

## **RURAL AND URBAN REGIONAL IMBALANCE**

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### **1.0 OBJECTIVES**

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After reading this chapter, you will understand the following.

- 1) The concept of rural urban imbalance can be understood.
- 2) The imbalance factors of rural and urban development can be explained.
- 3) Understanding regional imbalances in Maharashtra.

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## 1.1. PREFACE

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India is a rural country. In the nation today, rural regions are home to 68.5 percent of the population, while urban areas are home to 31.6 percent. Agricultural production is the principal industry in rural regions. The populace is dependent on agribusiness to the extent of more than 50%. In cities, the reverse is true. More than 50% of people live in metropolitan regions and work in industries, enterprises, and jobs. The government constantly provides amenities in the flourishing metropolitan regions, taking into account rural and urban areas. As a result, development in urban and rural regions is uneven. This has made it more difficult to develop rural and urban areas.

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## 1.2 CONCEPT OF RURAL-URBAN IMBALANCE

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Clarifying the idea of rural-urban divide is necessary in order to comprehend the meaning of rural-urban imbalance. The main disparities between rural and urban areas' populations and income levels are those between the two. Agriculture provides the majority of the country's income because it is an agricultural society. However, there appears to be an increase in agricultural production as a result of the inefficient farming in such a nation. Urban environments foster the development of several enterprises.

The department appears to be growing quickly. This exacerbates the mismatch between rural and urban areas.

On the other hand, the definition of rural and urban development varies greatly among nations worldwide. That is, depending on the motivation for the country's division of rural and urban areas, the disparity between the number of states and the political authority that divides them changes.

### **Rural-urban imbalance**

The Indian media has recently used the words India. According to this, India may refer to both urban and rural places. These urban and rural locations exhibit socioeconomic inequalities. The following aspect can be used to clarify this distinction.



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## 1.3 FACTORS OF RURAL-URBAN IMBALANCE

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There are several causes of the imbalance between rural and urban areas. These factors are explained in the section below.

**Population:** The majority of people reside in rural regions in many developed and developing nations across the world. For work and improved living conditions, people are moving from rural to urban regions as the economy grows. However, urbanisation is happening slowly as the world is developing. A prolonged transition period is the outcome.

In India, 68.89% of the population resided in rural regions, according to the 2011 census. In urban regions, 31.16 percent of people resided. Population density is high in urban regions. The population density is lower in rural places.

**Unemployment:** Both urban and rural communities struggle with a lack of employment. The unemployment rates in the two places vary. In metropolitan locations, open unemployment is a serious issue. Agriculture is practiced there. These regions struggle with seasonal and covert unemployment. Additionally, open unemployment is an issue for young people who are self-taught. This issue also affects young adults with advanced degrees. The daily unemployment rate in 2009–10 was sixteen in rural regions and 34 in cities.

**Poverty / Poverty:** In all nations, urban and rural areas have less poverty-related issues and members of the public. In many nations, rural communities bear a larger share of the burden of poverty. According to a survey conducted by the Planning Commission in 2009–10, 38.8% of rural Indians were living in poverty.

There were 274.5 million such persons in all. Twenty-nine percent of people lived in poverty in metropolitan areas. In 2009–10, there were 76.5 million of these people. There is an imbalance since the rate of poverty in rural regions is higher than in urban ones.



**Social and economic disparities include:** Both rural and urban populations seem to have caste and class divisions. People in rural regions differ greatly in class and ethnicity since they are generally poorer and less developed socially than their urban counterparts. Even though the caste system is outlawed by law, it nonetheless affects societal constraints. Caste and class are obvious in metropolitan settings despite the low prevalence of the caste system there. Lack of work prospects, poor income, low wage rates, low productivity, or unemployment is the main causes of economic inequality. Poverty is more prevalent in rural places. As a result, social and economic inequality plays a significant role in the disparity between urban and rural areas.



**Literacy rate :** Inequality between urban and rural regions may be reflected in the literacy rate. Urban parents are keen to provide their kids a good education. Their schooling is taken care of. Parents in rural areas often send their kids to work in the fields since agriculture is a common vocation and requires labour. India depends on children's income due to its extreme poverty.

According to the 2011 census, 74.04 percent of Indians were literate. The literacy rate in rural areas was 68.91 percent. The literacy rate in urban areas was 84.98 percent. Additionally, there is a disparity between rural and urban communities in terms of school quality, etc.

**Basic characteristics:** Infrastructure disparities are evident in rural regions. Transportation, clean drinking water, messaging, energy, health, education, and road transportation are the primary components of economic and social comfort. Rural regions are seeing an increase in this condition, although the quality is poor. In cities, these amenities are of high quality. Still, sewage streams, gutters, and tainted drinking water continue flowing. Unbalances between the rural and urban areas demonstrate how dangerous highways and pedestrian bridges are for travel.

**Women's Employment:** There are persistent economic and social inequalities between men and women. However, in many places, there are better circumstances for employment, property rights, etc. in urban than rural regions. Unfortunately, a huge percentage of women lack literacy skills in rural regions. Additionally, they are not permitted to take part in decision-making. Women mostly rely on their father, brother, and son. In the household, discrimination exists between males and women. Women in cities have more abilities than women in rural regions.

**Health:** There seems to be a good balance between rural and urban regions. In cities, there are medical facilities. There are several healthcare institutions in the city. These amenities are insufficient in rural regions in that regard. There are significant public health differences between urban and rural locations. Health is not a major issue in rural life. In that sense, the metropolitan mindset appears to be more focused on individual health. Local government entities in the city develop unique systems and correctly manage the sanitary drainage area in the case of public health. Local self-government groups are unable to offer similar amenities in rural regions to the same level. Their income is insufficient.



The health of the rural population is continuously declining as a result of an inadequate diet. One survey found that anemia affected 70% of those in rural regions who were 50 to 59 years old. In cities, this is 17.2 percent.

59.5% of the populace in rural regions has access to electricity. 92% of urban residents have access to electricity. 34.1 percent of people live in rural regions without access to toilets, compared to 80.8 percent of people who live in urban areas. 12.9% of people in metropolitan areas still reside in their houses. 19.6% of families live in houses in rural regions. In metropolitan areas, 84.4 percent of the population has access to better drinking water. At least 24.9% of residents with low incomes reside in rural regions. There are 2.7 percent more urban regions than rural ones. The vaccination campaign in rural regions has achieved 50.4% of the family in terms of immunization of children.



Therefore, health in a rural, urban area Imbalance is an important factor.



**Industry:** The availability of industries varies significantly between urban and rural places. The city has a huge selection of business amenities.



As a result, the city's commercial growth is encouraged.

There aren't enough amenities in rural regions to support company startup. As a result, there is a significant industrial imbalance between rural and urban regions. South Konkan industries may not have been properly launched. The cause is explained above. The government providing the city with a lean measure to begin firms is another significant component. Therefore, rural regions are disregarded. Unbalance is therefore evident.



**Water supply:** Large dams are built in rural regions as a source of drinking water for cities. In reality, dams are built and made accessible to the city for irrigation and irrigation in parts of Maharashtra when there is a drought. Rural development is severely hampered by such an unbalanced water supply. Nobody can promise that the rural plumbing systems will always exist. Thus, it is impossible to ensure that everyone will have access to clean drinking water, especially in remote locations. Even the readily available water is unsafe. However, water is regularly filtered in metropolitan areas. As a result, there is an uneven distribution of clean drinking water between urban and rural communities. Therefore, traditional water sources are still used in rural areas.



**Development of financial institutions:** As a network of industries is established in metropolitan areas, numerous financial institutions are launched. Financial institutions create the environment for growth in metropolitan areas. Urban entrepreneurs may get enough capital to operate their businesses thanks to the adequate availability of financial institutions. The amenities offered by the bank are also suitably accessible to the populace. The development of financial institutions is constrained due to the absence of company expansion in rural regions. The lender appears more willing to provide finance to the peasant class. The expansion of financial institutions is constrained in rural regions due to the fact that financial institutions cannot afford to do business as usual. As a result, finance has an impact on the rural-urban disparity.

**Social Change:** There is a significant distinction between society and change in urban and rural settings. The urban society is rapidly changing as a result of the cities' appropriate growth of educational institutions and the cohabitation of individuals from many different communities. In rural places, this is not the situation. The educational network is not well enough established in the rural areas. Poor quality education is lacking in rural regions. In addition to this, the villages in the village are a part of a certain society. The severity and superstition of untouchability are particularly strong in rural places. Women's empowerment does not appear to have been established, and as a result, social transformation is occurring in both rural and urban places.



**Housing availability:** There is an imbalance between rural and urban regions. The housing in rural regions is inadequate. The issue of shelter affects both urban poor and slum residents. Many people in the population live in substandard homes. The worst slum conditions are not seen in rural regions. As a result, the processes of urban and rural growth are not balanced.

**Employment Generation:** In both urban and rural settings, employment generation is one of the most crucial aspects. Agriculture is a traditional kind of business in rural regions. Farming creates employment during specific seasons even if it is a relatively small type of company. Additionally, the agribusiness did not produce the anticipated amount of jobs. However, there are a lot of government buildings in cities. Urban regions have seen an increase in a variety of company kinds. Therefore, urban regions have a lot of work prospects. As a result, disparities between rural and urban areas can also be seen in the creation of jobs.



**Power supply:** While electricity producing facilities have been put up in rural regions, supplying power to urban and industrial areas takes precedence. Rural communities frequently lack access to power. There are frequent abnormalities in communities where energy is provided. Load shedding is also more common in rural regions. Agri-production and an imbalance between the rural and urban areas are the results of inconsistent power supply to agricultural pumps.



**Transportation facilities:** In terms of transportation amenities, there is an imbalance between rural and urban areas. There are many existing highways, as well as several public and private transit facilities, in metropolitan areas. However, the major road has not yet been extended to many settlements in rural regions. The roads in the villages are poor. The transit options are somewhat limited. As a result, it is difficult to get rural region items on the metropolitan market quickly.

Therefore, there is a significant imbalance between urban and rural communities today.



**Check your progress:**

1) What are the important factors of rural-urban imbalance?

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## 1.4 REGIONAL IMBALANCES IN MAHARASHTRA

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People in the states with a large concentration of industry have high incomes. There are two different numbers of entrepreneurs in Maharashtra, but regional disparities also show up. Industries have advanced in a few of Maharashtra's main cities in particular, Mumbai, Pune, Thane, and Nagpur. Changes in education, technology, and living conditions are a result of globalization. Businesses and educational facilities are still lacking in certain places. There aren't enough opportunities for job, education, healthcare, and business in rural regions. As a result, a significant portion of individuals are poor.

The rural area is deteriorating while the developed region is growing. In Maharashtra, the pace of growth is unbalanced. Marathwada, which is situated in Vidarbha, Hyderabad, in Madhya Pradesh, was added to Maharashtra after the state's creation in 1960. Bombay was the most densely populated area of Gujarat in Pune prior to 1960. Since

the Geographical factors, the Western Ghats' abundant natural resources, and water's ongoing supply have all contributed to this region's continued use as a permanent instrument. The Marathas weakened in Marathwada when it was governed by the Nizamas.

Maharashtra received the bigger geographical and cultural regions of the less wealthy than western Maharashtra. Vidarbha's agriculture was largely dependent on monsoon rainfall. In Marathwada, salaries served as the primary source of income. There remained an imbalance in the growth of these areas in Maharashtra notwithstanding their union.

The seventh constitution amendment was modified in the Indian Parliament in November 1956. A few states underwent restructuring when a directive was issued to create a "Legal Development Corporation" in order to advance the state of Maharashtra. It took the Maharashtra government 28 years to make the constitutional clause into legislation.

The Governor established the "Indicators and Backlog Committee" in 1995. According to the committee's assessment from July 1997, regional disparities require the expenditure of Rs 15,355 crore. The topics of roads, irrigation, village electricity, education, health, water supply, land development, and conservation were all taken into consideration when both committees delivered their reports.

The Reconstituted Indicators and Backlog Committee was reconstituted by the Governor in 1997. According to the research, Rs 14000 crore would be required to address the regional disparity for increased the proportion of Marathwada and Vidarbha. To distribute resources and offer guidelines, a high-level committee was established on May 31, 2011, with eminent economist Dr. Vijay Kelkar serving as its head. However, the Maharashtra government extended the deadline to this committee to March 2013 on July 20, 2012. Despite the filing of such committees and recommendations, Maharashtra's regional development mismatch has never been more pronounced.

**Reasons for the imbalance:** The strategy was taken for the centralization of firms by providing from the very outset of financial planning. The state's financial planning and the funding necessary to carry out the plan have been monopolized by the central government. The time-consuming and complex system of money distribution has long been a part of the nation's governance structure as a result of the centralization of the states' tax collection systems.

Two thirds of Maharashtra's reserves of natural resources are located in Vidarbha, however it doesn't seem like Vidarbha's development is adequate. Vidarbha is a state where cotton is abundantly farmed, however the policies of the state government do not guarantee fair prices. The Vidarbha farmer has so continued to live in poverty.

### Measures:

There are tremendous chances to eliminate regional inequities as a result of technology, privatisation, and globalisation. Today, it is vital to implement priceless improvements based on wise financial choices, appropriate legislation, and state government restrictions. In order to redesign local industry authorities, the state government should redesign its own business, trade, industry policy, and planning centralised tax structure to the district level government.

To the greatest extent possible, each area must offer distinct industries and services to its residents along with each district council, to develop a unique international trade policy. As a result of the privatisation and globalisation of the government, investments in several multinational corporations, and the development of new job prospects for young people worldwide as a result of creative technology change, provide countless chances for company formation. Developers ought to make plans based on the locations of accessible resources.



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## 1.5 SUMMARY

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The above comment shows that rural elimination of population imbalances in rural and urban areas, eliminating poverty, reducing social and economic disparities, providing literacy facilities, providing health facilities, industries, water supply etc. Urban imbalances can be reduced. For this, it is necessary to give greater emphasis to social awareness by making special efforts at the government and social level.

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## 1.6 EXERCISE

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- 1) Explain the concept of rural urban imbalance.
- 2) Explain the various factors of rural-urban imbalance.
- 3) Consult the regional imbalances in Maharashtra.

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## 1.7 A) FIVE YEAR PLANS AND RURAL DEVELOPMENT

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The Indian economy is built on agriculture, and a significant portion of the population is employed in this sector and related industries. The primary occupation of the rural population is the developing agriculture and related industries. As a result, the expansion of the Indian agricultural sector influences the total growth rate of the national economy. The National Policy on Agriculture aims to actualize the enormous untapped growth potential of Indian agriculture, strengthen rural infrastructure to support faster agricultural development, promote value addition, accelerate the growth of agro-business, create employment in rural areas, and secure a fair standard of living for farmers and agricultural workers and their families.



The country has over 83.25 crore rural residents, or 68.8% of the total population, according to the 2011 census. The bulk of the rural population still lives below the poverty line, making this the main issue facing the country as the Families, prevent emigration to cities, and address the problems brought on by economic liberalisation and globalization. The main concerns of economics and agriculturalists are the betterment of village life and the development of the agricultural (rural) economy. Extensive agreement stress that inclusive and sustainable rural development is essential for reducing poverty.

### **Five-Year Plans for Rural and Agricultural Development**

#### **First Five-Year Plan (1951-56)**

The highest focus in this plan was given to agriculture. The nation experienced a severe food scarcity, and increasing the production of food grains was prioritized as a solution.

#### **Efforts for Rural Development:**

- a) On October 2, 1952, the "Community Development Programme" (CDP), which focused on the growth of agriculture, irrigation, energy and electricity, industry and minerals, village small scale industries,



transport, employment, instruction in agriculture, soil conservation, and other pertinent agricultural topics etc; was introduced.

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- b) The elimination of the zamindari system, the beginning of the community development programme, the "Grow More Food" campaign
- c) Advancements in areas like marketing, fisheries, animal husbandry, soil conservation, and forestry, were important developments.
- d) In accordance with the design, the Mettur Dam, Hirakud Dam, and Bhakra Nangal Dam irrigation programmes were created.
- e) The government has taken action by setting up a fund for agricultural labourers, particularly to help landless people. These employees received financial aid.
- f) Additionally, emphasis was placed on enhancing social services, train lines, telegraphs, and other aspects of transportation and communication.
- g) Five Indian Institutes of Technology were established as part of this proposal in five different Indian cities.
- h) The University Grants Commission was established in India in order to enhance higher education, including college and university instruction.
- i) The first five year plan's national income growth objective was 2.1%, however it was really 3.6%. The goals established for the plan were nearly met, and in some cases, considerably surpassed.



### **Second five-year plan (1956-61)**

Efforts for Rural Development:

- a) Only roughly 21% of the actual plan spending was spent on agricultural growth.
- b) This plan switched the focus from agriculture to industry.

