

# Chapter 1:

## Indian Economy On The Eve Of Independence

### What's in this Chapter?

1. Why do we need to study this chapter?
2. Indian economy during the colonial period.
3. Agricultural Sector during Colonial Rule
4. Industrial sector during colonial rule
5. Foreign Trade during colonial period
6. Demographic condition during colonial period
7. Occupational structure during colonial Period
8. Infrastructure During colonial Regime
9. Conclusion.

### Few Things to remember in this chapter

1. Names of estimators of national income:  
VKRV Rao, RJ Desai, Dadabhai Naoroji, William Digby, Findlay Sherras
2. Reasons for stagnation in agricultural sector  
Land revenue settlement, commercialisation of agriculture
3. Reasons for ill industrial sector.  
Lack of Capital goods industries, deprivation of local intermediate goods, import of cheaply priced goods from Britain and limited operation of public sector goods
4. Foreign Trade during British period.  
Trade and tariff policy of British and the characteristic of export surplus- "Drain of India's wealth"
5. Demographic condition.  
First census, demographic transitions, social development indicators like mortality rate, literacy rate etc.
6. Occupational structure.  
About change in trend of occupational structure
7. Infrastructure during colonial period.  
Infrastructure like railways, Roadways, Post etc.

### Introduction

In order to understand the basic features of Indian economy, we must know about its condition before independence and colonial rule. India got its independence on 15<sup>th</sup> August 1947. British Rule lasted for 200 years and made a drastic change in the economy of India. The sole purpose of British rule was to exploit the resources of our country, and to reduce India into supplier of raw materials to Britain's modern industrial base.

#### A reference:

The foreigners rule's came up due to sea trade of India during the 15th century. East India company was chartered in 1601 and it grew to other parts. Battle of Plassey transformed India from various empires hands of British crown from EIC.

## Indian economy during colonial rule– Low economic development

- It is noteworthy that India was an independent economy<sup>1</sup> before British exploitation.
- Indians had agriculture as their main source of livelihood. This main source was accompanied by various manufacturing activities especially handicrafts with cotton and silk textiles. The characteristic was that these handicrafts had high standards of craftsmanship and were imported on a great scale from India.

### An example of superior handicraft- The Muslin Cotton

**Origin:** Bengal province during British period [comprising of regions in and around Dhaka]

**Also known as:** Daccai Muslin

**Other names:** Malmal Shahi and Malmal Khas

**Notable things:** It was brought by foreign travelers and the other names like Malmal Khas implied that Muslin was worn by royal families or it was fit for the royals.



Mughals wearing muslin cotton dress during 1600's



Dhokra art describing the supreme craftsmanship of Indian handicrafts.

## Comment on the Economic policies persuaded by British towards India

- The economic policies pursued by the colonial government in India were concerned towards the protection and promotion of the economic interests of their home country than the development of the Indian economy.
- As a result of these policies, a fundamental change in the structure of the Indian economy came up — transforming the country into a supplier of raw materials and consumer of finished industrial products from Britain.

## Per Capita Income [PCI] during those days

- No sincere attempt was made by the British to calculate National Income or PCI.

**Independent Economy<sup>1</sup>**- It is an economy which does not depend on foreign economy for g/s of any kind and hence develops on the strength of its own resources.

- There were only a few individual attempts, but they led to inconsistent results
- Some of those were Dadabhai Naoroji, William Digby, Findlay Sherras, VKRV Rao and RJ Desai
- The VKRV Rao's estimate was considered most significant

### Common Results

- Growth of real output [First half of 1900's] was less than 2%
- Growth of per capita output [First half of 1900's] was less than 0.5 %

## Agricultural sector during colonial period

- Indian economy was fundamentally agrarian
- 85% of the country's population lived mostly in villages and derived livelihood directly or indirectly from agriculture.
- Despite having a large proportion of the population being in the Agricultural sector, this sector experienced stagnation.

## Reasons for Agricultural stagnation in India

### 1. Land and Revenue settlement:

- Under the Zamindari system, Zamindars were recognized as **'permanent owners of land'**. The revenue made fell into the hands of Zamindars instead of peasants
- The Zamindars collected rent regardless of the economic condition of peasants and this caused immense misery and social tension among farmers.
- Both the colonial govt and the Zamindars did nothing to improve this sector.
- If Zamindars failed to remit the payment in time, they lost their title as a zamindar. This was the reason for zamindar's rough attitude

### 2. Lack of resources:

There was a low level of technology for agriculture during the colonial period. The lack of resources like irrigation facilities, HYV seeds, lack of use of pesticides etc. was one of the reason for agricultural stagnation.

### 3. Lack of Investment:

Indian agriculture lacked investment in terracing, flood-control ,drainage and desalinisation of soil.

### 4. Commercialisation of agriculture:

- British promoted the commercialisation of agriculture, but only few shifted from food crops to cash crops.
- A large section of tenants, small farmers, and sharecroppers neither had resource and technology nor had the incentive to invest in agriculture.

### Agriculture during 17th century

The French traveller, Bernier, described seventeenth century Bengal in the following way: "The knowledge I have acquired of Bengal in two visits inclines me to believe that it is richer than Egypt. It exports, in abundance, cottons and silks, rice, sugar and butter. It produces amply — for its own consumption — wheat, vegetables, grains, fowls, ducks and geese. It has immense herds of pigs and flocks of sheep and goats. Fish of every kind it has in profusion. From rajmahal to the sea is an endless number of canals, cut in bygone ages from the Ganges by immense labour for navigation and irrigation."

## Industrial sector during colonial period

Industrial sector and decline of its former pride:

- Industrial sector had its handicraft industry as its pride. During the colonial period, the handicrafts industry declined. Moreover, no corresponding modern base could be set up.
- This caused massive unemployment among Indian people.
- The two-fold motive of the British made a new pattern of demand due to which supply of local goods deprived and imports hiked.

The Twofold motive of British behind systematic de-industrialisation:

- First, Reduce India into mere supplier/ exporter of raw materials into Britain to feed the needs of upcoming industries in Britain
- Turn India into a market for finished products from Britain

The Industrial sector during second half of 19th century:

- During the second half of 19th century, the modern industry's root came up, but progress was quite slow.
- Only cotton and jute mills developed to some extent. The west part (Maharashtra and Gujarat) having cotton and textiles were dominated by Indians and East (Bengal) mainly having the jute industry was dominated by the British.
- The Tata Iron and Steel Company (TISCO) was incorporated in 1907. Other industries came only after WWII [World war II].

Sufferings of Industrial sector:

- **Decline of Handicraft Industries:** Despite decline of handicraft industry, failure to set up new industries caused massive unemployment and changed pattern of demand.
- **Lack of capital goods industry:** The lack of capital goods industry which helps to promote further industrialisation was a reason for ill performance of industrial sector.
- **Growth rate of GDP:** the growth rate of the new industrial sector and its contribution to the Gross Domestic Product (GDP) remained very small.
- **Limited area of operation of public sector:** Another significant drawback of the new industrial sector was the very limited area of operation of the public sector. This sector remained confined only to the railways, power generation, communications, ports and some other departmental undertakings.

## Foreign trade during colonial rule

India has been a good exporter of handicrafts, grains, gold etc. since the Ancient period. After the arrival of British, the structure changed due to restrictive trade policies.

As a result, India became an exporter of primary products such as raw silk, cotton, wool, sugar, indigo, jute etc. and an importer of finished consumer goods like cotton, silk and woollen clothes and capital goods like light machinery produced in the factories of Britain.

Some of the characteristics of Foreign Trade during colonial Period:

- British maintained a monopoly over India's exports and imports
- Over 1/2 of the volume of trade was restricted to Britain and rest to Ceylon and Persia [Present Sri Lanka and Iran].
- The Opening of Suez Canal intensified the British control over India's foreign trade.

- One more important characteristic of India's foreign trade was the generation of large "Export Surplus"<sup>1</sup>.
- This export surplus caused a great problem in the economy. There was scarcity of essential goods like food grains, clothes, kerosene etc. in the domestic market.
- Moreover, this export did not flow any gold or silver into Indian economy.

What happened to those gold and silver which belonged to India?

These gold and silver were used as payments on war, expenses for setting up an office in Britain and were used for the import of invisible items<sup>2</sup>

## Suez Canal- The highway between Britain and India

**Opened in:** 1869

**Connection:** Connects Port Said [Egypt] to the Gulf of Suez

**Importance:**

**General:** Reduced time and distance needed to travel from various countries like America, Britain etc. Instead of taking a large U trough South Africa, it reduces travel time and distance to a large extent.

**Britain's benefit:** Britain could now easily get control over India's market. The imports and exports now could be easily controlled over.

**FYI: [Not in curriculum]**

Suez canal is 193.3 km in length and it was completed on 17 November 1869

It has its starting point at Port Said of Egypt and has its endpoint in Port Tewfik, Suez.

**Fact:** Napoleon Bonaparte considered building this canal but did not construct it.



## Demographic Condition

- First official census was taken in 1881. It revealed the unevenness of India's population growth.
- After that, the census was taken every 10 years
- Until 1921, India was in the First stage of Demographic transition. 2nd stage of demographic transition began after 1921.
- It is to be noted that despite that the year had not much difference, it is considered 2nd stage of demographic transition since it was a year of negative rate in census population growth compared to 1911 census.

What does the term demographic transition mean?

Lets divide the term into 2 words "Demography" and "Transition".

*Demography is the study of statistics such as births, deaths, income, or the incidence of disease, which illustrate the changing structure of human populations.* In this context, we only take the first 2 namely birth and deaths.

*Transition is the period of changing from one state or condition to another.*

Now lets put these to a conclusion. Demographic transition means the period in which birth rates and death rates differ.

1. Export surplus - Excess of exports over imports of any economy is called Export surplus

2. Import of invisible items- It is the import of services like tourism, education etc.

### First stage of demographic transition:

It is the period of demographic transition where both birth and death rates are high.

### Second stage of demographic transition:

It is the period of demographic transition where death rates are low but birth rates are high.

### What did the social development indicators indicate during colonial period?

- Literacy rate- 16% overall and 7% on female literacy rate. [indicates gender based disparity]
- The basic healthcare was not available for a large chunk of people and even if it was available, it was highly inadequate. So water and air- borne diseases were rampant.
- Since the water and airborne diseases were rampant, the mortality rate was high.
- The infant mortality rate was high, 218 per 1000 compared to present 33.
- The average life expectancy was also low. It was 44 years compared to present 69.

So we can conclude that extensive poverty prevailed in India during the colonial period and hence contributed to the worse profile of India's population.

## Occupational structure during colonial period

### What is occupational Structure?

It is the distribution of working population into various sectors of economy.

### Structure composition during colonial rule

- Agricultural sector accounted for the largest share in the workforce. About 70-75% of workforce was in Agricultural sector.
- Manufacturing sector had 10% of workforce.
- Service sector accounted for 10-15% of workforce.

### Growth variation among areas

- Parts of the then Madras Presidency comprising areas of the present-day states of Tamil Nadu, Andhra Pradesh, Kerala and Karnataka), Bombay and Bengal witnessed a decline in the dependence of the workforce on the agricultural sector with a commensurate increase in the manufacturing and the services sectors.
- However, there had been an increase in the share of workforce in agriculture during the same time in states such as Orissa, Rajasthan and Punjab.

## Infrastructure during the colonial rule

### The real motive behind the infrastructure development

The actual motive behind the development of infrastructures was to subserve various colonial interests. Their real motive was not to provide amenities to people.

### The Roadways

- The Roads constructed before arrival of British were not fit for modern transport.
- Now, after British came, they constructed roads for mobilising army within India and for drawing out raw materials from countryside to nearest railway station and then transport to England or any other destinations.
- There was always an acute shortage of all weather roads [Pucca roads] to reach rural areas during rainy season. People in those rural areas suffered a lot during calamities and famines.

### The Railways

- Railways was introduced in India in 1850.
- The first train ran between Thane and Mumbai in 1853.
- It is considered as an important contribution of British

#### Structure of Indian economy and Railways

- It enabled people to undertake long distance travel and thereby break geographical and cultural barriers of the country.
- It fostered commercialisation of Indian agriculture which adversely affected the self-sufficiency of the village economies in India.

#### Volume of trade

- Due to Railways, India's export's rose up, agriculture rose up, many new jobs were created. But it was outweighed by the economic loss by the railways.

#### Inland and sea lanes

Inland and sea lanes were also created, but they were not satisfactory. They proved uneconomical and were not as good as railways. For example, waterways in Orissa [canals] were built at a great cost but was abandoned.

#### Post and Telegram

- Post was highly useful to the public and was vast in terms of its reachability.
- Electric-Telegram was highly expensive. They were used mainly by the British for maintaining law and order. Both were highly inadequate.

## Conclusion

- The British rule turned Indian economy into a feeder economy.
- No measures were taken in both Agricultural and Industrial sector.
- Infrastructure was oriented towards good for British and to reach people it needed further investment.
- There was prevalence of poverty, unemployment and orientation of welfare.
- Indian economy had various social and economic challenges after independence
- Despite any disadvantages there were few positive impacts like a role model for administration, Railways etc.

Year	Event
1850	Railways Introduced in India
1853	First train ran between Bombay and Thane
1869	Opening of Suez Canal
1881	First Official census was conducted
1907	Incorporation of TISCO
1921	The year of great divide
1947	It is the year of India's independence - Inevitable 🇮🇳

## Questions

One Mark Type:

MCQ's:

- 1) The sole motive of British exploitation into India was to
  - a) Make India a self sufficient economy
  - b) Reduce India to a mere supplier of raw materials
  - c) Make India as a market for finished goods from Britain
  - d) Both b and c
- 2) The Muslin cotton was native to
  - a) Bengal
  - b) China
  - c) Haryana
  - d) Orissa
- 3) Whose Estimate of PCI was considered the most significant?
  - a) VKRV Rao
  - b) R J Desai
  - c) Dadabhai Naoroji
  - d) Findley Sherras
- 4) TISCO [Tata Iron and Steel Company] was incorporated in
  - a) 1909
  - b) 1908
  - c) 1907
  - d) 1921
- 5) On the eve of Independence, India mainly imported
  - a) Finished goods
  - b) Capital goods
  - c) Intermediate goods
  - d) Primary goods
- 6) Suez Canal was opened in
  - a) 1850
  - b) 1881
  - c) 1869
  - d) 1899
- 7) The year of Great divide or the year of 2nd demographic transition
  - a) 1879
  - b) 1881
  - c) 1907
  - d) 1921
- 8) \_\_\_\_\_ is considered as the most important contributions of the British
  - a) Roadways
  - b) Telegram
  - c) Railways
  - d) Waterways
- 9) The \_\_\_\_\_ indicated the gender based inequality in the Indian society
  - a) Mortality Rate
  - b) Literacy Rate
  - c) Birth Rate
  - d) Life expectancy

True / False

- 1) India was an Independent economy before British Advent.
- 2) British wanted to turn India into a feeder economy since India was rich in resources.
- 3) Under Zamindari system, tillers and peasants were entitled as permanent owners of Land.
- 4) The economic growth varied from region to region.
- 5) The first stage of demographic transition is a period where death rates are high and birth rates are low.
- 6) Infant mortality rate refers to deaths per year.

Few general questions to test understanding

- 1) Name few people who estimated PCI during colonial period.
- 2) "India's wealth drained despite having good export surplus". Do you agree with this statement?
- 3) What is commercialisation of agriculture?
- 4) What is export surplus

### Three Mark/Four Mark Type:

- 1) Explain the three fold motive of British policies behind the systematic de-industrialisation effected by the British in pre- independent India.
- 2) What was the system of Land and Revenue Settlement? What effect did it had on farmers?
- 3) “The Agricultural sector during colonial period was stagnant and it deteriorated”. Do you agree with this statement? Give three reasons to support your answer
- 4) Explain the state of Indian industrial sector on the eve of Independence.
- 5) Indicate the volume and direction of trade at the time of independence.
- 6) State about the demographic situation of India on eve of Independence.
- 7) Which year is regarded as the defining year to mark the demographic transition from its first to the second stage?. What do you understand by the term Demographic transition?
- 8) Write a short note on Infrastructure during colonial period.
- 9) What change did the introduction of railways do to the Indian economy?
- 10) Describe about the characteristic of large export surplus and drain of wealth of India.
- 11) Why did Industrial sector suffered setbacks? Give some reasons
- 12) What objectives did the British intend to achieve through policies of infrastructural development in India?

### Six Mark Type:

- 1) State Features of Agricultural sector during colonial period.
- 2) What was the focus of the economic policies pursued by the Colonial government in India? What was the impact of these policies ? [According to Mark, the answers can be written]
- 3) “The Handicrafts industries ruined over British period”. Do you agree with this statement?, Give reasons for your answer.
- 4) State the salient features on Indian economy during colonial period
- 5) Write a note on Occupational structure during colonial period.

# Chapter-2:

## Indian Economy

### 1950-1990

#### Introduction

The state of Indian economy is mentioned in the previous chapter. There were many problems in the economy. The solution was to be solved by planning. There was a dilemma between growth in GDP and the welfare of people. In India, there were a good amount of private ownership, so the socialist model would not be suitable. The social welfare was already not taken into care during the British rule, hence the capitalist model would prove unpropitious for India. India had a strong public sector as well as private property. Being a democratic nation with diverse culture, complete socialism is not possible. So India adopted planned and mixed economy. Before proceeding further let's see what is a Capitalist economy, Socialist economy and Mixed economy. We can also see what is meant by the term "Economic Planning".

## Types of economy- Socialist, Capitalist and Mixed

### Socialist economy:

It is an economy in which the central three problems of an economy are solved by the government. Here, the production of goods is restricted to the collective needs of the people of the economy. Here, the majority of inputs are owned by the government. No private property is allowed under this type of economy.

#### Advantages:

- Ensures the social welfare and justice
- The income is aimed to distribute equally.

#### Disadvantages:

- The GDP growth is questionable
- The consumer's individual needs are not taken into care.

#### Few examples for socialist economy:

Former Socialist Union, Cuba, PRC [People's republic of China] and Vietnam



### Capitalist economy:

It is an economy in which the three central problems of an economy are solved by the market forces of Demand and Supply. Here, the production of goods and services is dependent upon the demand for goods in the economy. Here, the majority of the inputs are owned by the private sector. The government's role is restricted to law and order and the defense. Private sector dominates in this economy.

#### Advantages:

- The GDP growth is highest.
- The efficiency of the work is utilized the most here.
- The consumers can decide what they want.

#### Disadvantages:

- The social welfare is not considered
- The income distribution is ill.
- The quality of life is questionable for majority.

### Mixed economy:

It is an economy where the three central problems of an economy are solved by both government and market forces. Here, the market forces produce whichever has the highest demand and government provides the essential goods and services required. Here the inputs are owned by both privates as well as the government. Hence profit maximization as well as social security is ensured up.

#### Advantages:

- Growth is attained with social welfare

#### Disadvantages:

• The overall productivity is quite low than that of the capitalist economies and the problem of corruption is prevalent.



- The prevalence of problems like rogues and corruption exists.

### Three central problems of the economy/ Three questions that any economy has to answer

- 1) What goods and services to produce?
- 2) How to produce the goods and services? - The input ratio i.e., Labor and Capital
- 3) How to distribute the produced goods and services to the people in the economy?

## Economic planning – Meaning , Origin , Adoption in India

### Meaning:

Economic planning is the utilization of a country's resources into various developmental activities in accordance with national priorities.

### Origin:

It was first adopted by the former Russia [Soviet Union], then many countries including India started adopting it. Economic planning was socialist based.

### To note about plans:

- Not all objectives can be fulfilled at a single time.
- FYP's do not spell how much of each and every good are produced. (In soviet, they tried to spell and it miserably failed )
- All objectives cannot be given equal importance.

### India's adoption of planning:

In 1950, the Planning Commission was set up. Prime Minister is the chairman of this commission. India gave two plans namely "Perspective plan" and "Five Year Plan". From 2015, it is replaced by NITI Aayog [NITI- National Institution for Transforming India ]. So, no more FYP from the year 2017.

#### Perspective plan:- (Only until 2017)

- This plan describes the objectives which are to be attained during a period.
- This plan is for 20 years.
- The objective of this plan is divided into smaller plans known as Five Year Plans [FYP].

#### Five Year Plan: - (Only until 2017)

- This plan has some general objectives and some specific goals.
- As the name suggests, it is for a period of 5 years.
- The different five year plans have different objectives but have some general goals.

***Planning in India is centralized into a single body. Hence it is a centralized planning. A plan is said to be centralized if a single body controls it. The planning done in India is comprehensive since the government directly participates in the planning instead of merely controlling the production.***

## Goals of Five Year Plans in India

The main goals of FYP of India are as follows

- 1) Growth
- 2) Modernization
- 3) Self- Reliance
- 4) Equity

### 1) Growth:

#### Meaning of growth:

It refers to the increase in the country's capacity to produce the output of goods and services within the country.

#### Implication of growth:

- Implies either an increase in the stock of productive capital or an increase in supporting services

like transport, banking, storage etc.

• Increase in productive capital of the economy or its efficiency. Or, we can also say growth as the increase in value of the GDP.

#### Growth and structural change in GDP:

The structure of GDP is the contribution done by the various sectors of the economy to the GDP. As a country develops, the contribution done by the agricultural sector falls. Then shifts to the manufacturing sector and finally at higher levels of development, the service sector's contribution to the GDP rises.

Let's see the case of India

**1950-51:** More than 50% of GDP was from the agricultural sector. Less than 30% of GDP was from the Service sector.

**1990-91:** The share of agricultural sector dropped and more than 40% of GDP was from Service sector.

#### 2) Modernization:

It refers to the use of new technology and changes in the social outlook of the economy. The social outlook of an economy includes the good status of the women and usage of women's talents in the workforce. i.e. Using new technologies like HYV seeds, fertilisers and pesticides to increase the output.

#### 3) Self-Reliance:

• It is the term used for denoting utilisation of a country's resources rather than depending on other countries for resources.

• Simply this is the usage of domestic resources.

• The first 7 FYP gave importance to self-reliance. Especially the food.

#### Why is self reliance important?

If an economy is dependent on any other economy, then there exists a threat of foreign interference into the economic policies and the economy. Moreover, increased foreign dependence causes a BOP crisis.

India needed self-reliance since it was a new country and there was a great threat of foreign intervention into India's economic plans and policies.

#### 4) Equity:

• Equity refers to equal distribution of a country's income and economic benefits to its people.

#### Why is equity important?:

• Equity is vital since the growth and modernization alone cannot reflect the quality of life of the people.

• It is important that rich do not get richer when poor get poorer.

**Aim:** The provision of basic healthcare access, basic education and reduction in inequality of income.

#### Others:

The attainment of full employment level and alleviation of poverty are some of other general goals of the FYP.

**Next, we study about the first 7 five year plan's measures towards Agriculture, industry and trade. With their achievements and limitations.**

## Agriculture

Measures initiated for agricultural sector:

There are mainly two measures namely

1) Land reforms

2) Green Revolution

## Land Reforms

The land reforms done by the government are categorized into two namely

- 1) Abolition of intermediates      2) Land Ceiling

### 1) Abolition of intermediates:

**Problems faced before the initiation of the reforms:**

- As we learned from the previous chapter, there were intermediates like Village heads, Zamindars, Jaghirdars etc.
- They collected rent regardless of the peasant's economic condition and they got economic benefits without making much efforts.
- This low productivity forced India to import food grains from the USA.

**Meaning:** Transfer of landholdings from intermediates to peasants

**Aim of abolition of intermediates** → To provide incentives to tillers to invest and raise the productivity by providing sufficient capital.

### Why ownership of land rather than just other incentives?

Let us see the case from the Soviet Union. Let's recall from class 9th that socialism led farmers to collectively cultivate and no ownership of lands. They were given houses on basis of their family size and needs. The carelessness like packing rotten fruits along with the good ones was prevalent. Of course, the fresh fruits would also get rotten due to packing of rotten fruits. They did not mind since they did not have ownership of land nor profits. So soviet despite having vast amount of fertile lands, they had poor productivity in the agricultural sector. So the incentive of ownership is quite important too.

