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Chapter 7: Economic growth and development

Short Answers

CSM 05: Economic and Social Development- Sustainable Development, Poverty, Inclusion

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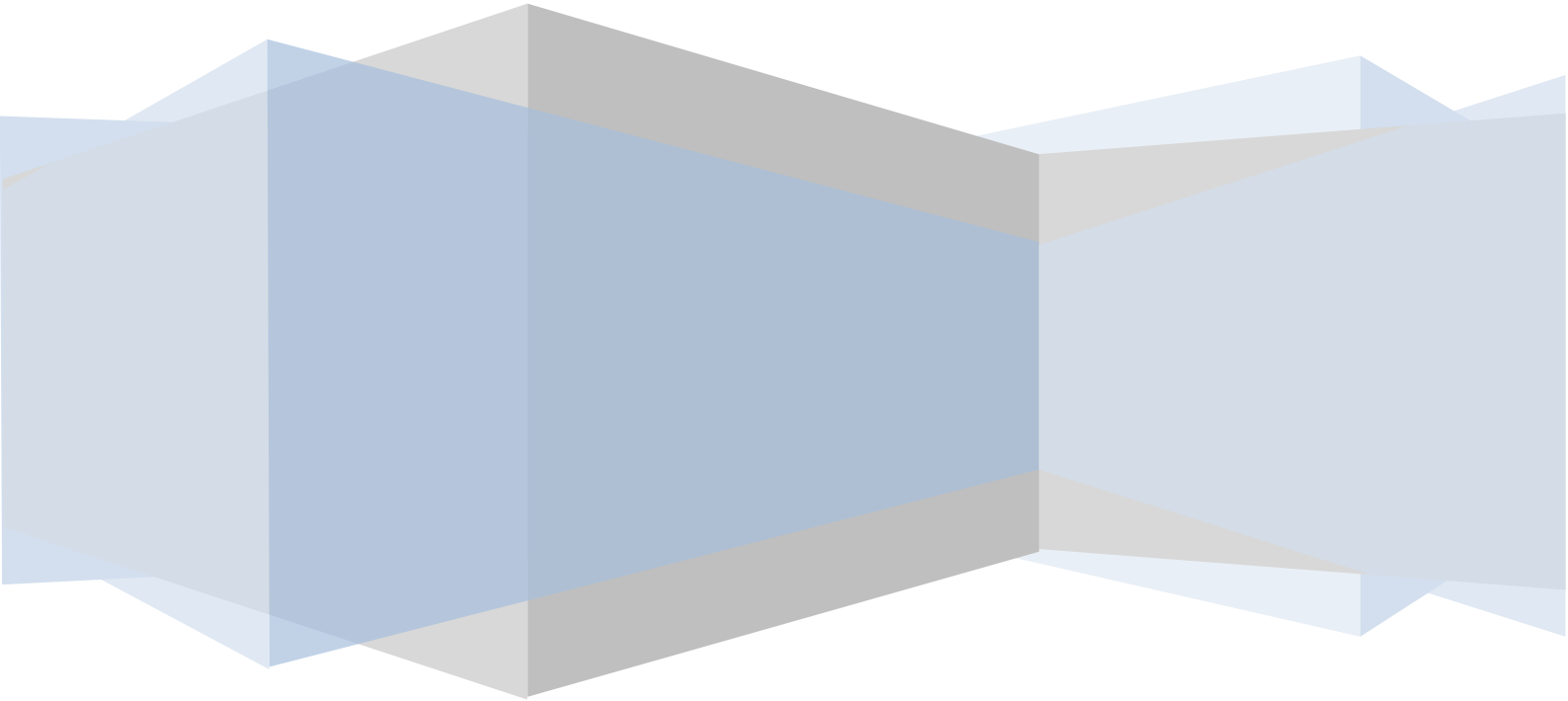

This chapter contains:

- **Economic Growth and Economic Development**
- **Factors Affecting Economic Growth**
- **Economic Factors Affecting Economic Growth**
- **Natural Resources**
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- **Investment**
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- **Technological Progress**
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1 Economic Growth and Economic Development

Even though the terms **economic development** and **economic growth** sound similar, there is a significant difference between the two. While both economic growth and economic development are important indicators of a country's **economic health**, there are important distinctions between the two.

Economic growth is a relatively **narrow concept**. It entails a **quantitative increase** in output, whereas economic development includes qualitative changes such as social attitudes and customs, in addition to **quantitative growth in output or national income**. Economic development is nearly impossible to imagine without growth.

In this article, we will understand what these two terms mean and why we should know the difference between the two.

