care, raising public health expenditure to 2.5 per cent of GDP by 2025, and allocating two-thirds of resources to primary care.
2. **National Health Mission (NHM):** the **National Rural Health Mission (2005)** and the **National Urban Health Mission (2013)**, with ASHA workers (Accredited Social Health Activists) in every village; **Janani Suraksha Yojana** for institutional deliveries.
3. **Ayushman Bharat (2018):** two components —
4. **Ayushman Arogya Mandirs** (more than 1.5 lakh Health and Wellness Centres) for comprehensive primary health care.
5. **Pradhan Mantri Jan Arogya Yojana (PM-JAY):** health insurance cover of ₹5 lakh per family per year for secondary and tertiary hospital care to about 12 crore poor and vulnerable families; extended in 2024 to all senior citizens aged 70 and above. It is one of the largest government-funded health insurance schemes in the world.
6. **Universal Immunisation Programme (1985)** and **Mission Indradhanush (2014)** for full immunisation of children and pregnant women.
7. **Disease control programmes:** National TB Elimination Programme (target: end TB), National AIDS Control Programme, National Vector Borne Disease Control Programme, and the National Programme for Prevention and Control of Non-Communicable Diseases.
8. **Ayushman Bharat Digital Mission (2021):** digital health IDs (ABHA) and electronic health records.

9. **Pradhan Mantri Bhartiya Janaushadhi Pariyojana:** low-cost generic medicines through Jan Aushadhi Kendras.
10. **PM Ayushman Bharat Health Infrastructure Mission (2021):** strengthening health infrastructure for future pandemics.
11. **Expansion of medical education:** new AIIMS and medical colleges; increase in MBBS seats.
12. **Nutrition and sanitation:** POSHAN Abhiyaan, Swachh Bharat Mission and Jal Jeevan Mission, which improve health indirectly.

Problems of the health sector in India:

1. **Low public expenditure on health:** about 1.5–2 per cent of GDP, far below the NHP target of 2.5 per cent and much lower than in many countries.
2. **High out-of-pocket expenditure (OOPE):** households pay a large share (about 40–50 per cent, falling in recent years) of total health expenditure themselves, pushing millions into poverty every year.
3. **Shortage of human resources:** shortage of doctors, nurses and specialists, especially in rural CHCs; the doctor–population ratio is low in many states.
4. **Inadequate infrastructure:** shortage of hospital beds, equipment and diagnostic facilities in rural areas.
5. **Urban–rural and regional disparities:** states such as Kerala and Tamil Nadu have much better health indicators than Bihar, Uttar Pradesh and Madhya Pradesh.
6. **Double burden of disease:** communicable diseases (TB, malaria, dengue) persist, while non-communicable diseases (diabetes, heart disease, cancer, hypertension) are rising rapidly.
7. **Malnutrition and anaemia** among children and women.
8. **Unregulated private sector** and high costs of private care.
9. **Poor quality of care** in many public facilities.

Increase public spending on health to at least 2.5–3 per cent of GDP; strengthen primary health care; train more doctors, nurses and paramedics; expand health insurance; regulate the private sector; and promote preventive care, nutrition and sanitation.

4.5 Infrastructure: Transport

Transport is the lifeline of the economy. It enables the movement of people, raw materials and goods. Transport is the backbone of economic development. It widens the market by carrying goods to distant places, which makes large-scale production and division of labour possible and lowers the cost of production. It supports agriculture by ensuring the timely supply of inputs such as seeds, fertilisers and machinery, and by carrying farm produce to markets; quick transport also reduces the wastage of perishable goods like fruits, vegetables and milk. Industry depends on transport for the regular supply of raw materials and fuel and for the distribution of finished goods to consumers.

Transport promotes both internal and foreign trade by linking different regions into a single national market and connecting the country with world markets through ports and airports. The transport sector creates employment directly for drivers, railway staff and port workers, and indirectly in vehicle manufacturing, construction, repair services and related activities. Transport also promotes tourism, strengthens national integration by bringing people of different regions closer, and is vital for defence through the quick movement of troops and equipment. Finally, it plays a crucial role in emergencies such as famines, floods and other disasters by enabling the rapid movement of relief materials and the evacuation of people.

Modes of transport in India:

1. Railways

1). The first train in India ran between Bombay (Bori Bunder) and Thane on 16 April 1853.

2). Indian Railways is one of the largest railway networks in the world, with about 68,000 route km and more than 7,000 stations, and is one of the largest employers in the world.

3). It carries more than 800 crore passengers and 150 crore tonnes of freight a year (approx.), mainly bulk goods, coal, iron ore, foodgrains, cement, fertilisers and petroleum.

4). The Railway Budget was merged with the Union Budget in 2017.

5). Indian Railways is divided into 18 zones for administrative purposes, the latest being the South Coast Railway with headquarters at Visakhapatnam (operational from 1 June 2026).

6). Recent initiatives: Indian Railways has taken several recent initiatives to modernise the network. Dedicated Freight Corridors, the Eastern (Ludhiana–Sonnagar) and the Western (Dadri–JNPT, Mumbai), have been completed exclusively for goods trains, reducing congestion and logistics costs. Passenger services have been improved through the semi-high-speed Vande Bharat trains and the non-AC Amrit Bharat trains for ordinary passengers. Under Mission 100 per cent Electrification, about 99.6 per cent of the broad-gauge network has been electrified, reducing diesel use and pollution. The Mumbai–Ahmedabad high-speed rail (bullet train) project, built with Japanese technology, is expected to start its first section in 2027. Under the Amrit Bharat Station Scheme, over 1,300 stations are being redeveloped with modern facilities. For safety, the indigenous Kavach system automatically applies brakes to prevent collisions and over-speeding. These initiatives aim to make Indian Railways faster, safer and more efficient.

2. Roads

Roads are the most important means of transport in India. India has the second largest road network in the world, with a total length of about 63–66 lakh km. Roads carry about 85–90 per cent of passenger traffic and more than 60 per cent of freight traffic in the country. The road network is divided into National Highways, State Highways, District Roads, Rural Roads and Urban Roads. National Highways are developed and maintained by the Ministry of Road Transport and Highways and the National Highways Authority of India (NHAI). Their length has grown from 91,287 km in 2014 to 1,46,560 km in 2025, an increase of about 61 per cent. Though National Highways form only about 2 per cent of the total road network, they carry nearly 40 per cent of the road traffic, and hence are called the backbone of India's road system.

Major programmes:

1). National Highways Development Project (NHDP, 1998) — the **Golden Quadrilateral** linking Delhi, Mumbai, Chennai and Kolkata, and the **North–South and East–West Corridors**.

2). Pradhan Mantri Gram Sadak Yojana (PMGSY, 2000) — all-weather road connectivity to unconnected villages.

3). Bharatmala Pariyojana (2017) — economic corridors, border and coastal roads and expressways.

4). Expressways such as the Delhi–Mumbai Expressway.

5). FASTag electronic toll collection.

3. Water transport

India has a coastline of about 7,500 km, revised to about 11,098 km in 2024. It has 12 major ports. There are also more than 200 non-major ports managed by state governments. Ports handle about 90–95 per cent of India's foreign trade by volume and about 65–70 per cent by value. To strengthen this sector, the Government launched the Sagarmala Programme in 2015 for port-led development. It rests on four pillars: port modernisation, port connectivity, port-led industrialisation and coastal community development.

In inland water transport, 111 National Waterways have been declared under the National Waterways Act, 2016, and are developed by the Inland Waterways Authority of India (IWAI, 1986). The most important is NW-1, the Ganga–Bhagirathi–Hooghly system from Haldia to Prayagraj, about 1,620 km long, which is being upgraded under the Jal Marg Vikas Project. Water transport is the cheapest, most fuel-efficient and least polluting mode for bulk cargo, and it reduces congestion on roads and railways. However, it is slow and depends on seasonal water levels.

4. Air transport

1). India is the third largest domestic aviation market in the world.

2). Air India was nationalised in 1953 and privatised (sold to the Tata Group) in 2022. Private airlines such as IndiGo now carry most of the passenger traffic.

3). The Airports Authority of India (AAI) manages most airports; several major airports are operated under PPP.

4). UDAN (Ude Desh ka Aam Nagrik), 2016, which means "Let the common citizen of the country fly." regional connectivity scheme to make air travel affordable and to connect small towns.