- c) The output of food increased from 65.8 million tonnes to 79.7 million tonnes. Except for sugarcane, all crops produced less than expected.
- d) In order to increase output, the Intensive Agricultural District Program (IADP) was established in 1962.
- e) For rural rehabilitation, the Khadi and Village Industries Programme, the Intensive Agricultural District Programme, the Tribal Area Development Programme, and the Village Housing Projects Scheme was introduced.
- f) Increase national revenue, decrease poverty, accelerate industrialization, decrease wealth disparity, significant development of employment possibilities, etc. were some of the goals of the plan.
- g) The government established heavy industries such as five steel factories and hydroelectric power projects in Bhilai, Dugapur, and Rourkela.
- h) The Atomic Energy Commission was established in 1958, with Homi J. Bhabha serving as the initial Chairman.
- i) This plan's 4.5% national income growth objective was met with a 3.6% growth rate.



### **Third five-year plan (1961-66)**

Efforts for Rural Development:

- a) This plan aimed to boost agricultural output in order to fulfil the demands of industry and export, as well as attain self-sufficiency in food grains.
- b) Agriculture and irrigation were given a greater priority in the plan (20.5%) than industrial growth (20.1%).
- c) The initiative aimed to boost agricultural productivity by 30% overall, but results fell short of expectations. Due to the drought conditions in

1965–1966, the real output of food grains decreased from 88.4 million tonnes in 1964–1965 to 72.3 million tonnes in 1965–1966.

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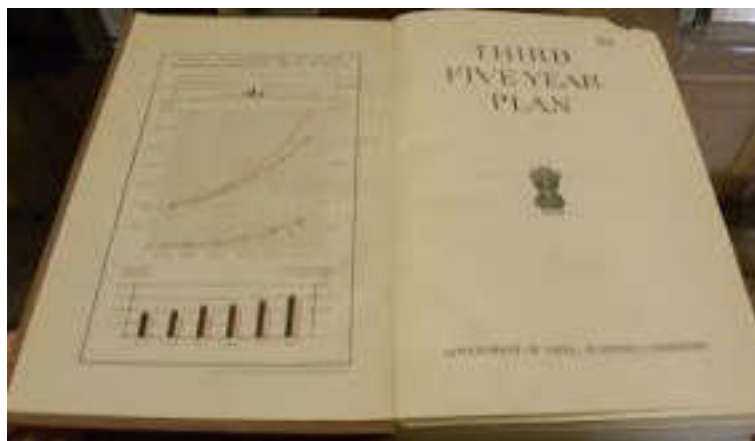
- d) Only 10% more food was produced compared to the intended 30% increase.
- e) To boost basic education, several schools have been established locally. State Secondary Education Boards and State Electricity Boards were established at this time.
- f) Local road construction became a governmental duty after the establishment of state road transportation enterprises.
- g) The national income growth reached 3.9% of the 5.6% projected growth.
- h) A number of programmes were launched for rural development, including

The Applied Nutrition Program, Tribal Development Block Program, Rural Works Program, The Rural Industries Projects, etc.

### **Three Annual Plans (1966-69)**

Efforts for Rural Development: Three intermediate yearly plans for growth were created from 1966 to 1969.

- a) Minor irrigation received great emphasis during this time to boost agricultural output and productivity.
- b) Because the green revolution, the government established the Agricultural Prices Commission to guarantee minimum support prices to farmers.
- c) Food Corporation of India was to maintain buffer stocks to counteract fluctuations in the supplies of food grains and their prices. As a result, this time period is regarded as crucial for Indian agriculture. A record 95.6 million tonnes of food grain were produced in 1968–1969.



#### **Fourth five-year plan (1969-74)**

##### Efforts for Rural Development:

- a) Two goals were set for the agricultural sector in the Fourth Plan:
  - i) to increase food production of about 5% annually over the decade 1969–1978; and (ii) to increase the participation of rural population, including small farmers, and agricultural labors in the process of agricultural development.
- b) The Green Revolution was implemented as part of the yearly plans, had positive effects. As intended the increase of 129 million tones, the actual output of food grain in 1973–1974 was 104.7 million tones.
- c) The strategy placed an emphasis on "social justice" and "Garibi hatao." It placed a strong emphasis on the uplift of the underprivileged sections.
- d) The government placed a strong emphasis on nationalising banks, and 14 significant Indian banks were designated as national banks.
- e) The national income grew by 3.3% instead of the projected 5.7%.
- f) The goals of this plan were ecological balance restoration, soil and moisture conservation, agricultural development of small and marginal farmers and management of irrigation resources, etc.
- g) The Pilot Intensive Rural Employment Programme (PIREP) was developed and initially launched in regions with various socioeconomic situations.
- h) By providing dug wells, pump sets, tube wells, and loans for animal husbandry, dairy, sheep and goat rearing, poultry, and other agricultural endeavours, the Small Farmers Development Agency (SFDA) and the Marginal Farmers and Agricultural Laborers Development Agency (MFALDA) were established with the goal of improving the socioeconomic conditions of small and marginal farmers.
- i) In the tribal areas of the four states of Andhra Pradesh, Bihar, Madhya Pradesh, and Orissa, the Tribal Area Development Programme (TADP) was launched in 1970–1971. The program's goals included integrating tribal communities into the nation's economic growth in sectors like as agriculture, animal husbandry, irrigation development, road building, land reform, etc.
- j) In order to increase the level of living below the poverty line, the Minimum Needs Programme (MNP) was created in 1974. The program's goals included educating children with a minimal level of primary education, public health services, family planning, preventative medicine, nutrition, improving urban slum areas, reconstructing rural roads, etc.





### **Fifth Five-Year Plan (1974-1979)**

Efforts for Rural Development:

- a) More than Rs. 8,000 crores of funding is provided for rural development.
- b) Priority was given for expanding HYV cultivation and using more fertiliser, herbicides, and insecticides to boost agricultural output.
- c) The output of food grains significantly expanded throughout this programme (232.5 million tones).
- d) The Special Livestock Production Program, the Food for Work Program, the Desert Development Program, and the Training of Youth for Self-employment were all launched.
- e) In order to increase job prospects for the less advantaged groups of the rural populace, the Government of India (GOI) launched the Special Livestock Production Programme (SLPP) in 1975–1976.
- f) In order to increase the level of production, income, and employment for people living in desert regions, the Desert Development Programme (DDP) was launched in 1977–1978.
- g) The initiative was launched in 131 Blocks, 21 Districts, and 5 States (Rajasthan, Haryana, Gujarat, Himachal Pradesh, and Jammu & Kashmir).
- h) The government introduces the Training of Rural Youth for Self-Employment (TRYSEM) programme on August 15, 1979. The initiative is intended to help rural adolescents become a productive force.
- i) The target increase of the national income was 4.4%, whereas the actual growth was 4.9%.

## Rolling Plan (1978 - 80)

There were two sixth plans. The government proposed a strategy for 1978–1983. The administration, however, was only in place for two years. In 1980, the Congress government took back power and launch the program.

## Sixth Five-Year Plan (1980-85)

Efforts for Rural Development:

- a. A fast expansion of agricultural and rural development was acknowledged in the sixth five-year plan as being crucial to the expansion of the Indian economy.
- b. The plan's major goals were to boost agricultural productivity, provide jobs and income possibilities in rural regions, and develop modernizing forces in order to achieve self-sufficiency.
- c. Agriculture output increase of 3.8% per year was the plan's target. Actual increase, however, was 4.3%. Due in large part to its performance with the agricultural fund, this strategy was considered to be a huge success.
- d. The Development of Women and Children in Rural Areas (DWCRA) is established in 1982 with a focus on the advancement of women and children, particularly those who are SC and ST members.
- e. In order to give at least one member of every landless family access to employment, the Rural Landless Employment Guarantee Programme (RLEGP) was established in 1983. Workers under this scheme received a portion of their pay in food and a portion in cash.
- f. The national income was expected to expand by 5.2%, but it actually increased by 5.3%.



## Seventh Five-Year Plan (1985-90)

## Efforts for Rural Development:

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- a. A 4% average yearly growth in agricultural output was the target of the Seventh Plan.
- b. The main initiatives implemented throughout the plan included an unique rice production programme in the eastern area, a national water-shed programme for rain-fed agriculture, a national effort to create oil seeds, and social forestry.
- c. This plan's first three years unfortunately coincided with weak monsoon seasons. Consequently, throughout these years, agricultural productivity suffered a setback.
- d. But over the past two years, it has grown considerably, contributing to the agricultural production's excellent 4.1% growth. There are various anti-poverty programmes included in this plan.
- e. The preceding two employment programmes, RLEGP and NREP, were amalgamated into the new Jawahar Rozgar Yojana, which was introduced on April 1st, 1989. The goals of the JRY were to enhance the general quality of life in rural regions, provide jobs for rural residents who are jobless, and boost the rural economy.
- f. The Million Wells Plan (MSW) initiative, which ran from 1988 to 1999, gave away free open-impersonation wells to rural poor people, small and marginal farmers who belonged to SCs/STs, and free bonded labourers, incorporating the Bhoodhan scheme and land cap.
- g. The RLEGP includes the Indira Awas Yojana (IAY). The Yojana's goal is to provide housing for the most impoverished members of the rural masses who are SC/ST members and bonded labourers.
- h. The national income growth objective was 5.05%, but it increased by 5.8% instead.



**Eighth Five-Year Plan (1992-97)**

### **Efforts for Rural Development:**

- a. The main goals of this plan were to build on the advancements in agricultural productivity and production to meet the increased demands of the growing population, to increase farmer income, to expand employment opportunities in the agricultural sector, and to increase agricultural exports.
- b. The agriculture sector is expected to increase at a pace of 4.1% annually under the Plan. As a result, the Government has attempted to raise agricultural productivity and production through various policy initiatives.
- c. India had economic uncertainty between 1989 and 1991, hence no five-year plan was put into action. All that existed between 1990 and 1992 were Annual Plans. From this point in the five year plan forward, privatisation and liberalisation were initiated.
- d. The eighth Plan's target aim was industry modernization.
- e. The eight plans' main goals were to slow down population growth, eradicate poverty, boost employment, improve infrastructure, manage tourism, develop human resources, involve panchayati raj in rural development and encourage public participation in governmental decisions.
- f. The national income growth objective in this plan was 5.6%, and it was reached at 6.78%.

### **Ninth Five-Year Plan (1997-2002)**

#### **Efforts for Rural Development:**

- a. The ninth five-year plan was created with the aim of i) quality of life, (ii) creation of profitable employment, (iii) regional balance, and (iv) self-reliance.
- b. Actual increase was 5.35%, compared to the 6.5% target growth.
- c. The main goals of this plan was industrialising human development, eradicating poverty, increasing economic self-reliance, increasing employment, and providing all people with access to the most basic necessities of life, such as education, safe drinking water, primary healthcare, food security, and women's empowerment.
- d. The main focus was on eradication of poverty, availability of nutrient-rich food and water, empowerment of women and socially disadvantaged groups, provision of universal primary education, health care, and adequate housing, among other things.





### **Tenth Five-Year Plan (2002-2007)**

#### **Efforts for Rural Development:**

- a. The formation of microenterprises, training for improving skill and capacity building, credit linkages, vocational training for roughly 5 lakh rural women, etc. were prioritised during the tenth five-year plan under the Swarna Jayanti Gram Swarozgar Yojana (SJGSY), which benefits 25 lakh women.
- b. A new programme called Sampoorna Grameen Rozgar Yojana (SGRY), which replaced JGSY and EAs, was introduced on August 15, 2001.
- c. The Pradhan Mantri Gram Sadak Yojana (PMGSY) was launched in 2000–2001 to improve road accessibility in rural regions.
- d. In order to address the true issues of extreme poverty, unemployment, etc., a new programme known as Rastriya Sam Vikas Yojana was created during this plan.
- e. This programme would remove obstacles to progress and speed up the development process.
- f. The Central and State Governments, in a 75:25 ratio, launched the programme. 7.7% of the national revenue was increased instead of the desired 8.1%.



### **Eleventh five-year plan (2007-2012)**

### **Efforts for Rural Development:**

- a. Two rural development programmes, the Bharat Nirman Program and the flagship programme, were included in the eleventh five-year plan to offer opportunity to enhance living conditions and livelihoods of rural people.
- b. The Bharat Nirman Program's goal is to maintain an average rate of irrigation, connectivity of rural roads for rural development, poverty alleviation in India, rural electrification, clean drinking water, etc.
- c. The Pradhan Mantri Gram Sadak Yojana (PMGSY) was introduced to improve road connections for rural habitations.
- d. The flagship initiatives were the National Rural Employment Guarantee Program (NREGP), the National Rural Health Mission (NRHM), the Integrated Child Development Services (ICDS), the Sarva Shiksha Abhiyan (SSA), the Mid-Day Meal (MDM), the Total Sanitation Campaign (TSC), and the Backward Regions Grant Fund (BRGF).
- e. Rastriya Sam Vikas Yojana (RSVY) has been replaced by the BRGF in order to offer a more participatory approach via the engagement of Panchayatiraj institutions.



### **The Twelfth Five-Year Plan (2012–2017)**

#### **Efforts for Rural Development:**

- a. The twelfth Five-Year Plan (2012–2017) is committed to the overall Development of the nation and is focused on agricultural and rural development. The seven significant flagship programmes like TSP, IWDP, PMGSY, RGGVY, MGNREGA, NFRLM, IAY, NRDWP are active in rural regions.
- b. In addition to these, the Indian government also launched other initiatives aimed at uplifting the lower classes, including the village self-sufficiency scheme, the Clean Village Campaign, and rural sanitization, Rejuvenation of water Bodies and Rain Water Harvesting in Rural Areas etc.



## CONCLUSION

To address the demands of the rural population, agricultural and rural development programmes should be developed as they are an essential component of rural life. The development of self-employment options for those living below the poverty line, together with improvements to rural regions' general quality of life and the advancement of women in socioeconomic and political spheres, are key concerns of India's five-year plans. Planning, implementing, and monitoring of various centrally sponsored programmes and schemes developed by the planning commission of India for the alleviation of rural poverty are the primary responsibilities of the Ministries of Agriculture and Rural Development, which together make up the Ministry of Agriculture and Ministry of Rural Development.

In the upcoming five-year plan, efforts should be made to bring science and technology closer to farmers in order to make the most of the scarce resources that are now available and boost agricultural output. Other crucial factors need to be given the attention they deserve, including the availability of agricultural supplies, farm equipment, irrigation systems, crop-growing patterns, agricultural processing, and general factors like human welfare programmes, housing amenities, and sanitation. Participation of the population in policymaking is vital for rural development. The rural development would be "institutionally focused, time-bound, participative, decentralised and improvement oriented.

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### 1.8 B) NEGLECT OF RURAL DEVELOPMENT

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Through the Five Year Plan, India began its journey of rural development in 1951. Every five-year plan that guides the execution of development projects has a specific cash allocation for rural development. While this planning era was underway, development objectives were not met.

India's rural areas are extensive and dispersed in small communities. The settlement in the countryside is spread out between the sea and sizable mountains. The issues vary amongst the various parts. Even if efforts have been made to address problems, there is a great deal of indifference on the

part of the administration, which has ignored direct rural development. From the next point, this may be explained.

### **Ignoring the economic development of poor families.**

Promoting the development of underprivileged households in rural regions was the primary goal of rural development. For the continued economic growth of these families, however, several financial accommodations are being made. Numerous things are offered without cost. The result is chronic reliance for the poorest households. Therefore, there is no economic growth for the impoverished despite agriculture's sustainable development.



### **Regardless of the sustainable development of agriculture.**

The First Five Year Plan marked the beginning of agricultural development initiatives. For the quick expansion of agriculture, several chemical pesticides and fertilisers were utilised. However, there hasn't been any attempt by the government to use these items quantitatively. At one point, the overuse of chemical pesticides and fertilisers resulted in a significant rise in agricultural output. Chemical fertiliser used, however, eventually has the reverse impact on the agriculture industry. There were issues with agricultural development. In other words, consistent sustainable growth of agriculture was not possible as a result of negligence during the planning phase. Rural families experience the exact reverse of this.

### **Ignoring developments in agricultural & supplementary industries.**

Small and marginal farmers make up the majority of farmers in our nation. The development of annexation and ancillary enterprises was prioritised since the economic circumstances of this category cannot be addressed by agribusiness alone because to the low holding area. But the intended beneficiaries in society were not reached by the programmes. The benefits were not provided by the government. Large farmers and local dignitaries benefitted from such plans. In a same vein, there has been a rise in the tendency of corruption throughout the execution of the programmes. The administration's failure to promote small and medium-sized companies in rural regions prevented the development of disadvantaged households.



### **Insufficient production of new jobs.**

During the planning phase, employment generating programmes were undertaken in rural regions using this methodology. These programmes primary goals were to boost rural economies by creating jobs and long-term productive wealth. The employment creation programme was implemented with a lot of faults, and because achieving the objectives was so important, the anticipated assets could not be produced. Therefore, these rural issues could not be solved by poverty and unemployment.

### **Lack of efficient water allocation.**

From the first Five Year Plan onwards, provision of water for agriculture did not receive much attention. Huge water reservoirs and several large dams have been built. However, the authorities disregarded the water allotment. Water theft and large-scale water wasting were issues since there was no distinct mechanism for distributing water. Eventually, irrigation was not used for the anticipated agricultural. Therefore, agricultural development was constrained.