### 2) Land Ceiling:

**Problem faced before the initiation of the reforms:**

- Few landlords claimed to be self cultivators and used loopholes in the system to evade the system which aimed at abolishing the intermediates

**Meaning:** Fixing the maximum amount of land that can be owned by an individual.

**Aim of land ceiling**

- Promote equality in agricultural sector.
- Bringing about 200 Lakh tenants into direct control of the government.
- Growth in agriculture.
- Bringing down concentration of lands into few individuals.

### Problems of Land reforms

- Few landlords claimed to be self cultivators and used loopholes in the system to evade the intermediates system.
- Many poorest agricultural laborers despite having land could not use those lands.
- The big landlords challenged the legislation in the courts, delaying its implementation.
- By the time of delay, the big landlords registered their lands to close relatives, friends and Benami's. Hence they evaded the legislation.

- Land reforms were successful in Kerala and West Bengal because these states had governments committed to the policy of land to the tiller. Other states did not have the same level of commitment and vast inequality in landholding continues nowadays.

## Green Revolution

India's state before green revolution:

- Despite 75% of the population dependent on agriculture, productivity remained low.
- The productivity was quite low because of the use of old technology and absence of required infrastructure.
- The crops were monsoon dependent and only few farmers had irrigation facilities.
- The British advent left the agricultural sector stagnated.

**Meaning:** Large increase in production of food grains as a result of using HYV [ High yielding variety] seeds.

**Requirement for HYV seeds:**

It needs a large amount of irrigation facilities, pesticides, insecticides etc. Hence, substantial capital is needed.

**Phases of Green revolution:**

**First phase:**

- It is approximately from mid 1960's to mid 1970's.
- In this phase, the use of HYV seeds were restricted to states like Punjab, Tamil-Nadu , and Andhra Pradesh.
- It further benefitted only wheat growing regions.

**Second phase:**

- It is from mid 1970's to mid 1980's.
- In this phase, this revolution spread to all regions of India.

**Benefits of Green revolution:**

- Enabled India to achieve self-sufficiency.
- Hence India was no longer be dependent on the USA for food grains.

**Increase in marketed surplus:**

- As a result of more production, the **marketed surplus**<sup>1</sup> rose and hence market price of food grains fell and the people having low income benefitted from the fall in price.
- The green revolution helped the government to build its stocks of food grains, which could be used during acute shortages [Buffer stocks].
- Since the government provided credits at a low interests and provided the fertilizer subsidies, the green revolution benefitted marginal and small farmers a lot.
- Despite having the risks of pest attacks, the government services helped people overcome the risks involved and produce good output.
- Growth of the production led to an increase in the GDP of the country because the contribution to the GDP by the agricultural sector rose.

**Problems of Green revolution:**

- The side effects of using pesticides.
- The biological system is tampered.
- The nutrients in food produced by the HYV is lower than the traditional varieties.

**Marketed surplus<sup>1</sup>:** The portion of agricultural produce which is sold in the market by the farmers.

- The cost of inputs for this type of farming is quite high and hence the equity between poor and rich farmers is doubtful because the poor farmers cannot afford the cost of the Inputs.

## Debates over Subsidies:

### In favour of subsidy:

- Any new technology is quite risky for farmers. Hence to provide incentive, subsidy is needed.
- As farmers try out new technology, they find it profitable and adopt them.
- In addition to benefit to farmers, it benefits the fertilizer industry too.
- Most farmers are very poor and they will not be able to afford the required inputs without subsidies.
- Eliminating subsidies will increase the inequality between rich and poor farmers and violate the goal of equity.

### Neutral argument:

- The subsidy mostly benefits the farmers in the more prosperous regions. Therefore, it is argued that there is no case for continuing with fertiliser subsidies; it does not benefit the target group and it is a huge burden on the government's finances.

This statement might indicate that only fertilizer subsidy can be avoided. It does not indicate that all other subsidies must be strictly cut off. This statement can also be against subsidy. It can be against subsidy too since it indicates that subsidies do not benefit the target groups.

### Against Subsidy:

- Subsidies are largely benefiting the fertiliser industry and big farmers, the correct policy is not to abolish subsidies but to take steps to ensure that only the poor farmers enjoy the benefits.
- Subsidies do not allow prices to indicate the supply of a good.
- When subsidies are provided, the scarce resources are used without care extensively. This leads to the overuse of resources.

## Agricultural sector in 1990:

- Indian agricultural productivity had increased sufficiently to enable the country to be self-sufficient in food grains. It is a proud achievement.
- But still about 65% of the country's population was employed in this sector.
- The proportion of GDP contributed by agriculture declined significantly but not the population depending on it (67.5 percent in 1950 to 64.9 percent by 1990). The reason is that the workforce of agriculture was not absorbed by the other two sectors [Manufacturing and Industrial sector]. This is the major failure of the reforms done.

### Occupational structure of Indian economy

Year Sector	1950-51	1990-91
<b>Agricultural sector</b>	<b>72.1</b>	<b>66.8</b>
<b>Manufacturing sector</b>	<b>10.7</b>	<b>12.7</b>
<b>Service sector</b>	<b>17.2</b>	<b>20.5</b>

## Industry and Trade:

### Industrial sector and its importance:

- Economists have found that poor nations can progress only if they have a good industrial sector.
- Industry provides employment which is more stable than the employment in agriculture.
- It promotes modernisation and overall prosperity of a nation.

### State of Industries before the reforms:

- The variety of industries was very narrow.
- The industries were largely confined to cotton textiles and jute.
- There were only 2 well managed iron and steel firms. One in Jamshedpur and other in Kolkata.

**Hence if economy needed to grow, there was a need to expand the industrial base.**

### Public and private sector in development of industries:

Public sector had to compliment the private sector since

- At time of independence, Indian industrialists did not have sufficient capital to invest into the industry.
- The big industrialists having sufficient capital did not get into major projects since the market was not large.
- As Indian government was based on socialist lines too, the government directly controlled over the private sector.

## Industrial Policy Resolution 1956 [IPR 1956]

### Why was this adopted?:

It was adopted in the goal of the state controlling the industries and hence take a control over the economy.

### Basis:

This policy was on the basis of the socialist pattern of the society.

### Features of this policy:

- Classification of industries
- Licensing for industries

### Classification of industries:

Under this policy, all the industries were classified into three heads [known as schedules]

1) Schedule-A:

- It consists of all the industries owned by the government exclusively.

2) Schedule-B:

- It consists of all the industries which private sector supplements the public sector.

3) Schedule-C:

- It consists of all the industries that were to be allowed under private sector.

### Licensing for industries:

**Objective:** Keep a control over the private industries.

### Licensing policy:

- No new industry was allowed to set up until a license was obtained by the government.
- Even for expanding or diversifying existing industries, a license was required.

It was persuaded to ensure that quantity of produced goods do not exceed its demand.

### When were licenses given?

Licenses were given only if government was convinced that the economy needed larger quantity of goods.

The licenses were easier to obtain in economically backward areas. Moreover, these areas got some economic benefits like tax concessions, lower electricity tariffs etc.

The objective behind these concessions was to promote regional equality.

## Small Scale Industries [SSI's]:

### Meaning:

It is a manufacturing unit which has maximum investment of 1 crores

**Note: Prior 1950, the investment limit was 5 Lakhs.**

### Importance of SSI's:

- Its generally believed that these industries are labor intensive
- Since they are labor intensive, they generate more employment
- Their contribution to manufacturing sector's output is quite high.

### Reforms done towards these industries:

• Few product's production were exclusively reserved for this sector, the number of products exclusively reserved were raised too.

• They were given concessions like lower excise duties and bank loans at lower interest rates.

These were done since these industries cannot compete with the other large industries and required to be shielded from large firms.

## Trading policy until 1990:

Characterization	→	It was characterized by inward looking trade strategy technically known as import substitution.
Example	→	Instead of importing materials from foreign countries, local industries would be encouraged to produce the same goods.
Aim	→	Protection of domestic industries from foreign competition.

### Instruments of Trading policy:

There are mainly two instruments

- 1) Tariffs
- 2) Quotas

#### 1) Tariffs:

The taxes imposed on imported goods are called tariffs.

#### 2) Quotas:

The restriction on the quantity of imported goods is called a quota.

### Effects:

They restrict imports and therefore protect domestic industries from foreign competition.

### Rationale behind this policy:

• Idea was that developing nations were not in a position to compete against the goods produced by more developed nations.

• It was assumed that if the domestic industries were protected, they would eventually get strong enough to compete with the course of time.

• Moreover, India had less forex reserves, hence they feared that those reserves would be used in importing luxury goods.

**Note:** Until the mid 1980's, no serious efforts were hinted to promote exports.

#### Achievements of this policy:

- The achievements of India's industrial sector during the first seven plans are impressive indeed.
- The proportion of GDP contributed by the industrial sector from 13 % to 24.6% in 1991.
- The industry was not just restricted to jute and cotton. It got diversified specially due to private sector.
- Promotion of SSI's gave opportunities to those who lacked capital to start large firms and get into business.
- Protection from foreign competition enabled development of Indian native industries in areas of automobile and electronics. Without this policy this development would not have been possible.

#### Criticisms towards this policy:

- The performance of the few public sector enterprises are not that good. The productivity of individuals was doubtful since the incentive to work was not that strict.
- Few g/s which private sector could produce were still produced by the public sector often monopolizing them.
- Even after four decades of Planned development of Indian Economy no distinction was made between (i) what the public sector alone can do and (ii) what the private sector can also do.
- Many public sector firms incurred huge losses but continued to function because it is difficult to close a government undertaking even if it is a drain on the nation's limited resources. It led to unnecessary waste of Indian resources.
- The need for license was misused by few industries.
- The restriction on imports made larger harm than the good.
  - The consumers did not get the goods that they needed. They wanted to buy everything that the Indian producers produced.
  - There was no incentive to improve the quality of the goods.

#### NITI AAYOG DOCUMENTS- A TINY VIEW

Since establishment, NITI Aayog has been working on the basis of 3 documents namely

- 1) The 15 year vision
- 2) 7 year strategy
- 3) 3 year action agenda

15 year vision-> Links to long term social and sustainable development goals

7 year strategy> The strategy

## Chapter-3:

# Liberalization, Privatization and Globalization: An Appraisal

### Introduction

India chose the framework of the Mixed economy combining advantages of both capitalist economy and socialist economy. This system set up a variety of rules and laws aimed at controlling and regulating the economy.

However, it ended hampering the process of growth and development of the economy. Despite attaining self-sufficiency in food grains, diversification of industries and good growth, the exports were not encouraged well. However, many goods like petroleum, raw materials for agriculture and industries, scientific instruments, capital goods, etc. were imported. Hence, the value of imports exceeded the value of exports leading to a fall in foreign exchange reserves. In 1991, the foreign exchange reserves went to such low levels that those reserves would not be sufficient to import petroleum and other essential goods even for two weeks. The issue got fueled up when the price of those essential goods and services rose [Due to the invasion of Kuwait by Iraq].

The imports could not be stopped. Hence, it led the government to introduce a set of various reforms to correct the deficit.

Let us check out the background of the problem and the steps taken to manage the crisis.

## Background/ Why the reforms were necessary:

Origin of the crisis:

- **Inefficient management of Public sector and economy:**

The inefficient management of the economy during the 1980's was the key/principal reason for this crisis. The Public sector did not generate good revenue. Few public sectors even incurred huge losses. The funds required for implementing policies for unemployment, poverty, etc. The funds provided by taxation and the public sector were sufficient for covering the growing expenditure.

- **Exports were not boosted– A cost on our foreign exchange**

Neither was an attempt made to reduce excessive spending which costed a lot on our foreign exchange nor any sufficient attention was given to boost exports to pay for the growing imports.

**The problem of financing:**

- The expenditure went so badly that borrowing became unsustainable, even international borrowers did not want to give loan to India.

- Prices in the economy went to a high level.

- Imports grew at an exceedingly high rate without matching the growth of exports.

- There was also a lack of sufficient foreign exchange to pay the interest that needed to be paid to the international lenders.

**India approaches for the loan and gets loan:**

India approached the **International Bank for Reconstruction and Development (IBRD)**, popularly known as the **World Bank** and the **International Monetary Fund (IMF)**, and gets a loan of about 7 billion USD for some terms and conditions.

### **Terms and conditions that lenders put towards India [Just for reference]:**

- 1) As a collateral, India airlifted tonnes of gold through 2 planes [weighing about 47 tonnes]
- 2) Devaluation of money, import customs cut, government expenditure cut and excise duty cuts were conditionalized by the IMF to grant the loan. These conditions were initiated as NEP [New economic policy 1991]

## The New economic policy [NEP] of 1991:

**Aim:**

The thrust / Aim of the policies was towards creating a more competitive environment in the economy and removing the barriers to entry and growth of firms.

**Classification:**

The set of policies can be classified into two groups.

- 1) Stabilisation measures

- 2) Structural reform measures

- 1) **Stabilisation measures:**

- Stabilisation measures are short-term measures, intended to correct some of the weaknesses that have developed in the balance of payments and to bring inflation under control.

- In other words, these measures aimed at controlling the rise in prices of the goods and maintaining sufficient foreign exchanges.

## 2) Structural reform measures:

• These are long term reforms policies Aimed at improving the efficiency of the economy and increasing its competitiveness by removing the rigidities in various segments of the economy.

The policies initiated by the government fall under 3 heads namely

- 1) Liberalization
- 2) Privatization
- 3) Globalization

## Liberalization

### Meaning:

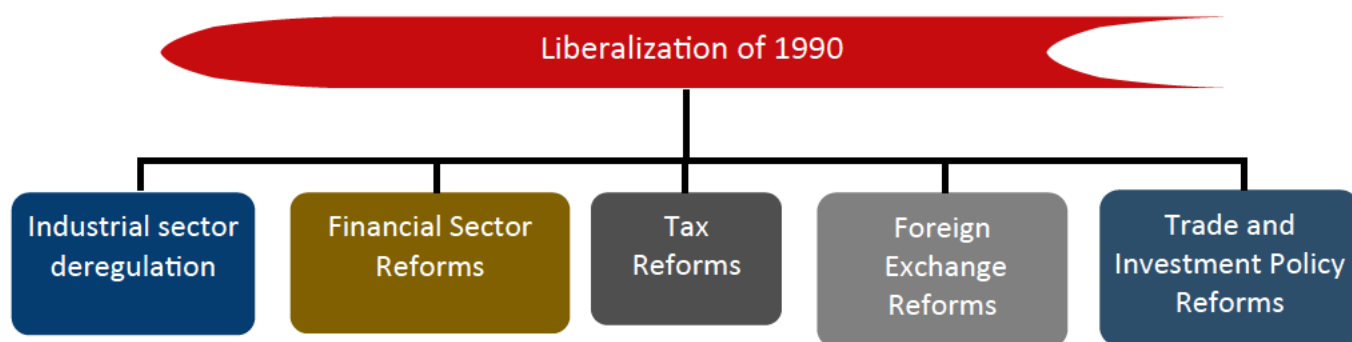
It is the process of removal of the regulations and restrictions which proved as the hindrances to the economy.

### Aim behind Liberalization:

The liberalization measures were introduced to put an end to those regulations and restrictions which became hindrances to the growth and development of the economy.

### Liberalization measures Before 1990's and after 1990:

- We must not get to an idea that liberalisation measures were initiated after 1990.
- Some of the liberalization measures were also initiated during 1980's. These were in fields of industrial licensing, export-import policy, upgrading technology ,fiscal policy and, foreign investment.
- The reforms of 1990's were more comprehensive.
- We study in some important areas– Industrial sector, Financial sector, taxes, foreign exchange markets, trade and investment sectors. These sectors got more considerable attention after 1991.



## Industrial sector deregulation:

### Industrial sector before initiation of the reforms of 1991:

- Under industrial licensing, every entrepreneur had to get permission from government officials for starting or closing a firm. A license decided the number of goods that could be produced by the firm.
- Private sector was not allowed in many industries
- Some goods could be produced only in small-scale industries
- Few industrial product's price and distribution were controlled by the government.

### Industrial sector after implementation of the reforms of 1991:

- Industrial licensing was abolished for many industries except few like alcohol, cigarettes, hazardous chemicals, industrial explosives, electronics, aerospace, drugs, and pharmaceuticals.

- The only industries which are now reserved for the public sector are a part of defence equipment, atomic energy generation and railway transport.
- The goods that were solely reserved for the Small-scale industries have been de-reserved.
- From government determination of prices, the market was allowed to determine the prices.

## Financial sector reforms

### What is a financial sector ?

It includes those institutions which provide financial services like banking, credit, trade and so on to the economy. Some of the institutions in this sector include commercial banks, investment banks, stock exchange operations and foreign exchange market.

### Who controls the financial sector?

- The financial sector is controlled by the Reserve Bank of India [RBI].
- RBI controls all financial institutions including banks through various norms and regulations like interest rates, amount of money that bank can keep with themselves nature of lending, etc.

### Reforms done and its result:

- It led to the establishment of private sector banks. Both Indian as well as foreign.
- Foreign investment limit in banks was raised to around 51% (Later 74%)
- **Banks were given freedom to set up new branches without RBI's permission.**
- **The banks could also rationalize their existing networks. But still, few managerial aspects were retained with RBI in the motive of safeguarding interests of the account holders and the nation.**
- Foreign Institutional Investors (FII) which includes merchant bankers, mutual funds and pension funds were allowed to invest in financial markets of India.

### Aim of Financial sector reforms relating to RBI

- One of the main aim of financial sector reforms was to reduce the role of RBI in financial sector.
- It wanted to turn RBI from controller to facilitator.
- In other words, the financial sector may be allowed to take decisions on many matters without consulting RBI

## Tax reforms

### What are tax reforms?

Tax reforms not only include reforms in government taxation, it also includes the reforms in public expenditure policies. These are collectively known as fiscal policy.

Types of taxes:

The tax is classified into two namely 1) Direct taxes 2) Indirect taxes

#### Direct tax:

- It is the tax levied on the income of the individuals and business enterprises.
- These taxes are directly levied to a person or any organization. Hence, the tax cannot be transferred to others.

• Examples: Income tax, corporate tax, property tax, land tax etc.

#### Indirect tax:

- It is the tax levied on purchase of the commodities.
- These taxes since they are levied on goods and services, they can be transferred to the end consumers. The example for this tax is GST.

Reforms since 1991:

**Direct tax:**

- Since 1991, there was a continuous reduction in taxes on individual incomes.
- It was felt that high tax rates were the main reason for evasion of taxes. It is widely accepted that the reduction in rates of tax would encourage savings and voluntary disclosure of income.
- The rate of the corporation tax has been gradually reduced.

**Indirect tax:**

The reform in indirect tax is related to GST of 2017. It was in the motive of the establishment of one market, one tax and one market.

**GST**

Passed in parliament in 2016

Effective from → 1-July-2017

**Aim** → Introducing unified indirect tax system in India.

**Morales behind the implementation of GST:**

- Generate additional revenue for the government.
- Reduce tax evasion.
- Create one nation, one market and one tax.

**Reforms done in GST:**

- Many procedures for filing the tax has been simplified.
- Tax rates has been reduced.

## Foreign exchange reforms

**The first and foremost reform:**

The foreign exchange reform was the first and most important immediate reform done in external sector to resolve the BOP crisis.

**Reforms done:**

- The Indian rupee was devalued
- The determination of value of the Indian rupee was changed from government control to free market. Ie: From fixed exchange rate to flexible/floating exchange rate.

**Result:**

- Due to devaluation of Indian currency, the inflow of foreign exchange rose.
- Due to flexible exchange rate system, exchange rates have been determined by the market forces of demand and supply.

## Trade and Investment policy reforms

**Why liberalization in trade and investment were initiated?:**

These measures were initiated to

- increase competitiveness in the economy.
- bring up foreign investments and technologies into the nation
- Promote the efficiency of local industries and adoption of modern technologies.

**Trade and investment policy before the reforms:**

- There was quantitative restriction (Quotas) on imports.
  - There was tight control over imports by keeping the tariffs high.
- These policies led to slow growth in industrial sector and reduced its competitiveness.

### Aims of new trade policy:

- Removal of the quantitative restrictions on imports and exports
- Reduction in tariff rates
- Removal of licensing procedures for imports.

### Reforms:

- Import licensing was abolished except the case of hazardous chemicals and environmentally sensitive industries.
- Quantitative restrictions on imports of manufactured consumer goods was abolished from April 2001.
- Export duties were removed to increase the competitiveness of the Indian goods in the international market.

## Privatization

### Meaning:

It can be referred as a process of transfer of ownership of public sector undertakings [PSU's] to the private sector.

### Implication:

Privatization implies the shedding of the ownership or management of a government owned enterprise.

### Two ways that government companies can be converted into private companies:

- 1) Withdrawal of government from ownership and management of public sector companies.
- 2) Outright (Complete) sale of the public sector companies.

### Disinvestment

When part of equity (Not the whole ownership and management) of a public sector enterprises is sold to the public, it is called disinvestment.

### Things that can be kept in mind:

- The management is kept in hands of government
- Only part of enterprise is sold up
- The control over the enterprise is under the govt.

### Why was privatization done?

- Improve financial discipline and facilitate modernization
- Leads to effective utilization of private capital and managerial capabilities to improve performance of PSU's.
- Privatization can provide the force/impetus to inflow of Foreign direct investment (FDI).

### Special policies for few PSU for improving their performance:

The government made attempts to improve the efficiency of PSUs by giving them autonomy in taking managerial decisions and thus enabling them to run effectively and increase their profits.

The example is classification into 1) Maharatnas      2) Navratnas      3) Miniratnas

Few of them are:

- 1) **Maharatnas** – Indian oil corporation Ltd (IOC) and Steel authority of India Ltd (SAIL)
- 2) **Navratnas** – Hindustan Aeronautics Ltd (HAL) and Mahanagar Telephone Nigam Ltd (MTNL)
- 3) **Miniratnas** – Bharat Sanchar Nigam Ltd (BSNL), Airport Authority of India (AAI) and IRCTC which is short form of Indian Railway Catering and Tourism Corporation Ltd.

This classification and autonomy resulted in better performance of these enterprises. They have raised the funds from financial market and have expanded themselves in the global market

## Globalization

### Meaning:

The phenomena of integration of an economy with other economies is called globalisation

### Globalization as a complex phenomenon:

- It is an outcome of the set of various policies that are aimed at transforming the world towards greater interdependence and integration.
- It involves creation of networks and activities transcending economic, social, and geographical boundaries.
- The globalization attempts to establish the links between many countries such that an economy's event influence the other. It is turning the world into a single one without any borders.

### Impacts of Globalization

#### Positive impacts:

- Have enabled Indian enterprises to get into a good position
- Creates employment
- Increased competition has benefitted many MNC's of India and they have also enabled few of small companies to emerge as MNC's.

I.e.: HCL technologies, Dr Reddy laboratories, TISCO, ONGC [Oil and Natural Gas Corporation] Videsh are some examples for companies that have emerged as big players.

- The investment in India has risen.
- Has resulted in greater availability of choice of goods to the consumers.

#### Negative impacts:

- Many of the small industries are severely affected. Many have to compete accepting losses or have to perish out of the industry.
- The workers are forced to work 'Flexibly' and hence worker's job security is doubtful. Hence, the workers are forced into informal sector [ Informal sector can be referred from chapter Employment].
- It is said that globalization is a strategy of the developed countries to expand their markets in other countries.

## Outsourcing– Outcome of Globalisation

### Meaning to understand what is outsourcing from dictionary:

'Outsourcing' is a continuous form of 'Outsource'. Outsource is defined as *procurement of resources from outside sources*.

### What is outsourcing?

It is the practice of getting goods and services from external sources or foreign economies which were provided by the internal sources or within the country.