1.1 Economic Growth

- **Economic growth** is defined as an **increase in the production** of economic goods and services from one period of time to another.
- **Economic growth denotes an increase in both national income and per capita income.**
    - The increase in per capita income is a better measure of Economic Growth because it reflects an improvement in the living standards of the masses.
- Let's consider that a unique berry only grows naturally in the land of Utopia. This berry has been utilised by natives of Utopia for many years, but a wealthy German traveller recently found it and took samples back to Germany. Because his German acquaintances like the berry, the tourist invested in a major berry exporting company in Utopia. Hundreds of Utopians were engaged by the new berry exporting company to farm, harvest, wash, box, and ship the berries to German supermarkets.
- Because the total value of the goods and services generated by the new berry exporting business exceeded one million dollars in a calendar year, the berry exporting business added over one million dollars to Utopia's GDP. Utopia's GDP increased, indicating that the country achieved economic growth.
- Economic growth is defined as an increase in **real national income** rather than an increase in money income or **nominal national income**.
- In other words, the increase should be based on an increase in the output of goods and services rather than a simple increase in the market prices of existing goods.
- **Real income** should rise gradually over time: The rise in real national income and per capita income should be sustained over time.
- Seasonal or temporary income increases should not be confused with economic growth.
- Income growth should be based on increased productive capacity.
    - Increases in income can only be sustained if they are the result of a long-term increase in the economy's productive capacity, such as:

- modernization or the use of new technology in manufacturing, infrastructure strengthening such as transportation networks, improved electricity generation, and so on.
- **Capital goods, labour force, technology, and human capital** all have the potential to contribute to economic growth.

1.2 Economic Development

- **Economic development** is defined as a sustained improvement in society's material well-being.
- Few indicators of economic development are qualitative indicators such as the HDI (Human Development Index), gender-related indexes, Human Poverty Index (HPI), infant mortality, literacy rate and so on.
- From the above example of Utopia, before the berry exporting business, most Utopians lived in small settlements spread out over many miles. Only a small percentage of Utopians had access to schools, clean water, or healthcare. To feed their immediate families, utopian men worked long hours attempting to harvest land that was naturally unsuited for most crops.
- After the export of berries and an increase in the government's revenue, Utopians will get better access to schools, clean water and affordable healthcare. The export industry provides better wages and fixed working hours. Utopia's development indicators such as literacy rate, per capita income and access to healthcare, improve indicating economic development.
- Economic development encompasses a broader range of concepts than economic growth.
- Aside from national income growth, it includes **social, cultural, political, and economic changes** that contribute to material progress.
- It includes changes in resource supplies, capital formation rates, population size and composition, technology, skills, and efficiency, as well as institutional and organisational structure.
- These changes contribute to the larger goals of ensuring more equitable income distribution, increased employment, and poverty alleviation.
- It is a long chain of interconnected changes in fundamental supply factors and demand structure that leads to an increase in a country's net national product in the long run.

1.3 Economic Growth vs Economic Development

Basis of Comparison	Economic Growth	Economic Development
Meaning	Economic growth is defined as an increase in the country's real output of goods and services.	Economic development entails changes in income, savings, and investment, as well as gradual changes in the country's socio-economic structure (institutional and

		technological changes).
Factors	Growth is defined as a gradual increase in one of the components of GDP: consumption, government spending, investment, and net exports.	Development related to human capital growth, a reduction in inequality numbers, and structural changes that improve the population's quality of life.
Measurement/ Example	Economic growth is measured quantitatively by factors such as real GDP growth or per capita income growth.	To assess economic development, qualitative indicators such as the HDI (Human Development Index), gender-related indexes, Human Poverty Index (HPI), infant mortality, literacy rate, and so on are used.
Effect	Quantitative changes in the economy are brought about by economic growth.	Economic development results in both qualitative and quantitative changes in the economy.
Relevance	Economic growth reflects national or per capita income growth.	Economic development reflects progress in a country's quality of life.

1.4 Why Economic Growth and Economic Development are important?

- Economic growth is a widely used term in economics that is useful not only for national-level economic analyses and policymaking but also for comparative economics.
- International financial and commercial institutions base policymaking and future financial planning on the available growth rate data for the world's economies.
- The most important aspect of growth is its **quantifiability**, or the ability to quantify it in absolute terms.
- Just as we need to make conscious efforts to increase our income and growth, we also need to make conscious efforts to increase our economic development and higher economic development.
- Development has not been possible anywhere in the world without a **conscious public policy**.
- Similarly, we can say that there can be no development without growth.
- If economic growth is used properly for development, it will re-accelerate growth and eventually bring a larger population into the development arena.
- Similarly, high growth with low development leads to a decline in growth.

1.5 Conclusion

- Economic development is a subset of economic growth. Economic development encompasses a broader scope than economic growth.
- Economic development employs a variety of indicators to assess the state of an economy as a whole; however, economic growth employs only a few indicators for calculation, such as gross domestic product, individual income, and so on.
- Economic Growth is frequently contrasted with Economic Development, which can be defined as an increase in an economy's or nations economic wealth for the benefit of its residents.
- It should be noted that economic growth is necessary but not the only condition for economic development.

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2 Factors Affecting Economic Growth

Economic growth is the change – increase or decrease in the value of goods and services produced by an economy. It needs to be measured as government and private sector decisions and policies need a base for their actions. All important aspects of the economy are linked to growth: **tax collections, interest rates; inflation and its expectations; employment; foreign trade** and so on.

Without measuring growth, there is no rationality in behaviour – both public and private. Investment decisions depend on the growth and inflation rate, to give one example. That is the reason for the Central Statistics Office (CSO) (**now National Statistical Office**) of India to project growth figures weeks before the Union Budget is presented facilitating rational projection of revenues and expenditure which in turn influences the private sector decisions.

2.1 Factors

Economic growth is a highly complex phenomenon that is influenced by a wide range of factors, including political, social, and cultural factors. These elements are as follows:

2.1.2 Economic Factors

2.1.2.1 Natural Resources

- Natural resources are the most important factor influencing an economy's development.
- Natural resources include land area and **soil quality, forest wealth, a good river system, minerals and oil resources, a favourable climate**, and so on.
- The abundance of natural resources is critical for economic growth. A country lacking in natural resources may be unable to develop rapidly.