### **Ignoring Vocational Education.**

One form of educational system serves both rural and urban locations in our nation. This educational system dates back to the British era and placed more value on formal education. In this educational system, professional education is unimportant. A formal education makes one incapable of supporting himself. The formal schooling system produces clerks. While this strategy works well for offices in cities, it does not work well for companies in rural locations.



### **Neglecting Health Facilities.**

In remote places, the government health system is operational. Health facilities are made available through this system at no cost or at significant discounts. Health issues, however, don't seem to be getting better because of a negligence by healthcare system. Rural health officials are hesitant to work there, too, at the same time.



### **Ignoring the development of natural resources.**

Resources from the natural world have a significant role in rural development. These resources include things like the elements of land, water, forests, oceans, cattle, and minerals. Natural resources might be used indefinitely during the planning phase to support brisk economic growth. These natural resources do not appear to be adequately protected or developed, nevertheless. To safeguard natural resources, several laws have been passed. However, the law has failed to fully apply it. Natural resource development has thus been improperly carried out.

### **Ignoring the development of commodity markets.**

The commodities markets must be efficient and flawless for the growth of the agriculture industry. Agricultural farmers, meanwhile, suffer significantly in rural regions from the business class. There is a significant range in the price of the product that is offered to farmers as a result of the numerous superfluous middlemen functioning in the commodities market. To regulate intermediaries and enhance markets, the government has established regulated markets. The farmers' scam, however, has persisted since there is no longer any government oversight over these marketplaces. In other words, it appears that throughout the planning phase, the growth of the commodities markets was disregarded.

### **Regardless of the guaranteed price of the commodity**

The government has no influence on the price of agricultural goods, with the exception of a few commodities, even if there has been improvement in the sector of agriculture throughout the planning era. It is the farmer's responsibility to get the farm's guaranteed price. When setting the pricing, one must consider the production costs as well as the farmers' profitability. Commodity prices, however, are very erratic because of non-fixed pricing. Due to the government's disregard for agricultural produce price, farmers' economic development is being negatively impacted.

### **Neglect of Development of Cooperative Sector.**

However, a lot of focus was placed on growing the cooperative sector in our nation at this time. Cooperation helped to prioritise rural development. The cooperative sector has seen a lot of politics throughout time, though. Political leaders started to enjoy the advantages of collaboration. Because of this, the co-operative industry suffered. Although the government has supported the rise of the cooperative sector, the co-operative sector's growth is being overlooked.

This means that during the planning phase, important components of rural development did not receive the required attention. For the growth of these industries, a sizable financial allocation was provided. However, it has overlooked sustainable and high-quality development as a result of rising corruption tendencies.

### **Summary**

The above comment shows that rural development was neglected during the planning period. Considering the economic development of the people for the development of rural areas, development of agriculture, a supplementary business of joint ventures, provision of water, development of natural resources, development of markets, etc., rural development can be done properly.

### **Check your progress.**

1. Comment on the neglect of rural development during the planning period.

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## 1.9 C. CURRENT STATUS OF RURAL DEVELOPMENT

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In India, rural development has received a lot of attention since the planning phase. Important portions and constituents of the rural areas were given special consideration in the budget for each year of the five-year plan. Additionally, other initiatives that defined various methods and developed tactics were put into place. The objective of rural development has not yet been met.

### **Agricultural development:**

From the first five-year plan to the twelfth, special provisions were established for the growth of agriculture in the nation. Different programmes were developed for small and medium landowners. A little boost in agricultural output has resulted from this. But only select regions' farmers profited from it. As a result, the majority of farmers still practise conventional agricultural techniques including permanent drying. Farmers must commit themselves since their expenses and revenue from agriculture do not balance. The farmers of Vidarbha and the Marathwada farmers in Maharashtra might serve as examples in this respect.

### **Irrigation facilities:**

Large provisions were made for the construction of medium and large dams during the design phase in order to promote perennial agriculture by providing the agricultural region with the maximum amount of moisture. In remote regions, small irrigation projects were prioritised. However, irrigation goals were unable to be achieved. Only 36% of the entire agricultural land now has permanent water delivery infrastructure. The remaining territory is dry ground. In other words, existing irrigation development has not been acceptable.

### **Electricity generation:**

The industry's development is said to be impacted by the power supply aspect. Along with home usage of power, agriculture and manufacturing depend on an adequate supply of electricity. Therefore, producing power was the main focus during the planning phase. The production of power also increased. However, the government was unable to meet the demand for power in rural regions. On the contrary, the electrical issue got worse. Agriculture and other industries suffer as a result in rural regions. That is to say, even while the availability of power is crucial for rural development, the existing scenario is not ideal.

### **Communication system:**

In order to communicate current technology in rural regions, it was decided during the planning phase to provide internet access in every community. This goal could not be achieved, nevertheless. The current state of the communication infrastructure in rural regions does not seem to be particularly effective.



### **Transportation system: -**

During the planning phase, the goal of enhancing the transportation network and tying all the villages to the metropolis was established. A focus was placed on building a minimally necessary network of roadways linking rural settlements. In the majority of villages, roads linking cities were built. Even in this situation, however, it seems like many communities are short in roadways. The towns that have been given access to road transportation have subpar roads.

### **Health facilities:**

For each and every person of the nation to have access to medical care, the government has established a network of healthcare institutions. For the next 2000 years, everyone's health objectives will be determined. It was decided to make certain health initiatives national initiatives. This was covered by a sizable cash provision. However, because there is no centralised system for managing health in rural regions, there is no suitable environment for effective health programmes at the health institutions. So the prevalent health issues also manifest in rural communities.

### **Development of weak factors:**

The development of weaker elements was prioritised in order to promote economic and social equality in rural regions. For the development of weaker components, independent development initiatives were established under the Five Year Plan. These initiatives were beneficial to the economically strong rural households. As a result, 8% of rural households are currently considered to be below the poverty level. Malnutrition is a major issue in rural regions.



### **Employment generation: -**

In rural locations, seasonal businesses account for the majority of the local economy. As a result, there are many occupations available in rural regions throughout the particular season. Other times, there are serious issues with work. To generate work in rural regions, several employment development schemes were developed and put into action. However, the introduction of temporary job creation schemes, implementation issues, and improper handling were unable to generate many employment. The job issue is becoming worse every day in rural regions since there is little business there. Therefore, even in the current circumstances, the situation surrounding the creation of stable work is unsatisfactory.

### **Rural Industrialization:**

The Second Five Year Plan was given over a while on rural industrialization. It was expected that the raw material processing industries produced in the rural areas would be created in rural areas. However, due to the lack of capital supply and infrastructure needed to create the industry, great progress in rural industrialization could not be achieved. Even in the best case, many types of raw materials are sent to the city for processing.

### **Development of Cooperative Sector: -**

In the planning of the growth of rural industries via cooperation and economic development of the weaker parts, emphasis was focused on the development of the cooperative sector. Over time, cooperative credit societies were created. However, the cooperative sector was in decline as a result of corruption and pointless political party intervention. Numerous cooperatives started to close. Currently, the majority of co-operative societies are fragile. In other words, the scenario for cooperatives is not good.



Given the overall rural development situation, there are many problems of development in rural areas, despite spending a large amount of capital. Therefore, special emphasis should be given to many areas of rural development.

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## 1.10 SUMMARY

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The above comment shows that rural development has not been well developed. For rural development, the development of agriculture, irrigation facilities, communication system, transport system, health facilities, development of weaker components, employment generation, development of the co-operative sector will all contribute to rural development.

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## 1.11 CHECK YOUR PROGRESS

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- 1) Explain the neglect of rural development during five-year plans in India.
- 2) Examine the current status of rural development in India.

### References :

- 1) Prof Vitthal Sontakke Prof Devrao Manwar, Economic Growth and Development Sheth Publication, Mumbai June 2014
- 2) Dr M. Desai and Dr Nirmal Bhalerao Indian Economic System Nirali Prakashan, Pune 2015



## CO-OPERATIVE SECTOR

### Unit Structure :

- 2.0 Objectives
- 2.1 Preface
- 2.2 A. Concept of Co-Operation
- 2.3 The Inter-Relationship of Co-Operation and Rural Development
- 2.4 Importance of Co-Operative Sector
- 2.5 Benefits of Co-Operative Movement
- 2.6 A) Financial Benefits of Co-Operative Movement
- 2.7 Summary
- 2.8 B) Types of Cooperative Society
- 2.9 Positive Effects of Co-Operation All Over the Country
- 2.10 C) Causes Of Decline of Co-Operative Sector
- 2.11 Remedial Measures to Remove the Drawbacks in Cooperative Sector
- 2.12 Summary
- 2.13 Self Study
- 2.14 Reference Books

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### 2.0 OBJECTIVES

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After reading this chapter, you will understand the following -

- 1) To study the characteristics of co-operatives.
- 2) To study the types of co-operative credit.
- 3) To study the structure of co-operative in India.
- 4) To understand the progress of the co-operative movement.
- 5) To study Inter relationship between co-operation and Rural Development.
- 6) To understand various benefits of co-operation.

- 7) To study the committees appointed for the development of co-operation in India.
- 8) To study positive results of co-operation in India.
- 9) To study the causes of decline of co-operation.
- 10) To suggest remedies or removing drawbacks of co-operation movement.

## 2.1 PREFACE

England was the birthplace of the cooperative movement. A significant growth in manufacturing, trade, and transportation occurred during the Industrial Revolution. Thousands more employees were being harassed in addition to this, though. But overall, capitalism has a lot of problems. There were philosophers who cared about the wellbeing of the average person throughout this time. These cunning and imaginative intellectuals sought to overcome the drawbacks of capitalism. The concept of the cooperative movement and cooperatives was born out of this.

Robert Owen the liberated industrialist seems to have made many efforts to improve the working conditions. Robert Owen is therefore known as 'the father of the modern co-operative movement'.

However, the cooperative movement in Germany served as an inspiration for India. Rufesson established the first cooperative movement in Germany. India's rural credit organisations were created solely on the basis of this history. The first cooperative credit Low was approved in India in 1904. In the 1904 Act, non-lending institutions have no position. Additionally, there was no way for controlling the cooperatives by funding them. The Co-operative Societies Act was created in 1912 to address these shortcomings and expand the co-operative movement. Cooperative societies offering services for buying, selling, insurance, and homes were authorised under this Act. Under the 1912 Act, the Registrar of Co-operative Societies was assigned the responsibility of establishing, regulating, and promoting cooperative societies.

This resulted in a significant rise in the number of cooperatives and members. The Mac Lagen Committee had been created by the government to keep track of this development. In 1915, this committee turned in its final report. A statute known as the "Amendment Act" was passed in 1919 on the recommendation of this committee. A separate ministry was established for cooperation as a result of this law, which transferred responsibility for cooperation from the Central Government to the State Government.

## 2.2 A.CONCEPT OF CO-OPERATION

Co-operation is the word derived from the latin word co-operety. The idea of co-operation is as old as history of mankind. From the hunter- gatherer to modern - day thinking, people with natural instincts come together and

help in times of trouble. The practice of working without paying each other's field has been well known throughout India since ancient times.

### Definition

- 1) According to Mr. Vaikunthlal Mehta co-operation is a broader movement in which individuals with similar needs voluntarily come together to meet same financial goals.
- 2) Indian co-operation Act (1912) - According to the principle of co-operation, the co-operative society is the institution which promotes the financial interest of its members.



### Characteristics of Co-Operatives

The following are the main features of co-operative.

- 1) According to prevailing co-operative law co-operative society has to be registered.
- 2) At least ten members are required to set up a co-operative society.
- 3) Membership of co-operative society is voluntary.
- 4) Co-operative society is governed by a democratic system. Co-operative society operates according to the principle of one person one vote.
- 5) Considering the interest of members is the main objective of the co-operative society and not to make profit.



## 2.3 THE INTER-RELATIONSHIP OF CO-OPERATION AND RURAL DEVELOPMENT

Cooperation is a potent tool for coordinating the economically underprivileged segments of society and fostering their economic growth. India has an unbalanced regional development. In terms of economic health, metropolitan areas are better off than rural ones. Urban regions have been the sites of the growth and development of the goods and services industries. In rural locations, there are primary sector businesses like agriculture. Due to antiquated production methods and a lack of capital, the productivity, production, and yield of the agriculture industry are poor. Small- and marginal-land owners make up 72% of farmers.

There, agriculture is mostly practiced as subsistence farming. In addition, there are a significant number of farm labourers who lack land. After the industrialization process, in fair to good condition are traditional craftsmen. Thus, the majority of society is the economically weaker section. In 1904, the cooperative movement was started in response to this. This initiative has accelerated the pace of developing India's rural areas. Fishermen, farm workers, landless farmers, rural labourers, and workers are among the categories that are protected because they are economically weak. The atmosphere in society is thawing. Basically, societal improvements may be effected without the use of bloodshed or terrorism. Rural cooperation and development have influenced illiterates to pick up reading and writing and alcoholics to behave better. Throughout the country, prosperous cooperative organisations have assisted struggling farmers and fishermen in escaping the grasp of predatory lenders. The efforts of cooperative societies were also beneficial in furthering them.

### Check your progress.

- 1) Explain the cooperation and correlation between co-operation and rural development.

## 2.4 IMPORTANCE OF CO-OPERATIVE SECTOR

In the context of the co-operative movement Mr. Culf says, "Co-operative movement extravagant person accumulator, businessman improved the wine market and uneducated person was motivated to read and write" According to the above words a review of the progress of the movement can be taken as following.

### 1) Renewal of rural life and all around development -

Co-operative societies were given special consideration for rural development throughout the planning phase while taking the Indian scenario into consideration. Rural residents should also contribute to the development of their communities, not only the government. The cooperative movement was born out of this. There have been efforts made to revitalize and improve rural areas on many fronts. Through cooperative societies, the government has made short-term, medium-term, and long-

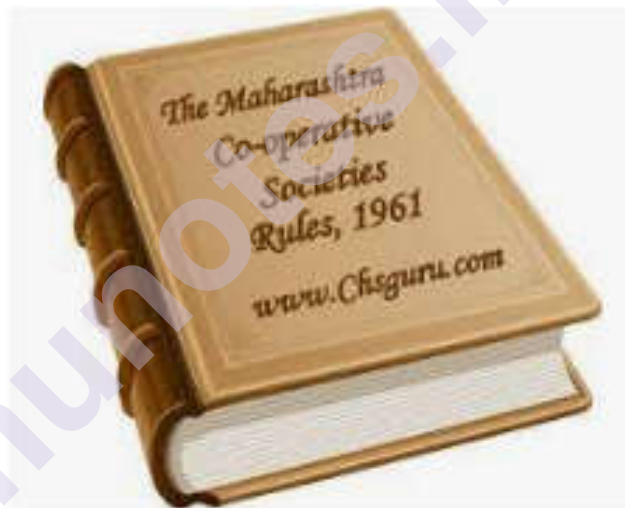
term loans. The poor were given loans based on their needs, and their requirements were met.

## **2) Powerful means of Economical Development -**

The co-operative movement is supposed to be the powerful means of economical development of India. Co-operation is the golden mean connecting capitalism and socialism.

## **3) Need of Co-relation between Government and co-operation -**

Government and cooperation have a strong relationship. Co-operative societies were established prior to independence with the support and oversight of the government. However, upon independence, the government aided the economies of the societies in order to strengthen their financial position. Co-operatives were subsequently created with the assistance of the government. However, when the government was unable to function, it attempted to do so by utilising all of the cooperatives. As a result, the crucial connection between cooperation and government has been made.



## **4) Empowerment to co-operative societies -**

After the 4th Five Year Plan, throughout the post-independence era, emphasis was placed on empowering cooperative organisations. There have been initiatives to lessen the reliance of co-operatives on the government and to facilitate their financial growth.

## **5) Support to Establishment of Co-operatives -**

‘Co-operative societies means rural credit supply societies’ was the only form in the pre-independence period. Considering the post independence period, various types of co-operatives of credit, agricultural and non-agricultural, urban and rural economically weaker section were created during the post independence period and these institutions did extraordinary work in their respective fields.

## 6) Emphasis on co-operative education and training -

The government designated the cooperative institution for education and training as a "summit institute." There were several institutions and colleges that offered cooperation courses. The construction of consumer cooperative stores in colleges and universities was encouraged by the government. Many academic institutions operate consumer cooperative stores.

### Check your progress

1. Review the progress of the Co-operative movement.

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## 2.5 BENEFITS OF CO-OPERATIVE MOVEMENT

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In Maharashtra Shri. Dhananjayrao Gadgil, Vaikunthbhai Mehta and Padmashri Vitthalrao Vikhe Patil led the foundation of industry sector through co-operation. In 1949, the industry sector was established through the Pravara Co-operative sugar factory. The farmers in the drought area showed different direction not only to Maharashtra but also to country.

For many years rural areas were transformed through co-operation. Mehasana's co-operative dairy has taken the milk business to higher level. Maharashtra, which followed the foundation of its co-operation, made a white revolution and brought in a great flood of milk. Poultry farming is a sideline which flourished, and became a main business. Hundreds of millions of dollars were started to turn through eggs and chicken. Co-operative Credit Banks and Co-operative Banks started to form. Through this many small business have flourished, facilitating capital gains.