#### Example:

Using services like legal advice, computer technologies, call facilities etc. from other countries rather than using the goods and services produced by the country.

Intensification of outsourcing and its role in the growth of IT:

- Outsourcing has intensified in recent years especially in the IT sector.
- In India, many services like voice services, accounting, banking services, teaching etc. are outsourced.

### Why are the services outsourced in post reform period?

- In India, the services can be availed in a cheaper cost with reasonable skill and accuracy.
- In India, the wages are low and there is abundant amount of manpower.

## World Trade Organisation-WTO

### Establishment:

It was founded in 1995 as a successor organisation of the General Agreement on Trade and Tariff.

### General Agreement on Trade and Tariff [GATT]:

- It was established in 1948.
- It had 23 countries
- It was a global trade organization to administer all multilateral trade agreements by providing equal opportunities to all countries in international market for trading purposes

### Aim of WTO:

- Enlargement of production of trade and services.
- Ensuring optimum utilization of resources.
- Protecting the environment.

### Role of WTO:

- WTO establishes rules for its members and sees that these rules are followed.
- WTO establishes a rule-based trading regime in which nations cannot place arbitrary restrictions on trade.
- The WTO agreements covers facilitation of international trade of goods as well as services through removal of tariff and non-tariff barriers. Hence providing greater market access to its member countries.

### WTO and India:

India being a member of WTO, has been at the forefront of framing fair global rules, regulations, and safeguards. India also advocates the interests of the developing world.

India has also committed in liberalization of trade by removing quantitative restrictions on imports and reducing tariff rates.

### Arguments about usefulness of India being a member of the WTO:

- A major volume of international trade occurs among the developed nations.
- Developing countries feel cheated since developed nations provide agricultural subsidies. For a developed country, the percent of the output of agricultural sector is quite low. The developing countries cannot get a good place in the markets of developed nations while the developed nations get good places in the markets of the developing nations.

I.e. In the US, the agriculture gets good subsidies enabling the farmers to at abnormally low prices. Hence, the other developing country's food grains are left behind in terms of the competition.

## Indian economy during reforms: An assessment

### Growth in GDP:

- The post- 1991 India witnessed a rapid growth in GDP continually for two decades.
- The growth of GDP increased from 5.6 per cent during 1980-91 to 8.2 per cent during 2007-12.
- During the reform period, the growth of agriculture has declined. While the industrial sector reported fluctuation, the growth of the service sector has gone up.
- The above indicates that growth is especially due to the service sector.

- During 2013-14, the agricultural sector experienced a high growth rate, but the next year the agriculture sector had negative growth.
- Industrial sector had good growth rates until 2012. In 2012, it experienced a steep decline.
- The Service sector had consistent growth throughout the years.

#### Criticism:

- Still there are some basic problems in areas of employment, agriculture, industry fiscal management etc.

#### Foreign exchange:

- Opening of the economy has led to a rapid increase in FDI and foreign exchange reserves.
- The foreign investment, which includes foreign direct investment (FDI) and foreign institutional investment (FII), has increased from about \$100 million in 1990-91 to \$30 billion in 2017-18.
- There has been an increase in the foreign exchange reserves from about \$6 billion in 1990-91 to about \$413 billion in 2018-19.
- India is one of the largest foreign exchange reserve holders in the world.
- Rising prices have also been kept under control.

#### Agricultural sector:

- The reforms of 1991 have not been able to benefit the agricultural sector. The growth rate has been decelerating
- During the reform period, public investment in agriculture (especially in infrastructure– which includes irrigation, power, roads, research and development etc.) have declined.
- Removal of fertilizer subsidy has led to increase in cost of production. It had severely affected the small and marginal farmers.
- The international competition has rose owing due to removal of MSP and lifting of quantitative restriction on imports of agricultural products.
- Due to export oriented policy, the cash crops became the locus of attention due to which pressure on prices of food grains has raised.

#### Industrial sector:

- In a globalized world, developing countries are compelled to open up their economies to greater flow of goods and capital from developed countries and rendering their industries vulnerable to imported goods.
- Cheaper imports have, thus, replaced the demand for domestic goods.
- Domestic manufacturers are facing competition from imports. Globalisation is, thus, often seen as creating conditions for the free movement of goods and services from foreign countries that adversely affect the local industries and employment opportunities in developing countries.
- Moreover, a developing country like India still does not have the access to developed countries' markets because of high non-tariff barriers.
- The infrastructure facilities, including power supply, have remained inadequate due to lack of investment.

#### Disinvestment

- Every year, the government fixes a target for disinvestment of PSEs. (i.e., 1991– Target was 2.5K Cr, but govt exceeded it's disinvestment by 3040 Cr)
- Critics point out that the assets of PSEs have been undervalued and sold to the private sector. This means that there has been a substantial loss to the government.
- The proceeds from disinvestment are used to offset the shortage of government revenues rather than using it for the development of PSEs and building social infrastructure in the country.
- However, disinvestment is good since it increases the efficiency of the firm.

### Fiscal policy reforms

- Economic reforms have placed limits on the growth of public expenditure, especially in social sectors.
- The tax rates reduction which aimed at yielding higher revenues and reduction in tax evasion have not increased the revenue for the government.
- The tariff reduction have reduced the scope for raising revenue from custom duties
- The tax incentives which aimed at attracting the foreign investment has further reduced the scope for raising tax revenues.
- As a whole, a negative impact on developmental and welfare expenditures can be noticed from the reforms.

# Chapter 4:

## Poverty

### Introduction

The introduction as a sequel of the previous chapters:

- In before chapters, we learnt about the economic policies of the last seven decades and their outcomes with relation with their developmental indicators.
- Successive FYP's laid emphasis on the upliftment of the poorest of the poor (Antodaya)
- The emphasis was on the basis of integrating (combine into a whole) the poor into others so that they get a minimum standard of living.

In other words, they emphasized the poor to combine into society and aimed at attaining minimum standard of living.

### Poverty– A challenge to the world:

- Poverty is not only a challenge to India. It is a challenge for the whole world.
- More than 1/5th of poor in the world are in India.

I.e. About 300 million people are not able to meet their basic needs.

### Poverty –A multifaced problem:

- Poverty's face changes from time to time and from place to place.
- Commonly it is a situation that people want to escape from.
- It is a required call so that people have enough to eat, have adequate shelter, have access to education and health, protection from violence, and a voice in what happens in their communities.

As the poverty is multifaced, its definition can't be quite simple to say. However, as an attempt we can say "Poverty is a situation in which a person is unable to meet his/her basic necessities of life."

## Who are the poor?

As poverty is multidimensional, we cannot simply say a person is poor because of a specific reason. So we can see some examples for the poor and let us see some of the features of poor people.

### Some of the examples for the poor:

Push cart Vendors, street cobblers, rag pickers, beggars, household cleaners are some of the examples for people who are poor.

### Features of the poor:

- They reside in kutcha hutments with walls made of baked mud and roofs made of grass or leaves, bamboo and wood. The poorest of them do not even have even such houses.
- They suffer from starvation and hunger. Many do not even have two meals a day.
- The poor lack basic literacy and skills and hence have very limited economic opportunities
- They face unstable employment.
- They are alarmingly undernourished. Their ill health, or serious illness makes them physically weak.
- They are chronically indebted because they lend from moneylenders who charge them high rate of interest.
- The poor are highly vulnerable class because they are not able to negotiate their legal wages from employers and are exploited in many ways.
- The poor do not have access to electricity and rely on conventional sources of energy like firewood, cow dung fuel etc. as their main source of cooking fuel.
- They do not have access to safe drinking water, and reside in ill sanitised environments. Leading them vulnerable to various infectious diseases.
- They face gender inequality in participation of gainful employment, education and in decision making within the family.
- Poor women receive less care on their way to motherhood. Their children are less likely to survive or be born healthy.



A mud house with palm leaf roof.

## Urban and Rural poor

### Rural Poor:

They state that the rural poor work mainly as landless agricultural labourers, cultivators with very small landholdings, or landless labourers, who are engaged in a variety of non-agricultural jobs and tenant cultivators with small land holdings.

### Urban Poor:

The urban poor are largely the overflow of the rural poor who had migrated to urban areas in search of alternative employment and livelihood, labourers who do a variety of casual jobs and the self-employed who sell a variety of things on roadsides and are engaged in various activities.

### **Anu and Sudha – Contrast between the poor and the non poor**

Anu and Sudha were both born on the same day. Anu's mother and father were construction labourers and Sudha's father was a businessman and her mother a designer. Anu's mother worked by carrying head loads of bricks until she went into labour. She then went behind the tool shed on the construction site and delivered her baby alone. She fed her child and then wrapped her in an old sari, made a cradle with a gunny sack, put little Anu in it and hung it from a tree. She hurried back to work as she was afraid she would lose her job. She hoped that Anu would sleep until evening.

Sudha was born in one of the best nursing homes in the city. She was thoroughly checked by doctors, she was bathed and dressed in clean soft clothes and placed in a crib next to her mother. Her mother fed her whenever she was hungry, hugged and kissed her and sang her to sleep. Her family and friends celebrated her arrival.

Anu and Sudha had very different childhoods.

Anu learnt to look after herself at a very early age. She knew what hunger and deprivation were. She discovered how to pick food from the dustbin, how to keep warm during the winter, to find shelter in the monsoon and how to play with a piece of string, stones and twigs. Anu could not go to school as her parents were migrant workers who kept moving from city to city in search of work.

Anu loved to dance. Whenever she heard music she would improvise. She was very beautiful and her movements were graceful and evocative. Her dream was to dance on a stage some day. Anu could have become a great dancer but she had to begin work at the age of 12. She had to earn a living with her mother and father, building houses for the rich. Houses, she would never live in. Sudha went to a very good play school where she learnt how to read, write and count. She went on excursions to the planetarium, museum and national parks. She later went to a very good school. She loved painting and started getting private lessons from a famous artist. She later joined a design school and became a well-known painter.

### **What is Poverty? - A definition by Two scholars Shaheen Rafi Khan and Damian Killen**

Two scholars, Shaheen Rafi Khan and Damian Killen, put the conditions of the poor in a nutshell: Poverty is hunger. Poverty is being sick and not being able to see a doctor. Poverty is not being able to go to school and not knowing how to read. Poverty is not having a job. Poverty is fear for the future, having food once in a day. Poverty is losing a child to illness, brought about by unclear water. Poverty is powerlessness, lack of representation and freedom.

## How to identify the poor?

### Why to identify the poor?

As poverty must be alleviated, there is a need for addressing the poor and getting them out of poverty. For getting the people out of poverty, government needs to implement schemes. For implementing those schemes, government needs to identify the poor.

For identification, there is a need for measuring the factors causing poverty and measurement mechanism and criteria to identify the poor

### Poverty Line measurement in Pre-Independent India

Dadabhai Naoroji was the first to discuss the concept of a Poverty Line. He used the menu for a prisoner and used appropriate prevailing prices to arrive at what may be called as 'jail cost of living'.

#### A problem – Only adults live in jail

Only adults live in jail, but in actual economy, there are children too....

#### Solution – Some minor adjustments

As a solution, he made some adjustments and arrived at average "Three-Fourth of the Adult cost of living"

#### What sort of adjustments?

He made some assumptions which are given as follows:

- One third of total population consisted of children and rest are adults
- Half of the children consumed very less and the other half consumed half of the adult diet.

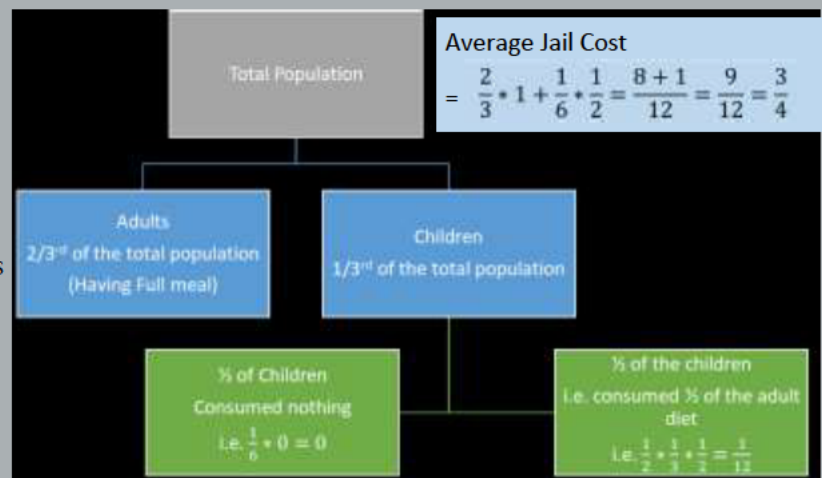


Figure explaining the conclusion to the 3/4th of jail adult cost of living

### Poverty line measurement after independence:

In post-independent India, there have been several attempts to work out a mechanism to identify the number of poor in India. Some of them are given below.

Year	Event
1962	"Study Group" was formed by the planning commission
1979	"Task Force on Projections of Minimum Needs and Effective Consumption Demand" was formed
1989 and 2005	Experts Group were constituted to identify the poor in the country

Many individual attempts were also done.

## Categorising poverty -I: Way to identify the poor

There are many ways to categorise poverty. For our purpose, let's categorise as

- 1) Chronic Poor 2) Transient Poor 3) Non-Poor

### **Chronic Poor:**

This group consists of people who are 1) Always poor and 2) Usually poor

Always poor:

They are the people who are never out of poverty are known as always poor

Usually poor:

They are the people who seldom come out of poverty and get back to poverty

### **Transient Poor:**

Churning Poor:

They are the people who regularly come in and out of poverty.

Occasionally poor:

They are the people who are usually out of poverty, but due to some bad patch of luck, come under poverty.

### **Non-Poor or Never poor:**

They are the people who never experience poverty.

## Categorising poverty -II: Poverty Line— Divider between Poor and Non Poor

In previous section, We categorised people as chronic poor, transient poor and the non poor. Now, to know how to classify people as poor and non poor, we make a measure called "Poverty Line".

### **POVERTY LINE:**

A line separating poor from non poor is known as poverty line.

### **WAY FOR DETERMINING THE DIVIDER B/W POOR AND NON POOR**

Monetary value of minimum calorie intake:

- Here, we take the monetary value of minimum calorie intake and keep it as a threshold line b/w poor and the non poor
- In India, minimum calorie intake for Rural areas is 2400/Day Cal and for urban areas, it is 2100 Cal/ Day. Converting to the price levels of 2011-12, it points out to 816 INR/Month in rural areas and 1000 INR/Month in urban areas.

Problem of the method of calorie intake:

- As poverty is multidimensional, this method estimates the poverty threshold only in one aspect—the aspect of food intake.
- There are many other aspects like good sanitation and health, education, access to clean and regular drinking water, good shelter, lack of representation etc.
- The calorie requirement does not point out the nutrition levels exactly.

Monthly Per Capita Expenditure (MPCE)

- Here, the expenditure of the households act as the poverty line threshold.

- In India, Monthly per capita consumption expenditure of Rs. 972 in rural areas and Rs. 1407 in urban areas is recommended as the poverty line at the all India level. (2020 Sep -From rural.nic.in)

Problems of the MPCE method:

- Here, expenditure is kept as a proxy for income
- The expenditure mainly consists of food adding the other basic requirements like rent, medical– care etc. However, when the rent etc are included, in many areas especially urban areas the income is seen quite low.
- There are also other social factors which can make a person poor.

The people who fall below this minimum threshold of the above are called the absolute poor.

Absolute poor:

- They are the people who live below the poverty line
- They are not in the position to meet the basic needs of consumption and maintain a sustainable living standards

General problems of the two methods:

- The illiteracy, ill health, lack of access to resources, or lack of civil and political freedoms are not shown by the above measures.
- The way that data is collected by the sample survey is not quite representative to the whole nation.
- The items in the consumption basket (consumption list) are inadequate. There are many other items which needs to be included.

As a result of the way and items of MPCE, the poverty estimates have been shown low.

### Relative Poverty– A way to measure the poverty with relation to others

If you want to measure the poverty between two people or two states or two nations, what would you do?

Would counting all the people who are poor would be a easy job? Of course, the answer is No.

So, we use a measure called Relative poverty. **It is a measure that compares two individuals or aggregates with income as the measurer.**

**Example:**

Ukraine's GDP is 15,378.11 Cr USD and DRC's (Democratic Republic of Congo) GDP is 5,040.07 Cr USD.

Comparing the aggregate national income, we can deduce that DRC is poorer than Ukraine.

**Some limitations of relative poverty measure:**

- It just acts as a comparative analysis.
- It does not reflect the deprivation of the basic needs in the nation.

**Some limitations of absolute poverty measure:**

- The degree of poverty is not stated (poorest vs poor vs just poor)
- It is tough to keep a minimum threshold. It is complex and the data sample collected may show out wrong results

## Individual attempts

Due to flaws in official estimates of poverty, many individual attempts were also done. Some examples of those are Sen Index– By Amartya Sen, Poverty Gap index and squared poverty gap.

## Finding the number of poor/ Cardinality of the poor— Head Count Ratio

The cardinality of the poor in India is counted using Head Count Ratio. It is the ratio expressed in percentage of the total population. According to 2011 census, it was 21.9%.

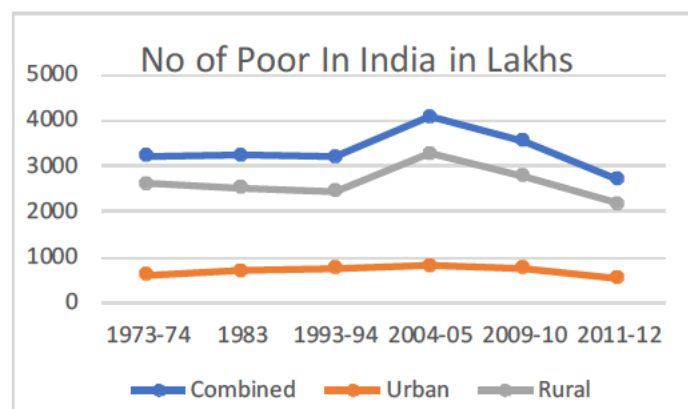
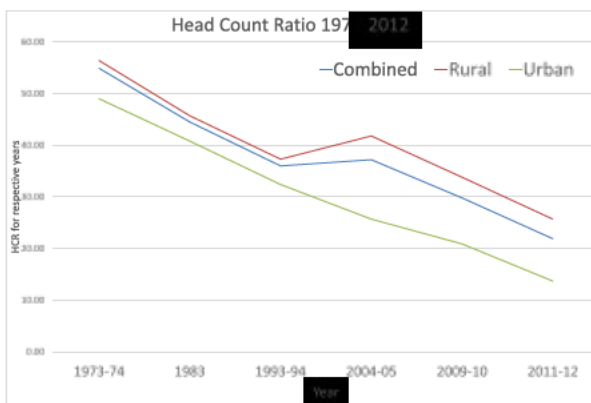
Note:

The proportion of population below the poverty line is called the poverty ratio or headcount ratio (HCR).

Where can we get the data?

- It is made available to public by NITI Aayog.
- Data is collected by NSSO (National Sample Survey Organisation) now known as National Statistical Office (NSO). The estimation is on basis of consumption expenditure data.

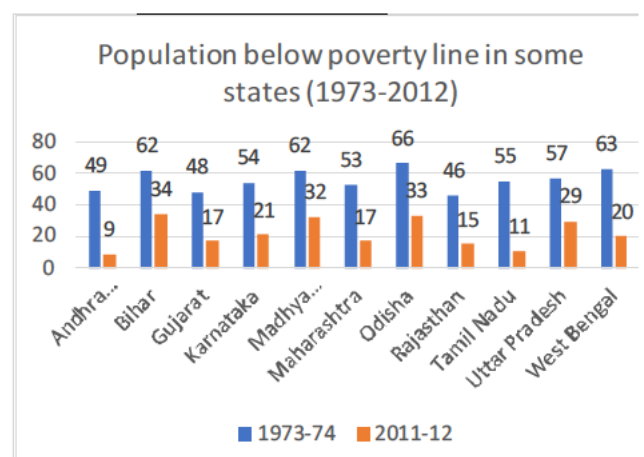
The Number of poor in India— Aggregate level:



- The all India Poverty Head Count Ratio (PHCR) has been brought down from 55% in 1976 to 22% in 2011-2012.
- In 1973, there were more than 320 million poor. In 2012, It has dropped to about 270 million.
- The majority of the poor resided in rural areas. Still in 2012 this situation has not changed.
- The data of the year 1993-94 shows a decline in rural poverty. Whereas the absolute number of poor in urban areas have increased marginally (Refer graph “No of poor in India”).
- The poverty ratio has continuously declined for urban and rural areas (With exception of the year 2004-05)
- The gap between absolute number of poor in urban and rural areas had been remained the same until 1994. It has widened from the subsequent years.
- The decline in poverty is not that encouraging (i.e., not up to the mark)

The Number of poor in India— State level:

- The six states namely Tamil Nadu, Uttar Pradesh, Bihar, Madhya Pradesh, West Bengal and Orissa - contained a large section of poor in 1973-74.
- During 1973- 2012, many Indian states reduced the poverty levels to a considerable extent.
- Yet, the poverty levels in four states—Odisha, Madhya Pradesh, Bihar and Uttar Pradesh are still far above the national poverty level. (National poverty level is about 22% in 2011-12)



- West Bengal and Tamil Nadu reduced poverty level to a considerable extent.

## Causes of Poverty

The causes of poverty lie in the institutional and social factors that mark the life of the poor.

The institutionalised poverty is induced by the exploitative nature of the capitalist economy or the weak social institutions which provide bureaucrats the way to exploit the public resources. ([Source](#))

The social factors include caste based discrimination, lack of opportunities, dominating natures of majorities etc.

Some causes of Poverty:

- Social, Economic and Political inequality
- Social exclusion
- Unemployment
- Indebtedness (Especially Chronic indebtedness)
- Unequal distribution of wealth

Aggregate poverty is nothing else but sum of individual poverty

Poverty in general as economy wide problem

- Low capital formation
- Lack of infrastructure
- Lack of demand
- Pressure of population
- Lack of social welfare

## Causes of Poverty in India

Impoverishment under British rule:

- There is no doubt that colonial rule had negative impact on the Indian Economy.
- The local trade was hindered by the imports by the British.
- The rural taxes and duties for lands were hiked as a result, many poor farmers suffered a lot. As many as 26 Million people died in famines between 1875 and 1900.
- Our natural resources were plundered, our industries worked to produce goods at low prices for the British and our food grains were exported.
- The forced recruitment of sepoys for WW1 caused resentment in India.

Problem in redistribution of lands

- Since independence, the government has attempted to redistribute land and has taken land from those who have large amounts of land and distribute it to those who do not have any land.
- However, this move was not that successful since even if the lands were distributed, for many poor farmers it was of no use since they did not have sufficient skills nor assets to make the lands productive.
- Moreover, the land holdings were quite small to be viable. Most of the Indian states failed to implement redistribution policies

- Majority of the poor farmers have lands which are less fertile and their survival depends on subsistence crops and livestock.
- With the rapid growth of population and no other alternative sources for employment, the per-head availability of land for cultivation has declined steadily.
- This has led to fragmentation of land holdings
- The income from the small land holdings is not sufficient to meet the basic requirements of the family.

#### Indebtedness

- The debts made in anticipating a good living or sustainable life for the poor alongside with the informal sources of lending has forced the poor to get chronically indebted.
- Even if a person is able to fulfil some basic needs of his own, the indebtedness causes poverty in its own kind. It reduces the income of the poor to a great extent. The rates of interest is quite high among the informal sources of lending.
- The crop failures have forced many farmers to commit suicide due to inability to pay back the loans which they took for cultivation.
- The underemployment or unemployment and the non regular wages of work in rural and urban areas compels indebtedness and contributes to poverty.