5). There were 74 airports in 2014, rising to 157 in 2024. The Ministry of Civil Aviation now puts the number at 164. This total counts heliports and water aerodromes as well. The Government aims to raise it to 350–400 by 2047.

5. Pipelines: Pipelines are used for transporting crude oil, petroleum products and natural gas. The National Gas Grid is being developed.

India's transport sector still faces high logistics costs, congestion, poor rural connectivity, over-dependence on roads, road accidents, pollution and the need for

huge investments. Solving these problems through an efficient and integrated transport system is essential for India to become a US$ 5 trillion economy and a developed nation by 2047.

4.6 Infrastructure: Banking and Insurance

1. Banking

A bank is a financial institution that accepts deposits from the public, repayable on demand or otherwise, and lends money to individuals, firms and the government. Banks are the most important part of the financial system and act as intermediaries between savers and investors.

Functions of commercial banks:

1). Primary functions: Accepting deposits, and advancing loans.

2). Credit creation: Banks create credit on the basis of their primary deposits.

3). Agency functions: Collection of cheques, payment of bills and taxes, transfer of funds, and acting as trustees.

4). General utility functions: Issue of drafts and letters of credit, safe deposit lockers, foreign exchange, debit and credit cards, digital banking.

5). Development functions: Financing priority sectors and implementing government schemes.

Structure of the Indian banking system:

1. Reserve Bank of India (RBI): the central bank of India, established on 1 April 1935 under the RBI Act, 1934, on the recommendation of the Hilton Young Commission, and nationalised on 1 January 1949. Its headquarters is in Mumbai. Functions: issue of currency notes; banker to the government; banker's bank and lender of last resort; controller of credit; custodian of foreign exchange reserves; regulator and supervisor of banks; and promoter of financial inclusion and payment systems.

2. Scheduled Commercial Banks

1. **Public Sector Banks:** There are 12 PSBs, reduced from 27 in 2017 through mergers completed by April 2020. The Government holds a majority (over 51 per

cent) stake in each. The State Bank of India is the largest bank in the country.

2. **Private Sector Banks:** These include old private banks, such as Karur Vysya Bank and South Indian Bank, and new private banks licensed after 1993, such as HDFC Bank, ICICI Bank and Axis Bank.
3. **Foreign Banks:** These are banks incorporated abroad that operate in India through branches or subsidiaries, such as Citibank, HSBC and Standard Chartered.
4. **Regional Rural Banks (RRBs):** These were set up in 1975 to provide credit to small farmers, agricultural labourers and artisans. They are jointly owned by the Centre, the State and a sponsor bank. Under the "One State, One RRB" amalgamation in 2025, their number was reduced to 28.
5. **Small Finance Banks and Payments Banks:** These are differentiated banks licensed from 2015–16 to promote financial inclusion.

3. Cooperative banks: urban cooperative banks, and state and district central cooperative banks.

4. Development financial institutions: NABARD, SIDBI, EXIM Bank, NHB and NaBFID (2021, for infrastructure).

5. Non-Banking Financial Companies (NBFCs) and microfinance institutions.

Major developments in Indian banking:

1. Nationalisation of banks: The Imperial Bank of India was nationalised as the State Bank of India in 1955. 14 major commercial banks were nationalised on 19 July 1969 and 6 more in 1980. The objectives were to spread banking to rural areas, direct credit to priority sectors (agriculture, small industries, weaker sections) and reduce the concentration of economic power.

2. Achievements after nationalisation: a large increase in rural branches (Lead Bank Scheme, 1969), mobilisation of deposits, priority sector lending, and the Differential Rate of Interest (DRI) scheme.

3. Banking sector reforms after 1991: on the recommendations of the **Narasimham** Committees (1991 and 1998):

1. Reduction of CRR and SLR.
2. Deregulation of interest rates.

3. Prudential norms for income recognition, asset classification and provisioning; **capital adequacy** (Basel I, II and III norms).
4. Entry of new private sector banks.
5. **Debt Recovery Tribunals (1993)** and the **SARFAESI Act, 2002** for recovery of bad loans.

4. Non-Performing Assets (NPAs) and the twin balance sheet problem: Gross NPAs of banks rose to more than 11 per cent in 2017–18. The government responded with the Asset Quality Review (2015), recapitalisation of public sector banks, the Insolvency and Bankruptcy Code (IBC), 2016, and the merger of public sector banks (27 reduced to 12 by 2020). NPAs have since fallen sharply, to about 2–3 per cent recently.

5. Financial inclusion:

1. **Pradhan Mantri Jan Dhan Yojana (PMJDY), 28 August 2014:** zero-balance accounts with a RuPay debit card and accident insurance; more than **50 crore accounts** have been opened (approx.).
2. **JAM trinity** (Jan Dhan–Aadhaar–Mobile) and **Direct Benefit Transfer (DBT)**.
3. **Business correspondents (bank mitras)** in villages.

6. Digital banking and payments:

1. National Payments Corporation of India (NPCI, 2008).
2. Unified Payments Interface (UPI), 2016 — instant, free mobile payments; India accounts for nearly half of the world's real-time digital payment transactions.
3. RuPay cards, BHIM app, NEFT, RTGS, IMPS and FASTag.
4. The RBI's pilot of the digital rupee (e₹, CBDC) in 2022.

Banks mobilise savings, promote capital formation, provide credit to all sectors, encourage entrepreneurship, promote financial inclusion and support government welfare schemes. A strong and efficient banking system is therefore essential for rapid and inclusive economic development.

2. Insurance

Insurance is a contract by which one party (the insurer) agrees, in return for a payment called the premium, to compensate the other party (the insured) for a specified loss, damage, illness or death. Insurance spreads the risk of a few over

many people. Insurance plays an important role in the economic and social life of a country. It protects individuals and businesses against risk and uncertainty by compensating them for losses from accidents, fire, illness, natural calamities and death. Insurance companies, especially in life insurance, mobilise long-term savings in the form of premiums and invest them in infrastructure, government securities and capital markets, which promotes capital formation. The insurance sector also generates employment for lakhs of agents, officers, surveyors and other professionals. Thus, insurance not only provides security but also contributes significantly to economic development.

Types of insurance:

1. **Life insurance:** pays a sum to the nominee on the death of the insured, or to the insured on maturity (term plans, endowment policies, pension plans).
2. **General (non-life) insurance:** covers losses other than death — health, motor, fire, marine, crop, property, travel and liability insurance.
3. **Reinsurance:** insurance for insurance companies.

Development of insurance in India

1. **The Oriental Life Insurance Company** (1818, Kolkata) was the first life insurance company in India.
2. **Nationalisation of life insurance:** about 245 private companies were nationalised, and the **Life Insurance Corporation of India (LIC)** was established on **1 September 1956**.
3. **Nationalisation of general insurance (1972):** the **General Insurance Corporation of India (GIC)** was formed with four subsidiaries — National, New India, Oriental and United India.
4. **Insurance sector reforms:** On the recommendation of the **Malhotra Committee (1994)**, the **Insurance Regulatory and Development Authority (IRDA) Act, 1999** was passed. The **IRDAI** (headquarters: Hyderabad) regulates the sector. Private and foreign companies were allowed to enter, with **FDI up to 26 per cent**, raised to **49 per cent (2015)** and **74 per cent (2021)**. The **Union Budget 2025–26** proposed raising it to **100 per cent** for companies that invest the entire premium in India.
5. Today, India has more than 60 insurance companies, including life, general, health and reinsurance companies. **LIC** remains the largest life insurer; its IPO

was launched in 2022.

6. **Vision "Insurance for All by 2047"** (IRDAI).

Government insurance schemes:

To extend insurance coverage to the poor and unorganised sections, the Government of India has launched several schemes.

1. The **Pradhan Mantri Jeevan Jyoti Bima Yojana (PMJJBY, 2015)** provides a life cover of ₹2 lakh for an annual premium of ₹436 to people aged 18–50 years.
2. The **Pradhan Mantri Suraksha Bima Yojana (PMSBY, 2015)** offers an accident cover of ₹2 lakh for a very low premium of ₹20 per year to people aged 18–70 years.
3. The **Atal Pension Yojana (APY, 2015)** guarantees a monthly pension of ₹1,000 to ₹5,000 after the age of 60, mainly for workers in the unorganised sector.
4. The **Pradhan Mantri Fasal Bima Yojana (PMFBY, 2016)** gives crop insurance to farmers at a low premium of 2 per cent for kharif crops, 1.5 per cent for rabi crops and 5 per cent for commercial and horticultural crops.
5. The **Ayushman Bharat – Pradhan Mantri Jan Arogya Yojana (PM-JAY, 2018)** provides a health cover of ₹5 lakh per family per year for secondary and tertiary hospital care, and since 2024 it has been extended to all senior citizens aged 70 and above.