### Co-operative Super Factory

The fruits of development, The neglected sector of the society also started to see the fruits of the development. As a result, improved agricultural production, increased per capita income, created capital to meet the needs and created employment opportunities. The sugar factory became the centre of development of the area.

As a result, co-operative sugar factories have been set-up in many parts of the state of Maharashtra, in collaboration with Vikhe Patil.

Due to the strong rural economy, the deprived part of development succeeded in making great progress. In the social, political, economic, educational and other fields there were many persons who created many high level works and got name and fame were born in rural areas.

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## 2.6 A) FINANCIAL BENEFITS OF CO-OPERATIVE MOVEMENT

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- 1) Due to co-operation, the lending system in rural areas is clothes and loan is provided to the rural population at low rate.
- 2) The Indian economy was developed in a systematic way through co-operation. 50 to 60 percent of rural loan supply is provided through co-operatives.
- 3) With the establishment of co-operative credit bank in the rural area, the people of the rural areas had to get saving habits.
- 4) Co-operative sectors were created in many small and cottage industries. Many 'BALOTI' Businessmen were transformed into co-operatives.
- 5) While giving credit to the co-operative, giving priority to the productive work has increased the productivity of the farmers, by utilising loan.
- 6) Co-operative movement helped to bring about green revolution in the country. The agricultural developments, techniques were popularised with great efforts for development of agriculture.
- 7) The agricultural income market committee established a sales team to set up a farmers economic foundation as a deterrent to the farmer's fraud and harassment of agricultural marketing.
- 8) Rural development and farmers financial transformation has led to the sugar mills, cotton mills etc. many industries which process agricultural product.
- 9) Prevention of adulteration in various commodities, distribution of essential commodities through consumer stores to ensure the quality of the goods and welfare of the consumers has helped to enhance the financial wellbeing and standard of living of the individual.
- 10) The co-operative movement is a spontaneous co-operative movement established for the economic salvation of the members, so the members sincerely strive for development.
- 11) Co-operative movement operates on a democratic basis, in a fully democratic manners. Therefore there is a bar to financial abuse. Members receive all kinds of benefits.
- 12) While gaining the financial goals an interest of the members, the member's knowledge and understanding of self reliance and financial thrift increases.
- 13) Co-operation has created a movement to try to prevent the economic exploitation of the weaker section.

- 14) Co-operative movement is the co-ordination between labour division and specialisation while utilising development tools.
- 15) By maintaining private property, financial progress can be made through co-operatives.



## **B) EDUCATIONAL BENEFITS**

The Ken Principle is the training of the co-operative movement.

- 1) Different types of education is provided to the rural population.
- 2) The masses receive education for financial saving and come together for economic development.
- 3) Many organisations were created through co-operation. It helps to create trained staff, advanced class.
- 4) Co-operative training provides training for the united efforts to achieve economic goals and to achieve desired goals.
- 5) As the economic conditions of the members of the co-operative movement improve, they get a change in personality and get education of self help morality.

## **C) MORAL AND SOCIAL BENEFITS**

The co-operative movement stands on the foundation of morality so the following benefits of co-operative movement are important.

- 1) Co-workers and members of co-operative movement were made aware of the fraternity of service and integration of community life.
- 2) The members of co-operative societies are virtuous and aware of social responsibility. This idea created a good social and moral foundation.
- 3) Co-operative movement members' strong financial self reliance as the support service, element, saving habit etc, helped strengthen the economic and social foundation of the society.



- 4) The co-operative movement worked to transform society.
- 5) Through the co-operative movement, the social and ethical aspects of the society were united and the foundation of the country was resolved on the basis of ideological relations, equality etc.
- 6) Leadership can be achieved through co-operation. Therefore, the importance of the leader in the social context increases.
- 7) The dynamic leadership of the co-operative society accelerates the social reforms of the members.

#### **D) POLITICAL BENEFITS**

Co-operative is basically a democratic movement, so the political benefits of the movement of democracy are as follows -

- a. The foundations of co-operatives depend on the democratic system. Thus the lessons of the democratic system are obtained through the co-operative societies.
- b. The development of co-operative movement can happen if activists brought to power through democracy.
- c. The development of the movement is accomplished through the provision of financial resources for political co-operation and co-operation through power.

#### **Check your progress**

1. Explain the various benefits of co-operation movement.

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### **2.7 SUMMARY**

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Though the co-operative movement originated in England, the co-operative sector played a vital role in India's post independence period. The first Act of co-operative credit law was passed in India in 1904. Subsequently a number of co-operative laws were made and committees were appointed in India.

Social weakness from co-operation, farmers working for small holder farmers, rural artisan traders were sought to benefit economic, socio educational.

The co-operation has covered the agriculture sector, industry sector, co-operative fisheries, credit banks, dairy farming, processing industries etc. But the co-operative movement has failed in recent years.

### Cooperative Societies

The cooperative society is one of many distinct forms of commercial organisations. The purpose of cooperative societies is to benefit its members. In order to guard against any kind of exploitation by the socially and economically more powerful groups, this sort of corporate organisation is primarily founded by these groups.

Co-operative societies had achieved outstanding progress during planning period by all sides. The number of societies, member societies playing capital, share capital, co-operative banks, credit societies increased, but only numerically, not qualitatively. The percentage of passive or inactive societies was more. The share of credit supply to farmers was very small.

The co-operative movement was started for the development of the weak elements of the society and prosperity of the downtrodden people. It was expected that the co-operative movement should help the poor farmers, farm labourers, rural craftsmen, small merchants and businessmen for their economic development. But the co-operative movement was unsuccessful in achieving the objectives. The rural parts of India were always under the thumb of moneylenders and landowners. The small farmers prefer to take loan from moneylenders because the co-operative societies are not able to make the loan available in time. As a result, most of the farmers make suicide. The cases of suicide are increasing.

### Features of Cooperative Societies

- a. Registration is required for the cooperative society. The cooperative society has a distinct legal character from the community as a whole. After registration, it can make agreements and buy property under its own name.
- b. As it is a voluntary association, the membership is also voluntary.
- c. A member of a cooperative society has the freedom to join and to quit at any moment. Anybody is welcome to join, regardless of any discrimination. Before electing to discontinue affiliation with the group, the member must give a notice. The entrance or departure of its members has no impact on it.
- d. Working under the tenets of mutual aid and welfare is the cooperative society. So, its working is dominated by the principle of service. If there is a surplus, it is divided as a dividend among the members in accordance with the society's bye laws.
- e. The authority to make decisions rests with an elected governing committee. By exercising their right to vote, members choose the individuals who will make up the managing committee. To make crucial decisions about the management of the society, the governing committee was established.

- f. The level of responsibility for cooperative society members is limited. The maximum amount of liability is the capital that each member has invested. The required money are raised by individual society members.



## **TYPES OF COOPERATIVE SOCIETY**

### **1. Producer Cooperative Society**

The purpose of producer cooperative societies is to safeguard the interests of small producers. These organisations were created voluntarily by small producers with the goal of eradicating the capitalist class from the industrial production system. These organisations are established to safeguard the interests of small producers. Members of cooperative societies might be farmers, landowners, or proprietors of fishing businesses. Organizations for collaborative production include producers' cooperatives or industrial cooperatives. Thus, in order to compete with major producers, small producers may unite into cooperatives. These cooperatives aid producers in preserving their profit margins and in acquiring materials necessary for the creation of goods and services. First, producer members have the option of producing items on their own with the aid of the necessary raw materials, tools, and other equipment made accessible to them by the society. Products made by producer-members may be sold to the society for later sale or distribution to other society members or to other parties. Thus manufactured items may be sold to outsiders or dispersed among the society's own members.

Producers choose to collaborate or operate as independent businesses in order to improve marketing opportunities and production effectiveness. These cultures generate items to satisfy consumer demands. They carry out a variety of tasks, including processing, marketing, and distribution of their own goods. Their output may occasionally be sold to third parties for a profit, with a predetermined amount going toward the producers' welfare and general needs. In the first category, the producer-members are obligated to produce on a personal level rather than as social employees. The society agrees to give its members access to raw resources, equipment, and other

items. Individual production from each member is supposed to be sold to the society.



The producer-members may decide to work for the co-operative as paid workers rather than independently as independent contractors. The society provides manufacturers with the necessary tools and raw materials, then buys the finished product for resale or distribution to other society members or non-members.

This benefits all producers equally by lowering prices and burdens in each sector. The society maintains its members' access to raw materials, tools, and other equipment in this type of organisation as well.

Producers' co-operatives have not experienced much progress in India or in any other country of the world. They often tend to increase their operations much beyond their resources. It resulted in the paucity of resources soon forces them to go out of business.

Sometimes, they concentrate on capital intensive methods of production. There is a need of adequate support from the Government as also from specialised credit and financial institutions.

**Advantages:**

- a. The issue of extreme unemployment and underemployment in the nation may be effectively addressed through producers' cooperatives.
- b. Producers' cooperatives may be of tremendous assistance to independent contractors and craftsmen who may not be able to get the essential raw materials and tools on their own or sell their wares at a time when the return would be highest due to their poverty and backwardness.

Examples: NAFED, Mother Dairy, Amul, etc.,

## 2. Consumer Cooperative Society

The purpose of creating consumer cooperative societies is to safeguard the interests of consumers. Ordinary individuals create these societies in order to find cheaper ways to get the items they need on a daily basis. They were established to handle distribution for everyday consumables. These organizations buy items in bulk at discounted costs from wholesalers and then resell them at market pricing.

Such groups set up consumer cooperative shops to serve this objective. Such a society allows anybody to join by paying a small membership fee or becoming a shareholder by purchasing a share. Even someone with little financial resources may join a co-operative and take advantage of all the advantages that come with it. People who want to buy goods at fair prices are inclined to join consumer cooperative associations. Such communities do not use intermediaries; instead, they buy their goods directly from producers and sell them to customers. Consumer cooperatives work to address the issues brought about by intermediaries, who may not only drive up the cost of services but also artificially drive down the supply of items on the market.

Customers from a certain region own and run these enterprises for their mutual benefit. Their goal is to offer daily necessities at the best price. Instead than focusing on making a financial profit, they try to serve the customers. The excess, which is given to the purchasing members in the form of a bonus on purchases, stands in for the difference. Consumers' cooperatives aren't set up with a profit-making goal in mind, but if there is a surplus that may be utilized or some of it is moved to the reserve fund.



### Advantages

- a. Consumer cooperatives have been crucial in limiting the negative impacts of monopoly.
- b. It manages fair pricing and distributes other vital items as part of the public distribution system.
- c. They are able to create and implement a system that allows them to monitor the open market pricing of consumer products.



- d. The government's efforts to stop the increase in the cost of consumer products and basic commodities have given India's consumer cooperatives a boost.
- e. In these societies, customers voluntarily band together to establish and run specific enterprises that cater to their fundamental requirements.
- f. Consumer cooperatives operate much as businesses do. Out of the excess produced by it, expenses for publicising and providing facilities to the staff and members are also covered.
- g. If there is any leftover money, it is divided among the members in accordance to how much they spent with the cooperatives.
- h. Consumer cooperatives have also helped to produce things that are beneficial to society.

### 3. Credit Cooperative Society

Co-operative credit societies in India were first formed under the Co-operative Credit Societies Act, 1912. These cooperative societies are set up with the objective of helping people by providing credit facilities. The co-operative credit societies are voluntary associations of people with moderate means formed with the object of extending short-term financial accommodation to them and developing the habit of saving among them. These are generally member-owned financial cooperatives. They provide loans at a minimal rate of interest and flexible repayment tenure to its members and protect them against high rates of interest that are charged by private money lenders. They provide credit and financial services to the members at competitive prices.

Each and every depositor has the right to become a member. To create a feeling of security among outsiders, who are frequently approached for loans, etc., the members of such co-operatives may undertake to bear unlimited liability for the debts owed by the co-operatives. The funds of these societies consist of share capital contributed by the members. The liability of the members is generally unlimited. In granting loans, the society may show consideration for the poorer people who apply for smaller loans. Besides, loans may generally be granted only for productive purposes. Credit co-operatives collect their capital by selling shares to the members. This also induces the members to take a keen interest in the management of the co-operatives. These societies are meant to provide bank accommodation to the members, and may be formed by small artisans in towns or by office clerks, mill workers, etc., in cities.



### **Advantages**

- a. These are organized to provide short-term financial assistance to members and to promote the habit of saving.
- b. Co-operative credit societies provide loans to the members for productive or other purposes. Such loans may be secured against mortgage of immovable assets of the members.
- c. The co-operatives charge low rates of interest on the loans granted by them.
- d. The society may, or may not, ask for security of immovable property while making loans. The rate of interest charged from the borrowing members is kept as low as possible.
- e. This helps the society in raising funds from outsiders and ensures that every member shows keen interest in the working of the society.

### **4. Housing Cooperative Society**

Housing cooperatives are groups of people who are either interested in owning a home or renting a place to live for a fair and reasonable price. These organisations are founded in order to assist persons with low incomes in building homes at affordable prices. Providing housing options for the society's members is the main goal of housing cooperative societies. They want to help the members who are having housing issues. In metropolitan regions with a severe housing shortage, housing or building societies are typically created. As a result, lower income groups may take use of housing advantages at a relatively reasonable cost, which is advantageous for them.

Members have the opportunity to pay in installments to acquire the homes when they are built. They build apartments or provide members sites on which they may build the homes of their choice themselves.

All persons who wish to buy their own home or rent a place at a price they can afford are eligible to join these cooperatives. Each member is required to purchase a minimum of one share, and their liability is often only as much as their capital investment.

Such cooperatives have a sizable amount of their assets in the form of real estate. Members deposit money with the cooperatives, and they get interest payments in return.



### Advantages

- A member of this group strives to purchase a residential home at a lesser price.
- In addition to offering financial aid, housing cooperatives may also give their members building supplies.
- These societies also offer public services like roads, lighting on the streets, parks, a post office, water, electricity, sanitization, etc.
- Through these organisations, people can obtain not only financial aid but also the savings associated with buying construction supplies in large quantities.



## 5. Marketing Cooperative Society:

The marketing cooperatives, also known as co-operative sales societies, are nonprofit groups of independent producers established to coordinate the selling of their products. In order to eliminate intermediaries from the supply chain and give small producers a platform to offer their goods at reasonable costs, these organisations were established. Due to their limited resources, the individual producers might not be able to wait for extended periods of time. These kinds of societies are especially beneficial to farmers, small producers, and craftsmen.

These organisations have been created with the intention of assisting small producers in marketing their goods. Members of this group are the producers who want fair rates for their products. Producers band together in marketing cooperative societies to sell their goods.

They eliminate the middlemen to ensure a favorable market for the products and boost the members' comparative advantage. The output of each individual member is gathered. To sell the product at the best price, cooperative societies carry out a variety of marketing tasks like shipping, packaging, warehousing, etc.

It occasionally also carries out other incidental tasks including processing, grading, storage, packaging, assembling, insurance, etc. To meet their immediate needs, the societies offer loans or advances to their members. Additionally, it compiles marketing data and provides it to the producers for their advantage. According to each member's contribution of goods, the sale proceeds are divided among the participants.

### Advantages:

- a. When the market is favorable, goods are sold.
- b. Such cooperatives are highly helpful for workers and craftsmen who lack basic sales training and who wish to profit from bulk selling.
- c. The society agrees to offer these items at a reduced price by cutting out intermediaries by pooling the production of its many members.
- d. According to each participating producer's participation to the pool, the sale revenues of the produce or goods are divided among them.



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## **2.9 POSITIVE EFFECTS OF CO-OPERATION ALL OVER THE COUNTRY**

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The movement of credit supply in the field of co-operation was started in 1904 in India. In the fields of without credit supply also co-operative movement expanded because of the law of co-operation, 1912.

During 1919-1929, the member of credit supply and non credit supply societies increased rapidly. After the second world war which began in 1939, the co-operation movement developed rapidly. After independence the planning commission was established on 15th March 1950.

In 2001-02, there were 956700 basic credit societies in our country. 100% villages were covered by them. Likewise co-operative Banks, land development banks, consumer stores, whole sellers - all of them had remarkable increase in number. In this connection, positive results of co-operative movements on our country should be realized.

### **POSITIVE RESULTS OF CO-OPERATION**

#### **1) Dynamic Development of the nation -**

Due to co-operation, agricultural area in national economy is dynamically developed. In the result, development of nation is also accelerated. Agricultural economy is very important in view of our nation.

#### **2) Growth in national income -**

In rural areas, agricultural industries are established due to the development of co-operation area. Dairy, farming, sugar business, manufacturer of manure or fertilizers, spinning mills, rice mills, oil mills, process industries or trades have developed the nation and national income rapidly and certainly.

#### **3) Growth in agricultural income -**

Co-operation is very much useful in continuous, growth of agricultural income. Improved seeds, advanced technology, insecticides, chemical fertilizers, water-supply, protection of crops etc. are the facilities due to which there is growth in agricultural income.