#### Lack of economic opportunities to the backward sections of the society

- Most of the members of SC and ST are not able to participate in employment opportunities of the economy.
- They lack knowledge and skills to do the works.
- The lack of knowledge and skills owes to the oppressive caste system in India. For example, Dalits were not allowed to get educated.

#### The nature of employment of urban poor:

- The urban poor are largely the overflow of rural poor who migrate to urban areas in search of livelihood.
- The industrialisation did not absorb the workforce of rural economies.
- The urban poor are either unemployed or are employed as casual labourers.
- They are the most vulnerable people of the society since they do not have job security, they have no assets, their skills are limited, they have sparse opportunities and their savings/surplus is inadequate to sustain themselves.

#### Rise in prices of essential commodities and unequal distribution of income

- The rise in prices of goods especially the essential commodities intensifies the hardships of lower income groups.
- The gap between the rich and poor has widened. The unequal distribution of income has led to pull of poverty in India and has created two groups namely, the haves and have nots.

#### Some of the factors behind farmers suicide (From Box 4.3 of NCERT's IED)

- Shift from traditional farming to commercial crops without adequate technical support from the states in area of
  - 1 ) Counselling in farm technologies
  - 2) problems faced by farmers
  - 3) immediate remedial steps
  - 4) Lack of timely advices to farmers

- Decline in public investment in agriculture over two decades.
- Low rates of germinations of seeds provided by large global firms, spurious (outwardly good, but lacking genuine qualities) seeds and pesticides given by private agents.
- Crop failures, pest attacks and droughts.
- Lending at high interest rate varying between 36% to 120% from private money lenders.
- Cheap imports from developed countries which offer subsidies to agriculture leading to decline in prices and profits.
- Lack of access to water and irrigation (forcing them to borrow for constructing borewells which failed to provide water even after digging deep)

## Policies and Programmes Towards Poverty Alleviation

Indian constitution, Five-year plans and Poverty:

- FYPs and Indian constitution state social justice as main objective of the developmental strategies of the government.
- For example, the 1st FYP quoted “the urge to bring economic and social change under present conditions comes from the fact of poverty and inequalities in income, wealth and opportunity”.  
2nd FYP quoted “ The benefits of economic development must accrue more and more to the relatively less privileged classes of society”.
- In all policy documents, there is emphasis on alleviation of poverty.

The **3-D** approach to poverty:

- The government’s approach towards poverty alleviation was a three dimensional approach.
- The three approaches were
  - Growth oriented approach
  - Poverty alleviation programs
  - Provision of minimum basic amenities by public expenditure

### Growth oriented approach

Meaning and rationale behind it

- It is based on the expectation that effects of the economic growth (rapid increase in GDP and PCI) would spread to all section of the society and hence would trickle down to the poor sections of the society.
- It was the locus of the planning in 1950’s and early 1960’s
- It was felt that rapid industrial development and transformation of agriculture through green revolution in select regions would benefit the underdeveloped regions and the more backward sections of the community.

Assessment of the problems of this approach:

- The overall growth of the economy was not impressive.

- The growth of the two main sectors (viz the agriculture and industry) was not impressive either.
- The growth in PCI was low since the growth was outweighed by the population growth.
- The gap between the poor and the rich has widened.
- The green revolution has fueled the regional disparities and disparities between poor and non-poor farmers.
- Economists argue that the benefits of growth has not trickled down to the poor.

## Poverty Alleviation Programs (PAP)/ Employment generation programs

Origin and rationale behind this approach:

- This approach was implemented from the 3rd FYP and has progressively enlarged.
- It is on the rationale that income and employment could be raised through work generation and creation of income earning assets.
- The best noteworthy program is the **Food For Work** Program. IT was initiated in the 1970s.
- Most of the PAPs which are implemented are based on the perspectives of FYPs.
- Self employment and wage employment are being considered as the major ways to address poverty.

### Self Employment programs

#### 1.Pradhan Mantri Rozgar Yojana (PMRY)

Meaning:

Let us break the name of the scheme into syllables.

Pradhan Mantri + Rozgar + Yojana

Pradhan Mantri = **Prime Minister** , Rozgar= **Employment**, Yojana= **plan/ scheme**

So, it becomes **Prime Minister Employment Program**

Features of the program (source: bajajfinserv.in (/pmry) )

- Aims to provide self-employment opportunities to educated youths who are unemployed.
- It was launched in 1993.
- Gives unemployed loan to people whin age 18-35 and should have minimum completed 8th std.
- Collateral free loan up to 1 lakh. Gives subsidy on project cost too.

#### 2.Rural Employment Generation programme (REGP) (source NCERT and india.gov.in)

Features:

- Aims to create employment in rural areas.
- It was launched by Khadi and Village Industries commission (KVIC) in 1995.
- Under this, financial assistance can be sought to set up SSIs. The financial assistance is given by banks.

#### 3.Swarna Jayanti Shahari Rozgar Yojana (SJSRY)

Meaning

Swarna Jayanti = Golden Jubilee, Shahari = Urban, Rozgar= Employment , Yojana= Plan/ Scheme

Features:

- Launched in 1997 to provide gainful employment to the unemployed and underemployed urban poor.
- It encouraged self employment as well as wage employment. It also supports urban labour skill development

The above programs have been succeeded and replaced by PMEGP– **Prime Minister Employment Generation Programme.**

#### **Assistance to individuals account encouraged via SHGs from 1990:**

- Before 1990, financial assistance was given directly to families and individuals.
- From 1990s, the approach has changed.
- The persons who wish to benefit from these programs are encouraged to form SHG.
- The SHGs are initially encouraged to save and lend among themselves as small loans. Later, through banks, government provides partial financial assistance for self-employment through banks.
- Almost all of the programmes were initiated by this manner from 1990.

#### **Swarnajayanti Gram Swarozgar Yojana (SGSY):**

- As seen earlier, Swarnajayanti means golden jubilee, Gram is related to village or rural areas and Swarozgar means Self-employment.
- It is implemented since 1999. It is specifically oriented towards rural areas and also aims for skill development for the poor.
- It is renamed as Deen Dayal Antyodaya Yojana.
- It is restructured as National Rural Livelihoods Mission.

A similar one is there for urban areas named National Urban Livelihoods Mission.

#### **4. Mahatma Gandhi Rural Employment Guarantee Act (MNREGA)**

##### **Features:**

- Initiated in 2005 for rural areas.
- Provides guaranteed 100 days unskilled labour wage employment to rural areas.
- Now, this scheme is termed as Deen Dayal Upadhyaya Antyodaya.
- Under this Act all those among the poor who are ready to work at the minimum wage can report for work in areas where this programme is implemented.

### **Provision of minimum basic amenities by public expenditure**

- The third approach to address poverty is to provide minimum basic amenities to the people.
- India makes public expenditures on social consumption needs like provision of grains at subsidized rates, education, health, water supply and sanitation etc. They are in the motive to increase the living people's standard.
- The programmes under this approach are expected to supplement the consumption of the poor, create employment opportunities and bring about improvements in health and education.
- This approach can be traced from the 5th FYP *“even with expanded employment opportunities, the poor will not be able to buy for themselves all the essential goods and services. They have to be supplemented up to at least certain minimum standards by social consumption and investment in the form of essential food grains, education, health, nutrition, drinking water, housing, communications and electricity”*.

Major programs aiming at developing the status of the poor

- The three main programs for improving the nutritional status of the poor are  
1) Public Distribution System 2) Integrated Child Development Scheme 3) Midday Meal Scheme
- For developing infrastructure and housing conditions, Pradhan Mantri Gram Sadak Yojana (translates to Prime Minister Rural Roads Scheme/Plan) and Valmiki Ambedkar Awas Yojana (translates to Valmiki Ambedkar Accommodation Scheme).
- National Social Assistance Programme helps the elderly people who do not have anyone to take care. They get pensions to sustain themselves. It also helps the poor women who are destitute and widows are covered under this scheme.
- One more program called Pradhan Mantri Jan Dhan Yojana (2014) aims to give incentives for thrift and gives all the benefits directly to the bank account. It also gives account holders 1 Lakhs accident insurance and 30,000 life cover.

## Assessment of poverty alleviation programmes

### Problems in the programs

- The poverty has been reduced to some extent.
- Despite various strategies to alleviate poverty, hunger, malnourishment, illiteracy and lack of basic amenities continue to be a common feature in many parts of India.
- None of the programmes resulted in any radical change in the ownership of assets, process of production and improvement of basic amenities to the needy.

Three major concerns which hinder the successful implementation of the poverty alleviation schemes

**Unequal distribution of land and other assets:**

The unequal distribution of land and other assets have led to appropriation of the benefits to the non-poor.

**Problem in the resources allocated and wastages in resources:**

- Compared to the magnitude of the poverty, the amount of resources allocated for these programmes is not sufficient.
- The resources are inefficiently used and wasted.
- Moreover, these programmes depend mainly on government and bank officials. The bank officials are ill motivated, inadequately trained, corruption prone and vulnerable to the pressure by the local elites.

**Non participation of local level institutions and non addressal of government policies for people just above poverty line:**

- The non participation of local level institutions in the implementation of the programmes pose a problem in proper implementation of the policies and reach of the policies.
- Government policies have also failed to address the vast majority of vulnerable people who are living on or just above the poverty line

### How to tackle poverty?

- 1) Active contribution by the poor to the growth by giving active involvement in growth process.
- 2) Skill development for the poor and creation of employment opportunities.
- 3) Provision of infrastructure to poverty stricken areas.

# Chapter -6:

## Rural Development

### What's in this Chapter?

- 1) Rural areas and their importance
- 2) Meaning of Rural development.
- 3) Key areas which need focus for fresh Initiatives
- 4) Rural Credit- Meaning, Importance, classification
  - Sources of Rural Credit
    - \* Formal Sources
    - \* Informal sources
- 5) Rural Credit- A Critical appraisal
- 6) Agricultural market system
- 7) Diversification in agriculture
- 8) Sustainable development and organic farming

### Few Things to remember in this chapter

- 1) Rural Development and their key issues - decline in productivity of agricultural sector
- 2) Rural Credit- Their importance and their sources
- 3) Role of SHG's in rural credit
- 4) Rural Banking a Critical appraisal- Effects, Problems and suggestions to overcome the problems.
- 5) Agricultural market system- meaning, market before independence, reforms initiated by government - market regulation, provision of infrastructure, cooperative marketing and policy instruments [PDS, Buffer stocks and MSP]-problems despite government intervention.
- 6) Agricultural diversification- Meaning , importance
- 7) The areas of diversification- Animal Husbandry, Fishery, Horticulture, IT
- 8) Sustainable development and Organic farming- What is sustainable development, problems in modern agriculture, what is organic farming, benefits and problems of organic farming.

### Rural Areas and their importance

- Majority of the population reside in rural areas, and they are either directly or indirectly dependant on agriculture
- Most of the poor reside in rural areas. One-third of rural India lives in poverty
- In order to attain growth, rural development is inevitable

**Mahatma Gandhi once said that the real progress of India did not mean simply the growth and expansion of urban industrial centres but mainly the development of the villages.**

## Rural development and its key areas pleading fresh initiatives

Rural development is the term used for denoting actions focused on developing rural areas which are left behind in terms of overall development.

Key areas which require fresh initiatives:

### 1) Development of Human Resources:

Human resources like literacy, specifically female literacy, education, and skills need to be developed. The healthcare facilities also need to be developed since it is also an important determinant of human capital growth.

### 2) Development of Infrastructure:

The development of infrastructures rises productivity and accelerates growth. So the necessary infrastructure like electricity, irrigation, credit, marketing, transport etc. are quite important and requires good initiatives.

### 3) Land Reforms:

The land reforms must be properly implemented with keeping mind of following points

- Actual abolition of the exploitation of small farmers
- Distributing land to farmers without corruption.
- Creating political wills

### 4) Alleviating poverty:

As one-third of rural people live in abject poverty. The shortcomings in PAP must be taken care of.

### 5) Development of productive resources:

The productive resources of the rural economy must be developed by generating employment and supporting those areas which can generate employment. The fuller utilisation of resources increases the productivity. The skills must also be developed.

Decreasing productivity of Agricultural sector:

- The contribution of agricultural sector towards GDP is declining
- But, the population dependant on this sector did not decline.
- The share of the agricultural sector towards GDP decelerated by 3% per annum during 1991-2012.

In recent years, it is more volatile.

Some reasons for decline of productivity in agricultural sector and rural unemployment:

- After the reforms of 1991, the public investment has declined
- The infrastructure is quite inadequate
- The industry and the service sector could not generate employment in rural areas.
- The trend of casualisation of labour was also a problem for rural peoples.

## Rural Credit

Meaning of Rural Credit:

The credit taken by rural households for the purpose of agriculture, small business startup or personal purpose is known as Rural Credit.

Importance:

- Growth of Rural economy is directly dependant on Capital infusion
- Agricultural production is directly dependant on credit. This credit is essential since there exists a long time gap [least 3 months] between the realisation of income [price of crops] and sowing of seeds [investment in inputs]. In rural areas, the credit's primary demand is for crop production.

### Sources of Rural credit:

There are mainly two sources of credit

1) Formal source of credit

2) Informal source of credit

#### 1) Informal source of credit:

This is the most popular source of rural credit. This source includes credit from friends, relatives, landlords, wealthy farmers, money lenders and other non- institutional sources. This source of credit is also known as Non- Institutional source of credit.

Features of Informal source of credit:

• Generally has higher interest rates. It may lead to a debt trap.

- Generally collaterals are not required.
- There is no institution to control credit.
- Generally there is no objective of social welfare.

#### 2) Formal source of credit:

The rural credit obtained by this source is quite marginal. This source includes credit from formal institutions like Banks, Cooperative societies, Governments etc. This source of credit is also known as the institutional source of credit.

Some of the examples are NABARD, Commercial banks SHG, thrift institutions etc.

Feature of Institutional source of credit:

- Has generally reasonable interest rates
- Collaterals are required
- RBI controls credit
- Objective of social welfare is taken up.

#### 2.1) NABARD:

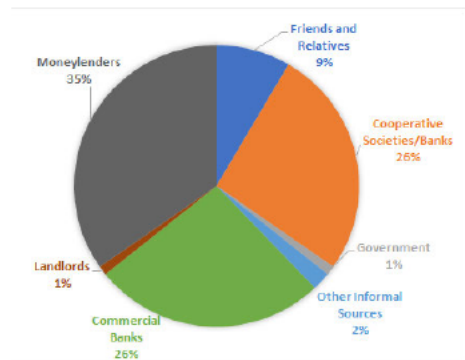
- NABARD stands for National Bank for Agricultural and Rural Development.
- It was established in 1982
- It is an apex body which coordinates the functions of different rural financial institutions.

To note about the rural credit:

• Until 1969, the government's initiative towards exploitation by the informal sector. After 1969, India adopted social banking and multiagency approach towards rural credit.

• The Green Revolution was a harbinger of major changes in the credit system as it led to the diversification of the portfolio of rural credit towards production-oriented lending.

• The institutional structure of rural banking today consists of a set of multi-agency institutions, namely, commercial banks, regional rural banks (RRBs), cooperatives and land development banks. They are expected to dispense adequate credit at cheaper rates.



Graph: Sources of Credit per Rs 1000 of Rural Households in India in 2012



## SHG– Self Help Groups: Their importance

- Problem of institutional sources of credit is that it needs collateral and in few areas it is quite inadequate. The integration with rural social and community development is also not complete.

- The SHG's have emerged to fill the gap in the formal credit system.

- The SHGs promote thrift in small proportions by a minimum contribution from each member. From the pooled money, credit is given to the needy members to be repayable in small instalments at reasonable interest rates.

- If the group is regular in savings, it becomes eligible for availing loan from the bank.

- If eligible, loan is sanctioned in the name of the group and is meant to create self employment opportunities for the members.

- By May 2019, nearly 6 crore women in India have become a member in 54 lakh women SHG's.

- About 26.98 lakhs SHG has been granted loans worth 58,318 crores [Source Annual Report of NABARD for 2018-19]

- Such credit provisions are generally referred to as micro-credit programmes.



### Problem of SHG:

The main problem is that the credit given under this programme is used for consumption purposes rather than the productive purposes.

### The Poor women's Bank of Kerala- The Kudumbashree

'Kudumbashree' is a women-oriented community-based poverty reduction programme being implemented in Kerala. In 1995, a thrift and credit society was started as a small savings bank for poor women with the objective to encourage savings. The thrift and credit society mobilised Rs 1 crore as thrift savings. These societies have been acclaimed as the largest informal banks in Asia in terms of participation and savings mobilised.

Some facts:

The program, Kudumbashree, meaning "family prosperity" in Malayalam, the local language, was started in 1998 by the then-Communist government to fight poverty through female emancipation and the collaborative effort of local self-governments.

#### Mission Statement:

To eradicate absolute poverty in ten years through concerted community action under the leadership of local governments, by facilitating the organization of the poor for combining self-help with demand-led convergence of available services and resources to tackle the multiple dimensions and manifestations of poverty, holistically.

## Rural Banking—A Critical Appraisal:

### Effects:

- The output of Farming and Non - farming activities increased and hence income increased and unemployment rates have decreased. This occurred especially after the Green revolution.
- Famines became events of the past; we have now achieved food security which is reflected in the abundant buffer stocks of grains.
- The Non institutional credit's role decreased to an extent. Average of 48%[2003] to 44%[2012] in rural areas. Hence, the chances of getting trapped by debts have decreased.
- The commercialisation of agriculture was also a result of rural credit availability.

### Problems:

- Other institutions rather than Commercial Banks, failed to develop a culture of savings.
- The loan rates has been chronically high since the government is not that strict for recovery of loans.
- Farmers are deliberately refusing to pay back the loans. They are waiting for the government to write off their loans. This is a threat to the banking system.

### Suggestions for improving this situation:

- Banks need to change their approach from just being lenders. They must build a mutual relationship between themselves and the lenders
- Banks must incubate the habit of promoting thrifts among the farmers.

## Agricultural Marketing system

### Meaning of Agricultural Marketing:

Agricultural marketing is the process involving assembling, storage, processing, transportation, packaging, grading and distribution of different agricultural commodities across the country.

### Market System Before Independence:

- Before Independence, farmers those who sold their output to traders suffered from faulty weighing and manipulation of accounts
- Farmers who were not aware about their crop's prices were exploited by traders by forcing them to sell crops at cheap prices.
- The farmers also lacked proper storage facilities. So they could not store the produced output and sell afterwards at better prices.

Even today, about 10% of the goods are wasted due to the lack of storage facilities.

So to avoid the exploitation of farmers, the government intervention into the agricultural markets came necessary

### Measures initiated by government:

There are mainly 4 measures namely:

- 1) Regulation of markets
- 2) Provision of physical infrastructure
- 3) Cooperative marketing
- 4) Policy instruments- MSP, Buffer stocks and PDS

#### 1) Regulation of markets:

- Markets were regulated to create orderly and transparent marketing conditions
- This policy benefitted farmers as well as customers.

#### Problem:

To realise the full potential of rural markets, still about 27000 periodic rural markets need to be developed.

#### 2) Provision of infrastructural facilities:

- The physical infrastructures like roads, railways, godowns, cold storages and processing units have been provided

#### Problem:

The current infrastructure facilities are quite inadequate to meet the growing demand and needs to be improved further.

#### 3) Cooperative marketing:

Meaning: It is any agreement to combine the marketing efforts of individuals to achieve a specific objective.

Here farmers collectively sell their products at a good price and can increase the chances of approved procurement of the output.

Milk cooperatives of the Gujarat is the proof for success of the cooperative

#### Problems:

- There is inadequate coverage of farmer members
- lack of appropriate link between marketing and processing cooperatives and inefficient financial management.

#### 4) Policy instruments:

The policy instruments discussed are

- 1) Minimum support prices
- 2) Public distribution system
- 3) Maintenance of buffer stocks

#### 1) Minimum support prices [MSP]:

This policy aims to provide minimum prices to the farmers for their crops or products

#### 2) Maintenance of buffer stocks:

This policy aims for guaranteed procurement of rice and wheat by the FCI at MSP during years of surplus and used in years of shortages.

#### 3) PDS [Public Distribution System]:

PDS enables the farmers a guaranteed income to farmers and welfare of the poor by distributing sugar and rice from farmers to poor people through Fair Price Shops.

Aim of these policies: Protecting the income of farmers and provision of food grains to the poor at subsidised rates.

#### Problems despite the government intervention:

- The private trade [By Traders, Moneylenders, Big merchants etc.] predominates the agricultural markets.
- The further government intervention is necessary since the private sector shares a large part of agricultural products.

#### Emerging Alternate Marketing Channels:

- The direct sales to customers by the farmers increase the income of the farmers. The Apni Mandi of Punjab, Haryana and Rajasthan, Hadapsar Mandi (Pune) Rythu Bazars (vegetable and fruit markets in Andhra Pradesh and Telangana) and Uzhavar Sandies (farmers markets in Tamil Nadu) are examples for the direct sales channels.

- Several National and Multi-National food chains are increasingly entering into alliances/ contracts

with the farmers to encourage the desired quality of products with provision of required inputs with ensured procurement of output at pre decided prices.

- These arrangements have reduced the price risks of farmers and the expansion of markets.

## Diversification into productive activities:

### Meaning:

It is the process of re-allocation of productive resources of farmers such that the resources are efficiently utilized.

### Aspects of diversification:

- Change in cropping pattern
- Shift of workforce from agriculture to other allied activities



### Why is diversification needed?

- There is greater risk in depending exclusively on farming for livelihood.
- To provide sustainable livelihood options to rural people and reducing the risk of agriculture
- To remove seasonal unemployment

i.e., Most of the agricultural activities are concentrated on Kharif season and whereas during Rabi Season, it is quite difficult to find gainful employment.

- Diversification is essential to provide supplementary gainful employment and in realising the higher levels of income for rural people.
- Already agricultural sector is overcrowded, and there is a need to shift the major work force into other Non- Farming sectors.

The sub sectors of non farming activities include:

Agro-processing industries, food processing industries, leather industry tourism etc. They lack infrastructure facilities which is a barrier to their potential.

- Generally majority of women in rural areas find employment in agriculture whereas men in non farm areas. In. recent times, women have also begun looking for non farm jobs.

### Tamil Nadu Women in Agriculture [TANWA]

- It is a project initiated in Tamil Nadu to train women in latest agricultural techniques. Its rationale was that women contribute to 50-60% of labour in agricultural activities, but their presence in agricultural and its allied activities was relatively low.
- This project started functioning from 1986
- It induces women to actively participate in raising agricultural productivity and family income.
- These women's group diversify the production and generates employment opportunities

## Animal Husbandry

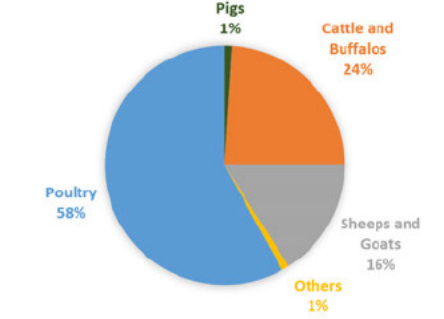
### Meaning:

Animal husbandry is the branch of agriculture concerned with animals that are raised for meat, fibre, milk, eggs, or other products.

### Animal Husbandry in India:

- In India, the farming community uses the mixed crop-livestock farming system
- Cattle, goats, fowl are the widely held species.
- Livestock production provides increased stability in income, food security, transport, fuel and nutrition for the family without disrupting other food-producing activities.
- A significant number of women also find employment in the livestock sector.
- This sector alone provides alternative employment opportunities for over 70 million small and marginal farmers.
- Milk production, meats etc are part of this sector.
- Though, in terms of numbers, our livestock population is quite impressive, but its productivity is quite low as compared to other countries.

DISTRIBUTION OF LIVESTOCK IN 2012



### The things that can be done to decode the problems:

- Improved technology and promotion of good breeds of animals can enhance productivity.
- Improved veterinary care and credit facilities to small and marginal farmers and landless labourers would enhance sustainable livelihood options through livestock production.