These schemes have greatly expanded social security and financial protection for the common people.

Problems of the insurance sector:

1. **Low insurance penetration** (premium as a percentage of GDP) — about 3.7–4 per cent, compared with the world average of about 7 per cent.
2. **Low insurance density** (premium per person).
3. **Lack of awareness**, especially in rural areas and among the poor.
4. **Under-insurance** and a large **protection gap** in health and life cover.
5. **Mis-selling** of policies and delays in claim settlement.
6. Limited reach of **health insurance** for the "missing middle" — those neither poor enough for government schemes nor rich enough to buy private policies.

4.7 Infrastructure: Information Technology

Information Technology (IT) refers to the use of computers, software, telecommunication networks and the internet to create, store, process, retrieve and transmit information. Information and Communication Technology (ICT) is a broader term that includes telecommunications. IT-enabled Services (ITeS) are services delivered through IT, such as Business Process Outsourcing (BPO), call centres, medical transcription, back-office operations, accounting, data processing, legal process outsourcing and Knowledge Process Outsourcing (KPO).

Components of the IT industry in India (IT–BPM industry):

1. **IT services** — software development, application management, consulting and system integration.
2. **Business Process Management (BPM)** — BPO, customer support and back-office services.
3. **Software products and engineering, research and development (ER&D).**
4. **Hardware** — computers, servers, mobile phones and electronic components.

Growth of the IT industry in India:

1. The Indian IT industry began in the 1960s–70s; TCS was founded in 1968, and Infosys in 1981. The Y2K problem (1999–2000) and the internet boom of the late 1990s gave a big boost.
2. The IT–BPM industry has grown to annual revenues of more than US$ 250 billion, with exports of about US$ 200 billion.
3. It contributes about 7–8 per cent of India's GDP and is the largest private-sector employer in the organised sector, with more than 50 lakh direct employees and many more indirect jobs.
4. India accounts for more than half of the world's IT–BPM outsourcing market.
5. **Global Capability Centres (GCCs):** India has more than 1,500 GCCs of multinational companies, providing high-value research, engineering, analytics and technology services.
6. **Major IT hubs:** Bengaluru, Hyderabad, Chennai, Pune, Mumbai, Noida, Gurugram and Kolkata.

7. **Leading companies:** TCS, Infosys, HCLTech, Wipro, Tech Mahindra and LTIMindtree; global firms such as Microsoft, Google, Amazon, IBM and Accenture have large operations in India.

Factors responsible for the growth of the IT industry in India:

1. **Large pool of skilled, English-speaking manpower** — engineers and graduates from IITs, NITs and engineering colleges.
2. **Low cost of skilled labour** compared with the USA and Europe.
3. **Time-zone advantage** — work can be done in India while the USA sleeps, enabling round-the-clock service.
4. **Government Support to the IT Industry:** The Government of India has supported the growth of the IT industry through several measures. The **Software Technology Parks of India (STPI)**, set up in 1991, provided software firms with ready infrastructure, high-speed data communication links, single-window clearance and tax benefits, which made India an attractive destination for software exports. The **Information Technology Act, 2000** gave legal recognition to electronic records and digital signatures and created a legal framework for e-commerce and for dealing with cyber-crime. The **National Policy on Information Technology (2012)** aimed to make India a global IT hub and to use IT for inclusive growth. In addition, **Special Economic Zones (SEZs)**, under the SEZ Act, 2005, offered IT companies world-class facilities and tax concessions. These measures played a major role in making India one of the world's leading exporters of software and IT services.
5. **Economic reforms of 1991** — liberalisation of imports of computers and telecom.
6. **Telecom revolution** — cheap mobile phones and data after the **National Telecom Policy (1994, 1999)** and the entry of private operators.
7. **Global trend of outsourcing** by multinational companies.
8. **Indian diaspora** in the USA's technology industry.
9. **Quality certification** — many Indian firms have high-level quality certifications (CMM Level 5).

Role and importance of IT in the Indian economy:

1. **Export earnings:** IT and ITeS are India's largest services exports.
2. **Employment** for educated youth, including women, and growth of the middle class.
3. **E-governance: Digital India** (1 July 2015) — online services such as Aadhaar, DigiLocker, e-passports, land records, income-tax filing and the GST network.
4. **Productivity improvement** in agriculture (e-NAM, weather forecasts), industry (automation), banking (core banking, UPI) and trade (e-commerce).
5. **Education and health:** online learning (SWAYAM, DIKSHA) and telemedicine (**eSanjeevani**).
6. **Transparency and reduced corruption** through DBT and online processes.
7. **Growth of startups** and innovation.
8. **Global image** of India as a knowledge economy.

4.8 Introduction to Gig Economy

The word **gig** originally referred to a single performance by a musician. The gig economy is a labour market in which work is done on a short-term, task-based, freelance or contract basis, rather than through permanent, full-time employment. Workers are paid for each task or "gig" completed. Much of this work is organised through digital platforms (apps and websites) that connect workers with customers.

Definition (Code on Social Security, 2020):

1). A gig worker is a person who performs work or participates in a work arrangement and earns from such activities outside a traditional employer–employee relationship.

2). A platform worker is a person engaged in platform work, that is, work in which organisations or individuals use an online platform to access other organisations or individuals to solve specific problems or provide specific services in exchange for payment.

Classification of gig workers (NITI Aayog, 2022):

1). Platform workers: work through online software apps or digital platforms, for example, delivery partners of food and grocery apps (Zomato, Swiggy, Blinkit),

drivers of ride-hailing apps (Ola, Uber, Rapido), e-commerce delivery (Amazon, Flipkart), home services (Urban Company), and freelancers on online platforms.

2). Non-platform workers: casual wage workers and own-account workers in conventional sectors, engaged part-time or full-time.

By skill level, gig work is also divided into high-skilled (software, design, consultancy), medium-skilled (accounting, data entry) and low-skilled (delivery, driving, cleaning) work.

Size and growth of the gig economy in India:

1). According to NITI Aayog's report India's Booming Gig and Platform Economy (June 2022), there were about 77 lakh gig workers in 2020–21, about 1.5 per cent of the total workforce.

2). The number is expected to grow to about **2.35 crore by 2029–30**, about 4–4.5 per cent of the workforce.

3). About 47 per cent of gig work is medium-skilled, 22 per cent high-skilled and 31 per cent low-skilled (approx.).

4). Retail trade and sales, transportation, and manufacturing and finance are the major sectors employing gig workers.

Reasons for the growth of the gig economy:

1. Spread of smartphones, cheap mobile data and digital payments (UPI).
2. Growth of e-commerce, food delivery and app-based services.
3. Demand for flexibility by workers — students, women and those seeking a second income.
4. Cost advantage for businesses, which can hire workers as needed without long-term commitments.
5. Lack of formal jobs, which leads young people to take up gig work.
6. Urbanisation and changing consumer lifestyles.
7. COVID-19, which increased demand for home delivery and remote work.

Advantages of the gig economy:

For workers:

1. Flexibility in working hours and location; freedom to choose work.
2. Easy entry, with few formal qualifications needed for many tasks.
3. Additional or supplementary income.
4. Opportunities for women, students, retired persons and persons with disabilities.
5. Independence and the possibility of working for many clients.

For businesses and consumers:

1. Lower costs and access to a large pool of workers.
2. Convenience and quick services for consumers.
3. Promotion of entrepreneurship and innovation.

For the economy:

1. Employment generation, especially for youth.
2. Formalisation of some informal work through digital records and payments.

Problems and challenges of gig workers:

1. **Lack of job security** — work can be withdrawn at any time; no fixed contract.
2. **Uncertain income**; earnings depend on demand, incentives and platform commissions.
3. **No social security** — no provident fund, pension, health insurance, paid leave.
4. **Long working hours** and physical stress; risk of road accidents for delivery workers.
5. **Algorithmic management** — workers are controlled by apps through ratings, targets and penalties, without human supervisors; account deactivation without explanation.
6. **Unclear legal status** — platforms call workers "partners" or "independent contractors", not employees, so labour laws such as minimum wages do not apply.
7. **Lack of collective bargaining** and grievance redressal.
8. **Gender issues** — safety concerns for women gig workers.