#### **4) Development of supplementary and sideline trades -**

Motivation is given to various supplementary and sideline trades by co-operation. Poultry farming, maintenance of pigs or swine sheep farming etc. occupations are established. Hence load on farming business is lessened.

#### **5) Creation of Integrated Society -**

Difference due to religion, cult, caste, colour, race, gender are declining. All are on the same level. This is only because of co-operation. As a result, unity, harmony, peacefulness have created on integrated society.



### **6) To check Monopoly and Exploitation -**

Co-operation checked the monopoly of the industrialists. Economic exploitation through unreasonable price and profit stopped by co-operation.

### **7) Development of Rural Area -**

Due to co-operation the rural area is developed. There is prosperity in the area. The picture of rural area is drastically changed. There are sugar factories, dairy farming, thread mills and other plans of development.

### **8) Protection to the weak -**

Weak elements come together for their economic interest. They protect each other. To avoid exploitation then have support of co-operative societies.

### **9) Public Education -**

In the view of public education the importance of co-operation has grown up. Co-operation is the important means.

### **Check your progress**

1. Explain the Positive Effects of Co-operation in India.

From 1928, Royal commission on agriculture to 2009 High power committee on co-operation twenty six committees were appointed for the development of co-operative movement. Still there is decline in this movement. There are various reasons for this. We shall discuss them later.

### **Check your progress**

1. Write names of various committees appointed by the Indian Government.

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## **2.10 C. CAUSES OF DECLINE OF CO-OPERATIVE SECTOR**

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### **1) Unreasonable Interference:**

Development of co-operative movement occurs by the inspiration of Government. Sometimes the government has tried to make the base of the movement weak.

### **2) To encourage corruption:**

The Government encouraged corruption by doing these things - to dissolve co-operative societies, to appoint an administrator, appointments.

### **3) One family rule:**

Political parties and authorities used co-operative societies as a means of accumulating personal property, power and wealth. And in co-operative societies, one family rule grew luxuriantly.

#### 4) Economically weak societies:

Societies registered under co-operation Act are found to be economically weak. Societies like these cannot develop rural area. This is an allegation against these weak societies.

#### 5) Unequal Growth:

The co-operation movement has not developed regional are as creating balance among them. West Maharashtra is taking the lead in co- operation field. In other parts this movement has not been progressed. On nation level, Maharashtra, Tamilnadu and Punjab have 60 to 70 % people under the influence of co-operation. In other states is only 25%. Hence, uneven growth is the weakness of this movement.

#### 6) Passive Societies:

Co-operative societies are expected to work for the objectives which they are founded. But many societies work for some time or period and then become passive. These societies economically become weak.

#### 7) Principles of Co-operation :

Co-operative services, self dependence and savings are the principles in western countries which are not formed inculcated in India.

#### 8) Co-operative help:

Co-operative movement in India is most probably dependent on the help of Government.

#### 9) Failure in fulfilling the needs of members:

Several co-operative societies are economically weak. They are dependent on Government or other high level societies. They have a little fund. Therefore the members of co-operative societies have to seek the support of money lenders and goldsmiths.



### **10) Managerial Faults:**

Co-operative societies seldom get well trained and qualified staff. Therefore, slackness in audit, loan distribution, keeping record of dealings and transactions is always possible. There is not sufficient experience of running such societies. As efficiency decreases, members have no sufficient training, so they can't give expected co-operation. Rural credit supply review committee says that the great blame / defect in co-operative movement is lack of proper and efficient management.

### **11) Insufficient Capital:**

Lack of sufficient capital is a fundamental flaw in the co-operative movement. Generally, members should put their saving in co-operative societies. Therefore co-operatives are expected to meet their playing capital needs. But in fact, the co-operative societies have not been able to raise capital through deposits. District central co-op. banks and state co-op. bank etc. could not attract deposits. The Reserve Bank plans to provide credit to the co-op. societies at the discounted rates but such schemes are not sufficiently implemented by the state co-op. bank. In addition, the organisation has less capital on the number of members is less. As a result, the co-op. societies cannot meet the financial needs of the members.

### **12) Negligence towards common members:**

The main objective of this movement is to protect the virtual interest of the poor common people of rural area. But the movement has neglected them. The rich farmers or rich members get special advantages. The poor and common needy farmers don't get them. They don't get loan in time, because they are insisted on some points such as the value of their land, other property and assets to pledge or mortgage and capacity to pay off his debt. The rich farmers in Maharashtra, Karnatak, Tamilnadu, Andhrapradesh did get more debt. Small farmers could get less loan.

### **13) Problem of outstanding payment:**

The problem of outstanding payment is serious about the co-operative credit supply societies. The percentage of arrears is 25 to 30%. This percentage is increasing due to following things; to give loan to ineligible persons, to pay no attention to the use of loan etc. Common farmers and weak elements cannot repay the loan in time. Rich farmers also several times evade to repay the loan. Political pressure is also an obstacle in this matter. Consequently grows the outstanding payment. Due to this there are limitations on the growth of credit supply societies.

### **14) Entrance Politics:**

Politics has entered in co-operative movement. Interference of political persons in the daily proceedings and important decision is increasing. Even, the co-operative societies have been made the mediums of political parties. It is said that 'Indian co-operative societies are made powerful agencies of politics.' Political persons are always accommodated in the

board of these societies is made for political benefit. Hence, the benefit of common members is neglected. Decisions of ordinary welfare of members are not taken. So they don't feel the earnestness and affection regarding the societies. Defects other than these are also found in the co-operative movement.

### **Check your progress**

1. The reasons of decline of the co-operative societies.

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## **2.11 REMEDIAL MEASURES TO REMOVE THE DRAWBACKS IN COOPERATIVE SECTOR**

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### **THE CO-OPERATIVE SOCIETIES**

The co-operative movement in India has economical social, educational advantages. Still it is necessary to think about the defects of these societies.

India, the co-operative movement in Maharashtra is a model. The development of some regions is made through this movement. For example, Padmashri Vikhe Patil in Pravara nagar, Nevasa region of Shri. Gadakh, Niphad of Kakasaheb Wagh, Warna nagar region of Tatyasaheb Kore, Vasantdada Patil's Sangali surroundings, Yashvantrao Chavan's Satara region, area of Pune district, co-operative societies in Kolhapur district are taking lead in development.

The role of co-operative movement in Maharashtra is supposed to be very important. Still, there are various defects or drawbacks in it, therefore we have to take measures to put an end to the drawbacks. The measures are as follows -

#### **1) Rebirth of Primary co-operative societies**

Many of Primary co-op. societies are very weak and incapable. They must try to be strong and capable. All passive societies should take rebirth.

#### **2) Necessity of solid and strong co-operative field or area**

The development in co-operative field must reach the poor and common members. The success in co-operation is dependent on desiring people.

#### **3) Education and training of co-operation**

If, in the true sense, co-operative movement is to be independent and truthfully developed, it is necessary to emphasize on co-operative education and training. This is recommended by the co-operation committee of 1965.

#### **4) Need of self denying leadership**

For the development of co-operative movement, there was need of self denying leadership. This leadership should not come from politics. Aims and objectives of the development of society should be one goal of the leadership. It should represent the common people of this country.

### **5) Emphasis should be placed on collecting deposits**

Co-operative societies should keep their focus on collecting deposits to improve their performance. Co-operative societies should increase their member's habit of saving and earning. The central co-op. bank should increase the number of branches to facilitate deposit collection. Due to lack of funds, co-op. societies can accumulate a large amount of deposits thereby reducing the definition of funds.

### **6) Making management efficient**

Like other business organisations, co-operation should make its management efficient. The Board of Directors, CEO and employees should discharge their responsibility in an honest manner.

Also necessary changes should be made in Board of Director to improve the quality of management. The Board of Director must be restricted on occasion represent active and experts from different department should be included in the Board of Directors as per the RBI rules.

### **7) Raise your own funds**

Co-operatives should emphasize to raise their own funds. Co- operatives rely on others for playing capital. This is not appropriate for the financial independence of the co-operatives when members take out a loan, they should be obliged to purchase a certain percentage of the loan amount. The habit of saving and the thrifting among the members should be increased.

### **8) To reduce the domination of the relatives**

If the co-operative movement is to promote growth, it is necessary to reduce the domination of the persons who have a vested interest. For this care should be taken while giving the membership of co-op. societies, Moneylenders, rich merchants, brokers, mediators should not be given membership of co-op. societies. In the Board of Director of the organisation, the seats should be reserved for the small farmers and the weaker section. Employee appointment must be made strictly and by rules. Provide education and training to employees.

### **9) Recovery of outstanding payments**

Another important suggestion for improving the institution should give priority to recovery of dues. The members should be explained the importance of the outstanding recovery. Legal action should be taken against the person who refuses to repay the loan. By doing appropriate changes in loan policies crop loans should be given in large quantity. Insurance on crop loans will reduce the problem of pending money.

### **10) Supervision and Auditing**

Co-operative societies should supervise and audit their affair in a transparent manner. District central banks should take initiative to monitor



the functioning of primary institutions. Also the organisation should be regularly audited by an authorized auditor.

### **11) The Goal of equal Development**

The co-operative movement in India has not been uniformly developed in all states. Some are progressive and some are backward in co-operative movement. For this, more work should be done with a careful eye on the underdeveloped states. The concerned state government should increase the share capital of the co-operatives.

#### **Check your progress.**

Write down measures to overcome the short comings of co- operative movement.

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## **2.12 SUMMARY**

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Co-operative societies progressed during the planning period in India. Co-operative societies increased in numbers, members, playing capital, share capital, co-operative banks, store homes, co-operative credit societies etc.

But this increase is a numerical increase and not a qualitative increase.

Politicians participated in co-operative establishments for the development of the weaker sections of the society. Co-operative movement was perished by the politicians, Many factors are responsible for degradation of the co-operative movement.

Co-operation in India has provided people with economical, social, educational benefits. To date the co-operative movement has suffered tremendously and various measures can be suggested to overcome the shortcomings of the co-operative movement.

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## **2.13 SELF STUDY**

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- 1) Write positive results of India's co-operation.
- 2) Write down the results for the downgrade of co-operation.
- 3) Suggest the measures to overcome the short comings of co-operation movement.
- 4) Explain the concept of co-operative movement.
- 5) Write the meaning and definition of co-operative movement.
- 6) Review the progress of the co-operative movement.
- 7) Explain the relationship between co-operation and rural development.
- 8) Write the various benefits of co-operative movement.
- 9) Explain the causes of decline of cooperative sector.
- 10) Explain the types of Cooperative societies,

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## SHRINKING OF AGRICULTURAL LAND

### Unit Structure :

- 3.0 Objectives
- 3.1 A. Acquisition of Land for Infrastructural Development
- 3.2 Special Economic Zone (Sez) Concept
- 3.3 Objectives of Special Economic Zones
- 3.4 Functioning of Special Economic Zones
- 3.5 Types of Special Economic Zones
- 3.6 Concessions in Special Economic Zones
- 3.7 Land Acquisition for Special Economic Zones
- 3.8 Land Acquisition for Roads and Railway Projects
- 3.9 Land Acquisition for the Midc Project
- 3.10 Land Acquisition for Housing
- 3.11 Development Projects
- 3.12 Roads
- 3.13 Airports
- 3.14 Summary
- 3.15 Self-Study
- 3.16 B. Impact of Acquisition of Land on Rural Areas
- 3.17 Inadequate Rehabilitation of Various Projects in the Country
- 3.18 The Effects of Land Acquisition for Sez
- 3.19 C. Project Affected Peoples Movement
- 3.20 Movement Against Pen Alibaug, Panvel Sez Project
- 3.21 Movement Against Jaitapur Nuclear Power Project
- 3.22 Kudankulam Nuclear Power Plant Anti-People Movement
- 3.23 West Bengal - Singur - Nandigram Uttar Pradesh, Gurgaon,  
Haryana Anti-Sez Movements
- 3.24 Summary

### 3.25 Self-Study

### 3.26 References

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## 3.0 OBJECTIVES

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After reading this chapter, you will understand the following.

- 1) To study the concept of Special Economic Zone.
- 2) To study the operating system of the Special Economic Zone.
- 3) To study the types of special financial zones.
- 4) To understand land acquisition for the Special Economic Zone.
- 5) To study the imperfection of rehabilitation in various projects.
- 6) To study the effects of land acquisition for SEZ.
- 7) To understand the context of the movements of the affected citizens.

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### 3.1 A. ACQUISITION OF LAND FOR INFRASTRUCTURAL DEVELOPMENT

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All the countries are consciously trying to accelerate the industrialization of the country and promote the growth of national and international level in order to survive the globalization process. Part of this effort is the creation of a special economic zone.

The concept of special economic zone has been introduced in the world a long time ago. The first trading area was established in England in 1896 in Manchester to promote trade. To date, more than five hundred trade zones have been established worldwide. After 1978, China developed a special economic zone. Special mention is found in Hainan, Siammen, and Rosebay.

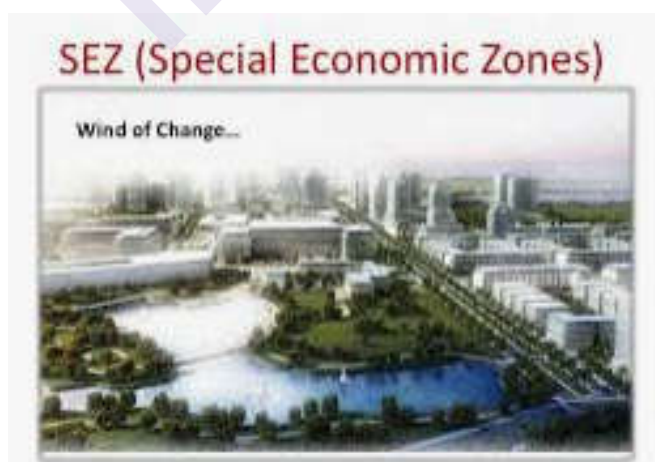


In 2000, Commerce Minister of India Murasoli Maran visited SEZ projects in China and saw the progress of China through four special economic zones, 15 free trade zones, 49 economic development zones and 53 high tech industry sectors. Government of India put forward the

proposal. In 2004, the Government of India adopted the concept of Special Economic Zone. The Government of India passed the Special Economic Zones Act in 2005. The law was passed in Parliament and signed by the President on June 23, 2005. From February 10, 2006, this Act was implemented throughout India.

SEZ projects started in various states of India. The government made land acquisition for that. Of the total 403 projects in the country, 273 proposals were approved. For this, it announced that one lakh 25 thousand hectares of land is being acquired in the country. Efforts are underway for the SEZ project in 22 states and union territories, including Maharashtra. The Government of India has granted many concessions to SEZ projects for economic development. There is no 100% direct foreign investment, water is not taxed on other services. The excise tax, sales tax, market tax, income tax and other taxes levied by the state government have been exempted. Also, the government has announced that markets will be made available in the country for various goods and services created from the special financial sector.

Land acquisition is very important for a Special Economic Zone. In 1998, the government passed a bill to acquire 95 thousand hectares of land. Fertile land was also acquired along with the land. In order to increase the means of transportation, a large number of lands were acquired in the country for road and railway projects. All these lands were owned by the cultivators of agricultural production and the common farmers. In the country, 14 thousand kilometers long highways were constructed while 11,719 hectares of land has been lost under the railway tracks. Industrial Development Corporation was established in Maharashtra in 1962. In every district of Maharashtra, MIDC Land acquisition was done for. A large amount of land has been acquired for the services of roads, water, lodging, electricity, transport etc. MIDC covers 53,120 hectares of land across Maharashtra. Land acquisition was done for



Due to the high population growth in India, land is used for housing. Large land acquisition was done for power projects in the country. Land acquisition was done in 2011 for 2,46,757 km of roads. There was a great deal of land acquisition for the airport port. It was the time of

displacement of all these people as the houses of millions of families, acquisition of farm lands were made.

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### **3.2 SPECIAL ECONOMIC ZONE (SEZ) CONCEPT**

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A special economic zone is a deliberately fixed duty-free region. This region will be considered as a foreign country for commercial transactions and fees and taxes. Industries in such areas can be set up to produce goods and supply services.

The Special Economic Zone is a geographical region, and the laws applicable in that region have the flexibility in the laws and regulations of the industry to benefit other economic policies of the country. The laws of such areas are different from those of other sectors. Therefore, they are called Special Economic Zones.

Definition: "Special economic status terrain is a special economic zone."

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### **3.3 OBJECTIVES OF SPECIAL ECONOMIC ZONES**

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Private sector investment in the economy of the country is to consider the industries and thereby increase employment, and increase international trade. This is the main purpose of the Special Economic Zone. In addition, there are some other important purposes.

- 1) To develop infrastructure in the country.
- 2) To attract foreign investment for investment by creating special economic zones in the country.
- 3) Employment generation through Special Economic Zone.
- 4) To promote industrial development in the economy.
- 5) To reduce the economic imbalance in the country.
- 6) Increase international trade with the help of special economic zones and obtain foreign currency
- 7) Eliminate the difficulties of export growth by eliminating the obstacles to increase foreign exports.