## Fisheries

- The occupation or industry of catching or rearing fishes is known as fishery
- In India, after a progressive increase in budgetary allocations and introduction of new technologies in fisheries and aquaculture, the development of fisheries has come a long way.
- Presently, fish production from inland sources contributes about 65 per cent to the total value of fish production and the balance 35 per cent comes from the marine sector (sea and oceans).
- Today total fish production accounts for 0.9 per cent of the total GDP.

### A comment on the economic condition of fishworkers:

- A large share of fishworker families are poor.
- Even though women are not involved in active fishing, about 60 per cent of the workforce in export marketing and 40 per cent in internal marketing are women.
- Rampant underemployment, low per capita earnings, absence of mobility of labour to other sectors and a high rate of illiteracy and indebtedness are some of the major problems fishing community face today.

There is a need to increase credit facilities through cooperatives and SHG's for fisherwomen to meet the working capital requirements for marketing.

### Reforms that are necessary:

- The problems related to over-fishing and pollution need to be controlled and regulated.
- Welfare programmes for the fishing community have to be reoriented in a manner which can provide long-term gains and sustenance of livelihoods.

## Horticulture

### Meaning:

Horticulture is the science and art of the development, sustainable production, marketing, and use of high-value, intensively cultivated food and ornamental plants.

### Importance of Horticulture:

- India being blessed with a variety of climate and soil conditions, adopted for growing different types of crops.

- Fruits, vegetables, tuber crops, flowers, medicinal and aromatic plants, spices and plantation crops are few of horticulture crops.

- These crops play a vital role in providing food and nutrition, besides addressing employment concerns.

- Horticulture sector contributes nearly one-third of the value of agricultural output and 6 % of GDP of India.

- India has emerged as a world leader in producing a variety of fruits like mangoes, bananas, coconuts, cashew nuts and a number of spices and is the second largest producer of fruits and vegetables [first being China].



Some of the Horticulture Crops

### Horticulture and Rural Development:

- Economic condition of many farmers engaged in horticulture has improved and it has become a means of improving livelihood for many unprivileged classes.

- The flower harvesting, nursery maintenance etc are labour intensive and those labours are paid high. These are a boon for women in rural areas.

- Horticulture has emerged as a successful sustainable livelihood option and needs to be encouraged significantly.

### Enhancing Horticulture:

- Enhancing its role requires investment in infrastructures like electricity, cold storage systems, marketing linkages, small-scale processing units and technology improvement and dissemination.

*Dissemination: spreading something, especially information, widely.*

## Information technology– An alternate livelihood option

- Information technology (IT) is the use of computers to store, retrieve, transmit, and work on the information.

- It is generally agreed that IT can play a critical role in achieving sustainable development and food security in the twenty-first century.

- It also has a positive impact on the agriculture sector as it can help in spreading information regarding the emerging technologies and their applications.

- IT can act as a tool for releasing the creative potential and knowledge embedded in society.

- Governments can predict areas of food insecurity and vulnerability using appropriate information and software tools so that action can be taken to prevent or reduce during the likelihood of an emergency.



## Sustainable Development and Organic farming

### Sustainable Development:

Sustainable development is the development that meets the needs of the present without compromising the ability of future generations to meet their own needs.

In recent years, awareness of the harmful effect of chemical-based fertilisers and pesticides on our health is on a rise.

### Problems in Modern farming:

Modern agriculture relies heavily on chemical fertilisers and toxic pesticides etc., which enter the food supply, penetrate the water sources, harm the livestock, deplete the soil and devastate natural eco-systems.

So the need for organic farming arises.

### Organic Farming:

The meaning of organic farming has two senses.

1) Organic farming is a whole system of farming that restores, maintains and enhances the ecological balance.

2) The method of farming which avoids the use of chemical pesticides, insecticides, chemical fertilisers, etc., is called organic farming.

### Benefits of Organic farming:

- Provides a means to substitute costlier agricultural inputs [like HYV seeds, pesticides, chemical fertilisers etc.] with locally produced organic inputs.
- Organic agriculture also generates income through exports as the demand for organically grown crops are on a rise.
- Organic foods have more nutritional value and hence are more healthy
- Since organic farming requires more labour input than conventional farming, it generates employment.
- Environment is sustained.

### Problems in Organic farming:

- There is a lack of proper infrastructure and lack of proper marketing.
- During the initial years, the per-hectare yield is quite low compared to Modern farmings.
- Due to low yield, small and marginal farmers may find it difficult and challenging to adapt in a large scale production.
- Organic products have shorter output and their appearance may not be that appealing.
- Moreover, choice in the production of off-season crops is quite limited in organic farming.



No pesticides and organic farming

## One Mark Questions:

### MCQ's

- 1) When was NABARD constituted?  
a) 1922                      b) 1982                      c) 1972                      d) 1987
- 2) Process of re-allocating resources to enhance productivity is called \_\_\_\_\_  
a) Marketing   b) Organic farming   c) Diversification   d) Sustainable development
- 3) India adopted social banking and multiagency approach towards rural credit after \_\_\_\_\_  
a) 1958                      b) 1982                      c) 1969                      d) 1987
- 4) PDS enables the welfare of poor by distributing sugar and rice from farmers to poor people through \_\_\_\_\_  
a) MSP   b) Organic productive shops   c) Fair Price Shops   d) Markets
- 5) Which of the following is not a feature of formal credit source:  
a) Reasonable interest rates                      b) Collaterals are required  
c) Debt Trap                      d) Controlled by RBI
- 6) SHG's has the problem of \_\_\_\_\_  
a) Lack of collateral   b) lack of non- institutional credit   c) integration with rural areas   d) credit being used for non productive purposes.
- 7) Many rural poor are not able to obtain formal credit due to \_\_\_\_\_  
a) Lack of collateral   b) High interest rates   c) Debt traps   d) None of Above
- 8) The abbreviation for Tamil Nadu Women in Agriculture is  
a) TNWA                      b) TANWA                      c) TWA                      d) TAWA

### Fill in the Blanks

- 1) \_\_\_\_\_ is the process involving assembling, storage, processing, transportation, packaging, grading and distribution of different agricultural commodities across the country.
- 2) \_\_\_\_\_ is the apex body for rural controlling credit.
- 3) \_\_\_\_\_ can act as a tool for releasing the creative potential and knowledge embedded in the society.
- 4) The \_\_\_\_\_ was a harbinger of major changes in the credit system.
- 5) Horticulture sector contributes nearly \_\_\_\_\_ of the value of agriculture output and \_\_\_ % of GDP of India.
- 6) Even today, about 10% of the goods are wasted due to \_\_\_\_\_.
- 7) The share of agricultural sector towards GDP decelerated by \_\_\_% per annum.
- 8) The method of farming which avoids the use of chemical pesticides, insecticides, chemical fertilisers etc., is called \_\_\_\_\_.
- 9) \_\_\_\_\_ provides increased stability in income, food security, transport, fuel and nutrition for the family without disrupting other food-producing activities.
- 10) The growth of India's GDP is possible only by the development of \_\_\_\_\_

### True or False:

- 1) IT can play a critical role in achieving sustainable development and food security in the twenty-first century.
- 2) Cattles contribute the majority of share in animal livestock.
- 3) SHG's are granted loans even if they are not regular in savings.
- 4) India adopted social banking after 1972.
- 5) Yields from modern agricultural farming is higher than organic farming.

Answer in one word or a sentence [Just for refreshing]

1) Define following:

- a) Agricultural marketing
- b) Rural Credit
- c) Diversification into productive activities
- d) Rural development

2) Why was the green revolution a harbinger of major changes in rural credit system?

3) Why do even today, 10 % of agricultural goods produced in the farms are wasted?

4) Name the three policy instruments initiated by government towards controlling exploitation of the farmers.

5) What are the key issues in rural development?

6) Which is the sector that can show the potential and creativity of rural areas?

7) What do u mean by Cooperative marketing?

8) What is the problem of organic farming in initial years of farming?

9) What is the main problem of SHG's credit?

10) What reflects the achievement of food security in India?

11) Give some examples for multi- agency institutions of rural credit.

### Three/Four/Six Mark questions

1) Productivity in agricultural sector has decelerated by 3% p.a. Give some reasons to prove this statement.

2) What is rural development? Why do the rural areas need to be developed?

3) What is rural development? State and explain the key issues in rural development.

4) Explain about functioning of SHGs.

5) List out few effects of formal credit availability in rural areas/ Rural banking.

6) What are the problems in Rural banking? Give few suggestions to alleviate these problems.

7) What is agricultural diversification? What are the aspects for diversification? Why is diversification necessary?

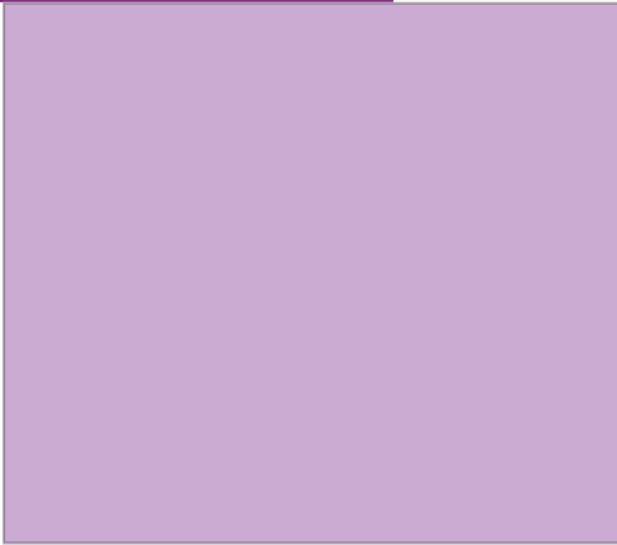
8) Write a short note on

- a) Animal Husbandry
- b) Fishery
- c) Horticulture
- d) IT

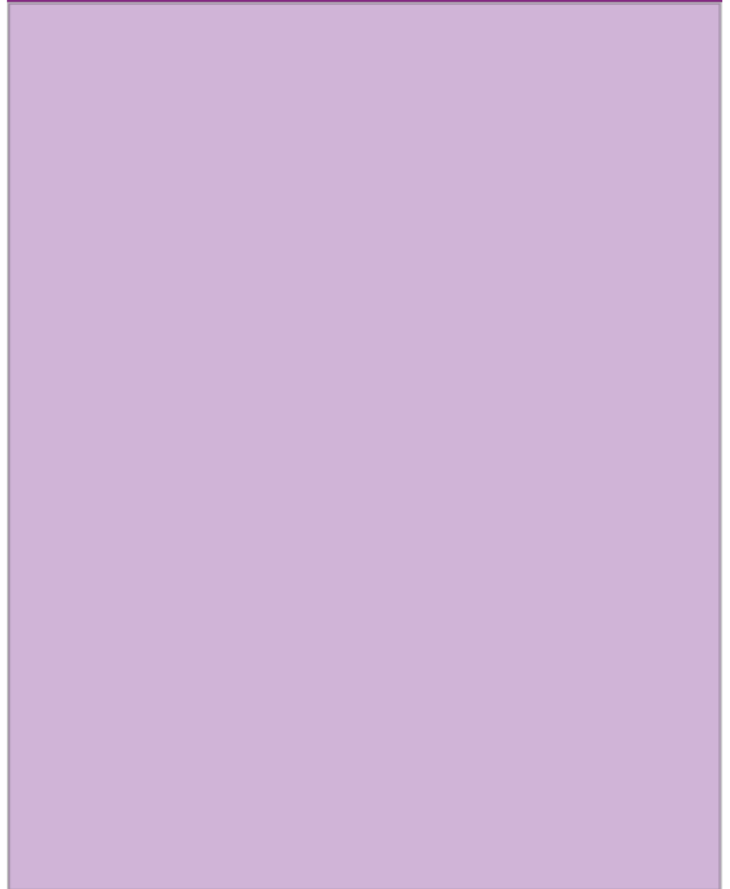
9) What is Organic Farming? Mention the benefits and Problems in organic farming

# Chapter -7: Employment: Growth, Informalisation and other issues

What is in this chapter?



Few things to remember in this chapter:



## Introduction:

We know all do some variety of work either mental or physical. People work in a variety of jobs like working in farms, banks, factories, plantations etc. Of course, you would have got the idea that the term employment is something related to work. Works may either be productive or non-productive, paid or non paid. We here look at the activities which are productive and yield income [a person gets paid for his work].

Next, why do people work? Our simple answer is “We work to earn money”. We need to work to earn a living, and we cannot live without working. Let’s see the following points.

- Even if a person inherits money, in order to get a sense of self-worth and relate himself meaningful with others, they work.
- A person simply does not work for himself/herself, they also work for those who are dependent on them. This gives him/her a sense of accomplishment.
- Every working person is actively contributing to national income and hence, the development of the country by engaging in various economic activities.

**Work at home:**

This is a term that is commonly heard after the outbreak of coronavirus disease[COVID-19]. It is a term used for referring to the work done from home. It includes not only the work done by the IT sector but also the traditional works like handicrafts, weaving etc.



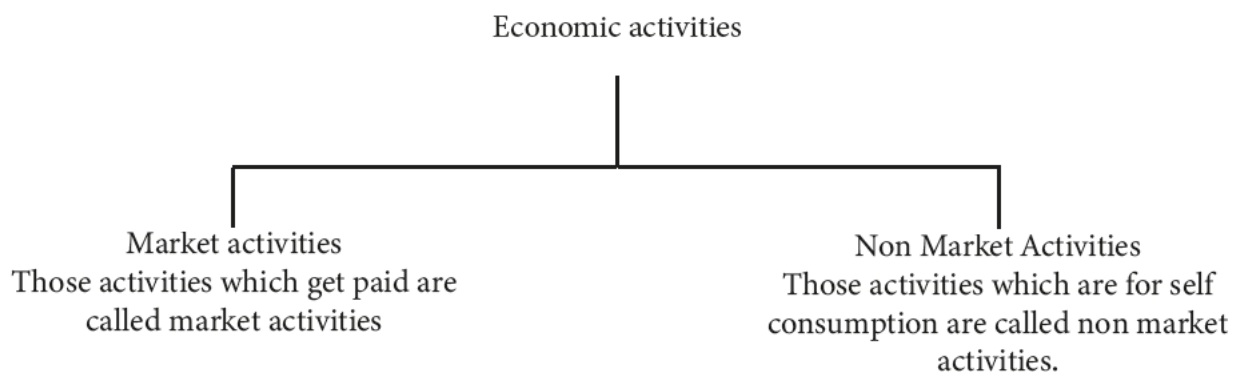
A person spinning yarns at home for a local distributor

**How does the study about working people help us?:**

- It gives us a detailed insight into the quality and the nature of employment in a country
- Due to the detailed insight, it helps in understanding and planning Human resources.
- It helps in the analysis of the contribution made by different industries towards National Income.
- It also helps in addressing many social issues like exploitation in marginalised sectors, sections of society, child labour etc.

**Economic Activity:**

Economic activity is defined as an activity which results in the production of goods and services and hence contributing to National Income [and GDP].



\* Just for informative purpose.

**Workforce vs Labour force:**

Labour force refers to those who will to work and can work. Whereas workforce refers to those who are actually working in an economy.

**Workforce= Labour Force + Persons who are unemployed.**

**Who Are Workers?**

Any person who gets involved in any economic activity is known as a worker.

### Few points about workers:

- The workers are not considered on the basis of their level of productivity.  
Ie: A worker's high or low productivity is not considered
- Even if a person is temporarily out of work due to illness, injuries or any physical abstains, festivals etc., they still are regarded as workers.
- The workers who help the main workers are also workers.
- The people who are self-employed<sup>1</sup> are also known as workers.
- It does not matter even if they do not work for or to their country of residence.  
Ie: A person in WIPRO office of Chennai working for an US organisation.  
So Worker's contribution is added into GNP [Gross National Product].  
NFIA can be +ve, -ve and even can be Zero.

## Employment- Meaning and its nature in India:

### Meaning:

Employment is the status of performing a productive activity to sustain a living.

### Nature:

- The nature of employment in India is multifaceted [Or having many sides/aspects].
- Some get employed throughout the year and few get employed for only few months a year [Face of the status of employment].
- Few get good wages and few do not get fair wages for their work [Face of Wages]
- The women do household works like cleaning, cooking etc, but their work is not taken into account.
- Moreover, many women despite doing farm labour do not get either by cash nor grains. So we don't account it as work.

### Statistical Info:

- In 2019, India had a strong workforce of **492 Million people**
- Proportion of workforce in rural areas is higher  
Reason: Majority of the population reside in rural areas.
- About 3/4 th of workforce is in Rural Areas. [About 70%- Source Niti Aayog-2017 ]
- About 70% of the workforce consists of men in both urban and rural areas
- Women workforce accounts for 1/3rd of the rural workforce and 1/5th of the urban workforce.

## Participation of people in employment- WPR [Worker population ratio]

In order to know about the participation of people in employment, we use a simple indication called Worker population ratio.

### Worker population ratio:

#### Use:

- Helpful to know the number of people in a country actively contributing to GDP.
- Useful to judge whether the country is using its resources efficiently

### Finding WPR:

Just as the name indicates, we take the ratio between the working population and the total population.

$$\text{WPR} = \frac{\text{Total Number of Workers}}{\text{Total Population of a country}} \times 100$$

WPR in India:

WPR in India during year 2017-18

Sex	Worker - Population Ratio		
	Urban	Rural	Total
Men	53.0	51.7	52.1
Women	14.2	17.5	16.5
<b>Total</b>	<b>33.9</b>	<b>35.0</b>	<b>34.7</b>

- By average, India has about 35% of the population as the workforce.
- Urban workforce is about 34% and the rural workforce is 35%.

**Why is Rural WPR higher than the Urban WPR?**

- Firstly, they have limited resources, so to get a sustainable living, they lead to the employment market even if wages are low
- Secondly, in rural areas, many either leave schools and go to work or do not go to school at all. Whereas in urban areas, considerable education is given.
- Finally, in the urban areas, people would choose to work according to their qualifications whereas in rural areas it is not the case since they have a poor economic background.
- More men are found to be working than females.
- In urban areas, many men who earn higher incomes discourage women from working.
- Many household activities done by women are not recognised as productive work. So, WPR is less.

## Categorisation of employment- by Nature of factor payment

- First, let's categorise the employment based on the nature of factor payments.
- This categorisation is made into

1) Self-Employed                      2) Regular salaried workers                      3) Casual Wage Labourers

### 1) Self-Employed:

A person is said to be self-employed if he owns an enterprise and earns a living from it.  
i.e., A cement shop owner, a shopkeeper and an owner of a firm.

### 2) Regular salaried workers:

A person is said to be a regular salaried worker if an enterprise or any individual is hired and paid wages on a regular basis.

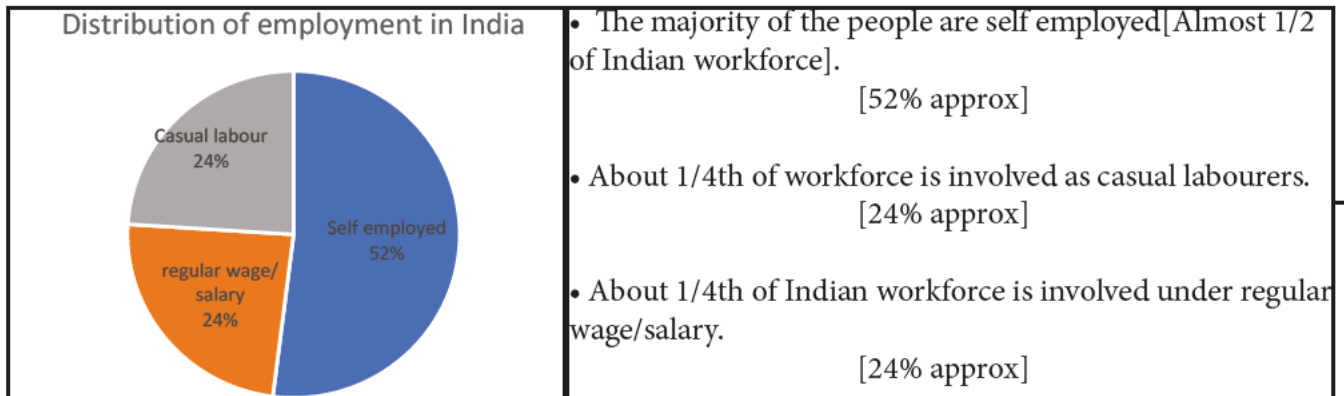
i.e., A person who is hired in a contract by an agreement.

### 3) Casual wage labourers:

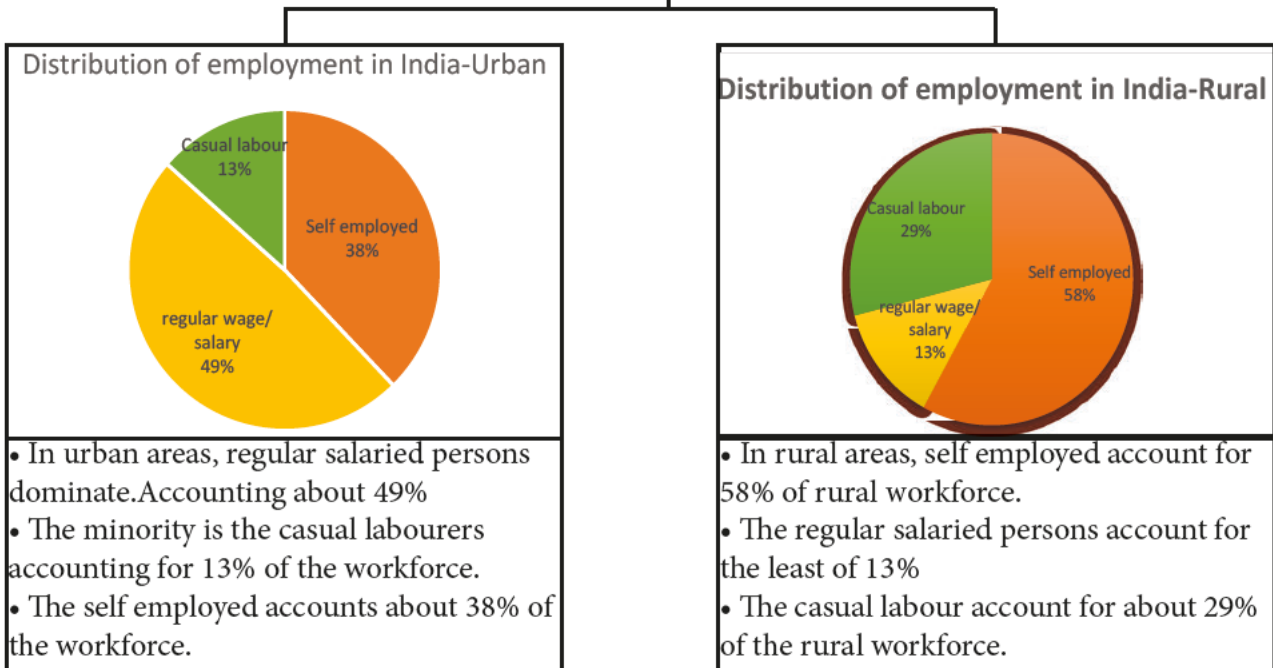
A person is said to be a casual wage labourer if he/she gets paid for the work done instead of the tenure.

i.e., Construction workers, casual agricultural labours etc.

## Distribution of employment in India-



### By Region-Rural and Urban



### To be noted while comparing these two graphs:

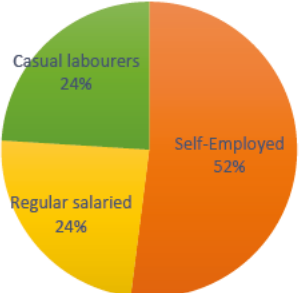
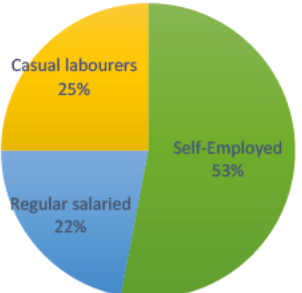
- In Rural areas, self employment and casual labour is the main source of livelihood.