2.1.2.2 Capital Formation

Capital formation is the process by which a community's savings are channelled into investments in capital goods such as **plants, equipment, and machinery, which increases a country's productive capacity** and worker efficiency, ensuring a greater flow of goods and services in a country.

2.1.2.3 Technological Progress

- Technological progress primarily entails **research into the use of new and improved methods of production** or the improvement of existing methods.

- Natural resources are sometimes made available as a result of technological progress. However, in general, technological progress leads to increased productivity.

2.1.2.4 Entrepreneurship

Entrepreneurship entails the ability to identify new investment opportunities, as well as the willingness to take risks and invest in new and growing business units.

2.1.2.5 Human Resources Development

- A good quality ofpopulation is critical in determining the level of economic growth.
- As a result, investment in human capital in the form of educational, medical, and other social schemes is highly desirable.

2.1.2.6 Population Growth

- The **increase in labour supply** is a result of population growth, which creates a larger market for goods and services. As a result, more labour produces more output, which a larger market absorbs.
- Output, income, and employment continue to rise as a result of this process, and economic growth improves.

2.1.2.7 Social Overheads

- The provision of social overheads such as schools, colleges, technical institutions, medical colleges, hospitals, and public health facilities is another important determinant of economic growth.
- Such facilities help the **working population to be healthier, more efficient, and responsible**.

2.1.3 Non-Economic Factors

2.1.3.1 Political Factors

- Political stability and strong administration are critical to modern economic growth.
- A stable, strong, and efficient government, honest administration, transparent policies, and their efficient implementation foster investor confidence and attract domestic and foreign capital, resulting in faster economic development.

2.1.3.2 Social and Psychological Factors

- Social factors include **social attitudes, social values, and social institutions**, which change as education expands and cultures shift from one society to the next.
- Modern ideology, values, and attitudes result in new discoveries and innovations, as well as the rise of new entrepreneurs.

2.1.3.3 Education

It is now widely acknowledged that education is the primary means of development. Greater progress has been made in countries where education is widely available.

2.1.3.4 The desire for Material Betterment

- The desire for material advancement is a necessary prerequisite for economic development.
- Societies that place focus on self-satisfaction, self-denial, and faith in fate, limit risk and enterprise, causing the economy to stagnate.

2.2 Measures Taken to ensure Economic Growth

- Economic growth can be achieved when the rate of increase in total output exceeds the rate of increase in a country's population.
- A country's **human resources** should be sufficient in number and equipped with the necessary skills and abilities in order to achieve economic growth.
- The efficient utilisation or exploitation of **natural resources** is dependent on human resource skills and abilities, the technology used, and the availability of funds. A country with a skilled and educated workforce and abundant natural resources propel its economy forward.
- **Capital formation** increases the availability of capital per worker, which raises the capital/labour ratio even further. As a result, labour productivity rises, leading to an increase in output and economic growth.
- **Technological advancement** aids in increasing productivity with limited resources. Countries that have worked in the field of technological development grow faster than countries that have placed less emphasis on technological development. The selection of appropriate technology is also important for an economy's growth.
- **Social and political factors** play an important role in a country's economic growth.
    - Social factors include customs, traditions, values, and beliefs, all of which contribute significantly to an economy's growth.
    - A society with traditional beliefs and superstitions, for example, is resistant to adopting modern ways of life. Achieving becomes difficult in such a situation.
    - Aside from that, political factors such as government participation in policy formulation and implementation play a significant role in economic growth.

2.3 Conclusion

- Sustained economic growth in a country has a positive impact on national income and employment levels, resulting in higher living standards.
- Aside from that, it plays an important role in stimulating government finances by increasing tax revenues.
- Economic growth in a country is possible if the economy's strengths and weaknesses are properly assessed.

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3 Economic Factors Affecting Economic Growth

Economists generally agree that **economic factors affecting economic growth and development** are: **human resources, physical capital, natural resources, technology development, entrepreneurship, population growth and social overheads.** In this article, we will discuss in detail regarding the various economic factors and what measures need to be taken for ensuring economic growth.

3.1 Economic Factors

3.1.1 Natural Resources

- Natural resources are the most important factor influencing an economy's development.
- Natural resources include land area and **soil quality, forest wealth, a good river system, minerals and oil resources, a favourable climate**, and so on.
- The abundance of natural resources is critical for economic growth. A country lacking in natural resources may be unable to develop rapidly.
- However, the availability of abundant natural resources is a necessary but not sufficient condition for economic growth.
- Natural resources are unutilised, underutilised, or misutilized in developing countries. One of the reasons for their backwardness is this only.
- Countries such as **Japan, Singapore**, and others, on the other hand, are not endowed with abundant natural resources, but they are among the world's developed nations.
- These countries have demonstrated a commitment to preserving available resources, putting forth their best efforts to manage resources, and **minimising wastage of resources**.

3.1.2 Capital Formation

- Capital formation is the process by which a community's savings are channelled into investments in capital goods such as **plant, equipment, and machinery, which increases a country's productive capacity** and worker efficiency, ensuring a greater flow of goods and services in a country.
- The process of capital formation implies that a community does not spend its entire income on goods for current consumption, but rather saves a portion of it and uses it to produce or acquire capital goods that significantly increase the nation's productive capacity.