### Check your progress: -

1. Write down the objectives of the particular financial sector.

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### 3.4 FUNCTIONING OF SPECIAL ECONOMIC ZONES

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The Central Government has enacted laws for the creation and development of special economic zones, and in accordance with the provisions of that Act, the creation of special economic zones is necessary. A Board of Approval has been created to build the SEZ. It consists of 19 members.

The Secretary is the Chairman of the Department of Commerce. Also representative of Central Board of Excise and Customs (C.B.E.C.), Ministry of Finance, Department of Finance, S.E.Z. Commerce, Accounts, Department of Industrial Policy and Promotion (D.Y.P.P.) Joint Secretary in the Ministry of Science and Technology, Ministry of Small Industries, Agriculture and Village Industries, Ministry of Home Affairs, Ministry of Défense, Ministry of Environment and Forest Development, Ministry of Law and Justice, Ministry of Urban Development, Ministry of Marine, Government-appointed representative of the State Government, Director of International Trade. Representative, Development Commissioner, Director of the Management Committee of India, Foreign Affairs of India professor, Joint Secretary, Ministry of Commerce and Ministry of Industry are members.



The above committee allows planning and special field visits at the departmental level. The Development Commissioner of each department is the designated secretary of the Board.

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### 3.5 TYPES OF SPECIAL ECONOMIC ZONES

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#### 1) Special financial zones for different types of products:

In this type of special economic zones, industries can produce three or more goods in one area or industries can be started to supply goods and services in different sectors.

## 2) **Special financial zones for specific sectors:**

Industries are created to supply only one sector services in the Special Economic Zones for different sectors.

## 3) **Special financial zones at the airport or port:**

Special economic zones at ports or airports are established to produce two or more goods in the same area, and industries that supply products or services to two or more sectors.

From 1997 to 2000, the Government of India revised its import-export policy. In 2000, Indian Commerce Minister Murasoli Maran visited SEZ projects in China. China looked at the progress made through looking at the four special economic zones of the country and 53 high tech industry sectors, and forwarded a similar proposal to the Government of India for the progress of the country. In 2004, the Government of India adopted the concept of Special Economic Zone. The Government of India passed the Special Economic Zones Act in 2005, in order to protect exports from India and to keep up with the increasing pressure and demands of the business class. The law was signed by the President on June 23, 2005 by passing this law in Parliament. From February 10, 2006, this Act was implemented throughout India.

Of the total 403 proposal in the country, 273 were approved. 1,25,000 hectares of land is being acquired in the country and 22 states and Union Territories including Maharashtra have launched efforts.

Number of State wise SEZ projects in India.

As per the Special Economic Zones Act 2005

(Information up to April 30, 2017)

Table no.-01

Sr.No	State	Total No of SEZ
01	Andhra Pradesh	19
02	Chandigarh	02
03	Chhatisgad	01
04	Gujarat	16
05	Haryana	26
06	Kerala	18
07	Madhya Pradesh	27
08	Odisha	03
09	Rajasthan	03
10	Tamilnadu	31
11	Telangana	29
12	Uttar Pradesh	10
13	West Bengal	04
	Total	189

Division of State-wise SEZ Projects (As of March-April 2013)

Sr. No	State	Formal recognition	With major approvals	Suggested SEZ
01	Andhra Pradesh	109	06	76
02	Chandigarh	02	00	02
03	Chattisgad	01	01	01
04	Delhi	03	00	00
05	Dadara Nagar Haveli	02	00	00
06	Goa	07	00	03
07	Gujarat	47	07	32
08	Haryana	46	03	35
09	Zarkhand	01	00	01
10	Karnataka	62	01	41
11	Kerala	29	00	20
12	Madhya Pradesh	19	02	06
13	Maharashtra	103	16	64
14	Nagaland	02	00	01
15	Odisha	10	01	05
16	Pondicherry	01	01	00
17	Panjab	08	00	02
18	Rajasthan	10	01	10
19	Tamilnadu	69	06	53
20	Utter Pradesh	34	01	21
21	Uttarakhand	02	00	00
22	West Bengol	20	03	11
	Total	588	49	386

Source: Ministry of Commerce and Industry, SEZ in India IOSR journal of Business and Management March-April 2013 P.P.18-27

It is clear that 588 formal projects have been approved in 28 industrial areas of the country. By 2008, 1,93,474 people have been employed through 1122 units in India. It accounts for 37% of Indian women.

### 3.6 CONCESSIONS IN SPECIAL ECONOMIC ZONES

It was decided to create special economic zones to accelerate the economic development of the country as well as create employment opportunities and improve the living standard of the people. The law was passed in 2005. It is known as the Special Economic Zone 2005. The Act will provide various facilities and concessions to industries in the particular financial sectors.

### **Concessions in Special Financial Sector: -**

- 1) One hundred percent of foreign direct investment is allowed in industries in the special financial sector.
- 2) Water, electricity and other services required by the industries in SEZ will be provided on priority basis without any tax.
- 3) There will be no restriction on the transportation and distribution of electricity by the industry in the special financial sector.
- 4) Industries in this area will be exempted from tax, sales tax, market tax, income tax and other taxes levied by the State Government.
- 5) Export industries will be exempted from service tax and central taxes.
- 6) Corporate contracts will be exempted for any ten years in a period of fifteen years..
- 7) There will be full consent for the construction of open space in the Special Economic Zone and use it on a commercial basis.



- 8) The industries concerned will be empowered to allow the security of special economic zones to operate on the basis of convenient business like restaurants, hotels and entertainment centres.
- 9) Industries belonging to the Special Economic Zone can be employed in other parts of the country.
- 10) Banks can be opened in special financial sector for foreign banks. They will be exempted at 100% tax for three years on their profits.

- 11) 100% exemption will be given for the first five years on exports of goods manufactured from Special Economic Zone. In the next five years, 50 percent will be discounted. There will be a discount on the return on investment.
- 12) The relevant provisions of the Industrial Disputes Act and other labour laws have been relaxed for the industries in the Special Economic Zone.

After 1990, the Government of India adopted a new economic policy in terms of structural development. This strategy is called globalization policy. This strategy is mainly considered as liberalization, privatization and globalization. In the process of globalization, foreign companies were allowed to create industries in the country. At the same time, the concept of housing construction and special economic zones was adopted. In the concept of structural development, large scale land acquisition was done for the special economic zones and housing projects. This resulted in a large decrease in soil. The nature of the problem is as follows.

### 3.7 LAND ACQUISITION FOR SPECIAL ECONOMIC ZONES

After the country adopted the policy of globalization, land acquisition decision was taken for the Special Economic Zone. In 2011, 581 SEZs were approved. Of these, 130 SEZs were allowed to operate. 154 SEZ has been approved in principle. All these projects are mainly in the states of Andhra Pradesh, Tamil Nadu and Karnataka. 150 thousand hectares of land will be acquired for this SEZ project. This will affect one million acres of agricultural production and the loss of agricultural production of Rs 212 crore.

In 1998, the government passed a bill to decide on 95,000 hectares of land. The government was of the view that the land being acquired for the SEZ would be a waste of agricultural land. But over time, it was proved that fertile farm land was acquired.



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### **3.8 LAND ACQUISITION FOR ROADS AND RAILWAY PROJECTS**

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The post-independence population had to increase with the increase in the transport population. In this land was acquired for road and railway projects. Most of these lands were under cultivation. 14 thousand kilometers long highways have been constructed in the country. 11,179 hectares of land has gone under the railway. The citizens of Konkan area gave their agricultural land for the Konkan Railway Project. Apart from this, land acquisition has been done for the district route.

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### **3.9 LAND ACQUISITION FOR THE MIDC PROJECT**

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After the establishment of the State of Maharashtra, the Government of Maharashtra decided to set up the Maharashtra Industrial Development Corporation in 1962 to increase the industry. Under this decision, the roads, water, drainage required for the establishment of business in each district at a particular place. The policy was to provide electricity, go-down, transport etc. Eight sections were fixed for this. Maharashtra Government decided to create 53920 hectares of land in Maharashtra and decided to create 229 industrial areas in these eight zones. It was the cultivated land of the peasantry. But the farmer class deposited these lands in the court to create jobs in his area.

After 1998, the central government approved the MIDC. Plans to start 74 SEZ projects in Maharashtra on the acquired land.

MIDC In some parts of the project, the industry started to receive grants from the government to start industries in the rural areas. Therefore, the farmers have demanded that the land be returned to the government. Kudal MIDC in Sindhudurg District Farmers in the area have begun demanding hope in 2012.

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### **3.10 LAND ACQUISITION FOR HOUSING**

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At present, sufficient land is being utilized for industrialization and housing projects. The main reason for this is urbanization. Nearly 70 percent of the rural population is migrating to the city due to lack of employment. Land is being used extensively for housing as a convenience to their residents.





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### 3.11 DEVELOPMENT PROJECTS

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A special economic zone is a deliberately excluded territory. The region will be considered as a foreign country for commercial transactions and taxation fees. Industries in such areas are established to produce goods and supply services. These are called development projects.

Through this project, electricity was supplied to 57 million pumps. The target for generation of 78 thousand megawatt was set in the Eleventh Five Year Plan. But that could be achieved up to 50,000 megawatt.

Electricity generation is mainly as follows.

- 1) Nuclear power
- 2) Thermal power
- 3) Solar power
- 4) Wind power
- 5) Hydropower.



In addition, the Biogas generates electricity from the plant. Nuclear power is the most destructive form of electricity generation. Thermal power generation in India requires land acquisition.

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### 3.12 ROADS

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Maharashtra had 2,46,757 km long roads in 2011. Roads need to be developed for transport, freight and tourism etc. About 5.2 per cent of the

total land in the country has been acquired for road construction projects. A large number of people have been rehabilitated. As a result, agricultural production is decreasing.

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### **3.13 AIRPORTS**

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Air transportation is the fastest and most expensive transportation service in all of the transportation. Air transport is useful for exporting goods. But transportation is not as economical as transporting heavy cargo. Around the airport, around ten to fifteen kilometers, people suffer from daily noise pollution.

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### **3.14 SUMMARY**

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The government called on foreign companies to create special economic zones in the country. Land acquisition was done for the Special Economic Zone. At the end of March 2007, 33,807 acres of land had been acquired. Land acquisition for road railway has taken place. MIDC There has been a great deal of land acquisition. The acquisition of fertile water for the creation of special economic zones has led to the question of farmers' livelihoods. It will also face food shortage. The grain will have to be imported in the next period. Landless, unemployed, marginalized people will migrate to the city for employment. This will put a strain on the city's civic amenities. Sleep deprivation in cities will cause serious problems like health problems, social security etc. Recognizing that there is a need for special economic zones to sustain the globalization environment and to accelerate the development of the country, various concessions have been made for the creation of special economic zones of the government. Many changes have been made to the law. However, there is still doubt about the benefits of SEZ generation.

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### **3.15 SELF-STUDY**

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- 1) What is a Special Economic Zone, as well as the type of Special Economic Zone.
- 2) Write down the objectives of the Special Economic Zone.
- 3) Explain the nature of the special financial sector.
- 4) Explain the various land acquisition for the Special Economic Zone of India.
- 5) Explain the various concessions given by the government for the special financial sector.
- 6) Explain the nature of land acquisition for M.I.D.C. project.
- 7) Explain the effects of land acquisition for the particular Special Economic Zone.

### 3.16 B. IMPACT OF ACQUISITION OF LAND ON RURAL AREAS

After independence, various projects were started in the country for the development process. It can be mentioned mainly dam projects, industrial projects, dam projects, energy projects, etc. These have been largely incomplete in rehabilitation. Citizens who are affected by the dam project, when starting any project, the displaced citizens need proper rehabilitation. But the rehabilitation of the beneficiary bureaucrats in the Indian administration and the ineffectiveness of the leaders' congregations is not completely fulfilled.

### 3.17 INADEQUATE REHABILITATION OF VARIOUS PROJECTS IN THE COUNTRY

- 1) After independence, Koyna Dam in Satara district was built for the availability of electricity in Maharashtra. Land acquisition for the dam displaced 27000 families from villages in the area. Out of which only 1500 families were properly rehabilitated. The fact is that the rest of the family has not been rehabilitated. A total of ten thousand families were shifted from place to place because of them.
- 2) Sangli - 500 families were evacuated in the Warna dam on the border of Kolhapur district. These citizens have not yet been properly rehabilitated. Therefore, these citizens are constantly agitating under the leadership of labor liberation forces.
- 3) This is the situation of Gadanadi project in Ratnagiri district. Tin Vira Dam in Raigad district, Timbapuri project in Aurangabad district has not been properly rehabilitated. There are many such projects in Maharashtra in the face of problems.



On behalf of the project victims, Bharat Patankar, the chairman of the Shramik Mukti Dal, should set up a separate Gram Panchayat to dispose of the displaced population of five hundred or more. Provide vocational education to the young children of these displaced persons. Provide jobs for displaced children in industries. The government should arrange to provide the poverty line ration card to the displaced families. Establish

women's Self Help Groups and provide them with financing for small businesses. Priority should be given to the displaced persons where the government lands. House-building projects should be implemented for them. Such demands continue continuously through the Shramik Mukti Dal. But the government does not get that much positive response. In some places, the project victims were rehabilitated and given land, but there was no agricultural water supply. The Ambakhore project was started in Raigad district. Its water would be provided for fifteen hundred acres of agricultural land in the Kharpat village. But the water was given to the nearest industrial estate without giving it to the Kharpat village. For the past 35 years this water has been released into the Arabian Sea without being used for agriculture.

- 4) After independence of the dam to construct Narmada Dam Project in Gujarat state, the Central Government decided. Later, the state of Gujarat decided to raise the dam to 122 meters. Under this dam, about 2.5 lakh people have been displaced from 19 villages in Gujarat, 33 in Maharashtra and 133 villages in the state of Madhya Pradesh. The struggle for rehabilitation for 28 years continues. Today, more than 48000 families live in their hometown. It is not certain when the water will come to that town and when those villages will become waterlogged.

For the past 28 years, Medha Patkar has been struggling nationally and internationally in conflict and court battles over displacement issues in the Narmada area. The fight continues today.



Many ministers, other political leaders, officials, journalists and thinkers of the central and state governments visit the area. Whole regrets admit. But the action doesn't happen. As a result, many families have started deserting. There is a clear provision for drowning before rehabilitation. The Madhya Pradesh government has completely failed to resettle more than 40,000 families in 193 villages. As per the agreement, the height of the dam is expected to affect the lives of villages in the West Niphad region of Madhya Pradesh where 500 to 3000 families are living. In the future, the height of the dam will create water supply in all the villages and man-made tsunamis will come and destroy all these areas.

1200 to 1500 families in Maharashtra are still windy today. Their eligibility checks have not been outdated. Hundreds of citizens who have been tested for eligibility are waiting for land. Not all of the 19 villages in Gujarat are also rehabilitated.

- 5) Other projects in the country During the post-independence period, dam projects took place in which many citizens lost their rights to land and biodiversity in the area. Following is the status of some dams and displaced persons in the country.

Referring to the Sardar lake in Gujarat on the above point, refrain is avoided here.

Table No. 01

Population displaced by various dam projects in India

Sr. No	Name of the Project	State	Displaced Population	The displaced tribal population of these
01	Karjan	Gujarat	11600	100%
02	Damanganga	Gujarat	87000	48.70%
03	Ukai (Reserver)	Gujarat	72300 52000	18.92%
04	Maheshwar	Madhya Pradesh	20,000	60.00%
05	Bodhghat	Madhya Pradesh	32700 12700	73.91%
06	Icha	Bihar	30,800	80.00%
07	Chandil	Bihar	37,600	87.92%
08	Koil Karo	Bihar	66000	88.00%
09	Maython and Panchet	Bihar	231974	56.46%
10	Masan(Reserver)	Bihar	93874 3700	31.00%
11	Mahibajaj Sagar	Rajasthan	38400	76.28%
12	Polawaram	Andhra Pradesh	1,50,000	52.90%
13	Ichapalli	Andhra Pradesh	188100 38100	76.28%
14	Uppar Indravati	Odisha	18500	89.20%
15	Pong	Himachal Pradesh	80,000	56.25%
16	Bhakra Nangal	Himachal Pradesh	116000 36,000	34.76%
17	Tultuti	Maharashtra	13600	51.60%
	Total		7,11,574	

Source- Statistical information Irrigation Department Govt. of India



The above table shows the status of the displaced population by state. Tribal people have to bear the brunt of construction projects of Dharan. The citizens shown in the table are not yet rehabilitated. They have to consistently hit the road and fight a court battle.

Thus, in other projects, the question of fulfillment of rehabilitation also arises. But the proportion is low. For example nuclear power, mining, seaports, jetty construction projects etc.

**Check your progress:**

1. Write about the displacement of the citizens displaced by the construction of various dam projects built in India.

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### **3.18 THE EFFECTS OF LAND ACQUISITION FOR SEZ**

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**1) Reduce the size of farmland:**

As explained above, 150 hectares of hectare land will be acquired for SEZ. Its impact on one million tonnes of agricultural production and a loss of Rs 212 crore will not be possible without the definite impact on the size of the farm.