Reason:

The rural people have their own lands. So they utilize their own resources and hence do not depend on employers. So the self-employed acts as a primary source of employment in rural areas.

- In Urban areas, the regular salaried dominate and self employment is quite lower than the rural areas, it is because everyone cannot own their own enterprises. The enterprises need workers on a regular basis and hence the share of regular salaried workers is higher in rural areas.

By gender- Male and Female

Distribution of employment in India- male	Distribution of employment in India- Women
 <ul style="list-style-type: none"> <li>• Self employed accounts for 52% of employment's source.</li> <li>• Regular salaried males and casual labourers account for 24% each.</li> </ul>	 <ul style="list-style-type: none"> <li>• Self employed accounts for 53% of employment's source.</li> <li>• Regular salaried females account for 22% and casual labourers being 25%</li> </ul>
<p>By comparing these two graphs, we infer that:</p> <ul style="list-style-type: none"> <li>• Self employment is the major source of employment for both males and females. Followed by casual labour and regular salaried work.</li> <li>• The gap between the work source for both men and women is quite small.</li> </ul>	

## Categorisation of employment- by Nature of economic activity

Here, we can categorise economic activities based on their nature.

**Categories of economic activities:**

- 1) Agriculture
- 2) Mining and Quarrying
- 3) Manufacturing
- 4) Electricity, Gas and Water supply
- 5) Construction
- 6) Trade
- 7) Transport and storage
- 8) Services

Lets make it simple, lets club these activities into three sectors as follows

- 1) Primary sector
- 2) Secondary sector
- 3) Tertiary sector

**1) Primary sector:**

The primary sector includes all activities which produces or extracts raw matirials.

It includes:

- 1) Agriculture[inclusive fishing and allied activities]
- 2) Mining and Quarrying

## 2) Secondary sector:

The secondary sector includes all activities which transform the raw resources into other forms is known as secondary sector.

It includes:

- 1) Manufacturing
- 2) Electricity, Gas and Water supply
- 3) Construction

## 3) Tertiary sector:

The tertiary sector consists of all the activities which do not produce goods but accompany the other two sectors of an economy.

It includes:

- 1) Trade
- 2) Transport and Storage
- 3) Services

## Distribution of Workforce by Industry [Combined to three sectors of the economy]:

Distribution of Workforce by Industry-2018-19 [PLFS]

Industrial Category	Place of residence		Gender		Total
	Rural	Urban	Male	Female	
Primary sector	58.2	6.0	38.8	55.5	42.9
Secondary sector	21.1	33.6	26.7	18.5	24.8
Tertiary/Service sector	20.7	60.4	34.5	26.0	32.3
Total	100	100	100	100	100



Scan The QR  
for detailed table  
source for table:  
[mospi.gov.in](http://mospi.gov.in)

Source: PLFS of 2018-19, some adjustments have been made to add up to 100

## To infer from distribution of workforce by industry:

### By Gender:

- More than half of the female workforce is involved in the primary sector. But only more than 1/3rd of the male workforce is engaged in the same.
- Though both men and women workers are concentrated in the primary sector, women workers' concentration is very high there.
- Men get opportunities in both secondary and tertiary sectors.
- The men are bound to get more jobs in the secondary sector especially, in the field of construction. Women usually do not get involved in construction.

### By Place of Residence:

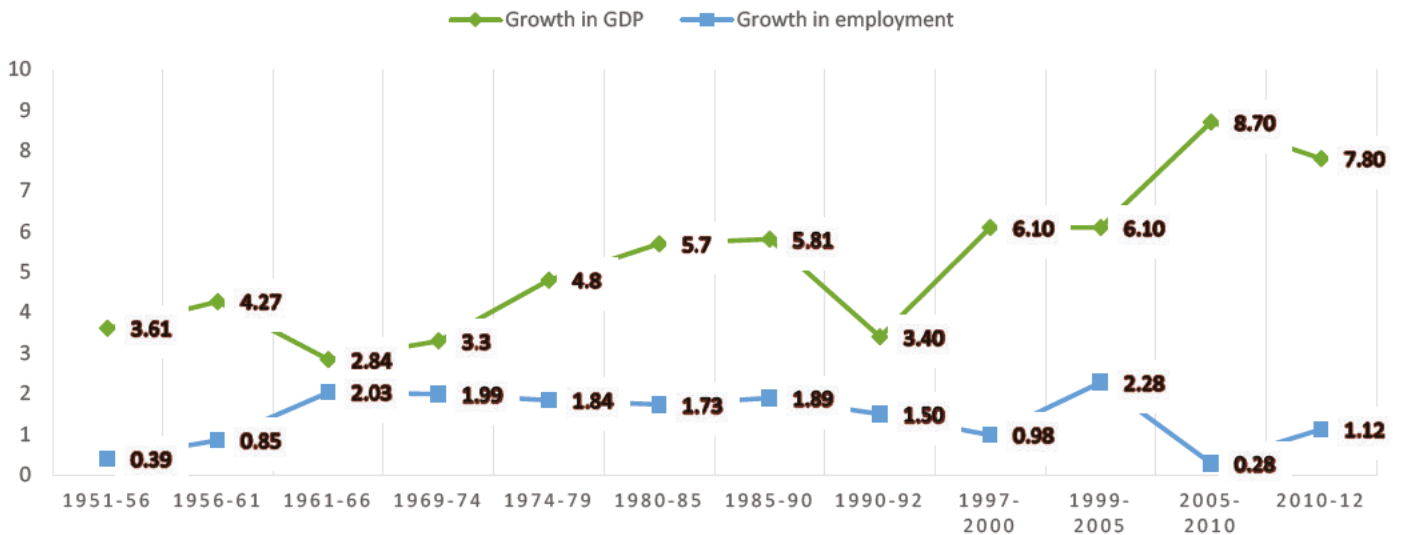
- Primary sector accounts for the majority of the rural workforce.
- Agriculture is not a major source of employment in urban areas where people are mainly engaged in the service sector.
- About 1/3rd of the urban workforce depends upon the secondary sector.

### Total:

- The major provider for workforce is the primary sector, followed by the service sector and secondary sector respectively.

## Growth in GDP and employment: Jobless growth and distrution of W.F

### GROWTH OF EMPLOYMENT AND GDP, 1951–2012 (%)



#### Growth in GDP and Growth in employment over the years:

- From 1950 to 2010, the GDP of India grew positively [overall during years] and was higher than employment growth.
- However, there was always a fluctuation in the growth of GDP. During this period, the rate of growth in employment was not more than 2.28 per cent.

#### After 1990's:

- Employment growth started declining and reached the level of growth that India had in the early stages of planning.
- After 1990's the gap between employment growth and GDP growth widened
- The Gap indicated that the Indian economy could produce more goods and services than the growth of employment.
- The phenomena of growth rate of goods and services exceeding the employment growth rate is known as **Jobless Growth**.

#### Growth pattern of employment of different sectors of workforce:

##### India's nature of employment:

- India's economy is agrarian in nature.
- As any developed nation, India's developmental strategy has aimed at reducing the proportion of people dependant on agriculture.

#### Distribution of workforce in various sectors over the years:

- Over the years, there is a shift between farm activities to non-farm activities.
- In 1972-73, about 74% of the workforce was engaged in the primary sector. In 2017-18, it fell to 44.6% [Less than 1/2 of workforce].
- Secondary and service sectors are showing a promising future for the Indian workforce.
- The secondary sector's share rose up from about 11% to about 24%.
- The service sector's share rose up from about 15% to about 31%.

### Distribution of workforce by their nature over the years:

- Over the last four decades, people have moved from self-employment to casual labour and regular salaried works.
- Still, self-employment is the major source of livelihood.
- There was a stagnation in the growth of secondary sector from 2011-18
- There was a moderate rise in the share of self-employment in 2017-18

The process of movement of the workforce from self-employment and regular salaried employment is known as **Casualisation of workforce**.

### Trends in Employment Pattern (Sector-wise and Status-wise), 1972-2019 (in %)

Item	1972-73	1983	1993-94	2011-2012	2017-2018	2018-19*
Sector						
Primary	74.3	68.6	64	48.9	44.6	42.9
Secondary	10.9	11.5	16	24.3	24.4	24.8
Tertiary	14.8	16.9	20	26.8	31.0	32.3
<b>Total</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>
Status						
Self Employed	61.4	57.3	54.6	52.0	52.2	52.1
Regular Salaried Employees	15.4	13.8	13.6	18.0	22.8	23.8
Casual Wage Labourers	23.2	28.9	31.8	30.0	25.0	24.1
<b>Total</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>

## Informalisation of workforce in India

### Introduction to nature of employment in India:

- One of the objectives of development planning in India, since India's independence, has been to provide a decent livelihood to its people.
- It has been believed that industrialisation strategy would bring surplus workers from agriculture to industry with better a standard of living. [Just like a developed country]
- Even after 70 years of planned development, more than half of the Indian workforce is dependant on farming as the primary source of livelihood

### The quality of employment in India:

- The quality of employment has been deteriorating.
- Many workers working even for 10-20 years do not get any benefits like maternity fund, gratuity and pension.
  - The workers in some of the private sector are paid less than that of the government sector and many exploitations prevail.

### Organised Sector:

- Organised sector covers those enterprises or places of work where the terms of employment are regular and therefore, people have assured work.
- These firms need to follow their rules and regulations which are given in various laws such as the Factories Act, Minimum Wages Act, Payment of Gratuity Act, Shops and Establishments Act etc.
- Even self-employment is included in the Organised sector since they too have to register themselves with the government.
- The persons working under the Organized sector enjoy job security, regular minimum wages and many benefits.
- Their health is also taken into care.  
Ie: Health benefits, provision of drinking water, sanitized workspace etc.

### • The Organized sector includes all the public sector firms and private sectors firms employing 10 or more regularly paid workers.

- The persons who are working in these firms are known as formal sector workers.

### Unorganized Sector:

- It includes all the units which do not fall into the organized sector. It is characterized by small and scattered units.
- It is not controlled by the government.
- The persons working under this sector are exploited in various means like ill payment, the work area may not be secure and no other social or economic benefits are given.
- The unregistered self-employed - Cobblers and street vendors, non-farm wage labourers, casual wagers in construction and landless farm labourers are some of the examples of people working in informal or unorganised sector.

### Problems in informal/unorganized sector:

- They have no job security and regular wages.
- The people are driven into worse living standards.
- The people are exposed to dangerous job environments and they don't get any allowances too.
- The job-less nature leads to communal riots.
- They are even exploited in many ways. The women are affected the most, especially for the women who are quite poor are subjected to various harassments.

### Workforce into organized and unorganized sectors in India:

- The unorganized sector is the major provider of the workforce.
- More than 90% of the workforce is in the unorganized sector and rest in the organized sector
- Only about 1/5 th of female workforce is in the formal sector
- About 70% of the informal workforce consists of men

### India after late 1970's:

- After late 1970's many developing countries including India started paying attention towards the informal sector.
- The government realised the exploitation of informal workers like irregular ill income and no regulation for those people.
- Due to the efforts by the International Labour Organization [ILO], Indian government initiated the modernisation of informal sector enterprises and provided facilities for social security measures towards the informal sector workers

## Unemployment:

### Meaning:

It is the situation in which a person is willing and able to work at prevailing rates, but is not able to get jobs is called unemployment

It can also be defined as the gap between full employment level and the number of employed persons.

NSSO's defines "Unemployment" as "A situation in which all those who, owing to lack of work, are not working but either seek work through employment exchanges, intermediaries, friends or relatives or by making applications to prospective employers or express their willingness or availability for work under the prevailing condition of work and remunerations. "

Economists define an unemployed person as one who is not able to get employment of even one hour in half a day.

### Sources for data on employment and unemployment:

- Reports of NSSO [National Sample Survey Office] and Census of India.
- Annual reports of PLFS [Periodic Labour Force Survey]
- Directorate General of Employment and Training Data of Registration with Employment Exchanges

### Types of unemployment:

- Open unemployment:

It is the situation in which a person is willing and able to do a job, but is not able to find any job is known as Open unemployment.

i.e., A person wandering in city offices with their biodata to find a job appropriate for them.

- This is quite seen in urban areas rather than the rural areas.

- Disguised unemployment:

It is the situation in which a person is not fully employed. Fully employed implies the people are seemingly/apparently working, but the excess labour does not yield any extra output.

It is also called underemployment.

i.e., It is especially seen in the agricultural sector where there is large family holding a bleak piece of land. Even if three people work in the land or four work in the land, it yields the same output.

- Seasonal unemployment:

It is the situation where people get unemployed during few months of the year. It is especially seen in the case of landless labourers. The casual labourers get employed only during harvesting and sowing time.

There are also cases where few people migrate to rural areas during the rainy season.

### Can people in India stay unemployed for a long time?:

- In short, the answer is "No".

It is because of the desperate condition of the people cannot allow them to stay unemployed. They would do any jobs to sustain their living. They would even do the jobs regardless of the danger or exploitation behind the jobs that they undertake.

## Measures initiated by the government for unemployment

There are many measures initiated by the government to create employment for those who have low income. Many of the measures have been provided in the chapter Poverty under Poverty alleviation.

### MGNREGA 2005:

- Standing for Mahatma Gandhi National Rural Employment Guarantee Act was initiated in 2005. It aims to provide employment to rural areas.
- It aims to provide 100 days of labour work to rural areas.
- It aims the “right to work.”
- It provides unemployment allowances if work is not provided within 15 days.

### Categorisation of the efforts taken by the government for creating employment:

The efforts taken by the government can be broadly categorised into 1) Direct and  
2) Indirect

#### Direct employment generation:

- Here, the government employs people directly for administrative purposes, industries, Tourism, Transport etc.
- So, the employment is directly generated by the government measures.

#### Indirect employment generation:

- As the government employs people, the requirement for raw resources to utilize the labour rises. Hence, the requirement for raw resources rises.
- As the government approaches the private sector, the private sector due to the increase in demand employs more workers leading to increased employment opportunities.

### Comment on PAP:

The programs just do not aim in creating employment they also strive in the provision of services like health, primary education, nutrition, sanitation, development of wastelands etc.

# Chapter –8:

## Infrastructure

### What's in this Chapter?

Introduction– Infrastructure as a key role to economic development

Meaning of infrastructure, its types and its relevance

State of Infrastructure in India

Health infrastructure– importance, its state in India, Private sector in health infrastructure, Indian system of medicines,

Indicators of health, Women's health

### Few Things to remember in this chapter

- What is infrastructure, its meaning and its types
- Role of infrastructure :
  - It is a vital component for modern agriculture and industries
  - Increases productivity
  - The social factors are influenced by it.
- State of Infrastructure in India– Especially the rural areas– The inadequacy of infrastructure; Comparison of infrastructure with other countries; Changing patterns of demand for infrastructure in under-developed, developing and developed countries.
- Health– Meaning, health infrastructure in Post-independent India:
  - State of Health infrastructure– Development over the years, significance of private sector and the impact of liberalisation
  - The three tier health system in India
  - The Indian system of Medicines (AYUSH)
  - Assessment over the health indicators– GDP spending is small, and the GBD indicator
  - Disparity in provision of healthcare – Poor and Rich—unaffordability and percent of spending on healthcare; Urban and Rural areas– no of doctors; the women's health: Health-a public good and right

### Introduction– Infrastructure and economic growth

Infrastructure plays an important role in economic development of any country. By the way, they facilitate the development of a country. We learnt in the chapter Rural development that infrastructure provision is vital for development of rural areas. All sectors require adequate infrastructure in one way or the other. For example Agricultural sector needs good irrigation, roads for transporting food-grains etc. Industrial sector needs infrastructure like power for its operations whereas the service sector needs communication facilities.

Why some states of India are performing better than any other states?

Lets see some of the states that excel in few areas.

- 1) Punjab, Haryana and Himachal Pradesh— Agriculture and horticulture
- 2) Maharashtra and Gujarat— Industrially advanced

3) Kerala— Tourism, literacy, healthcare and sanitation

These states perform better since they have adequate infrastructure like better irrigation facilities, transport facilities, location of ports. Cities like Bangalore provide good communication facilities which attract many multinational companies.

## Infrastructure— Meaning, Features, Types and its various roles

### Meaning:

The facilities and services that are required by an economy to function is known as infrastructure.

### Features:

- Provides Supporting services in main areas of industrial and agricultural production
- They can either have direct impact on production of goods and services or can have indirect impact on production of goods and services by building the social sector of the economy.
- Services like roads, railways, ports, airports, dams, power stations, oil and gas pipelines, telecommunication facilities monetary system including banks, insurance and other financial institutions are some of the services that have direct impact on production of goods and services.
- The country's educational system including schools and colleges, health system including hospitals, sanitary system including clean drinking water facilities are some of the services that have an indirect impact on production of goods and services. They provide indirect support by building social sector.

### Types:

The infrastructure can be classified into

- 1) Economic Infrastructure
- 2) Social infrastructure

Economic infrastructure has direct impact on production of goods and services whereas Social infrastructure includes services striving for social objectives of human welfare.

Infrastructure related to **energy, transportation and communication** includes **economic** infrastructure. The infrastructure related to **health, education and housing** comes under **Social** infrastructure.

### Role of Infrastructure:

**Infrastructure is vital in modern agriculture and industries.**

Agriculture depends on infrastructure for large-scale transport of seeds, pesticides, fertilisers and produced crops using modern roadways, railways and various shipping facilities. Agriculture also depends on insurance and banking facilities because of its large scale operation.

**Infrastructure contributes to economic development of a country by increasing the productivity of factors of production and improving the quality of life of people.**

Adequate infrastructure like water supply and sanitation can have a large impact by reducing the morbidity (condition of being ill) from major waterborne diseases and can reduce the severity of the disease when it occurs.

**The social infrastructure and economic infrastructure are interdependent**

The well execution of social infrastructures like healthcare and education are dependent on economic infrastructure like good means of transport and communication. A highly morbid population contribute less to production, in densely populated areas, morbidity can be caused by health hazards like air pollution arising from transportation

We can deduce that Infrastructure

- 1) Boosts the production in the economy
- 2) Forms basis for modern agriculture and industries
- 3) Affects the healthcare in the economy
- 4) Attracts foreign investments by attracting MNCs

## State of Infrastructure in India

### Who is responsible for development of infrastructure?

- Traditionally, government has been solely responsible for development of India's infrastructure.
- But, the government's investment in infrastructure was quite inadequate.
- So nowadays, the private sector— Either sole responsibility or with joint partnership with the public sector has playing an important role in developing infrastructure.

### Infrastructure in rural areas:

- Majority of population reside in rural areas. So let's see the infrastructure in rural areas.
- Despite much technical progress, rural women are still using **bio-fuels** such as crop residues, dung and fuel wood for fulfilling their energy requirement.
- They need to walk long distances to fetch fuel, water and other necessities.
- According to census of 2011, **56%** of rural India have an electricity connection and **43%** still rely on kerosine for lighting purposes.
- About **85%** of rural households were dependent on bio fuels like fuelwood, coal and dung cakes etc for cooking.
- According to sample survey 2019 (data collection period of 2018), the tap water to rural household was limited to **31 %**. About **69 %** of the population drinks water from open sources such as wells, tanks, ponds, lakes, rivers, canals, etc.
- Access to improved sanitation in rural areas was only **30 %**.

### Comparison of infrastructure of India to other countries:

Country	Country Gross Investment in GDP	Percent of people using safely managed		Mobile Subscribers Per 100 people	Consumption of energy (Million Tonnes of energy equivalent)
		Drinking water sources	Sanitation facilities		
China	44	96	72	115	3274
Hong Kong	22	100	92	259	31
<b>India</b>	<b>30</b>	<b>94</b>	<b>40</b>	<b>87</b>	<b>809</b>
South Korea	31	98	100	130	301
Pakistan	16	35	64	73	85
Singapore	28	100	100	146	88
Indonesia	34	87	61	120	186

- Despite infrastructure being vital for development, India invests only 30% of its GDP on infrastructure.
- It is quite lower than that of China and Indonesia.

There is a need for India to boost its investment in infrastructure. It is because economists have predicted that India would become the third largest economy within few decades.

### Changing patterns of demand for infrastructure:

- In any country, as the income rises, the composition of infrastructure requirements changes significantly.
  - In low-income countries, basic infrastructure services, like irrigation, transport and power, are more important.
  - As economies mature and their basic consumption is met, share of agriculture sector in the economy shrinks and service sector expands.
  - So more service related infrastructure become necessary. Example Communication and Power.
  - That is the reason high level income countries have more service sector related infrastructure.
- Hence, development of infrastructure and economic development go hand in hand.**
- **Agriculture** depends, to a considerable extent, on the adequate expansion and development of **irrigation** facilities.
  - Industrial progress depends on the development of **power and electricity generation, transport and communications**.
  - If infrastructure development is not given proper attention, it would be a constraint to economic development.

## Health

### What is Health?

We usually know that “Health” means being free from illness. It is the state of physical and mental well being.

In economics, it is health is significant:

- It increases the productivity of an individual.
- It increases the efficiency of human capital.

Health is the holistic process related to the overall growth and development of the nation.

### Measuring health in economy:

It is quite difficult to define the health status of an economy in single set of measures. So, various health indicators are used. Some of them are Infant Mortality Rate, Maternal Mortality Rates, Life Expectancy, nutrition levels etc.

Development of health infrastructure is necessary because ensures a country of healthy manpower for the production of goods and services.

### Health Infrastructure:

- It includes hospitals, doctors, nurses and other para-medical professionals, beds and a well developed pharmaceutical industry.
- Mere presence of health infrastructure is not sufficient to have healthy people. The health facilities and services must be accessible to all.

### Health infrastructure in post-independent India:

- Since the initial stages of planned development, policy makers conceived plans in mind that every individual must get medical care, be curative and preventive to diseases. They conceived that no one must fail to get these due to inability to pay for it.
- But still medical facilities are quite inadequate especially in rural areas.
- Many plans are getting implemented to achieve this vision.

## State of Health Infrastructure in India

The government has constitutional right to guide and regulate all medical related issues like medical education, adulteration of food, drugs and poisons, medical profession, vital statistics, mental deficiency and lunacy.

### Function of government in implementing health policies

- The Union government evolves broad policies and plans through the **Central Council of Health and Family Welfare**.
- This council assists the state governments, union governments and other bodies by collecting medical information, rendering financial and technical assistance for implementation of important health programmes in the country

### Development of health infrastructure over the years:

- Over the years, India has built a vast health infrastructure and manpower at different levels.
- At the village level, the various hospitals technically known as the Primary Health Centres (PHCs) has been set up.
- India also has a large number of hospitals run by voluntary agencies and the private sector. These hospitals are manned by professionals and various paramedical professionals trained in medical and nursing colleges..

Since the independence, the physical provision of health services has significantly increased.

- During 1951-2018, the number of government **hospitals and dispensaries** have increased from about **9300** to **53,700**.
- The number of hospital beds from about **1.2 lakh** to **7.1 lakh**.
- The number of nursing personnel has from about **18,000** to **30 lakh**.
- The number of allopathic doctors from about **62000** to **11.5 lakh**.
- The expansion of health infrastructure has resulted in eradication of smallpox and , near eradication of polio and leprosy.

**Public Health Infrastructure in India 1951-2018**

Item	1951	1981	2000	2017	2018
Hospitals (Govt)	2,694	6,805	15,888	23,582	25,778
Beds (Govt)	1,17,000	5,04,538	7,19,861	7,10,761	7,13,986
Dispensaries	6,600	16,745	23,065	27,698	27,951
PHCs	725	9,115	22,842	25,650	25,743
Sub-centres	-	84,736	1,37,311	1,56,231	1,58,417
CHCs	-	761	3,043	5,624	5,624

From [cbhidghs.nic.in/](http://cbhidghs.nic.in/)

## Private Sector Health Infrastructure

- In recent years, the public sector has not been so successful in delivering services to everybody.
- The private sector has grown up a lot in terms of facilities like good service and facilities. They reduce the burden to the government.