3.1.3 Technological Progress

- Technological progress primarily entails **research into the use of new and improved methods of production** or the improvement of existing methods.

- Natural resources are sometimes made available as a result of technological progress. However, in general, technological progress leads to increased productivity.
- In other words, technological advancement increases the ability to make more effective and fruitful use of natural and other resources for increasing output.
- It is possible to obtain a greater output from a given set of resources by using improved technology, or a given output can be obtained by using a smaller set of resources.
- Technological progress improves the ability to **make better use of natural resources**, for example, with the aid of power - driven farm equipment, agricultural production has increased significantly.
- The **United States, United Kingdom, France, Japan**, and other advanced industrial nations have all gained industrial strength through the application of advanced technology.
- Adoption of new production techniques, in fact, facilitates economic development.

3.1.4 Entrepreneurship

- Entrepreneurship entails the ability to identify new investment opportunities, as well as the willingness to take risks and invest in new and growing business units.
- The majority of the world's underdeveloped countries are poor not because of a lack of capital,lack of infrastructure, unskilled labour, or a lack of natural resources, but because of a severe lack of entrepreneurship.
- As a result, it is critical in developing countries to foster entrepreneurship by emphasising education, new research, and scientific and technological advancements.

3.1.5 Human Resource Development

- A good quality ofpopulation is critical in determining the level of economic growth.
- As a result, investment in human capital in the form of educational, medical, and other social schemes is highly desirable.
- Human resource development improves people's knowledge, skills, and capabilities, which increases their productivity.

3.1.6 Population Growth

- The **increase in labour supply** is a result of population growth, which creates a larger market for goods and services. As a result, more labour produces more output, which a larger market absorbs.
- Output, income, and employment continue to rise as a result of this process, and economic growth improves.
- However, population growth should be expected to be normal. A galloping rise willstifle theeconomic progress.
- Only in a sparsely populated country is population growth desirable. It is, however, unjustified in a densely populated country like India.

3.1.7 Social Overheads

- The provision of social overheads such as schools, colleges, technical institutions, medical colleges, hospitals, and public health facilities is another important determinant of economic growth.
- Such facilities help the **working population to be healthier, more efficient, and responsible**.
- Such people have the potential to propel their country's economy forward.

3.2 Measures Taken to Ensure Economic Growth

- Economic growth can be achieved when the rate of increase in total output exceeds the rate of increase in a country's population.
- A country's **human resources** should be sufficient in number and equipped with the necessary skills and abilities in order to achieve economic growth.
- The efficient utilisation or exploitation of **natural resources** is dependent on human resource skills and abilities, technology used, and the availability of funds. A country with a skilled and educated workforce and abundant natural resources propels its economy forward.
- **Capital formation** increases the availability of capital per worker, which raises the capital/labor ratio even further. As a result, labour productivity rises, leading to an increase in output and economic growth.
- **Technological advancement** aids in increasing productivity with limited resources. Countries that have worked in the field of technological development grow faster than countries that have placed less emphasis on technological development. The selection of appropriate technology is also important for an economy's growth.

3.3 Conclusion

Governments in developed countries are focused on these economic factors. Less-developed countries, even those with abundant natural resources, will fall behind if they do not promote technological research and improve workers' skills and education.

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4 Natural Resources

Natural resources, both renewable and non-renewable, and ecosystem services are part of a country's true wealth. They are the raw materials from which other types of capital are created. They help to increase fiscal revenue, income and reduce poverty. Natural resource-related industries provide jobs and are frequently the foundation of livelihoods for poorer communities. In this article, we will discuss more the importance of natural resources and their role in the economic growth of the nation.

4.1 Natural Resources as Economic Factor in Economic Growth

- Natural resources are the most important factor influencing an economy's development.
- Natural resources include **land area and soil quality, forest wealth, a good river system, minerals and oil resources, a favorable climate**, and so on.
- The abundance of natural resources is critical for economic growth. A country lacking in natural resources may be unable to develop rapidly.
- However, the availability of abundant natural resources is a necessary but not sufficient condition for economic growth.
- Natural resources are **unutilized, underutilized, or misutilised** in developing countries. One of the reasons for their backwardness is this only.
- Countries such as **Japan, Singapore**, and others, on the other hand, are not endowed with abundant natural resources, but they are among the world's developed nations.
- These countries have demonstrated a commitment to preserving available resources, putting forth their best efforts to manage resources, and minimizing wastage of resources.

4.2 Measures Taken to Ensure Economic Growth

- The efficient utilization or exploitation of **natural resources** is dependent on human resource skills and abilities, the technology used, and the availability of funds.
- A country with a **skilled and educated workforce** and abundant natural resources propel its economy forward.
- Natural resources have limited direct economic use in meeting human needs, but transforming them into goods and services increases their societal economic value.
- The transformation of natural resources into usable goods and services occurs as a result of the mix of productive activities carried out by different sectors of the economy, propelling the overall economy to achieve sustainable growth, which serves as the foundation for sustainable development.
- The transition from government to **governance** has emphasized the importance of involving multiple stakeholders in decision-making, knowledge creation, and natural resource and environmental policy implementation.
- **Sustaining renewable resources** is primarily concerned with preserving resource stocks and quality, as well as maintaining a quantity of consistent flows over an indefinite period of time.