Ten thousand hectares of India and the cultivated land in Pen, Uran and Panvel taluks of Raigad district were allotted to SEZ of Reliance Company. The impact of this on overall agricultural production will not be known until the situation is realized.

**2) Small remuneration to farmers:**

While acquiring land for SEZ, it was announced that the government would acquire agricultural land. But in some places, agricultural fertile land was acquired. But his compensation was not enough.





**3) Eliminate human rights in natural resources on acquired land:**

Natural Resources has full authority over the natural resources for the period for which the land for the SEZ is given to a particular company for a period of time. For example, if a river or drain is going through the ground, citizens will not have the right to get water from the river. Animals do not have a natural right to drink water. This is the condition of the company to allow the land to enter the fence.

**4) Eliminate edible pasture, herbs and other components:**

The land for SEZ has been edited, which limits the rights of citizens on fodder, herbs and other constituents. Animals may become deprived of fodder. In addition, rare earth herbs and biodiversity can be adversely affected.

Obviously these factors can have a very adverse effect on the environment.

**5) Loss of hunger strike may result in future hunger strike:**

Farmers' land is edited for SEZs. They get paid for the occasion. But the ordinary farmer tries to live a luxurious life by spending this amount of money if he has more money. The farmer does not know how to invest this amount in various schemes. Suddenly due to the large amount of money, he was in a position where to spend and where not to spend it. This situation seems to be the case with some SEZ editors.

**6) The possibility of increased pollution, thus threatening biodiversity:**

The large chemical industry that is undergoing the SEZ project can create a strong potential for chemical pollution. The climate of the area has been feared to have a profound adverse effect. They are more likely to have air and water pollution. The impact of pollution on human and biodiversity cannot be ruled out as a threat to the environment in the future.

**7) Decrease in food production:**

Large land masses for SEZs are likely to reduce food production. This could adversely affect the food grains of future growing population and

allow it to be time to rely on food imports. The decline in food production is not affordable to our country.



#### **8) The impact of local industry on competitive environment:**

The SEZ project launches big manufacturing industry. The production in this industry is going to be huge. Eventually the cost of this product will be lower than the local product. As a result, local businesses will not survive the competition. On occasion, local industry may be closed down.

#### **9) Probability of increasing financial inequality:**

The Indian economy remains as an agricultural economy till date. But if farmers go to agricultural land, their way of production can be closed.

The SEZ project is believed to have a large number of jobs in the industry. But in the process, the machinery is widely used for production, so most of these jobs are of technical nature.

Occasionally, if the recession is slow, the industry may shut down. Labor cuts can be abrupt as a result of the production. This can have an impact on the financial life of the workers. In all these situations, the possibility of increasing economic inequality in the future cannot be ruled out. Thus, editing the land to SEZ can have the same effect as above.

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### **3.19 C. PROJECT AFFECTED PEOPLES MOVEMENT**

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a) After independence, the planning process was adopted for the development of the country. With the implementation of the health program, population growth was accelerated. It was necessary to facilitate development in proportion to the increasing population. This led to the initiation of dam projects especially at the country level. Many projects like energy projects, roads, railways, industrial colonization projects had to be constructed. As the cities grew, the population of the cities increased. As a result, the need to build new cities around the city intensified. The government had no option but to do land acquisition for all those processes. In the end, the government had to implement this route for the development of the people, but it raised the question of living the displaced people. It created a movement in the country for the rights of the affected citizens. The nature of this movement is as follows:

Many development projects have been implemented in the country, which has to be mentioned in the dam projects as incomplete in terms of rehabilitation. When building a dam, hundreds of villages and millions of people have to be displaced to save the dam's water. When the dam is constructed, the law states that the citizens should be rehabilitated first, after which the dam projects should begin. But till date such a situation has not been created in our country. The rehabilitation of the people has not yet been completed since the year the dam project was started in the country. Citizens are constantly conducting protests through various organizations.

1960 Chali koyana dam was constructed in Maharashtra. It displaced 27000 families. Of these, only fifteen hundred families were resettled. The remaining families have not yet been resettled. The fact is that in 1960 forty thousand families were relocated from their original places.

Warna dam was built on the border of Sangli, Kolhapur district. Five hundred families were evacuated from that location. These citizens are not yet resettled. This is also the case with the Gadanadi project in Ratnagiri district. Tin Veera Dam in Raigad district and Tambhapuri project in Aurangabad district also did not have proper rehabilitation of the citizens. There is a continuous agitation under the leadership of Bharat Patankar, chairman of the Shramik Mukti Dal, for the rehabilitation of dam projects across Maharashtra.

The State Government is notified of various activities for the rights of the citizens. The government has not yet found a place for the rehabilitation of the citizens, despite the civil marches, agitations and fasting on the occasion. The construction of this large dam on the Narmada lake in the state of Gujarat is almost complete. The dam is 122 meters high.



b) Under this dam, 19 villages in Gujarat, 36 in Maharashtra and 133 in Madhya Pradesh are underwater. About half a million citizens have been displaced by the dam. Today, more than 48,000 families have not been rehabilitated.

For the last 28 years under the leadership of Medha Patkar, the movement for the proper rehabilitation of the citizens has been underway. This

movement is moving in a democratic and democratic way. The project of these dams has an impact on the tribal community. Such a movement is taking place for the tribal question. Medha Patkar and her colleagues have also continued their efforts to continue the court battle in many displacement issues. Medha Patkar raised her voice not only in the country but also in the United Nations. Because the World Bank had financed the construction of all the dams in Narmada. Medha Patkar pointed out this problem to the World Bank. In this way, there is a continuous movement of citizens in relation to other ideas of the country.

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### **3.20 MOVEMENT AGAINST PEN ALIBAUG, PANVEL SEZ PROJECT**

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Reliance SEZ partner ten thousand acres of land was acquired in Penn, Alibaug and Panvel taluks of Raigad district. The land belonged to 45 villages. Rice was grown especially in the soil.

This was the largest project in India. After some time the citizens realized this. Under the guidance of social worker Meteor Mahajan and others, agitations in the Raigad district stood against the SEZ project. Citizens started fierce opposition to land acquisition. At times, the agitation turned violent. The police stabbed several times. The women made a significant contribution to the movement. The rehabilitation movement has consistently shown that this battle will not be fought on the streets alone. So the citizens knocked on the door of the High Court. The High Court recently directed the farmers to return the land to the government, ruling that the SEZ be canceled.

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### **3.21 MOVEMENT AGAINST JAITAPUR NUCLEAR POWER PROJECT**

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A 6400 MW nuclear power project is proposed on the sloping land of Jaitapur and Madban in Rajapur taluka of Ratnagiri district. This edited land is slaughtered. In some lands, rice is grown. The government expects the project to start considering the state's power shortage. There is no denying that the project could adversely affect the fishing business of local fishermen. The government is not ready to discuss citizens directly. Citizens say the project is going against the wishes of the citizens.

The citizens here have launched a spontaneous agitation against the project.

In 2012, an agitated young man was shot dead and killed. The government is trying to diversify various forms of aggression against the agitators. But the protesters, despite their suppression by their leading leaders, have continued to try to maintain the tone of the movement. An agitation against the Jaitapur nuclear power project is under the leadership of Balasaheb Patankar's colleagues in the area.

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### 3.22 KUDANKULAM NUCLEAR POWER PLANT ANTI-PEOPLE MOVEMENT

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Kudankasam is a 2,000 MW power plant and Kalpakam is a 500 MW power plant in Tamil Nadu. A furnace of Kudankasam has been completed. The situation here is in Jaitapur proportion. Due to the overwhelming opposition of the citizens, the work of an experiment of this project has almost been completed. Your government is not aware of disaster management. This matter is also worth considering.

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### 3.23 WEST BENGAL - SINGUR - NANDIGRAM UTTAR PRADESH, GURGAON, HARIANA ANTI-SEZ MOVEMENTS

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In West Bengal Singur, the government had given 997 acres of land to Tata Motor Company for the production of warm cars. The farmers protested against it and brought the project to justice in another state. At the same time, it was decided to give land for SEZ to Salim Group and Indonesia Construction Company. At that time the farmers of Nandigram had a huge uprising. A similar uprising took place in Dadar in Uttar Pradesh, Gurgaon in Haryana. Farmers took an active part in this rally. The government uses the satellite map and decides to acquire the land when deciding to acquire land for SEZ. But the farmers' question also needs to be considered.

A garment project was going to be held in Malvan, Deoli taluka in Sindhudurg district. The project was strongly opposed by the citizens here. This caused the project to drop before coming. The land in the village of Kalne in Dodamarga taluka was edited for mining project and the hills were cut. Citizens are constantly raising their voice against this issue. Sometimes the political congregation tries to break the citizens' voice using force.

Sterlite was a copper smelting project in Ratnagiri around 1990. This would cause huge air pollution. Expert boards of the government wrote a false report of pollution in a hotel in Mumbai

Citizens study this report and find out the experts of the government. A huge front was drawn in the history of Ratnagiri. Citizens' movement succeeded in moving the Sterlite project from Ratnagiri to elsewhere. In this way, people are constantly on the run against people's welfare projects in India.

#### **Check your progress:**

Describe the movement of the citizens affected by the project.



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### 3.24 SUMMARY

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After independence various projects were undertaken for economic development in India. Due to the huge population growth in India, the question of infrastructure has been created, the need for land for houses, land made for special economic zones, land acquisition has displaced many families. The questions of the displaced are serious. Many of the displaced people were in different parts of the country. These battles were for their rights. After independence, various dams were created to supply water to industries and cities. Besides, many villages have been affected due to various reasons such as energy projects, mining industries, railway projects, highways, pipelines (fuel and water) transportation. Those affected by the project have many problems. Were they released? Or will all these displacements get justice in the future? This is the question.

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### 3.25 SELF-STUDY

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- 1) People from various projects in the country are not rehabilitated. Explain.
- 2) Explain the effects of acquisition of land for SEZ (SEZ).
- 3) Explain the movement of various project affected citizens.

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## WATER POLLUTION

### Unit Structure:

- 4.0 Objectives
- 4.1 Introduction
- 4.2 Water Quality Requirements
- 4.3 Causes and Types of Water Pollution
- 4.4 Effects of Water Pollution
- 4.5 Remedial Measures to Control Water Pollution
- 4.6 Summary
- 4.7 Questions
- 4.8 Reference Books

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### 4.0 OBJECTIVES

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After reading this chapter, you will understand the following.

- 1) The concept of Water Pollution
- 2) Causes of Water Pollution
- 3) The effects of Water Pollution
- 4) Measures to control Water Pollution

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### 4.1 INTRODUCTION

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Water pollution is the discharge of pollutants into underground groundwater, lakes, streams, rivers, estuaries, and seas to the extent that they interfere with ecosystem function or with the beneficial use of the water. The term "water pollution" refers to the contaminating of bodies of water, such as lakes, rivers, seas, and groundwater. We are all aware of how important water contamination is, especially as we increase the manufacturing of potentially dangerous compounds. The wildlife that depends on clean water for existence is also harmed by water pollution, which results in polluted water.

Water pollution can involve the discharge of energy in the form of radiation or heat into bodies of water in addition to the release of things like chemicals, debris, or germs.

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## 4.2 WATER QUALITY REQUIREMENTS

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It is uncommon to find pure water in the wild because of water's great propensity to dissolve other things. For instance, water that is suitable for fishing and swimming may not be suitable for drinking or cooking. A legal foundation for the prevention of all forms of water pollution is provided by water quality standards, which set limitations on the quantity of pollutants permitted in water, intended for a specific purpose.

Water quality guidelines come in a variety of forms. Stream standards establish permitted quantities of particular chemicals or attributes (such as dissolved oxygen, turbidity, or pH) allowed in such water bodies, depending on their assigned categorization. They categorise streams, rivers, and lakes on the basis of their greatest beneficial usage. The quantities of pollutants (such as biochemical oxygen demand, suspended particles, and nitrogen) that are permitted in the final discharges from wastewater-treatment plants are regulated by effluent (water outflow) standards. The quantities of particular pollutants that are permitted in drinking water that is distributed to households for domestic consumption are regulated by drinking-water standards.

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## 4.3 CAUSES AND TYPES OF WATER POLLUTION

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The chemical is referred to as a universal solvent since it can dissolve. This explains why it is simple to pollute water. The reasons of water contamination are as follows.

### a. Human activity

The majority of the causes of water contamination may be attributed to human activity. Therefore, water contamination is a result of people. The introduction of contaminants into a body of water is known as water pollution. These may be detrimental to aquatic creatures. Water contamination can, however, also be brought on by natural processes or occurrences.

Numerous pollutants, such as pathogenic bacteria, putrescible organic waste, fertilisers and plant nutrients, poisonous compounds, sediments, heat, petroleum(oil), and radioactive materials, can contaminate water bodies..

### b. Point sources of water

Either point sources or distributed sources contribute to water pollution. A pipe or canal, as those used for discharge from an industrial facility or a city drainage system, is referred to as a point source.

A scattered (or nonpoint) source is a very large, open region from which a variety of contaminants, such runoff from an agricultural area, reach the water body. Because the polluted water has been gathered and transported to a single location where it can be cleaned, point sources of water pollution are simpler to manage than distributed sources. Despite

significant advancements in the construction of contemporary sewage-treatment facilities, it is challenging to manage pollution from distributed sources, which continue to account for a significant portion of water pollution issues.

### **c. Household waste**

Pathogens (disease-causing bacteria) and organic compounds are mostly found in domestic sewage. All sewage from cities and towns is likely to include germs of some kind as pathogens are expelled in faeces, possibly posing a direct hazard to public health. The hazard organic matter poses to water quality is different. As bacteria and other microbes naturally break down organic materials in sewage, the water's dissolved oxygen level is reduced. This compromises the health of lakes and streams, where fish and other aquatic species need high quantities of oxygen to exist. Processes for treating sewage lower the amounts of pathogens and organics in wastewater, but they do not totally eradicate them. A lot of homeowners just pour their garbage into the pond. Additionally, septic tanks can be used in residences without access to a municipal treatment facility; however, these tanks ultimately leak into the earth and contaminate groundwater.



### **d. Micro organisms**

Additionally, a significant supply of plant nutrients, mostly nitrates and phosphates, is domestic sewage. Algal blooms, which are characterised by extremely fast and dense growths of algae, can occasionally result from excessive nitrate and phosphate levels in water. Because microorganisms utilise oxygen to consume algae during the process of decomposition, as the algae die, oxygen dissolved in the water decreases. The organic wastes are subsequently broken down by anaerobic organisms (organisms that do not require oxygen to survive), generating gases like methane and hydrogen sulphide that are hazardous to aerobic (oxygen-requiring) forms of life.

**e. Eutrophication- natural process**

Eutrophication is the process by which a lake transitions from a clear, clean state—with a low concentration of dissolved nutrients and a balanced aquatic community—to an algal- and nutrient-rich state, and finally to an oxygen- and waste-depleted one. Eutrophication is a gradual, inescapable process that occurs naturally. However, it can result in the early ageing and demise of a body of water if it is hastened by human activity and water pollution. When a body of water is eutrophized, a lot of nutrients are added, which causes algae to develop very quickly. This may reduce the amount of oxygen in the water, preventing fish from breathing. Additionally, this phenomena has the potential to discharge harmful poisons into the water, which can hurt or kill the majority of species, including people.

**f. Waste products released in water:**

One of the main causes of water contamination is the disposal of solid waste. Solid waste is produced by individual, household, commercial, institutional, and industrial operations and comprises garbage, junk, electronic waste, trash, and waste from building and demolition. The issue is particularly severe in underdeveloped nations since there may be insufficient infrastructure for efficient disposal of solid waste, as well as insufficient resources or regulations to prevent improper disposal. In certain locations, it's purposeful to dump solid garbage into bodies of water. If garbage or other waste is transported to bodies of water by animals, wind, or rainfall, land pollution can also turn into water pollution. It is possible for significant volumes of solid waste contamination in inland waterways to finally reach the ocean. Pollution from solid waste is ugly, detrimental to the wellbeing of aquatic habitats, and may directly affect species. Solid wastes are a source of toxic or hazardous waste because many of them, including plastic and electronic trash, degrade and release dangerous chemicals into the environment.

**g. Waste from industrial plants and chemical processing**

Sources of harmful chemicals include surface runoff including pesticides used on agricultural regions and residential lawns, as well as inadequately discarded wastewater from industrial plants and chemical processing

facilities (lead, mercury, chromium). Waste is deemed hazardous if it is poisonous, radioactive, explosive, mutagenic (damaging chromosomes), carcinogenic (causing cancer), and non bio accumulative. Surface runoff may introduce sediment (such as silt) into water bodies as a result of construction or soil erosion.



Scattered silt disturbs a body of water's natural equilibrium and blocks sunlight from penetrating. Additionally, it has the potential to interfere with the life cycles of fish and other species, and as it falls out of suspension, it has the potential to suffocate bottom-dwelling animals.