Government measures for gig workers:

1. **Code on Social Security, 2020:** for the first time, recognises gig workers and platform workers in law and provides for social security schemes and a Social Security Fund and National Social Security Board.
2. **e-Shram portal (August 2021):** a national database of unorganised workers, including gig and platform workers, providing a Universal Account Number and accident insurance.
3. **Union Budget 2025–26:** identity cards and registration of platform workers on the e-Shram portal, and health care under PM Jan Arogya Yojana for about one crore platform workers.
4. **NITI Aayog's recommendations:** platform-led skilling, access to institutional credit, social security through public–private partnership, gender-sensitive policies, and better data collection on gig workers.

The gig economy offers flexibility and new employment opportunities to millions of young Indians and can help absorb the growing labour force. However, to make it a source of decent work (SDG 8), gig workers need fair pay, safe working conditions, social security and grievance redressal.

4.9 Introduction to Digital Economy

The digital economy refers to all economic activity that results from the use of digital technologies, computers, the internet, mobile phones, data, cloud computing, artificial intelligence and digital platforms, in the production, distribution, exchange and consumption of goods and services. Don Tapscott used the term in his book The Digital Economy (1995). It includes not only the ICT sector itself but also the digitalisation of traditional sectors such as agriculture, manufacturing, banking, trade, education and health.

Components of the digital economy:

1. **Digital infrastructure:** broadband and mobile networks, optical fibre, data centres, cloud services and semiconductors.
2. **Digital Public Infrastructure (DPI)**

1. **Aadhaar (2009–10):** a unique 12-digit digital identity for more than 130 crore residents, issued by **Unique Identification Authority of India** (UIDAI) was set up in January 2009 under the Planning Commission.

2. **UPI (2016):** Unified Payments Interface (UPI) is a real-time digital payment system developed by the National Payments Corporation of India (NPCI) under the guidance of the Reserve Bank of India. It was launched in April 2016.
3. **DigiLocker:** DigiLocker is a digital document wallet launched by the Government of India in July 2015 under the Digital India programme. It gives every citizen a secure cloud-based space, linked to their Aadhaar and mobile number, in which important documents can be stored, accessed and shared online. Government departments and institutions issue documents directly into users' DigiLocker accounts..
    1. **e-KYC and e-Sign:** e-KYC (electronic Know Your Customer) is a paperless method of verifying a person's identity and address using Aadhaar authentication provided by UIDAI. When a customer gives consent and authenticates with a fingerprint, iris scan or an OTP sent to the Aadhaar-linked mobile number, UIDAI electronically shares the person's verified name, address, date of birth and photograph with the service provider.
    2. **Account Aggregator framework:** The Account Aggregator framework is a consent-based system for sharing financial data, introduced by the **Reserve Bank of India**. The RBI issued its guidelines in **2016**, and the system was formally launched in **September 2021**. Under this framework, an Account Aggregator is a special type of NBFC licensed by the RBI. It acts as an intermediary that transfers a customer's financial information.
    3. **CoWIN**, **ABDM**, **ONDC** and **DIKSHA**:. **CoWIN**, launched in January 2021, was the digital platform for the COVID-19 vaccination programme. The **Ayushman Bharat Digital Mission** (**ABDM**), launched in September 2021 and implemented by the National Health Authority, is building a digital health ecosystem. The **Open Network for Digital Commerce** (**ONDC**), started in 2022 under the Department for Promotion of Industry and Internal Trade (DPIIT), is an open network that allows buyers and sellers on different apps to transact with each other. **DIKSHA** (Digital Infrastructure for Knowledge Sharing), launched in 2017 by the Ministry of Education and NCERT, is a national platform providing e-textbooks, lessons and teacher training in many Indian languages. It is known as "One Nation, One Digital Platform" for school education.
3. **Digital platforms and e-commerce:** online retail (Amazon, Flipkart), food delivery, ride-hailing, travel, social media and online entertainment.

4. **Digital financial services (fintech):** UPI apps (PhonePe, Google Pay, Paytm), digital lending, insurance-tech, online investment and the digital rupee.
5. **E-governance:** online delivery of government services; **Direct Benefit Transfer (DBT)**; GSTN; e-courts; GeM (Government e-Marketplace).
6. **ICT industry:** software, IT services, telecom and electronics manufacturing.
7. **Emerging technologies:** artificial intelligence, the Internet of Things (IoT), blockchain, big data analytics and robotics.

Size and growth of India's digital economy:

India's digital economy has grown rapidly in recent years. According to estimates by the Ministry of Electronics and Information Technology (MeitY) and ICRIER, it contributed about 11.7 per cent of GDP in 2022–23 and is expected to reach about one-fifth of GDP by 2029–30. The country has more than 90 crore internet users and over 115 crore mobile phone connections, and it enjoys some of the lowest mobile data prices in the world. UPI now processes about 2,400 crore transactions a month, and it is being adopted by other countries such as Singapore, the UAE, France, Sri Lanka and Nepal. India is also the world's third largest startup ecosystem and has one of the largest e-commerce markets. The ICRIER–Prosus report, *State of India's Digital Economy* (2024), ranks India among the top countries in the overall size of its digital economy, but much lower in digitalisation per user. This shows that while India's digital economy is large in scale, there is still wide scope to increase digital access and use for every individual.

Government initiatives for the digital economy:

1. **Digital India Programme (1 July 2015):** with three vision areas, digital infrastructure as a core utility for every citizen, governance and services on demand, and digital empowerment of citizens. Its nine pillars include broadband highways, universal mobile connectivity, public internet access, e-governance, e-Kranti (electronic delivery of services), information for all, electronics manufacturing, IT for jobs, and early harvest programmes.
2. **BharatNet:** optical fibre connectivity to all gram panchayats.
3. **Pradhan Mantri Gramin Digital Saksharta Abhiyan (PMGDISHA):** digital literacy for rural households.
4. **Common Service Centres (CSCs):** access points for digital services in villages.

5. **Open Network for Digital Commerce (ONDC, 2022):** an open network to democratise e-commerce for small sellers.
6. **Digital Personal Data Protection (DPDP) Act, 2023:** protection of personal data and privacy.
7. **IndiaAI Mission (2024)** and the **India Semiconductor Mission (2021).**
8. **Production Linked Incentive schemes** for electronics and IT hardware.
9. **Digital payments promotion**, especially after demonetisation (2016).

India has emerged as a global leader in digital public infrastructure, and the digital economy is becoming a major engine of growth, inclusion and good governance. To realise its full potential, India must bridge the digital divide, strengthen cyber-security and data protection, and prepare its workforce for the age of artificial intelligence.

4.10 Model Examination Questions

Short Answer Questions

4. What are the components of the service sector?
5. What is the difference between economic and social infrastructure?
6. What is Ayushman Bharat?
7. What is meant by the gig economy?
8. What is Digital Public Infrastructure?

Essay Questions

11. Explain the role of the service sector in the Indian economy.
12. Discuss the progress and problems of education in India.
13. Examine the state of health infrastructure in India and the major health programmes.
14. Describe the growth of the banking and insurance sectors in India.
15. Explain the growth and role of the IT sector and the digital economy in India.

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MODULE

5

Planning and NITI Aayog

5.0 Introduction

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5.0 Introduction

Economic planning means the deliberate direction of economic activity by a central authority to achieve definite goals within a fixed period. India adopted planning soon after Independence: the Planning Commission was set up on 15 March 1950, and twelve Five Year Plans were implemented between 1951 and 2017. The plans built a diversified industrial base, achieved self-sufficiency in foodgrains, expanded infrastructure, education and health, and raised the growth rate from about 3.5 per cent a year in the early decades to 7–8 per cent in the 2000s. At the same time, they failed to remove poverty and unemployment fully, regional and income inequalities persisted, and many targets were missed because of resource shortages, wars, droughts and implementation weaknesses. With the end of the Twelfth Plan, the Planning Commission was replaced by NITI Aayog on 1 January 2015. NITI Aayog is a policy think tank based on cooperative and competitive federalism, with the Prime Minister as Chairperson and the Chief Ministers in its Governing Council. It prepares long-term visions and strategies, monitors the Sustainable Development Goals and publishes state rankings, but it has no power to allocate funds, which has drawn both praise and criticism.