- Despite the fact that non-renewable resources cannot be sustained due to their finite stocks, countries that use them can achieve sustainability by investing the revenues generated by them in other forms of capital.
- Natural resource **valuation and accounting** are essential for sound development planning. Transparent institutions and good governance are also required.
- Internalizing the environmental costs of natural resource extraction and use in resource prices is a powerful mechanism for incentivizing sustainable natural resource management and consumption.
- To maximize the value of natural resources for long-term growth and development while avoiding the resource curse, policies that formalise and codify revenue management procedures are required.

4.3 Conclusion

Natural resources, because of their fundamental importance, must be managed in a sustainable manner. Government plays a critical role in enacting policies that ensure that resources contribute to the long-term economic development of nations rather than just short-term revenue generation.

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5 Capital Formation

Capital formation is a term used to describe a country's net capital accumulation over an accounting period. The term refers to capital goods additions such as equipment, tools, transportation assets, and electricity. Countries require capital goods to replace older ones used in the production of goods and services. **Production falls if a country is unable to replace capital goods as they reach the end of their useful lives.** In general, the higher an economy's capital formation, the faster it can grow its aggregate income.

5.1 Capital Formation as Economic Factor in Economic Growth

- **Capital formation** is the process by which a community's savings are channelled into investments in capital goods such as plant, equipment, and machinery, which **increases a country's productive capacity** and worker efficiency, ensuring a greater flow of goods and services in a country.
- The process of capital formation implies that a community does not spend its entire income on goods for current consumption, but **rather saves a portion** of it and uses it to produce or acquire capital goods that significantly increase the nation's productive capacity.
- More goods and services produced can lead to an increase in national income levels. A country must generate savings and investments from household savings or from government policy in order to accumulate additional capital.
- **Countries with high household savings rates can accumulate funds to produce capital goods more quickly** and a government that runs a surplus can invest the surplus.
- Capital formation refers not only to the creation of physical goods, but also to the **creation of human capital** such as education, health, skill development, etc.
- The process of capital formation occurs in three stages, which are:
    - **Creation of Savings** - It is savings that are converted into capital. Individuals generate savings by deferring their current consumption by reducing their expenditures on consumer goods.
    - **Effective Mobilization of Savings** - It is not enough to simply have more savings. Capital formation cannot occur unless people's savings are actually used (i.e., invested) to produce capital goods. However, in order to achieve this goal, the savings of various households and individuals must be effectively mobilised and made available for investment to businessmen and entrepreneurs.
    - **Investment of Savings** - People's savings must be properly invested in order for a large number of honest and risk-taking entrepreneurs to produce capital goods in various productive systems such as agriculture, industry, trade, public works, transportation, communication, and improved technical know-how.

5.2 Measures Taken to Ensure Economic Growth

- **Capital formation** increases the availability of capital per worker, which raises the **capital/labor ratio** even further.
    - As a result, labour productivity rises, leading to an increase in output and economic growth.
- One fundamental aspect that must be kept in mind, is that in order to accumulate capital goods (capital formation), a portion of current consumption must be sacrificed.
- Savings are created by deferring a portion of current consumption, which are then invested to increase capital goods. As a result, both **savings** and **investments** are required for capital formation.
- Individuals' ability to save is directly related to their income and the government's taxation policy. **Higher-income combined with low taxation results in a higher rate of capital formation.**
- A public sector enterprise is an essential type of business organization. Since these are owned by the government rather than individuals, all profits can be used for capital formation by the government.
- When people are given more opportunities to mobilize their savings, they save and invest more.
    - Commercial banks, mutual funds, and other financial institutions encourage people to save more. Saving more leads to more capital formation.
- The government may stimulate capital formation by assisting potential investors in a variety of ways.
    - For example, by conducting techno-economic surveys of various lines of production, providing tax benefits to newly established production units, or granting income tax benefits to people who wish to save.
- **Commodity taxation** can also be used to boost rate of savings.
    - If items of consumption, particularly items of luxury consumption, are subjected to high rates of sales tax, the prices of the consumption goods will rise and as a result, the consumption in the country will be reduced.
    - Savings will naturally increase if income remains constant.
- Capital formation boosts investment, which has the following two effects on economic development:
    - It raises per capita income and purchasing power, which leads to more effective demand.
    - Investment leads to increased output. As a result of capital formation, economic activities in developing countries can be expanded, thereby assisting in the abolition of poverty and the attainment of economic development.
- Another important economic function of capital formation is the creation of **job opportunities** in the country. Employment is created in two stages:
    - First, when capital is produced, some workers must be employed to produce capital such as machinery, factories, dams, irrigation works, and so on.
    - Second, more men must be employed when capital is used to produce additional goods.

5.3 Conclusion

It should, however, be noted, that capital formation does not refer to an increase in monetary capital, but rather to an increase in physical capital, such as machinery, factories, transportation equipment, bridges, power projects, dams, irrigation systems, and so on. To summarise, capital formation entails the creation of physical assets.

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6 Savings

Saving is the practice of reserving a portion of one's current income for future use. It refers to the accumulation of **both financial and non-financial assets**. In this regard, there are two distinct concepts in national income accounting: **net savings** and **gross savings.** Net savings are generated when disposable personal income exceeds personal expenditure, when a firm's profit is not distributed to shareholders, or when current government expenditure exceeds current government receipts. Gross savings include net savings as well as depreciation allowances for future replacement of real assets.