#### **h. Environmental heat dissolving oxygen**

Heat is regarded as a water contaminant because it makes water less able to store dissolved oxygen in solution and speeds up fish metabolism. Important game fish species, including trout, cannot thrive in waters with relatively little dissolved oxygen. The practise of releasing cooling water from power plants into rivers is a significant source of heat; the released water may be up to 15 °C (27 °F) warmer than the water found naturally. Thermal pollution may also be thought of as the rise in water temperatures brought on by global warming. Some businesses have the option of dumping their raw sewage right into rivers and other bodies of water. Thermal pollution is produced by the use of water as a coolant in several industries. A drop in oxygen levels brought on by rising water temperatures can result in the death of fish and other species.

#### **i. Pollution caused by petroleum**

When oil from parking lots and highways enters aquatic bodies through surface runoff, petroleum (oil) contamination occurs. Accidental oil spills from ships or fisherman trollies voyaging in the sea is another cause of water pollution. This oil endangers recreational areas and marine life by polluting water and causes of death of fish property in the sea. The rotten fish in the sea pollute water at large. Leakages and oil spills are examples of accidents. Particularly detrimental to the environment and marine life are oil spills. When big oil tankers, barges, or drilling rigs are involved in the catastrophe, this occurs. The Deep Water Horizon oil leak on April 20, 2010, is the most well-known oil spill.





#### **j. Deforestation**

Soil erosion may result from deforestation. These stray dirt fragments can pollute the water when they get into the body of water. This can cause the water to become exceedingly murky and has the potential to harm aquatic creatures mechanically (such as sand particles getting stuck in the gills). Fertilizers and other chemicals that might contaminate water are part of the agricultural boom.




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### **4.4 EFFECTS OF WATER POLLUTION**

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Our globe is already experiencing a severe water problem as a result of rising global warming and climate change. Additionally, as the world's population expands at an accelerating rate, water supplies are being contaminated at an increasing rate. Rapid growth in water pollution-related difficulties and challenges has increased the number of waterborne infections.

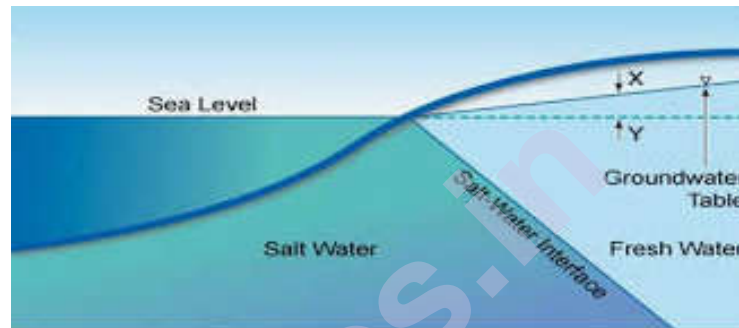
Understanding the root causes of water contamination is crucial for developing effective solutions to the problem. Water contamination has several causes, ranging from improper sewage disposal to rapid urbanisation. While reducing water pollution will need significant work, there are several practical methods that can aid in the decrease of pollution in all bodies of water.

#### **a. Effect on groundwater**

Many people get their drinking water from groundwater, which is available in rural areas and areas neat to rivers or dams. The rural people

rely on groundwater for their residential water supply. Because of the natural filtering that takes place when groundwater slowly moves through layers of soil, it may look perfectly pure, but dissolved chemicals, bacteria, and viruses can still contaminate it.

Chemical contaminant sources include mining and petroleum production, leaking underground storage tanks beneath gas stations, poorly designed or poorly maintained subsurface sewage-disposal systems (such as septic tanks), industrial wastes disposed of in improperly lined or unlined landfills or lagoons from unlined municipal refuse landfills, and industrial wastes disposed of in improperly lined or unlined landfills or lagoons. These sources heavily contaminate the water resources from the earth and affect the mankind.



#### **b. Salt water intrusion**

Due to urbanisation and industrialisation, rising groundwater withdrawal in coastal locations can result in saltwater intrusion. As the water table declines, seawater is sucked into wells. Oceans and estuaries contain enormous amounts of water, but their ability to naturally absorb contaminants is constrained. Marine life can be harmed by contamination from sewage outfall pipes, the disposal of sludge or other trash, and oil spills, especially the tiny phytoplankton that feeds the bigger aquatic animals. Hazardous waste can occasionally wash back to shore and strew beaches with ugly and deadly rubbish.

#### **c. Dead zones at coastal areas**

The yearly emergence of "dead zones" (i.e., hypoxic regions, where dissolved oxygen levels fall so low that the majority of higher forms of aquatic life perish) in some coastal locations is another issue with ocean pollution. The cause is the nutrient enrichment brought on by the simultaneous algal blooms and distributed agricultural runoff. Worldwide, there are dead zones; developed due to low level of oxygen level due to pollution of water.



#### **d. Effects on marine life**

The introduction of contaminants into a body of water is referred to as water pollution. Water-dependent species may become unwell or possibly pass away as a result of these contaminants. Water contamination typically has severe effects. This is true because water may dissolve a wide variety of compounds. If someone drinks polluted water, these toxins can readily infiltrate their bodies. Water pollution not only harms human health, but it also has an impact on biodiversity. For instance, the phenomenon known as eutrophication takes place when a body of water has a lot of nutrients. This can result in the body of the afflicted water losing all of its dissolved oxygen, thereby killing out fish and other aquatic life. It has an impact on the environment. Fish and other aquatic creatures may perish as a result of this.

#### **e. Endanger human life**

Water pollution may have disastrous effects; for instance, a plant that discharges extremely hazardous waste into the ocean has been a long-term cause of neurological disease in the city. The following are the effects of water contamination.

Human health is greatly impacted by water contamination, which has the potential to be fatal. A research estimated that 1.8 million fatalities globally in 2015 were attributable to aquatic illnesses. By contaminating drinking water, this can increase the risk of waterborne illnesses. Humans can be exposed to toxic compounds found in water by eating fish or other aquatic life. Chemicals released by water pollution are also released into the soil, where they may have an impact on plant or other food crop development.

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## 4.5 REMEDIAL MEASURES TO CONTROL WATER POLLUTION

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While there are many things that need to be done in order to safeguard the environment, reducing water pollution is one of the most crucial ways to keep the ecosystem healthy. There are many efficient methods that may help with this objective. When dangerous contaminants contaminate any body of water, water contamination develops. Typically, these compounds consist of bacteria and chemicals like oil. When pollution enters a body of water, the water's quality degrades and eventually turns harmful for both people and the environment.

The harm that pollution causes to the local ecology is the main aspect of how polluted water affects the environment. Numerous creatures that rely on a steady supply of largely healthy water will perish. Crabs, dolphins, birds, and fish frequently wash up on shore in waters that have grown too polluted. The cost of purifying the water goes up, tourist declines, local real estate prices drop, and commercial fishing is harmed, all of which have a negative economic impact.



### a. Water Cleaning and reuse

Large objects must be removed from the influent to avoid harming the facility's pumps, valves, and other machinery. Any water that has been used in a house, such as washing dishes, flushing toilets, or taking a bath, as well as some water from industrial usage and storm sewers, is considered wastewater and is treated and recovered with the hope that it will be clean enough to be released back into the environment.

It is crucial a wastewater facility meets these expectations or risk stiff penalty. The physical process of wastewater treatment begins with water cleaning and formulates reuse policy. If not done, it can damage pumps and impede water flow.

When purchasing a non-recyclable material, like plastic, it is preferable to reuse it as much as you can. By practising this practise, you will consume less of those things overall and less of them will enter the world's seas, lakes, and rivers. Try to choose the alternative that is most readily recyclable when given two choices for a certain item. For instance, glass bottles are far more environmentally friendly than plastic ones.

### b. Cleaning of Water Supply Mechanism

The filtration of water supply mechanism is an essential task to be carried out. Grit removal by passing influent over or through a grit chamber. To avoid harming pumps and equipment downstream, fine grit that enters the influent must be eliminated (or impact water flow). This grit needs to be taken out of the grit chamber since it is too tiny to be filtered out. The heavier grit can sink to the chamber's bottom tanks to different types of grit chambers (horizontal, aerated, or vortex), while the water and organic material go on to the next step in the process. The other parts in the mechanism such as pipe fittings, elbows, joints etc. to be replaced time to time to avoid the inclusion of dust or metal or rust particles in the water flow.

Never pour oils down the drain. While there is nothing wrong with using oils topically while working with machines or in your meals, it is not a good idea to put grease, fat, or wasted cooking oil down the drain or into the sink. It is preferable to dispose of oils in the trash or to collect all of your extra oil in one container before discarding it.

### c. Sustainable agriculture

Up to 70% of the world's surface water resources are used by the agricultural sector for everything from farming to raising cattle. Unfortunately, the main contributor to water contamination is agriculture. Every time it rains, pesticides and fertilisers are washed away by rainwater, which introduces germs and viruses to the rivers. Agriculture may, however, be more environmentally responsible.

Consider planting trees and other plants next to waterways to promote the use of green agriculture since they will prevent pesticides from being carried away during rainy seasons. Using insecticides that contain dangerous substances should also be avoided.



### d. Cleaning of water tanks

Cleaning of water tanks is yet another process to save water from pollution. It includes initial separation of wastewater and solid organic materials involved in water. The contaminants or organic solids are sent settle to the bottom of the tank in the form of mud. Such mud should be removed to avoid water pollution to get regular flow of water. The



operator can alter the flow rate into the clarifier to change the settling rates and efficiency.

The downstream water quality will suffer if the water flow is too rapid since the sediments won't have time to fall to the bottom.

Septic tanks are practical pieces of machinery that effectively separate the liquids from the particles in sewage to treat it. The solid materials will be thoroughly broken down in these tanks using a variety of biological processes before the liquids are discharged into a land drainage system. Septic tanks effectively remove contaminants already present in the water, hence reducing water pollution.

#### **e. Maintaining oxygen level in water**

To maintain the fish species in the water, it is necessary to maintain water purity and enough oxygen level to continue to multiply and develop the species. The chemical particles and processes must be avoided to maintain oxygen level. The primary goal of wastewater treatment is to break down organic material by promoting and accelerating the natural activity of micro-organisms.

The aeration tank is where it all starts. The aeration tank's main purpose is to pump oxygen into the tank to promote the breakdown of any organic material (and the development of the bacteria) and to guarantee that the process has adequate time. The tank can be aerated by pumping and diffusing air into it, or by vigorous agitation that aerates the water. Too slow of a water flow will affect the process upstream. To avoid interfering with the separation process, sludge, or the solids that drop to the bottom of the clarifier, is frequently pushed away. Then, any leftover water is disposed of, and the sludge is frequently used as fertiliser.

#### **f. Promote water cleaning bacterial growth**

The water reservoirs are mostly filled with plants and dead fishes. These fishes and unnecessary plants should be disposed off otherwise they affect the purity of water. Here comes the role of bacteria that to disposed off this rotten material in the water. To strengthen the waste water treatment, the optimal circumstances are created throughout this phase to promote bacterial growth. Low oxygen gas levels will cause the bacteria to die off and reduce the plant's effectiveness. Monitoring of dissolved oxygen is essential at this stage of the plant. This will ensure the promotion of bacteria in the water. Measurements of pH, temperature, dissolved oxygen, total suspended solids, hydraulic retention time (flow rate), solids retention time (amount of time the bacteria is in the aeration chamber), and mixed liquor suspended solids are among the other tests used to ensure optimal organic material breakdown. For the final effluent BOD to be as required, precise and ongoing monitoring is essential.

Additionally, never dispose of medications in the water supply. Even if you don't need them, it's not a good idea to break pills, liquid



prescriptions, or other pharmaceuticals in your kitchen sink disposal or flush them down the toilet.

Hormones and other substances ultimately have a negative impact on septic systems, drinking water quality, aquatic life, and fish. Follow the safe disposal procedures for any medical wastes.



#### **g. Purification of water**

To eliminate any leftover germs in the water, chlorine is introduced. It is necessary to analyse the departing effluent for the presence or absence of bacteria and to disinfect the water since the germs or bacteria may be harmful. The most prevalent and affordable kind of disinfection is chlorination. Before chlorine is released into the water, it is crucial to evaluate the chlorine levels to make sure they are within permissible ranges. Treatment of part of the water before it is returned into the rivers is probably the most efficient technique to prevent water pollution. Because wastewater treatment facilities can almost completely eliminate all contaminants in wastewater through a chemical, physical, or biological process, this is a very effective option. The facility's chambers will be used to steadily lower the toxicity of the sewage. Ammonia, bleach, paint, paint thinner, and other hazardous chemicals are a serious problem that get worse if they are flushed down the toilet or down the drain. Therefore, it's crucial to properly dispose of them.

For the safe disposal of these hazardous wastes, there are several recycling facilities and drop-off locations. These facilities may accept old paint, used motor oil, and other chemicals and recycle them. Cleaning products are dangerous when they get into the water system, much like oils are. Empty home cleaning supply containers in the trash bin, not the sink, when doing so.



It's critical that the equipment in wastewater treatment plants stays in excellent shape so that it can function exactly as planned. Before the water is discharged back into the environment, a variety of water treatment sensors may be employed to ensure that the toxins are being adequately removed from the water. These sensors include oxidation reduction potential sensors, conductivity sensors, and pH sensors.

Nitrates are converted directly into nitrogen gas by the simple biological process of denitrification, which helps to prevent nitrate from penetrating the soil and polluting groundwater. The nitrogen concentration of the water is far too high when too much nitrate reaches groundwater, which accelerates the growth of algae and phytoplankton.

#### **h. Testing of water**

Frequent water testing is another important tasks to be accomplished in water reservoirs to maintain the purity of water. Clean water is restored into the environment in the form of wells, rivers or dams. This reservoirs should be Final testing is performed to confirm that the effluent exiting the plant complies with permit requirements, even though testing is ongoing throughout the wastewater treatment process to guarantee adequate water flow, clarity, and aeration.

#### **i. Reducing Plastic Waste**

Plastic is extremely difficult to degrade after it has been manufactured. The world's water supply is where a large portion of the plastic we consume ends up, making it much more difficult to remove and securely dispose of. You can protect the environment by using as little plastic as possible. Additionally spreading deterioration in the water system is plastic garbage. Plastic debris frequently finds its way into the ocean and other bodies of water, which only lowers the water's quality. Plastic is utilised in a wide range of goods that people use on a daily basis, including everything from garments to other objects around the home, in addition to water bottles. It is advised that you avoid using plastics wherever possible to help limit the quantity of plastic garbage that enters the environment. Look for alternatives to plastic straws, cutlery, and bottles. Make careful to recycle every plastic that you use.



### **j. Water Management**

It's crucial to concentrate on water conservation whenever practical if you want to do your part to maintain water's purity and cleanliness in a way that will safeguard the environment. You may conserve water on a daily basis in a variety of ways. It is advised that you keep the water off when shaving or brushing your teeth. Choose shorter showers that don't last any longer than you need if you take a shower every day. Another option is to take a bath, which uses a lot less water. Attempt to utilise no more water than what your plants actually need if your property includes a garden. Since water is a limited resource, it's crucial that you make every effort to use less of it.

### **k. Upgrade Your Toilets to Water-Efficient Models.**

In your bathroom, you could choose to install a water-saving toilet that is efficient. With regard to the preceding point, this technique for lowering water pollution will assist you in water conservation. In the past, flushing a toilet may require more water. It can be decreased to minimum level of water be flushed down the drain with each flush from all toilets. Toilets that are extremely efficient using maximum amount of water each flush are available if you want to do your part to protect the environment. A water-saving toilet will not only help you save money, but it will also prevent water waste.

It is advised that you refrain from using your toilet as a wastebasket if you want to prevent contributing to water contamination. Dust cloths, wrappers, and the bulk of tissues should be disposed of in the wastebasket rather than the toilet. The likelihood that sewage pipes may clog up and that the sewage will be challenging to adequately clean when passed through a wastewater treatment plant or septic tank is increased by these elements. You should refrain from using your toilet for anything other than toilet paper and things that go in the wastebasket. All should utilize green cleaning products. Get eco-friendly soaps, detergents, and dishwashing solutions whenever you can. Using fewer toxic compounds, even if they might be more expensive, is very beneficial for the environment.

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## 4.6 SUMMARY

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Both the ecosystem and human health are harmed by water contamination. In terms of human health especially, it is known that water pollution:

- Increases the risk of cancer;
- Causes vascular disorders and liver damage;
- Injures the spinal cord.

As a result of heavy metal buildup, shellfish and other fish species become hazardous. Organic matter decreases the quantity of oxygen in the water. Suspended particles lower the amount of sunlight that reaches the water, which causes problems with photosynthesis.

Due to the harm that water pollution causes to both the environment and human health, it is crucial to prevent it whenever you can. It's crucial to constantly have access to clean, pure water if you want to lower your chance of developing a variety of health issues. In terms of the ecology, clean water is crucial for maintaining the overall health of the ocean ecosystem.

Conserving water, using less plastics, and making sure you don't use the toilet as a wastebasket are some easy first actions you can take to help reduce water pollution. You may help to safeguard the environment by following these instructions.

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## 4.7 QUESTIONS

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1. Define Water Pollution. Explain it's causes and effects on the society.
2. Explain the measures to be taken to water purification.
3. Explain the role of the society to prevent Water Pollution.
4. Explain with examples how water is water is polluted in rural areas?

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