5.1 Five Year Plans in India: An Overview

Economic planning is the process by which a central planning authority decides the priorities, targets and resources of the economy for a fixed period, and directs economic activity to achieve them. In the words of the Planning Commission, planning is a way of organising and utilising resources to maximum advantage in terms of defined social ends.

Need for planning in India after Independence:

1. To break the vicious circle of poverty and raise national income.
2. To build a modern industrial base, especially basic and heavy industries.
3. To mobilise scarce capital and use it for priority sectors.
4. To reduce inequalities of income, wealth and regions.
5. To create employment for a rapidly growing labour force.
6. To achieve economic self-reliance and reduce dependence on foreign aid.

Before Independence, the National Planning Committee (1938) headed by Jawaharlal Nehru, the Bombay Plan (1944) by industrialists, the Gandhian Plan (1944) by S.N. Agarwal, and the People's Plan (1945) by M.N. Roy were prepared. After Independence, the Planning Commission was set up by a resolution of the Union Cabinet on 15 March 1950, with the Prime Minister as its Chairman. The National Development Council (NDC), set up in 1952 with all Chief Ministers as members, gave final approval to the plans.

Long-term objectives of Indian planning:

1. **Growth** — a high rate of growth of national and per capita income.
2. **Modernisation** — of technology, institutions and social outlook.
3. **Self-reliance** — reducing dependence on imports and foreign aid.
4. **Social justice and equity** — reducing poverty and inequality.
5. **Full employment** — productive work for all.

The Five Year Plans at a glance:

Plan	Period	Main objective / strategy	Target growth (%)	Actual growth (%)
First	1951–56	Agriculture, irrigation and power; based on the Harrod–Domar model	2.1	3.6
Second	1956–61	Rapid industrialisation, heavy and basic industries; Mahalanobis model	4.5	4.3
Third	1961–66	Self-reliant and self-generating economy	5.6	2.8
Annual Plans	1966–69	Recovery after wars and droughts; Green Revolution began	—	—
Fourth	1969–74	Growth with stability and progressive self-reliance	5.7	3.3
Fifth	1974–79	Removal of poverty (*Garibi Hatao*) and self-reliance; ended a year early	4.4	4.8
Rolling Plan	1978–80	Plan revised every year (Janata Government)	—	—
Sixth	1980–85	Removal of poverty, employment and technology; IRDP, NREP	5.2	5.7
Seventh	1985–90	Food, work and productivity	5.0	6.0

Plan	Period	Main objective / strategy	Target growth (%)	Actual growth (%)
Annual Plans	1990–92	Political instability and the economic crisis	—	—
Eighth	1992–97	Human development; first plan after the 1991 reforms (indicative planning)	5.6	6.8
Ninth	1997–2002	Growth with social justice and equity	6.5	5.5
Tenth	2002–07	8 per cent growth; monitorable targets for poverty, literacy and health	8.0	7.6
Eleventh	2007–12	Faster and more inclusive growth	9.0	8.0
Twelfth	2012–17	Faster, more inclusive and sustainable growth	8.0	6.7–7.0

Until 1991, Indian planning was imperative in character, with the public sector directing investment. After 1991, from the Eighth Plan onwards, it became indicative planning: the government indicated broad goals and created a favourable environment, while the market and the private sector played a larger role.

5.2 Achievements of Five Year Plans

In more than six decades of planning, the Indian economy changed from a stagnant colonial economy into one of the fastest-growing economies in the world. The main achievements are:

1). Increase in national and per capita income: The growth rate of GDP rose from about 3.5 per cent a year in 1951–80 (the so-called Hindu rate of growth) to about 5.5 per cent in the 1980s and 7–8 per cent in the 2000s. Per capita income has increased many times in real terms.

2). Agricultural development: Foodgrains production rose from about 51 million tonnes in 1950–51 to over 250 million tonnes by the end of the Twelfth Plan. India achieved self-sufficiency in foodgrains through the Green Revolution, the White Revolution (milk, Operation Flood) and the Blue Revolution (fisheries). The irrigated area expanded several times.

3). Industrial development: A broad industrial base was established, including steel, heavy engineering, machine tools, chemicals, fertilisers, petroleum, electronics

and automobiles. Public sector steel plants at Bhilai, Rourkela and Durgapur, and enterprises such as BHEL, ONGC and SAIL, were set up during the plans.

4). Development of infrastructure: Large expansion took place in power generation, railways, roads, ports, airports and telecommunications. Multipurpose river-valley projects such as Bhakra-Nangal, Hirakud and Nagarjuna Sagar were built.

5). Growth of the service sector: Banking, insurance, transport, communication and IT services grew rapidly, and India became a leading exporter of software services.

6). Expansion of education: Literacy rose from 18 per cent (1951) to 74 per cent (2011); IITs, IIMs, universities and research institutions were established.

7). Improvement in health: Life expectancy rose from about 32 years to nearly 70 years; death and infant mortality rates fell sharply; diseases such as smallpox and polio were eradicated.

8). Science and technology: India made major advances in atomic energy, space research (ISRO), agriculture research and information technology.

9). Reduction of poverty: The proportion of the population below the poverty line fell from more than half in the 1970s to about 22 per cent by 2011–12 (Tendulkar method).

10). Self-reliance and foreign trade: India reduced its dependence on food aid, diversified its exports and built large foreign exchange reserves.

11). Social justice: Programmes for Scheduled Castes, Scheduled Tribes, women and the weaker sections, and land reforms, were undertaken.

5.3 Limitations of Five Year Plans

Despite these achievements, Indian planning had several weaknesses:

1). Shortfall in targets: Most plans failed to achieve their growth targets. The Third, Fourth and Ninth Plans fell far short.

2). Persistence of poverty: In spite of many anti-poverty programmes, a large number of people remained poor. The benefits of growth did not reach the poorest sufficiently (lack of the *trickle-down effect*).

3). Growing unemployment: Employment growth lagged behind the growth of the labour force; the plans placed more emphasis on capital-intensive industries than on employment.

4). Inequality of income and wealth: Concentration of economic power increased in the hands of a few business houses, as noted by the Mahalanobis Committee and the Monopolies Inquiry Commission.

5). Regional imbalances: States such as Punjab, Maharashtra, Gujarat and Tamil Nadu developed faster than Bihar, Odisha, Uttar Pradesh and the north-eastern states.

6). Neglect of agriculture in some plans: After the First Plan, the emphasis on heavy industry led to relative neglect of agriculture; growth in agriculture remained slow and dependent on monsoons.

7). Inefficiency of the public sector: Many public enterprises suffered from losses, overstaffing, low productivity and political interference.

8). Inflation: Deficit financing and supply shortages caused rising prices, especially in the 1970s.

9). Defective implementation: Corruption, bureaucratic delays, poor coordination between the Centre and the states, and lack of people's participation weakened the plans.

10). Inadequate mobilisation of resources: Dependence on deficit financing and foreign borrowing increased; the 1991 balance of payments crisis was partly a result.

11). Slow growth of social sectors: Health and education received low priority in budgets; India lagged behind many developing countries in human development indicators.

12). Over-centralisation: Planning was largely top-down; local bodies and states had little say in preparing the plans.

These limitations, together with the shift towards a market economy after 1991, led to the demand for a new institution to replace the Planning Commission.

5.4 NITI Aayog Origin - Replacement of the Planning Commission

On 1 January 2015, the Government of India set up the NITI Aayog (National Institution for Transforming India) through a resolution of the Union Cabinet, replacing the 65-year-old Planning Commission. The word *Niti* in Hindi means *policy*, and *Aayog* means *commission*.

Reasons for replacing the Planning Commission:

1). Changed economic environment: After 1991, the Indian economy became market-oriented; the private sector now accounts for most investment. Centralised, top-down planning was no longer suitable.

2). "One size fits all" approach: The Planning Commission prepared uniform schemes for all states, ignoring regional differences.

3). Weak role of states: States had to approach the Planning Commission for plan funds and had little role in policy-making. There was a need for **cooperative federalism**.

4). Allocation of funds: The Planning Commission's control over plan grants to states overlapped with the role of the Finance Commission and the Finance Ministry.

5). Need for a think tank: The government needed an institution that could give strategic, technical and long-term policy advice, monitor implementation and promote innovation.

6). Criticism of the Planning Commission: It was described as a bureaucratic, outdated body; the 2014 Independence Day speech of the Prime Minister announced its replacement.