6.1 Savings as Economic Factor in Economic Growth

- The level of savings in a given society has a significant impact on economic growth.
- Saving, according to classical economists, is a necessary and sufficient condition for securing investment, and the interest rate is the price that equates them.
    - They believed that as savings increased, so would investment, and thus economic growth.
- **Savings generate capital formation**, which leads to technical innovation and progress, which aids in the economies of large-scale production and increases specialization, which aids in the acceleration of labor productivity, resulting in increased GDP.
- Saving leads to **more efficient use of scarce resources**, an increase in the size of national output, income, and employment, thereby solving the problems of inflation, unemployment, and balance of payment, poverty, and inequality; and freeing the economy from the burden of foreign debt, resulting in a better state of welfare.
- Individuals generate savings by deferring their current consumption by reducing their expenditures on consumer goods, but individual saving is more or less dependent on:

6.1.1 Ability (or Power) to Save

- This is directly related to an individual's income and the government's taxation policy.
- People with higher incomes can save more than those with lower incomes.
- Countries with high per capita income, such as the United States and some Western countries, have higher savings, whereas undeveloped or underdeveloped countries have low per capita income and thus have lower saving power.

6.1.2 Willingness (or Desire) to Save

- Even if people have greater ability (or power) to save, the most important requirement is that they have a willingness or desire to save.
- However, the desire to save is influenced by a variety of personal, family, and national factors such as family affection, a desire to start a business, old age considerations, and unforeseen emergencies.

- Aside from the foregoing, higher interest rates encourage people to save.
- A reduction in income tax encourages people to save more, whereas an increase in income tax discourages people from saving.

6.1.3 Opportunity to Save

- The opportunity to save refers to the country's conditions of peace and security, as well as the government's favorable political philosophy to motivate people to save.
- When there is peace and security in a region or country, the trade, business, banking system, and so on will function normally, and people will be more inclined to save.
- Furthermore, certain measures and schemes implemented by the government and state agencies, such as the **P.F. (provident fund)**, have aided in instilling the habit of saving even among people with lower incomes.

6.2 Measures Taken to Ensure Economic Growth

- One fundamental aspect that must be kept in mind, is that in order to accumulate capital goods **(capital formation),** a portion of current consumption must be sacrificed.
- Savings are created by deferring a portion of current consumption, which are then invested to increase capital goods. As a result, both **savings** and **investments** are required for capital formation.
- Individuals' ability to save is directly related to their income and the government's taxation policy. Higher-income combined with low taxation results in a higher rate of capital formation.
- When people are given more opportunities to mobilize their savings, they save and invest more.
    - Commercial banks, mutual funds, and other financial institutions encourage people to save more. Saving more leads to more capital formation.
- People's ability to save is also directly affected by their **standard of living**.
    - A higher standard of living implies a higher level of income and, as a result, a higher rate of savings.
    - A lower standard of living results in lower-income and, as a result, a lower ability to save.
- **Higher interest rates mean that households will earn a higher rate of return** on their savings when they deposit them in a bank.
- Rising income levels will result in increased total savings. As households gain more disposable income and the ability to save more, they will be able to save more.
- Steps should be taken to increase and motivate small savings, for which an attractive rate of interest on savings should be offered.
    - Savings schemes such as (P.F.) provident fund, mandatory insurance, mandatory deposits, and so on should be encouraged and expanded.
- According to the **Harrod-Domar model** of economic growth, the level of savings is an important factor in determining economic growth rates.

6.3 Conclusion

- Sufficient savings can break the vicious circle of poverty in developing countries, and it is the main key to economic development as well.
- Furthermore, it is worth noting that the slow rate of development in third-world countries is commonly attributed to low levels of national savings, which limit their ability to invest in capital formation.
- This results in lower economic growth and development than other countries that contribute sufficient savings. As a result, saving is commonly regarded as the primary source of economic growth.

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7 Investment

An investment is an asset or item acquired with the goal of generating income or increase in value. Growth is fuelled by **investment**. Increased private investment, whether in response to existing markets or emerging opportunities, creates new jobs, which raises local income, which leads to increased local demand for goods and services, which leads to more private sector investment and perpetuates the growth cycle.

7.1 Investment as Economic Factor in Economic Growth

- Investment is a key driver of economic growth. Investments allow for the accumulation of social capital.
- Investments generate additional revenue, which is determined by the state of the economic activity.
- During business cycles, fluctuations in output have an impact on the dynamics of investment.
- The theory and dynamics of investments are based on the **"multiplier"** principle. The multiplying property of investment resources determines their activity as an economic factor.
- The essence of it is that investment resources raise the **equilibrium level** of national output by a greater amount than the investment resources themselves.
- The fact that investment results in the accumulation of public capital, as well as the implementation of scientific and technological achievements, determines its leading role in economic development.
    - As a result, a framework for increasing countries' **manufacturing feasibility and economic growth** is established.
- The process of **expanded reprocessing** is determined by investments.
    - The process of investing or real capital formation is required for the construction of new facilities, the erection of houses, the laying of roads, and consequently providing employment as well.
- The **multiplier-accelerator concept** aids in understanding balance problems associated with the correlation between investment and savings.
- Simply having more savings isn't enough. If people's savings cannot be used (i.e., invested) to produce capital goods, capital formation cannot occur.
    - However, in order to achieve this goal, the savings of various households and individuals must be effectively mobilized and made available to businessmen and entrepreneurs for investment.