### Significance of the private sector

- More than **70%** of hospitals in India are run by the private sector.
- They control nearly **2/5<sup>th</sup>** of beds available in hospitals.
- Nearly **60 %** of dispensaries are run by the same private sector.

- They provide healthcare for **80 %** of out-patients and **46 %** of in-patients. In patients are those who require medical attention by staying there in hospital (i.e. requires bed). Out patients are those who do not stay overnight for treatments
- In recent times, private sector is playing dominant role in medical education and training, technology and diagnosis, manufacture and sale of pharmaceuticals, hospital construction and provision of medical services.
- In 2001-02, there were more than **13 lakh** medical enterprises which employed about **22 lakh** people.
- More than **80 %** of them are owned by individuals and are operated by one person occasionally few hired workers.
- Scholars point out that private sector in India has grown independently without any major regulation.
- The private practitioners who are not registered doctors are known as **quacks**.

#### The impact of Liberalisation measures

- Many NRIs, industrial and pharmaceutical companies have set up super speciality hospitals to attract the India's rich for healthcare and also for medical tourism.
- These multi-speciality hospitals are not affordable by the poor. Moreover, there are many who cannot afford to be sick. The multi-speciality hospitals generally owned by the private sector has less objective of social welfare than the public sector. Even if NGO's exist, the funds raised by them are quite inadequate to fulfil the healthcare needs of the poor.
- To make health care accessible to all, one of the idea is to make sure that every citizen gets medical insurance. Many schemes like Ayushman Bharat, PMSBY (Pradhan Mantri Suraksha Bima Yojana) are getting implemented in various areas so that poor can get healthcare.

### Healthcare In India– The three Tier system

India's healthcare and its infrastructure is made up of three tier system namely the primary secondary and tertiary.

#### Primary Health Care

It includes education concerning • prevailing health problems

- methods of identifying, controlling and preventing those health issues
- promotion of food supply, proper nutrition, adequate supply of water and basic sanitation
- maternal and child health care
- immunisation against major infectious diseases and injuries
- promotion of mental health
- provision of essential drugs

Auxiliary Nursing Midwife (ANM) is the first person who provides primary healthcare in rural areas. In order to provide primary health care, hospitals have been set up in villages and small towns which are generally manned by a single doctor, a nurse and a limited quantity of medicines. They are known as Primary Health Centres (PHC), Community Health Centres (CHC) and **sub-centres**.

#### Secondary Health care

These include health care institutions which have better infrastructures like emergency units, anaesthetists, essential lab test facilities, ECG's, incubators etc.

They are referred by PHC's when PHC's are unable to treat the patients or when patients need further diagnosis. They function as Primary health care provider and also provide better healthcare facilities. They are mostly located in district headquarters and in big towns.

## Tertiary Health Care

This includes the hospitals which are specialised in a department or have advanced level of equipment and medicines to undertake the complicated health problems. They are referred by the Primary or secondary health care bodies. Some of them are AIIMS– All India Institute of Medical Sciences (Delhi), Post Graduate Institute (PGI-Chandigarh), Jawaharlal Institute of Postgraduate Medical Education and Research (JIPMER-Pondicherry) and National Institute of Mental Health and Neuro Sciences (NIMHANS-Bangalore).

## Medical Tourism

**Medical tourism** refers to people traveling abroad to obtain medical treatment. There is a quite increase in demand for medical tourism in India. Foreigners are flocking towards India for various treatments. India is well known for various types of treatments including Ayurveda and Siddha and also excels in medical infrastructure especially by the private hospitals.

### India attracts medical tourism because:

- India has good technology for treatments
- health care is cheaper than other countries
- It has many other alternatives to allopathy like Ayurveda, siddha, Unani etc.

### Medical tourism as a great opportunity:

In 2016, as many as 2,01,000 foreigners visited India for medical treatment. And this figure is likely to increase by 15 per cent each year. Experts predict that by 2020 India could earn more than 500 billion rupees a year through such 'medical tourism'.

## Indian system of medicines (ISM)

• It includes the six systems : Ayurveda, Yoga, Unani, Siddha, Naturopathy and Homeopathy Which is abbreviated as AYUSH.

• At present, there are 4,095 AYUSH hospitals and 27,951 dispensaries and as many as 8 lakh registered practitioners in India.

• These ISM's have the capability to solve large part of our healthcare problems and have huge potential.

### Advantages of using these ISM's

- They are effective in treating various diseases. They treat the locus of disease rather than the disease's symptoms hence prove effective in various diseases.
- They are safe and they do not have side effects
- The healthcare treatment given is inexpensive.

### Problems faced by ISM's:

- Still many prefer allopathy over these ISMs. Scepticism still exist on these ISMs
- Only little has been done to set up a framework to standardise education or to promote research.
- Many practitioners do not prefer to go to these systems since their earnings are less and they doubt their identity.

## Community and NPO's in Healthcare

One of the important aspects of a good healthcare system is community participation.

It functions with the idea that the people can be trained and involved in primary healthcare system. SEWA (Ahmedabad) and ACCORD in the Nilgiris are examples of NGOs in India which implement various measures so that poor's right including healthcare is attained.

Trade unions have built alternative healthcare services for their members and also to give low-cost healthcare to people from nearby villages. The well-known and pioneering initiative in this regard has been Shahid Hospital, built in 1983 and sustained by the workers of CMSS (Chhattisgarh Mines Shramik Sangh) in Durg, Madhya Pradesh. A few attempts have also been made by rural organisations to build alternative healthcare initiatives. One example is Kashtakari Sangathan, a tribal organisation from Thane, Maharashtra. It trains women health workers at the village level to treat simple illnesses at minimal cost.

## Indicators of health and health infrastructure in India– An assessment

- There is a greater scope for the role of the government the health sector.

- The government health expenditure in terms of GDP is just 3.7% which is quite lower than that of other countries (both developed as well as developing countries)

- A study points out that India has about 1/5th of global population but bears a 20% of Global Burden of Diseases (GBD).

- GBD an indicator used by experts to measure the number of people dying prematurely due to a particular disease, as well as, the number of years spent by them in a state of ‘disability’ owing to the disease.

- A study in 2017 shows that about 2/3rd of GBD is caused by non-communicable diseases associated with heart, kidney, lungs, obesity and lifestyle.

- Common infectious diseases like diarrhoea, and respiratory infections account for 1/6th of total deaths in India.

- Out of 4.1 million early deaths occurring globally due to air pollution, 1.1 million deaths occur in India alone.

- The proportion of deaths occurs due to cancer (8%) injuries (11 %) also has been increasing over the last two decades.

- At present, less than 20% of the population utilises public health facilities.

- One study has pointed out that only 38 % of the PHCs have the required number of doctors and only 30 % of the PHCs have sufficient stock of medicines.

Indicators	India	China	USA	Sri Lanka
Infant mortality rate/ 1000 Births (2019)	28	6.8	5.6	6.1
Mortality rate of children under-5 per 1000 live births (2019)	34	7.9	6.5	7.1
Percentage of births attended by skilled health staff (2016)	81	81	99	99
DPT immunisation to infants in % (2019)	91	99	94	99
Government health expenditure as % of GDP (2016)	3.7	5.7	17	3.9
Out of pocket expenditure as a % of current health expenditure (2016)	65	36	11.1	50

## Disparity in provision of health infrastructure in Urban and Rural areas and to the poor and the rich:

- Despite having 70% of population in rural areas, only 1/5th of hospitals (including private sector) are located in rural areas.

- Out of 7.13 lakhs government beds, only 30% is available in rural areas. Hence the rural areas lack health infrastructure

- There are only 0.36 hospitals for every one lakh people in rural areas, while urban areas have 3.6 hospitals for the same number of people.

- The PHCs located in rural areas do not even offer X-ray or blood testing facilities, which for a city dweller, constitutes basic healthcare.

- States, like Bihar, Madhya Pradesh, Rajasthan and Uttar Pradesh, are relatively lagging behind in healthcare facilities.

- In rural areas, the percentage of people who have no access to proper healthcare facilities has increased over the last few years.

- Villagers have no access to any specialised medical care, like paediatrics, gynaecology, anaesthesia and obstetrics.
- Even though 530 recognised medical colleges produce about 50,000 medical graduates every year, the shortage of doctors in rural areas persists.

#### Why there is a shortage of doctors in rural areas?

- 1/5th of the doctor graduates leave the country for better monetary prospects
- Many of the others opt in for private hospitals which are usually located in Urban areas.
- The graduates are well trained for specialised care and they avoid rural areas due to lack of infrastructure facilities.

#### Poor's health expenditure vs Non-Poor's health expenditure

- One study points out that the poorest 20 % of Indians living in both urban and rural areas spend 12 % of their income on healthcare while the rich spend only 2 %. There are also cases where people are pushed into poverty due to healthcare's cost.
- It so happens because government-run hospitals do not provide sufficient facilities, hence the poor are driven to private hospitals, which make them indebted forever, else they opt to die.
- Recently, Indian governments have been taking various initiatives to improve healthcare. Many hospitals have been set up which provides subsidized healthcare, many health insurance schemes have also been implemented. For example, Ayushman Bharat Yojna is a insurance scheme offering health cover of 5 lakhs per year per family which has a premium of just 30 rupees.

#### Women's health

They constitute about half of population. Yet women face various disadvantages than men in areas of education, participation in economic activities etc.

#### Disadvantages faced by women:

- The sex ratio is deteriorating : 2001—927  
2011— 919

It points out the growing incidence of female foeticides.

- 5% of girls aged between 15-19 years are not only married but have already borne children at least once.
- More than 50 % of married women in the age group of 15–49 years have anaemia and nutritional anaemia caused by iron deficiency and its number has never declined since 2005.
- 2017's GBD study points out that premature deaths has never declined since 2005 and in years 2007 and 2017, these premature deaths due to neonatal diseases are at their top.

#### Health— A vital public good and basic human right

- All citizens can get better health facilities if public health services are decentralised. Success in the long-term battle against diseases depends on education and efficient health infrastructure.
- Hence it is critical to create awareness on health and hygiene and provide efficient systems. The role of telecom and IT sectors cannot be neglected in this process. The effectiveness of healthcare programmes rests on primary healthcare.
- The ultimate goal should be to help people move towards a better quality of life.
- There is a sharp divide between urban and rural healthcare in India. If we continue to ignore this deepening divide, we run the risk of destabilising the socio-economic fabric of our country.
- In order to provide basic healthcare to all, accessibility and affordability need to be integrated in our basic health infrastructure.

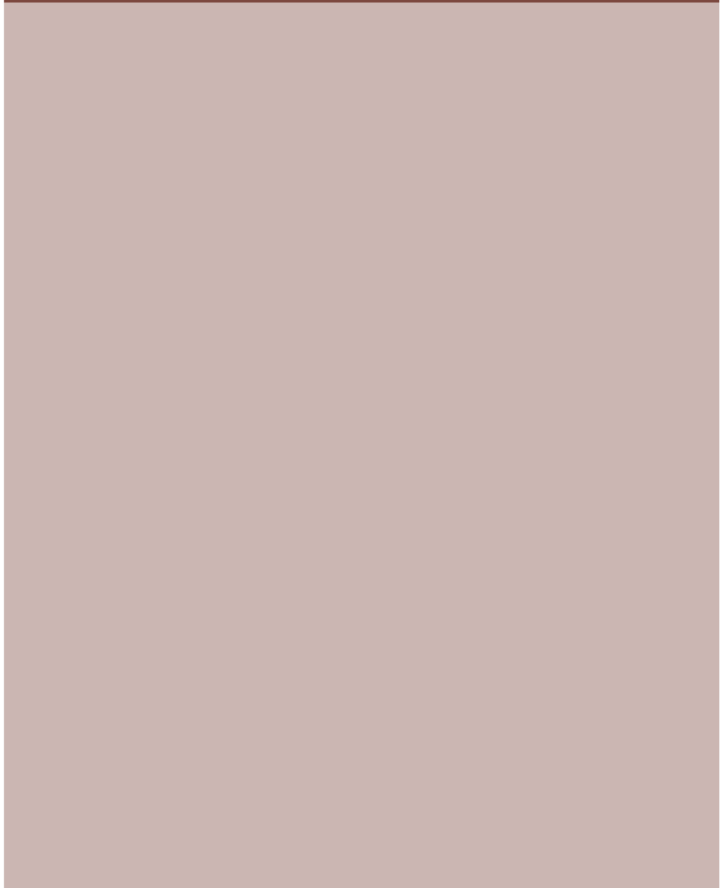
# Chapter –9:

## Environment and Sustainable development

### What's in this Chapter?



### Few Things to remember in this chapter



### Introduction– Development at a high opportunity cost

- The development that we have achieved has come at a very heavy opportunity cost which is none other than the cost of environmental quality.
- As we step into era of globalisation promising higher economic growth levels, we have to bear in mind the adverse consequences of the past development path on our environment.
- We have to consciously choose the path of sustainable development.

To understand the unsustainable path that we have taken and its adverse effects, we need to understand the significance of environment.

## Environment– Definition and it's types

What is environment?

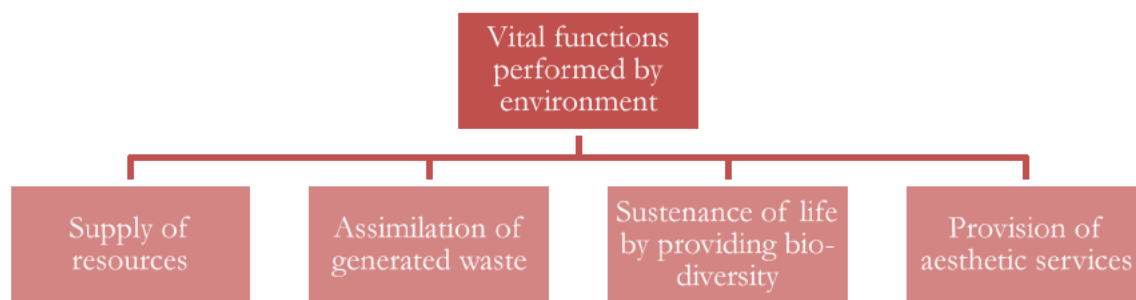
It is defined as “the total planetary inheritance and the totality of all resources”.

It includes

- **Biotic** factors– plants, forests, fisheries etc.
- **Abiotic** factors– air, water, land, sunlight etc.

These biotic and abiotic factors influence each other. Biotic factors depend on abiotic factors for existence. Example we depend on soil and air for existence.

Functions of environment



### 1) Supply of resources

It supplies renewable and non-renewable resources

**Renewable resources**– are those resources which can be used without the possibility of getting depleted or exhausted.

Examples: water, fishes in ocean, trees.

**Non-Renewable resources**– are those resources which get exhausted with extraction and use.

Examples: fossil fuels like coal and petroleum

### 2) Assimilates waste

• Assimilation refers to absorption capacity of something

• Environment absorbs the waste generated by the biotic factors in the biosphere.

Example: Environment assimilates the corpses, environment assimilates the waste generated by us.

### 3) Sustenance of life by providing bio-diversity

The life sustains due the abiotic factors of the environment which provide support to life. Example we sustain ourselves using air, water and soil

### 4) Provision of aesthetic services

The nature is filled with beauty. The nature provides us the pleasure of beauty.

A limit for performing these functions

• Environment is able to perform these function as long as demand of the above functions is within the carrying capacity (The capacity of demand of the functions which can be sustained) of the environment.

It implies

- the resource extraction rate is not above the rate of resource generation
- the wastes generated are within the assimilating capacity of the environment

What happens if the above implications fail?

When the above implications relating to usage of resources and waste assimilation are more than the capacity of environment, **environment fails to perform its third vital function of life sustenance** and hence **resulting to environmental crisis**.

## Current situation of environment and why is it so?

Current situation of environment

- The population of developing countries is steadily rising and the luxurious consumption and production standards of developed world have placed a huge stress on environment in terms of its first two functions.
- Many resources have become extinct and the wastes generated are beyond the absorptive capacity (ability to absorb degradation) of the environment.
- As a result, today we are in front of the door of environmental crisis.

The results of past development– The opportunity cost of negative environmental impact

- The past development has polluted and dried up the rivers and the other aquifers. This has made water an economic good rather than an essential good.
- The intensive extraction of renewable and non-renewable resources has exhausted some of the vital resources. Due to which we are compelled to spend huge amounts on technology and research to explore new resources.
- The health costs of degraded environmental quality (the air and water quality) have resulted in increased incidence of respiratory and water-borne diseases. **About 70% of water in India is polluted.**
- The financial burden on individuals and governments has increased. The expenditure on health has risen. The environmental issues like global warming and ozone depletion have contributed to increased financial commitments for the government.

Why environmental problems are new to this century?

In early days when civilisation began, before the phenomenal increase in population, before the countries took to industrialisation, the demand for environmental resources was much less than that of its supply.

- I.e. • Pollution was within the absorptive capacity of the environment
- Rate of resource extraction was less than the rate of replenishment of resources.
- Hence environmental problems did not arise.

When population rose up and industrial revolution popped to meet the growing needs of people, the demand for resources for both production and consumption went beyond the rate of regeneration of resources, the pressure on absorptive capacity of environment increased tremendously.

**It has led to reversal of supply-demand relationship**

I.e. Increased demand for environmental resources, but supply is limited due to overuse and misuse. Hence the environmental issues of waste generation and pollution have become critical today.

## State of India's environment

An introduction to India's rich and abundant natural resources

- India has abundant natural resources in terms of rich quality of soil, rivers and tributaries, lush green forests, plenty of rich mineral deposits beneath the land, vast stretch of Indian ocean, ranges of mountains, etc.
- The black soil of Deccan Plateau is particularly suitable for cultivation of cotton, which is the reason behind the concentration of textile industries in this region.
- The Indo-Gangetic plains which is spread from Arabian sea to the Bay of Bengal is one of the most fertile land. It is intensively cultivated and is one of the densely populated regions of the world.
- India's forests are unevenly distributed and provide green cover for majority of its population and natural cover for its wildlife.
- There are large deposits of iron-ore, coal and natural gas in India. **India alone accounts for 8% of the world's total iron ore reserves.** Bauxite, copper, chromate, diamonds, gold, lead, lignite, zinc etc. are also available in different parts of the country.

However, in one hand, the developmental activities has resulted in pressure on India's finite natural resources and creating impacts on human health and well being on the other.

### Threat to India's environment poses a dichotomy

*"Dichotomy is the separation that exists between two things which are completely different or opposite of each other"*

- The first is the **threat of poverty induced environmental degradation.** One of the example are the nomads who depend on subsistence farming for livelihood and they practice the method of slash and burn farming and also poach animals causing many environmental issues like air pollution, deforestation, ecosystem imbalance etc.
- The second is the **threat of pollution from the affluent and rapidly growing industrial sector.** The luxurious demand and supply of goods have a great impact on environment causing many issues like water contamination, air pollution, wildlife extinction etc.

## The most critical environmental concerns in India

The most critical environmental issues identified in India are

- 1) **Land Degradation**
- 2) **Biodiversity Loss**
- 3) **Air pollution (vehicular pollution)**
- 4) **Management of fresh water resources**
- 5) **Solid waste management (Sewerage management)**

### Land Degradation

*"Soil degradation is the physical, chemical and biological decline in soil quality. It is the decline in utility of the soil "*

Land in India suffers from degradation due to unstable use and inappropriate management practices.

Factors responsible for soil degradation:

- 1) Loss of vegetation due to deforestation
- 2) Unsustainable fuel wood and fodder extraction
- 3) Shifting cultivation
- 4) Encroachment into forest lands
- 5) Improper crop rotation
- 6) Indiscriminate use of agro-chemicals like pesticides and fertilisers
- 7) Poverty of agriculture dependant people

8) improper planning and management of irrigation systems  
9) extraction of ground water in excess of the recharge capacity

10) Open access to resources  
11) Forest fires and overgrazing

- The per capita forest land in the country is only **0.06 hectare** against the **requirement** of **0.47 hectare** to meet basic needs, resulting in an excess felling of about 15 million cubic metre forests over the permissible limit.
- This points out the issue of **Deforestation**. Deforestation also contributes to the degradation of the quality of lands.
- Estimates of soil erosion show that soil is being eroded at a rate of 5.3 billion tonnes a year. As a result of which the country loses 0.8 million tonnes of nitrogen, 1.8 million tonnes of phosphorus and 26.3 million tonnes of potassium every year. According to the Government of India, the **quantity of nutrients lost due to erosion each year ranges from 5.8 to 8.4 million tonnes**.

### Biodiversity loss

*"Biodiversity is the variety and variability of life on Earth".*

*"Biodiversity loss is the decline in the number, and variety of species of animals and plants".*

Why biodiversity loss is a cause of concern?

- Biodiversity is quite important for every living being. Biodiversity provides the ecological system that we the human beings rely upon.
- Each species have their own role to play in biodiversity and cannot be neglected.

Why biodiversity loss occurs?

- The main cause for biodiversity loss is **habitat destruction** due to deforestation and land degradation.
- Other causes include **water and air pollution** and **global warming**

### Air pollution

*"Air pollution is the presence of harmful gases like Carbon Monoxide, Sulphur Dioxide and other particulate matters in the atmosphere"*

Some of the causes for air pollution:

- Industrial pollutants
- Vehicular emissions and road dust
- Wildfires
- Household fuel emissions like fire-woods, coal etc.
- Burning garbage and firecrackers
- Slash and burn practices in crops

Problems caused by air pollution:

- They are the root cause for various lung and heart diseases. They are the invisible killers for many.
- They reduce the life expectancy and for many it increases the medical costs.

Air pollution in India:

- In India, air pollution is widespread in urban areas where vehicles are the major contributors and in a few other areas which have a high concentration of industries and thermal power plants.
- Vehicular emissions are of particular concern since these are ground level sources and, thus, have the maximum impact on the general population.
- The number of motor vehicles has increased from about 3 lakh in 1951 to 23 crores in 2016.
- The personal transport vehicles (cars and two-wheeled vehicles) constituted about 85% of total no of vehicles in India. And they contribute significantly to total air pollution load.

- India is one of the ten most industrialised nations of the world.
- But the problem is that this industrialisation has brought unanticipated consequences such as unplanned urbanisation, pollution and risk of accidents.
- Central Pollution Control Board (CPCB) has identified 17 categories of industries (large and medium scale) as significantly polluting.

#### **Issues of sewerage and freshwater resource management– For a glance**

The treatment of sewerage and freshwater resources are quite important. Sewerage treatment is important. Sewerage treatment is the process of removing contaminants from wastewater of industry and communities. The wastewater treatment plants in India are quite inadequate. The lack of proper sewerage can cause various health issues to humans and also destroys the habitats for others.

Water is a renewable resource, but the freshwater resources are scarce. The freshwater resources are scattered throughout the globe. The freshwater resources being inadequate but, they are often polluted by industrial effluents and polluted by untreated sewerage.

#### **Government and other organisations alone cannot help for fighting against environmental crisis**

- Various measures adopted by the Ministry of Environment and the central and state pollution control board cannot yield reward unless we consciously adopt the path of sustainable development.
- If we keep on depleting our natural resources and degrading our environment, it would lead to economic and environmental crisis together. We must inherit the environment and leave it to future generations and posterity.

## **Sustainable Development– Why, what and how?**

### **Why sustainable development?**

- As discussed earlier, the economic development has led to various environmental concerns like land degradation, air pollution, biodiversity loss etc. The vital functions of environment are hampered.
- Environment and economy are interdependent on each other and need each other. The development that ignores its repercussions (effect which is unwelcomed) on the environment will destroy the environment that sustains various life forms.
- If sustainable development is not kept in mind and followed, the future generations would face lack of resources. Moreover, the most vital function of sustaining life would be nulled.