Difference between the Planning Commission and NITI Aayog:

Basis	Planning Commission	NITI Aayog
Year of formation	1950	2015
Nature	Centralised planning body	Policy think tank and advisory body
Approach	Top-down	Bottom-up, cooperative federalism

Basis	Planning Commission	NITI Aayog
Financial powers	Allocated plan funds to ministries and states	No power to allocate funds; done by the Finance Ministry
Role of states	Limited; through the National Development Council	Full members of the Governing Council
Plans	Five Year Plans	15-year vision, 7-year strategy, 3-year action agenda
Full-time members	8 or more	Fewer; flexible
Chief executive	Member Secretary	Chief Executive Officer (CEO)

5.5 NITI Aayog: Structure and Composition

NITI Aayog has the following structure:

1). Chairperson: Chairperson the **Prime Minister of India**.

2). Vice-Chairperson: Vice-Chairperson Appointed by the Prime Minister; enjoys the rank of a Cabinet Minister. The first Vice-Chairperson was Dr. Arvind Panagariya. At present, the Vice-Chairperson is **Dr. Ashok Kumar Lahiri**, former Chief Economic Adviser. He was appointed on 25 April 2026 and officially assumed office on 8 May 2026, succeeding Suman K. Bery, who had held the post from May 2022.

1. Dr. Arvind Panagariya (2015–2017)
2. Dr. Rajiv Kumar (2017–2022)
3. Shri Suman K. Bery (2022–2026)
4. Dr. Ashok Kumar Lahiri (2026–present)

3). Governing Council: Governing Council consists of the **Chief Ministers of all States and Union Territories with legislatures**, and the Lieutenant Governors / Administrators of other Union Territories. It is the main body for cooperative federalism and meets to discuss the national development agenda.

4). Regional Councils: Regional Councils formed for specific issues affecting more than one state or region; chaired by the Prime Minister or his nominee, with the Chief Ministers and Lieutenant Governors of the region as members.

5). Full-time members: Full-time members experts appointed by the government, present full-time Members appointed in the April 2026 reconstitution were Rajiv Gauba, Prof. K. V. Raju, Prof. Gobardhan Das, Dr M. Srinivas, and Prof. Abhay Karandikar.

6). Part-time Members: A maximum of two. They are drawn from leading universities, research organisations and other relevant institutions, and serve in an ex-officio capacity on rotation. At present, no part-time members are named.

7). Ex-officio members: a maximum of four members of the Union Council of Ministers, nominated by the Prime Minister.

8). Special invitees: experts, specialists and practitioners with domain knowledge, nominated by the Prime Minister.

9). Chief Executive Officer (CEO): The CEO is appointed by the Prime Minister for a fixed tenure, in the rank of Secretary to the Government of India. The first CEO was Sindhushree Khullar. The present CEO is Shri Anurag Jain, a 1989-batch IAS officer of the Madhya Pradesh cadre. He was appointed in July 2026 for a period of two years.

5.6 NITI Aayog: Objectives

The objectives of NITI Aayog, as stated in the Cabinet resolution of 2015, are:

1). To develop a **shared vision of national development priorities**, sectors and strategies with the active involvement of the states.

2). To foster **cooperative federalism** through structured support initiatives and mechanisms with the states, recognising that strong states make a strong nation.

3). To develop mechanisms to formulate **credible plans at the village level** and aggregate them progressively at higher levels of government (bottom-up planning).

4). To ensure that the interests of **national security** are incorporated in economic strategy and policy.

5). To pay special attention to the **sections of society that may be at risk** of not benefiting adequately from economic progress.

6). To design **strategic and long-term policy and programme frameworks** and initiatives, and to monitor their progress and efficacy.

7). To provide advice and encourage partnerships between key stakeholders and national and international **think tanks**, as well as educational and policy research institutions.

8). To create a **knowledge, innovation and entrepreneurial support system** through a collaborative community of national and international experts.

9). To offer a platform for the **resolution of inter-sectoral and inter-departmental issues**.

10). To maintain a state-of-the-art **resource centre** and be a repository of research on good governance and best practices in sustainable and equitable development.

11). To **actively monitor and evaluate** the implementation of programmes and initiatives, including the identification of the resources needed.

12). To focus on **technology upgradation and capacity building** for the implementation of programmes.

NITI Aayog is based on two hubs first one is the **Team India Hub**, which leads the engagement of states with the Centre, and the second one is **Knowledge and Innovation Hub**, which builds the think-tank capability of the institution.

5.7 NITI Aayog: Functions

The functions of NITI Aayog can be grouped into four categories:

1. **Policy and programme framework:** NITI Aayog replaced the Five Year Plans, the last being the Twelfth Plan, with a 15-year Vision, a 7-year Strategy and a 3-year Action Agenda. The first Three Year Action Agenda covered 2017–18 to 2019–20, and Strategy for New India @75 was released in December 2018. The 15-year Vision was never released as a separate document. The long-term vision was instead taken up as Viksit Bharat @2047, which aims at a developed India by the centenary of Independence.
2. **Cooperative and Competitive Federalism:** NITI Aayog promotes cooperative federalism through Governing Council meetings, chaired by the Prime Minister, with the Chief Ministers of States and UTs with legislatures and the Lieutenant Governors of other UTs. The 11th meeting was held in June 2026 on the theme "Inclusive Human Development for Viksit Bharat@2047". It encourages competitive federalism by publishing indices that rank States. These include the

SDG India Index, the Composite Water Management Index, the School Education Quality Index, the Health Index, the India Innovation Index, the Export Preparedness Index and the Fiscal Health Index.

3. **Monitoring and Evaluation:** NITI Aayog has an important role in monitoring and evaluating development programmes in India. It launched the Aspirational Districts Programme (**ADP**) in January 2018 to quickly and effectively transform 112 of the country's most backward districts. The programme rests on three principles: convergence of Central and State schemes, collaboration among governments, officials and citizens, and competition among districts. Progress is tracked in real time on 49 key indicators under five themes: health and nutrition, education, agriculture and water resources, financial inclusion and skill development, and basic infrastructure. Districts are ranked every month on the "Champions of Change" dashboard according to their incremental improvement. Building on this success, the **Aspirational Blocks Programme** (**ABP**) was launched in January 2023 to improve governance and living standards in 500 underdeveloped blocks across the country. NITI Aayog also monitors and evaluates Central Sector and Centrally Sponsored Schemes through its attached office, the **Development Monitoring and Evaluation Office** (**DMEO**), set up in 2015. DMEO uses tools such as the Output-Outcome Monitoring Framework to assess whether schemes are achieving their objectives, and it recommends corrections for evidence-based policymaking. In addition, NITI Aayog is the nodal body for **coordinating and monitoring the Sustainable Development Goals** (**SDGs**) in India. It maps the 17 SDGs to the relevant ministries and schemes, and it publishes the **SDG India Index**, which ranks States and Union Territories on their progress. This promotes competitive and cooperative federalism in achieving the goals of Agenda 2030.
4. **Think Tank, Knowledge and Innovation Hub:** NITI Aayog acts as the Government of India's premier think tank and as a hub of knowledge and innovation. Under it, the Atal Innovation Mission (AIM), launched in 2016, promotes a culture of innovation and entrepreneurship across the country. It sets up Atal Tinkering Labs in schools, where students from Classes 6 to 12 develop creative and scientific thinking through hands-on work with modern tools such as 3D printers, robotics and electronics. It supports start-ups through Atal Incubation Centres in universities and institutions. It also runs challenge programmes, such as the Atal New India Challenges, that seek innovative

solutions to national problems. As a think tank, NITI Aayog advises the government on important reforms. It prepared the National Monetisation Pipeline (2021), which aims to earn about ₹6 lakh crore by leasing existing public infrastructure assets to private players. It promotes electric mobility through the e-AMRIT portal, launched at COP26 in Glasgow in 2021, and it has contributed to the roadmap for green hydrogen as a clean energy source. It also encourages public–private partnerships (PPPs) in infrastructure and social sectors. In addition, NITI Aayog has created knowledge platforms such as the Women Entrepreneurship Platform (WEP), launched in 2018, which gives women entrepreneurs access to finance, mentoring, networking and market linkages. Other platforms include the National Data and Analytics Platform and the India Energy Dashboard. NITI Aayog also forms partnerships with international organisations and research institutions, such as the World Bank, the UNDP, the Asian Development Bank and leading national and global think tanks, so that India's policymaking can draw on global best practices, expertise and research.