7.2 Measures Taken to Ensure Economic Growth

- **Irregularity** is a feature of investment. Investments in a specific sector of the economy cannot be expected in the near future. Corrective actions, on the other hand, can be taken right away.
- Technical and technological advancements in one sector can result in rapid and intense investment in other related sectors of the economy.

    - For example, technological progress in the automobile industry always predetermines a flow of investment in the petrochemical industry.
    - The same can be said for all of the economy's interconnected sectors.
- People's savings must be properly invested in order for a large number of honest and risk-taking entrepreneurs to produce capital goods in various productive systems such as agriculture, industry, trade, public works, transportation, communication, and improved technological know-how.
- When people are given more opportunities to mobilise their savings, they save and invest more. **Commercial banks, mutual funds, and other financial institutions encourage people to save more.**

- The government may stimulate capital formation by assisting potential investors in a variety of ways.
    - For example, by **conducting techno-economic surveys of various lines of production, providing tax benefits** to newly established production units, or granting income tax benefits to people who wish to save.
- **Capital formation** boosts investment, which has the following two effects on economic development:
    - It raises per capita income and purchasing power, which leads to more effective demand.
    - **Investment leads to increased output.** As a result of capital formation, economic activities in developing countries can be expanded, thereby assisting in the abolition of poverty and the attainment of economic development.

- Many more investment and production avenues should be established and implemented by establishing and implementing schemes in agriculture, industry, transportation, banking, insurance, trade, and so on.
- Investors obtain credit from various agencies in order to expand, but the interest rates at which credit is made available to them are high, increasing the cost of capital and resulting in low-profit margins for investors.
    - A lower interest rate boosts profits and encourages investment.
- Profitable investments should be encouraged, but unprofitable investments should be avoided.

7.3 Types of Investment Models

- **Public Investment Model:** The government invests in specific goods and services through the central or state government or with the assistance of the public sector using revenue generated by it.
- **Private Investment Model:** As in India, there are times when the earnings from the public sector are insufficient to cover any shortfalls that may occur.
    - As a result, the government invites private investors to participate in some of its ventures. This investment can be either domestic or foreign.
    - **Foreign direct investment (FDI)** can help to improve existing infrastructure while also creating jobs. When it comes to external investment, this model is one of the most sought-after.

- **Public-Private Partnership Model:** Itis a long-term cooperative arrangement between two or more public and private sectors.

Apart from the above-mentioned models, there are a few other models as well, such as:

- **Domestic investment model** - It can be a public or private-**public partnership**.
- **Foreign Investment Model -** It can be mostly foreign or a mix of foreign and domestic.
- **Sector Specific Investment Models -** Investing in **Special Economic Zones** or other allied sectors.
- **Cluster Investment Models** - Investing in Manufacturing Industries is one such example.

7.4 Investment Models used in India

- **The Harrod-Domar Model** - Itis more of a **One Sector Model**, wherein the factor of economic growth is dependent on policies that increase savings and technological advances.
- **The Solow Swan Model** - Itis an extension of the Harrod-Domar Model that focuses on productivity growth.
- **Feldman–Mahalanobis Model** -This model focuses on improving the domestic consumption goods sector where capital sector goods have sufficient capacity. It later evolved into the **Nehru-Mahalanobis model**, also known as the **Four Sector Model.**
- **Rao-Manmohan Model** -Named after Narasimha Rao and Dr. Manmohan Singh, this model implemented **economic liberalization** and FDI inflows in 1999.

7.5 Conclusion

- The significant increase in investments, as well as the improvement of their quality parameters, is critical. Growth, regardless of the nature of the economy, is the ultimate goal.
- The activity of investment resources as an economic factor is determined by their multiplying property, which essentially means that investment resources raise the equilibrium level of national output by an amount greater than the investment resources.

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8 Incremental Capital Output Ratio (ICOR)

Incremental Capital Output Ratio (ICOR) is the additional capital required to increase one unit of output. The incremental capital output ratio (ICOR) is a commonly used tool for explaining the relationship between the level of investment made in the economy and the subsequent increase in the **Gross Domestic Product (GDP)**. The additional unit of capital or investment required to produce an additional unit of output is denoted by ICOR.

8.1 ICOR as Economic Factor in Economic Growth

- The incremental capital-output ratio (ICOR) describes the relationship between the **amount of investment made in the economy and the resulting increase in GDP**.
- The marginal amount of investment capital required for a country or other entity to generate the next unit of production is measured by ICOR.
- **Lower ICORs are preferred** because they indicate that a country's production is more efficient.
- Some **critics** of ICOR have suggested that its use is limited because it favors developing countries that can increase infrastructure and technology use over developed countries that are operating at the highest level possible.
- Any further advancement in a developed country would have to come from more expensive research and development (R&D), whereas a developing country can improve its situation by implementing existing technology.
- ICOR can be calculated as follows:
    - ICOR = Annual Investment / Annual Increase in GDP
- **Example:** Assume that Country X has an incremental capital-output ratio (ICOR) of 10. This means that a 10 capital investments is required to generate a 1 increase in output. Furthermore, if Country X's ICOR was 12 last year, it means that Country X has become more efficient in its capital use.