Thus, **We need a development that would allow all the future generations to have a potential average quality of life that is at least as high as that which is being enjoyed by the current generation.**

### **What is sustainable development?**

The sustainable development can be stated in many senses.

The concept of sustainable development **first emphasized by the (UNCED) United Nations Conference on Environment and Development** defines sustainable development as

*“Development that meets the need of present generation without compromising the ability of the future generation to meet it’s own needs”*

Edward Barbier defined sustainable development in economic terms as *“providing secure and long-lasting livelihood to poor people to alleviate poverty and minimizing resource depletion and environment degradation simultaneously”* pointing out that sustainable development is directly concerned towards increasing the material standard of poor at grass root level.

The **Brundtland Commission’s report ‘Our Common Future’** gives an addition to the definition of UNCED that **sustainable development requires meeting the basic needs of all people and extending to all the opportunity to fulfil aspirations of them for a better life.** Brundtland Commission emphasises on protecting the future generation.

Deducing from above two stanzas, we can say that **sustainable development is a development that meets the basic needs of all, particularly the poor majority, for employment, food, energy, water, housing, and ensures growth of agriculture, manufacturing, and other services to meet these needs.**

How to achieve sustainable development?

We can achieve sustainable development by promoting development that is compatible with

- Conservation of natural assets
- Preservation of regenerative capacity of world’s ecological system
- Avoiding the imposition of added costs or risks on future generation

According to a leading environmental economist **Herman Daly**, for **achieving development in a sustainable manner**, following needs to be done

- Limiting the human population to a level within carrying capacity of the environment so that the human scale does not exceed the carrying capacity of earth and deviates from sustainable development.
- Making the technological progress more oriented towards input efficiency rather than input consumption.
- The sustainable extraction of renewable resources. i.e. rate of extraction should not exceed the rate of regeneration.
- For non-renewable resources, the rate of extraction must not exceed the rate of creation of renewable substitutes .
- Correction of inefficiencies arising from pollution.

## Strategies for Sustainable development

Some of the strategies that can pave a road towards sustainable development are

- Use of non-conventional sources of energy
- Usage of LPG and Gobar gas in rural areas
- Using solar power
- Using bio-composts as alternative to chemical fertilisers
- Using traditional practices in daily life
- Usage of CNG in urban areas
- Using wind power
- Setting up mini-hydel plants
- Bio pest control

Use of non-conventional sources of energy

- India is hugely dependent on thermal and hydro power. Both have adverse environmental impacts.

- The thermal power plants emit large quantities of carbon dioxide which is a green house gas. The thermal power plants also produces fly ash which can cause pollution of various components of environment like water and land.

- The hydroelectric projects floods the forests and restricts the natural flow of water in the catchment areas and river basins.

- Wind and solar power are conventional but cleaner and greener sources of energy, but they have not been explored in large scale due to constraints of technology and its cost.



Thermal power plants emitting fumes causing air pollution

### LPG, and Gobar Gas in rural areas



A gobar gas storage drum

- Households in rural areas generally use wood, dung cake or any other biomass as their fuel.
- But, this practice has adverse effects like deforestation, reduction in green cover, wastage of cattle dung (which can be used over the chemical fertilisers) and air pollution.
- To tackle these problems, subsidised LPG's are being provided. LPG being a cleaner fuel from petroleum, reduces the pollution and waste of energy caused by the households to a greater extent.
- The Gobar gas (biogas from cow dung) plants are nowadays provided with subsidy and easy loans. The biogas is fed with the cattle dung, the gas produced by the anaerobic bacteria is used as fuel and the slurry left out is used as a fertiliser for plants.

### CNG– Alternative for petrol and diesel in urban areas

- The compressed natural gas is a clean– burning fossil fuel. It produces very less emissions than other fossil fuels.
- It is proven that usage of CNG as fuel in public transport has significantly reduced pollution in Delhi.
- Nowadays, the electric motor equipped vehicles have become popular since they do not cause pollution of air.

### Wind power

- Wind power uses the wind turbines to convert the high wind to electricity.
- They are good sources of electricity and do not have any adverse effect on environment.
- The initial cost is high, but they are cost-effective in long run

### Solar power

- India is blessed with large quantity of solar energy in the form of sunlight
- The sunlight can be converted into electricity and then to other energy forms using the help of cells called photovoltaic cells. These cells use special kind of materials which convert the solar energy to electricity.
- This source of power is extremely useful in areas which are remote and in areas where the conventional

sources of energy are expensive.

- This source of power is free from pollution.
- In recent years, India is taking efforts to increase power generation from solar energy
- Moreover, India is leading a international body called International Solar Alliance (ISA).

#### Mini-hydel plants

- In mountainous regions, streams can be found almost everywhere and most of them are perennial.
- To utilise the energy of those streams, mini-hydel plants can be set up.
- Since the small hydel turbines no not need water flooding. So, they do not have adverse impacts and are friendly to environment.
- They do not have much impacts like changing natural flow of water, flooding etc. and hence are friendly to environment.
- They can satisfy local power needs and hence cut the cost of transmission towers and cables.

#### Traditional knowledge and practices

- Traditionally, Indians have been close to their environment. They have been a mere component of the environment rather than being its controller.
- A look back at our agriculture, healthcare system, housing, transport etc. points out that our practices were environment friendly.
- Only recently we have drifted away from the traditional systems and have caused large scale damage to the environment and rural heritage.

An example for it is the healthcare, about 15,000 species of plants in India have medicinal properties and about 8000 of them are in regular use by various systems of treatment including the folk tradition. With sudden advent of western system of treatment, we have ignored the traditional systems of Ayurveda, Unani, Tibetan and folk systems.



The Indian healthcare system is quite effective against many chronic health conditions and do not have adverse side effects

- These healthcare systems are in great demand again for treating various chronic health problems.
- Nowadays, the cosmetic produce like hair oil, toothpaste, body lotions etc are herbal in composition.
- These are not only environmental friendly but are also relatively free from side effects. They also do not involve large scale industrial and chemical processing.

#### Bio composting

- It is a method of decomposing organic wastes to simpler compounds and using them as fertilisers.
- The switching to chemical fertilisers have proven to affect humans and environment adversely.
- As a result of excessive usage of chemical fertilisers, large tracts of productive lands have been affected, the water bodies including ground water system have suffered from chemical contamination and the demand for irrigation has been going up year by year.
- Many farmers have switched back to composting. In many parts, cattle is just kept since they produce

dung which is an important fertiliser and soil conditioner.

- Earthworms convert organic matter to compost faster than the normal composting process. In many parts, vermicomposting has become quite common.
- Many civic authorities have been benefitted indirectly as composting has reduced the quantity of waste which is to be disposed.

### Bio pest Control

- With advent of green revolution, entire country have started using more and more chemical pesticides for higher yield.
- The food products have become contaminated, soil and water bodies have been poisoned by the pesticides leading to decline in flora and fauna. Even the meat, milk and fishes have been found to be contaminated by the pesticides
- Many efforts are being done to bring in better methods of pest control.
- One of such is using plant based products

Neem trees are proving to be quite effective against the pests. Several pest controlling chemicals have been isolated from neem and are being used.

- Mixed cropping and growing different crops in consecutive years on same land have also helped many.
- The awareness about various animals and birds in controlling pests is spreading

For example snakes prey upon rats, mice and other pests. The large variety of birds like owls and peacocks which prey on vermin and pests are quite helpful. If these animals and birds are allowed to dwell in and around agricultural areas, they can clear a large variety of pests.

Lizards are helpful in controlling small insects and flies.

# Chapter –10:

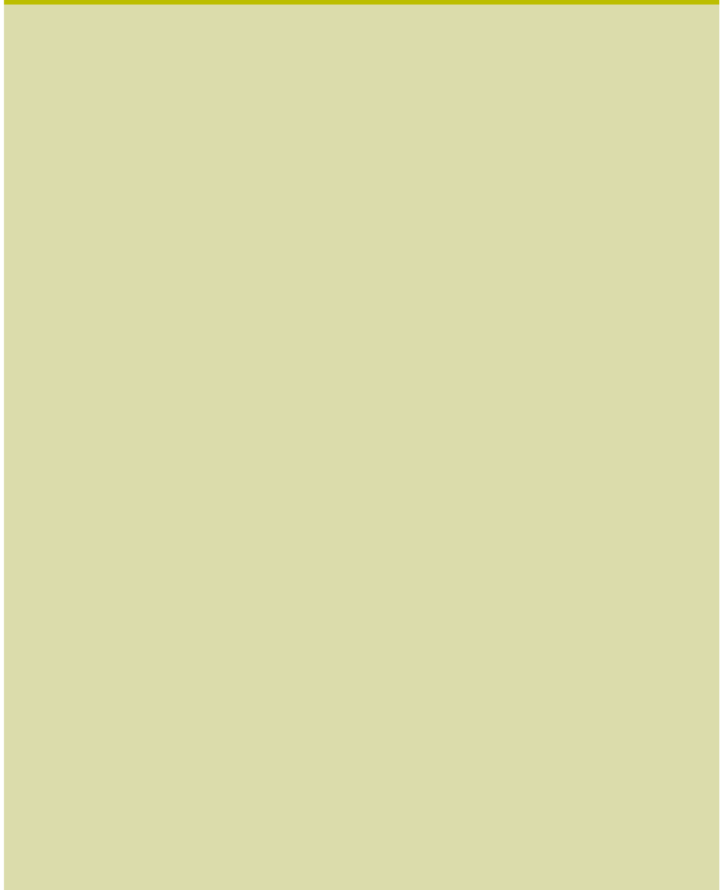
## Comparative Development

### Experiences of India and it's neighbors

#### What's in this Chapter?



#### Few Things to remember in this chapter



#### Introduction– Why a comparison between the countries?

- Over the last few decades, there has been a massive economic transformation (change in structure of economic activities). The globalisation is partly the culprit behind it.
- This economic transformation, is not just limited to few economies, it is almost seen in every country and the implications (both short term and long term) are seen in almost every country.
- Nations have been primarily trying to adopt various means which will strengthen their own domestic economies.

For adopting such means to strengthen the domestic economy,

- Various regional and global economic groups are being formed. Some of the examples are the SAARC (South Asian Association for Region Cooperation), the European Union, G-8, G-20 and ASEAN.



## China

- China announced its first FYP in the year 1953
- Presently, China is working on its 14th FYP (2021-25)

### The historical path of development:

#### China

- People's republic of China was established in the year 1949 under a one party rule. The party is Chinese Communist Party
- After the establishment, all critical sectors of the economy, the enterprises and lands owned by individuals were brought under the direct control of the government.
- A campaign named the **Great Leap Forward (GLF)** was initiated in the year 1958.

This campaign aimed at industrialising the country on a massive scale.

People were encouraged to set up Industries at their backyard.

In rural areas, communes were started. Under the Commune system, people collectively cultivated the lands. In the same year, there were about 26,000 communes covering about all the farm population.

#### The problem of the GLF:

- During those years, China faced a severe drought which created great havoc.
- China had some problems with Soviet Union (Russia after 1991) and Russia withdrew its professionals sent to China. Russia earlier sent its professionals to China for boosting industrialisation in China
- In 1965, Mao introduced the **Great Proletarian Cultural Revolution (1966-76)**. Under this, students and professionals were sent to work and learn from the countryside.

#### Phases of reforms of China

- The reforms were introduced in 1978.
- The reforms were introduced in phases.

##### Initial phase:

- In the initial phase, reforms were initiated in agriculture, foreign trade and investment sector.
- In agriculture, for instance, commune lands were divided into small plots and were allocated to individuals (Not for ownership).
- They were allowed to keep all income arising from the land after paying some taxes.

##### Next phase:

- In the later phase, reforms were initiated in the industrial sector.
- Private sector firms (the enterprises owned by the local collectives {the township and village}) were allowed to produce goods and services.
- At this stage, the state owned enterprises (govt owned) were made to face competition.

##### Another reform process:

- The reforms involved dual pricing.
- The prices were fixed in two ways: The farmers and industries were required to sell a specified quantity of inputs and outputs at fixed prices given by the government. The rest were sold at market prices.

- To attract foreign investors, Special Economic Zones (SEZ) were set up

### Pakistan

- There are many similarities in Pakistan's development strategy and India's strategy
- Pakistan is a mixed economy. The public and private sectors co-exist.
- Regulated policy framework for import substitution based industrialisation was introduced
- This regulated policy had tariff protection for production of consumer goods and direct controls on imports.
- Green revolution in select areas, led to mechanisation and increase in public investment. Finally, led to increase in production of food grains. Ultimately, it changed the agrarian structure of the Pakistan economy.
- In the 1970's, nationalisation of capital good industries took place.
- Then, in late 1970's and 1980's, Pakistan shifted its policy orientation towards denationalisation (*Denationalization is the process of transferring an asset from public ownership—specifically ownership by a national government to the private sector*) and encouragement of the private sector.
- During this period, Pakistan received financial support from western countries.
- It also received remittances from continuously increasing outflow of emigrants to the middle-east.
- The above two helped Pakistan in stimulating economic growth.
- In 1988, economic reforms were initiated in Pakistan. During this period, the foreign assistance decreased and remittances drastically fell. So, Pakistan went into eight agreements with IMF to get loans. But, the agreements were not properly implemented and hence Pakistan was not able to withdraw half of the agreed amount from IMF. | Source (Pg 120 of Pakistan: A Global Studies Handbook by Yasmeen Niaz Mohiuddin 2007)

## Demographic indicators of China, India and Pakistan

### Population

- If looked at the global population, out of every 6 persons in the world, one is an Indian and other is a Chinese.
- The population of Pakistan is quite small. It accounts roughly about 1/10 th of the Indian or Chinese population.

### Density of population

- Despite the fact that China is the most populated country, it's population density is the lowest. It owes to it's large geographical area.
- India is the most densely populated among the three nations.

### Population growth

- Among the three nations, China has the lowest population growth rate.
- Scholars point out that one-child norm of late 1970's as the major reason behind it. It is also cited that it is a cause for declining sex ratio.
- The population growth is highest in Pakistan followed by India.

### Sex ratio

- Sex ratio is quite biased in all the three countries.
- It is cited that son preference is the reason behind this.
- All the three countries are taking measures to improve the situation.

### Median population

What is the significance of median population? It just signifies what is the median age of people in a country. Lower the median population rate, more the productivity.

The one child norm of china has an effect on the median population. The lesser the birth rates, the median population age increases. So, China allowed couples to have two children.

### Fertility rate

- The fertility rate in China is the lowest and in Pakistan, it is the highest.

### Urbanisation

- It is highest in China
- It is followed by Pakistan and India. (India has the lowest urbanisation rate)

Country	Estimated Population	Annual Growth of Population	Population Density (2018)	Sex Ratio at birth From (cia.gov)	Fertility Rate (2018)	Urbanisation Urban/total population
India	1366.4 Millions	1.015%	455	1.1 males/ female	2.2	34%
China	1397.7 Millions	0.357%	148	1.11 males/ female	1.7	60%
Pakistan	216.5 Millions	2.029%	275	1.05 males/ female	3.5	37%

## Economic indicators of China, India and Pakistan– GDP and sectoral contribution

- China is the second largest economy. The purchasing power party of China is about 23.52 Trillion USD
- According to world bank reports, India stands at 5th position. India has PPP of 9.56 Trillion USD.
- Pakistan has about 1.01 Trillion USD as its PPP
- India's GDP is about 40% of that of China. Pakistan's GDP is about one tenth of that of India

### Growth in GDP over years

#### 1980-1990

- In 1980-1990's many countries struggled to have even 5% GDP growth, But china was able to maintain it in double digits.
- India had the least GDP among the thee with 5.7%
- During that time, Pakistan was ahead of India with 6.3% GDP

Country	1980-90	2015-17	Deltas
India	5.7	7.3	+1.6
China	10.3	6.8	-3.5
Pakistan	6.3	5.3	-1.0

#### 2015-17

- When compared to 1980, in 2015-17 both Pakistan and China experienced decline in growth rates.
- India had moderate increase in growth rates

### Reason behind decline in GDP growth of Pakistan

- It is said that the political instability over long period as reason behind declining growth rate in Pakistan.

Sector and country	Sectoral contribution to GDP— As % of GDP—for 2019 Source: adb.org , Key indicators for Asia and Pacific 2020			Employment in sectors as % of total employment 2020— Source: worldbank.org indicator id : SL.{SRV,AGR,IND}.EMPL.ZS		
	India	China	Pakistan	India	China	Pakistan
Agriculture	17.8=18	7.4=7	23.4=23	41	25	36
Industry	27.5=27	39.2=39	19.5=20	26	28	26
Services	54.8=55	53.4=53	57.1=57	32	47	38

### Sectoral contribution of GDP and Employment

- The urbanised population of China is the highest followed by Pakistan. It is the least in India.

#### AGRICULTURE

##### China

Before going to the measures, we must see the topography of China

##### Topography:

- The area suitable for cultivation is quite low in China.
- The cultivatable area in China is just about 10% of it's total area.
- If we compare it to India, China's total arable land is just 40% of than that of India.
- Until the 1980's, more than 80% of total population was dependant on farming for livelihood.
- Afterwards, the government encouraged people to move from fields and pursue other activities like handicrafts, commerce etc.
- In 2019-20, 25% of it's workforce was involved in agriculture giving output of 9% of it's GVA.

##### Pakistan

- In 1981, about 53 % of the workforce was dependent on agriculture. (Source: text named Pakistan Manpower Review Vol. XIII, No. 2, 1987 from researchgate.net)
- In 2019, it came down to 36% yielding 23% of GDP.

##### India

- In 1983, agriculture was source of livelihood for about 69% of the population (Source: Chapter 7)
- In 2019, about 41% of the workforce is dependent on agriculture yielding 18% of the GDP.

#### INDUSTRIAL SECTOR

##### China

- The contribution to GDP by the industrial sector is about 39%
- It is the source of livelihood for about 28% of its workforce

##### Pakistan

- The contribution to GDP by the industrial sector is about 20%
- 26% of it's workforce is dependent on manufacturing sector.

##### India

- The contribution to GDP by the industrial sector is 27%
- About 26% of the workforce is dependent on this sector for livelihood.

#### SERVICE SECTOR

- In India, the contribution by this sector to GDP is about 55% and has 32% of the workforce. In the early 1980's, India's workforce on service sector was 17%.
- In China, contribution of this sector to the GDP is about 53%. It is livelihood for 47% of the workforce. In

1980's, china had 12% of it's workforce in service sector.

- In Pakistan, contribution of this sector to the GDP is about 57% and has 38% of its workforce in it. In 1980's, Pakistan had 32% of it's workforce in service sector.

Inference

- Usually, there would be a shift from primary sector, then to the secondary sector and then to the service sector. This is seen in case of China.
- Whereas in India and Pakistan, the shift seems directly to the service sector.
- All of the countries have service sector as the main source of GDP. It is a emerging player in all the three countries.
- Pakistan was faster in shifting it's workforce into the tertiary sector.
- There has been decline in proportion of people dependent on agricultural sector in all the three nations.

### Output growth in various sectors of the economy

Trends in o/p growth in different sectors 1980-2018

Country	1980-90			2014-18		
	Agriculture	Industry	Service	Agriculture	Industry	Service
India	3.1	7.4	6.9	3.1	6.9	7.6
China	5.9	10.8	13.5	3.1	5.3	7.1
Pakistan	4	7.7	6.8	1.7	4.8	5.0

- Over last few years, growth of agriculture sector has declined. But, they are the major employers for all the three countries.
- In the industrial sector, China had double digit growth in 1980's but shows decline equal to half of the magnitude.
- Even India and Pakistan 's value added of the industrial sector have declined, they are quite less compared to China.
- Pakistan's growth rates have shown decline in all the sectors.
- India's growth is by the service sector whereas for China, it is manufacturing and service sector together.

### Economic indicators of China, India and Pakistan– GDP and sectoral contribution

- The upcoming table shows that China is moving ahead of both India and Pakistan for many indicators
- Pakistan is ahead of India in reducing the proportion of people below poverty line and sanitation.
- India and Pakistan is quite left behind in maternal mortality rates.
- All the three countries' reports shows improved water sources for majority of it's population
- The Head count ratio (the poor ratio) is highest in India

#### A comment on liberty indicators

All the human development indicators are vital. But, they are not sufficient. We also need something called liberty indicator. It is termed as "the extent of democratic participation in social and political decision-making". They are the ones which represent the freedom of people in a country. Some examples are extent of constitutional protection, law protection etc.

Some of the Human development indicators up to 2018

Indicator	India	China	Pakistan
Human Development Index	0.647	0.758	.560
Global Rank (Based on HDI)	129	85	152
Life expectancy at Birth (years)	69.4	76.7	67.1
Mean years of schooling (%)	6.5	7.9	5.2
Gross National Income (PPP)	6829	16127	5190
People Below poverty line	60.4	7.0 (2015)	46.4
Infant Mortality rate (Per 1000)	29.9	8.5	57.2
Maternal Mortality rate (Per	174	27	178
Population using at least basic	60	75	60
Population using at least basic	93	96	91
% of undernourished children	37.9	8.1	37.6

## Appraisal of the developmental strategies

Let us see the developmental strategy from a point of reference. Let the reforms of 1978 be for China, 1988 for Pakistan and 1991 for India. Assessment of 1991 reforms of India has been seen in the chapter 3 LPG: An appraisal. So let us look at the other two

Recapitulation of India's reforms

- ⇒ The root cause behind the reform was to obtain loan from IMF to finance the deficit and have sufficient foreign exchange reserves
- ⇒ It aimed at macroeconomic stability and made some structural changes namely the LPG policy

### China

Why were the reforms initiated?

- Unlike India and Pakistan, China did not have any compulsion from institutions like IMF or world bank.
- The new leadership of China was not satisfied with the slow pace of growth and lack of modernisation in the economy under the Maoist rule.

- They thought that the Maoist vision of economic development which was based on decentralisation, self sufficiency, and shunning of foreign technology, goods and capital had failed.
- Despite extensive land reforms, collectivisation and other initiatives like the GLF, the per capita grain output was quite same as in mid 1950's.

Factors for rapid growth in China

Government's implementation of few programmes in pre-reform period

- During pre reform period, establishment of infrastructure in areas of 1) education and health and 2) land reforms got reflected in the social and income indicators even in the post reform period.
- Before the introduction of the reforms, massive extension of basic healthcare in rural areas had taken place.
- Equitable distribution of grains was ensured by the commune system.

To learn from the Reforms– Rapid growth due to the reform measures

- Each reform measure was first implemented on a smaller scale and later in a massive scale.
- The experimentation under decentralised government enabled the assessment of economic, social and political costs of success or failure.

Example: Handing the plots to individuals brought prosperity to vast number of poor. Subsequently it created conditions for further growth of rural industries.

### Pakistan

- The reforms in Pakistan led to unpropitious results in all the economic indicators. The GDP and sectoral contribution have fallen since 1990.
- Despite that the international poverty line for Pakistan is good, the scholars who use the official data of Pakistan cite the increasing poverty levels
- In 1960, proportion of the poor was more than 40%, in 1980's it fell to 25%. In recent years, it has started to rise.

### Reasons for slow economic growth and re-emergence of poverty

- The agricultural growth and food supply is based on good harvest and not technical changes. (i.e., No modernisation)
- The foreign exchange is a necessity for any economy. Pakistan earns foreign exchange just by remittances of Pakistani workers from middle east and exports of highly volatile agricultural products like sugar, fish, poultry and other manufactured products.
- The growing dependence on foreign loans poses a problem for Pakistan. They are also facing difficulty in paying back the loans with the interest.

### Recovering economic growth in Pakistan

Pakistan have been sustaining and recovering its growth. Annual plan of 19-20 reports GDP growth of 5.5 %. Which is highest compared to previous decade. Many macroeconomic indicators have began to show stable and positive trends.