5.8 Critical Appraisal of NITI Aayog

Positive aspects (merits):

1). Cooperative federalism: States are full members of the Governing Council, giving them a greater voice in national policy-making.

2). Competitive federalism: State rankings on SDGs, health, education and water have encouraged states to improve their performance.

3). Bottom-up approach: The focus on village-level plans and the Aspirational Districts Programme brings development closer to people.

4). Flexibility: Without rigid Five Year Plans, policy can respond quickly to changing conditions.

5). Think tank role: It brings in experts from academia, industry and civil society and promotes evidence-based policy.

6). Innovation and entrepreneurship: The Atal Innovation Mission has spread a culture of innovation among students and startups.

7). Focus on outcomes: Monitoring and evaluation of schemes promotes accountability.

Criticism (limitations):

1). No financial powers: NITI Aayog cannot allocate funds to states or ministries; this power now lies with the Finance Ministry. Critics say it is a body "without teeth" whose advice may be ignored.

2). Merely advisory: Its recommendations are not binding on the Centre or the states.

3). Centralisation of power: With the abolition of plan grants, states have become more dependent on the Centre's discretion through centrally sponsored schemes.

4). Lack of a clear long-term plan: The absence of a comprehensive plan document makes it difficult to judge the direction of development.

5). Limited role of the Governing Council: Meetings are infrequent, and some Chief Ministers have boycotted them.

6). Questions about independence: Some critics feel it acts as a promoter of government policies rather than as an independent think tank.

7). Data and methodology concerns have been raised about some of its indices.

NITI Aayog represents a shift from centralised planning to a policy-oriented, consultative and market-friendly approach suited to a liberalised economy. Its success depends on stronger engagement with states, independence in policy research, and effective coordination with the Finance Ministry and the Finance Commission.

5.9 Model Examination Questions

Short Answer Questions

1. What is economic planning?
2. What is the difference between imperative and indicative planning?
3. State any four achievements of Five Year Plans in India.
4. What is the full form of NITI Aayog, and when was it set up?
5. What is the Governing Council of NITI Aayog?

Essay Questions

1. Explain the objectives of planning in India and give an overview of the Five Year Plans.
2. Discuss the achievements and limitations of Five Year Plans in India.
3. Why was the Planning Commission replaced by NITI Aayog? Distinguish between the two.
4. Explain the structure, composition, objectives and functions of NITI Aayog.
5. Critically evaluate the role of NITI Aayog in India's development.

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'పాస్ మార్కులొస్తే సాలు' అనుకుంట కాలేజీకి వచ్చే ఆర్ట్స్ విద్యార్థుల్ని మెరికల్లా తీర్చిదిద్దడం ఎలాగో ఈ సార్‌ను చూసి నేర్చుకోవాలె. గ్రామీణ, సామాజిక, ఆర్థిక వెనుకబాటుతనంలో ఉన్న విద్యార్థుల్ని చేరదీసి.. బువ్వ పెట్టి.. పాఠం చెప్పి తీర్చిదిద్దిండు. ఎకనామిక్స్ ఎంట్రన్స్ జరిగితే ఆయన స్టూడెంట్సే టాపర్స్. అర్థశాస్త్రంలో విజేతలకు అడ్డా 'నల్లగొండ ఎకనామిక్ ఫోరం'కు కర్త, కర్మ, క్రియ డాక్టర్ అక్కెనపల్లి మీనయ్య సార్! ఒక దీపంతో వేల దీపాలు వెలిగించడమంటే ఏమిటో.. ఈ సార్ జీవితం చెప్తది.

మనసున్న మీనయ్య సార్

ఎకనామిక్స్ జూనియర్ లెక్చరర్‌గా పనిచేస్తున్న డాక్టర్ అక్కెనపల్లి మీనయ్య సార్‌కి ఓ ఇరవై ఏండ్ల కిందట డిగ్రీ కాలేజ్ లెక్చరర్‌గా ప్రమోషన్ వచ్చింది. నల్లగొండ పట్టణంల గవర్నమెంట్ ఉమెన్స్ కాలేజ్‌ల పోస్టింగ్ ఇచ్చినరు. సార్ ఆ కాలేజీకి పోయే నాటికి విద్యార్థినులకు చదువంటే పెద్దగ ఆసక్తి లేకుండెనట. అంతకుముందు ఏడాది చూస్తే.. ఆ కాలేజీ విద్యార్థినులకు ఎవరికీ డిగ్రీ తర్వాత పీజీలో సీటు రాలె. అట్లనే మొదటి ఏడాదిలో చేరినవాళ్లల నలుగురైదుగురు రెండో ఏడాది కల్లా మానేసేటోళ్లట. 'ఈ డ్రాప్ అవుట్స్‌ని తగ్గించాలె. ఆడపిల్లల్ని ఉన్నత చదువులవైపు మళ్లించాలె. బతకనీకి వాళ్లకో దారి చూపించాలె' అనుకున్నడు మీనయ్య సార్!

పీజీ గేట్ వే

డిగ్రీ తర్వాత ఉన్న చదువేంది? ఏది చదివితే ఏ జాబొస్తదో స్టూడెంట్స్‌కి చెప్పి 'బాగా చదవాలె. మంచిగ బతకాలె' అనే ఆశపుట్టించిండు సార్. తన పాఠాలతో స్టూడెంట్స్‌కి ఆర్థిక శాస్త్రం మీద ఇష్టం పెంచుకుంట పోయిండు. స్టూడెంట్స్‌తోనే పాఠాలు చెప్పించడం, ప్రాజెక్ట్‌లు చేయించడం, క్విజ్ పోటీలు పెట్టడం షురూ చేశిండు. అటెండెన్స్ పెరిగింది. డ్రాప్ అవుట్స్ తగ్గినయ్. పిల్లలు మంచిగ చదువుడు మొదలైంది. పరీక్షలు అయిపోయినయ్. ఎండాకాలం వచ్చింది. అయినా కాలేజీకి వస్తున్నరు. ఎందుకో తెలుసా? డిగ్రీ అయిపోంగనే పీజీకి పోవాలె గదా. ఎంట్రన్స్ రాయాల్నంటె మంచిగా ప్రిపేర్ కావాలె. పేదింటి పిల్లలకు కాలేజీలనే ఫ్రీగ కోచింగ్ చెప్పిండు సార్. అయినె కష్టం ఫలించింది. ఉస్మానియా యూనివర్సిటీ పీజీ ఎంట్రన్స్ 2005ల మంచి ర్యాంకులు తెచ్చుకొని.. అయిదుగురు అమ్మాయిలు ఎంఏ ఎకనామిక్స్‌ల చేరినరు.

కష్టపడితే ఫలితమొస్తదని మీనయ్య సార్‌కే గాదు స్టూడెంట్స్‌కీ ఎరుకైంది. 'మన బాగు కోసం సార్ అంత గనం కష్టపడుతుంటె.. మన కోసం మనం కష్టపడలేమా' అని ఉమెన్స్ కాలేజీ అమ్మాయిలు పోటీలు పడి సదివినరు. అట్ల సదువబట్టి ఆ స్టూడెంట్స్ ఏటా కోచింగ్ వస్తున్నరు. యూనివర్సిటీలకు పోతున్నరు. మీనయ్య సార్ 2008ల ముప్పై మంది స్టూడెంట్స్‌కి కోచింగ్ ఇస్తె అందుల ఇరవై మంది ఉస్మానియా యూనివర్సిటీల ఎం.ఎ. ఎకనామిక్స్‌ల సీటు తెచ్చుకున్నరు. అప్పటి సంది మీనయ్య సార్ స్టూడెంట్స్ ఏటా పీజీ సీట్లు తెచ్చుకుంటనే ఉన్నరు. ఉస్మానియా యూనివర్సిటీ ఆర్ట్స్ కాలేజ్, ఉమెన్స్ కాలేజ్, నిజాం కాలేజ్‌ల ఆయన స్టూడెంట్స్‌లేని బ్యాచ్ లేదనుకో!

సీట్ గ్యారెంటీ!

ఉమెన్స్ కాలేజీ నుంచి నాగార్జున గవర్నమెంట్ డిగ్రీ కాలేజ్‌కి మీనయ్య సార్ ట్రాన్స్‌ఫర్ అయిండు. ఆడగూడ ఇదే పని మీదేసుకున్నడు. 'నా స్టూడెంట్స్ బాగా సదువాలె. పీజీలోకి పోవాలె' అన్న పట్టుదలతోని పీజీ కోచింగ్ పెట్టిండు. అమ్మాయిలు ఆడిదాంక రాలేరనుకొని ఉమెన్స్ కాలజీలనే కోచింగ్ క్లాసులు నడిపిండు. ఆ బ్యాచ్‌ల ఉన్న షేక్ సుల్తానా ఉస్మానియా యూనివర్సిటీ ఎంట్రన్స్ 2009ల స్టేట్ ఫస్ట్ ర్యాంక్ సాధించింది. అప్పటి దాంక నల్లగొండ సుట్టుపక్కల ఊళ్లకే ఎరుకైన మీనయ్య సారు కోచింగ్ గురించి రాష్ట్రమంతా ఎరుకైంది. 'సారు దగ్గర సదువాలే. ఎకనామిక్స్ సీటు కొట్టాలె' అనే టార్గెట్‌తోని వరంగల్, ఖమ్మం, మహబూబాబాద్ జిల్లాల నుంచి గూడ సమ్మర్‌లో కోచింగ్‌కి వచ్చేది. వాళ్లందరికీ కలిపి ఎన్‌జీ కాలేజీలనే ఎకనామిక్స్ (సమ్మర్) కోచింగ్ ఇచ్చేది. ఆ ఏడాదిలనే కొత్త యూనివర్సిటీలొచ్చినయ్. ఎకనామిక్స్ సబ్జెక్ట్ పీజీ సీట్లు పెరిగినయ్. ఇగ మీనయ్య సార్ పాఠాలు విన్నోళ్లందరికీ సీటు గ్యారెంటీ అన్న పేరు పడ్డది. అంత పేరొచ్చినా ఏమన్నా సొమ్ము చేసుకున్నడా!? అంటే.. లేదనే చెప్పాలి! పైసా తీసుకోకుండా పాఠాలు చెబుతడు. చెప్పిన పాఠాలు గుర్తుండేటట్టు కోచింగ్ మెటీరియల్ తయారు చేస్తడు.

ఎకనామిక్స్ టాపర్స్ అడ్డా!

ఎక్కడెక్కడి నుంచో వచ్చినోళ్లకు పాఠాలు చెప్పేందుకు మీనయ్య సార్ మరికొంత మందితో కలిసి 'నల్లగొండ ఎకనామిక్స్ ఫోరం' పెట్టిండు. పెద్ద సదువులు సదివిన ఆయన స్టూడెంట్స్ నరేశ్, శోభ, కవిత వీళ్లంతా సార్ తీరుగ నలుగురికి సాయపడాల్నని ముందుకొచ్చినరు. 2013ల నల్లగొండ ఎకనామిక్స్ ఫోరంని రిజిస్ట్రేషన్ చేసినరు. మీనయ్య సార్ రిటైర్ అయినా.. స్టూడెంట్స్‌ని, ఎకనామిక్ పాఠాలని వదులుకోలే. నల్లగొండల ఉన్న మల్లు వెంకటనర్సింహా రెడ్డి విజ్ఞాన కేంద్రంల చేరిండు. ఆ విజ్ఞాన కేంద్రానికి కన్వీనర్‌గా ఉండుకుంటు.. ఎంఏ కోచింగే కాదు లెక్చరర్ జాబ్‌లకు, నెట్, స్లెట్ అర్హత పరీక్షలకూ కోచింగ్ ఇస్తున్నడు. విజ్ఞాన కేంద్రంల ఉచితంగ వసతి కల్పించి, అన్నం పెట్టి సదువు చెప్తున్నడు. ఏడాది కింద లెక్చరర్ పోస్టుల నియామకాలు జరిగినయ్. మొత్తం 81 పోస్టుల్లో 42 ఫోరం స్టూడెంట్స్‌కే వచ్చినయ్. సగం కొలువులు సార్ స్టూడెంట్స్ దక్కించుకున్నరన్నట్టు.

స్మార్ట్ కోచింగ్

పీజీ ఎంట్రన్స్‌కి ప్రతి బ్యాచ్‌కి యాభై నుంచి అరవై మంది విద్యార్థులు ఉంటుండె. కొవిడ్ వచ్చినంక పిల్లగాళ్ల సదువు పాడుకాగూడదని ఆన్‌లైన్ క్లాసులు మొదలు పెట్టినరు. ఒక ఎన్ఆర్ఐ ఆన్‌లైన్ క్లాసులు, ఆన్‌లైన్ కంప్యూటర్ బేస్డ్ ఎగ్జామ్స్ కోసమని సాఫ్ట్‌వేర్ ఇచ్చిండు. జూమ్‌ల క్లాసులు చెబుతున్నరు. ఆన్‌లైన్‌ల పరీక్షలు పెడుతున్నరు. ఆన్‌లైన్ క్లాస్‌ల వీడియోలని యూట్యూబ్‌ల అప్‌లోడ్ చేస్తున్నరు. పీజీ ఎంట్రన్స్, స్లెట్, నెట్ అర్హత పరీక్షలకు పాఠాలన్నీ https://www.youtube.com/@nalgondaeconomicsforum33యూట్యూబ్‌ల ఉన్నయ్.



అభిమానమే నా ఆస్తి

నేను పేద కుటుంబంలో పుట్టిన. గోపులాయిపల్లి నుంచి ఆరు కిలోమీటర్లు నడుకుంటపోయి నార్కెట్‌పల్లి బడిల చదివిన. నేను డిగ్రీ చదివిన ఎన్‌జీ కాలేజీల పాఠాలు చెప్పిన. మొదటి నుంచి నాకు సమాజానికి ఏదో ఒకటి చేయాలనే ఆలోచన ఉండేది. ఆచరించి చూపిన. నా సహచరి పార్వతి నా ఆలోచనకు గౌరవమిచ్చి, ఆచరణకు సహకారం అందించింది. పైసా ఆశించకుండా పాఠాలు చెప్పిన. ఆస్తులు పెంచుకోకున్నా అభిమానించే మనుషుల్ని సంపాదించుకున్న.

- డాక్టర్ అక్కెనపల్లి మీనయ్య

...✍ నాగవర్ధన్ రాయల

Determined she moves forward



A ROLE MODEL : Shaik Sultana, who secured the first rank in the MA (Economics) common entrance examination conducted by the Osmania University, engrossed in studies in Nidmanur.
- PHOTO: SINGAM VENKATARAMANA

Secures first rank

NALGONOA: Sheik Sulthana, a native of Nidamanur, secured the first rank in the common entrance examination-2009 conducted by the Osmania University for admission to MA (Economics) course. Nalgonda Economics Forum Convenor A. Meenaiah said that Sulthana enrolled for the free coaching conducted by the forum.

- Staff Reporter

Undeterred by poverty and domestic work, Shaik Sultana, a married woman of Nidmanur, is excelling in her studies with rock solid determination.

Sultana secured first rank in the highly competitive PG common entrance examination-2009 conducted by the Osmania University for admission into MA (economics) course.

A daughter of an agriculturist and wife of a driver, Sultana surpassed all the hurdles posed by poverty with a strong will and completed her degree in first class from the Government Women's Degree College in Nalgonda.

She resumed her studies few years after her marriage and joined Intermediate. Sultana bagged the Prathibha award by securing the top marks in the Intermediate (HEC) group in the entire district.

Later, she pursued her degree after giving birth to a baby boy. She proved her calibre by securing top rank in the MA (economics) common entrance test of Osma-nia University.

"I owe a lot to the constant encouragement from my lecturers and principal", Sultana remarked and said "I credit my success in the PGCET-2009 to the free coaching given by the Economics Forum". I would like to write Group-I and other competitive examinations to become an officer of high repute, she said. I will secure admission in MA (Economics) in the Arts College in Osmania University by virtue of my first ran)?", she said.

I will take coaching for the competitive examinations during my stay in Hyderabad to realise my goal, Sultana said with confidence.

- P. SRIDHAR, Nalgonda

CPGET - 2025 ఫలితాల్లో ఫోరం విద్యార్థులు 1వ, 2వ, 3వ, 6వ, 12వ, 13వ, 14వ, 17వ మరియు 20వ ర్యాంకులు పొంది అద్భుత ఫలితాలు సాధించినారు.





S. Bhavana Latani

1st Rank



N. Ajay

2nd Rank



A. Manasa

3rd Rank



Y. Lokesh

6th Rank

MVN VIGNANA KENDRAM

NALGONDA ECONOMICS FORUM (Regd. No. 297/13)

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