8.2 Limitations - Incremental Capital Output Ratio (ICOR)

- One of its main criticisms is its inability to adapt to the new economy, which is increasingly driven by intangible assets such as design, branding, research and development (R&D), and software, which are difficult to measure or record.
- Intangible assets, such as machinery, buildings, and computers, are more difficult to account for in investment levels and GDP.
- On-demand options, such as **software-as-a-service (SaaS),** have significantly reduced the need for fixed-asset investments.
- All of this adds up to businesses increasing their output with items that are now expensed rather than capitalised and thus considered an investment.

8.3 Conclusion

From the above example, we can see that there are factors other than savings and investment rates that could explain the slowing rate of growth in the Indian economy. Otherwise, the economy is becoming more inefficient.

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9 Technological Progress

Technological progress is one of the most important factors determining the rate of **economic growth**. It is technological progress that will enable a sustained increase in output per head of population. As a result, it is the primary driver of economic growth. The technological progress is inextricably linked to the **capital formation** process. In fact, they complement each other.

Without prior capital formation, technological progress is virtually impossible. This is due to the fact that the introduction of superior or more efficient techniques necessitates the construction of new capital equipment that incorporates new technology. In other words, if new and superior technology is first embodied in new capital equipment, it can contribute to national product and growth.

9.1 Technological Progress as Economic Factor in Economic Growth

- Technological progress primarily entails research into the use of new and improved methods of production or the improvement of existing methods.
- **Natural resources** are sometimes made available as a result of technological progress. However, in general, technological progress leads to increased productivity.
- In other words, **technological advancement** increases the ability to make more effective and fruitful use of natural and other resources for increasing output.
- It is possible to obtain a greater output from a given set of resources by using improved technology, or a given output can be obtained by using a smaller set of resources.
- The discovery of new and improved methods of producing goods is referred to as technological change or progress.
- Occasionally, technological advancements result in an increase in the available supply of natural resources. However, more broadly, technological changes increase the productivity of labour, capital, and other resources.
- **Total factor productivity** refers to the productivity of all factors' combined inputs. As a result, technological progress implies an increase in total factor productivity.
- As technology advances, it is possible to produce more output with the same resources or the same amount of product with fewer resources.
- **Technological change**, or more precisely technological progress, is a change in the manufacturing process that results in a higher output per unit of labour.
- **Technological advancement** causes a shift in the production function, which incorporates all known techniques.
- Changes in technology must be distinguished from changes in technique.
    - While technological change refers to advances in knowledge that result in improved methods of production, technique change refers to the use of a different but previously known method of production.

9.2 Measures Taken to Ensure Economic Growth

- **Technological advancement** aids in increasing productivity with limited resources.
- Countries that have worked in the field of technological development grow faster than countries that have placed less emphasis on technological development. The selection of appropriate technology is also important for an economy's growth.
- Technological progress improves the ability to make better use of natural resources, for example, with the aid of power-driven farm equipment, agricultural production has increased significantly.
- The United States, United Kingdom, France, Japan, and other advanced industrial nations have all gained industrial strength through the application of advanced technology.
- Adoption of new production techniques, in fact, facilitates economic development.
- Increased production can be achieved by either using more resources or by realizing higher productivity by more efficiently utilizing labor, capital, and land resources.
- Technological progress can aid in the discovery of new natural resources in the country, thereby increasing the country's productive potential.
- Technological advancements also boost the productivity of available resources.
- Technological advancement increases worker productivity by providing better machines, methods, and skills.

9.3 Conclusion

- In today’s technological age, the desire for developing countries to make rapid technological progress in order to catch up with today's developed countries is obsessive.
- Intensive efforts are being made to implement improved technology in agriculture, industries, health, sanitation, and education, as well as in all other aspects of human life.
- Indeed, newly emerging nations have come to regard technology as a pillar of national autonomy as well as a status symbol in the international community.

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10 Entrepreneurship

Entrepreneurship is defined as the ability and willingness to create, organise, and run a business, including all of its risks, in order to make a profit. A high level of **entrepreneurship** contributes to **economic growth** and **job creation**. Entrepreneurs contribute to a region's economic capacity and dynamism. Regions can benefit from new business development if their economic, cultural, and regulatory environments are conducive to entrepreneurship.

Entrepreneurship and **entrepreneurs** are regarded as important economic growth drivers because they contribute to the creation of new jobs and employment opportunities, the emergence of new innovations, and the stimulation of competition and competitiveness. It is an economic growth factor important for UPSC IAS Economy subject.

10.1 Entrepreneurship as Economic Factor in Economic Growth

- Entrepreneurship is important for a variety of reasons, including promoting **social change** and **fostering innovation**.
- Entrepreneurs are frequently regarded as national assets to be nurtured, motivated, and rewarded to the greatest extent possible.
- Indeed, some of the most developed countries, such as the United States, are world leaders as a **result of their forward-thinking innovation, research, and entrepreneurial individuals**.
- Great entrepreneurs have the power to transform the way we live and work on a local and national scale.
- If they are successful, their innovations may raise living standards and, in addition to creating wealth through entrepreneurial ventures, they will also create jobs and contribute to a growing economy.
- Entrepreneurship entails the ability to identify new investment opportunities, as well as the willingness to take risks and invest in new and growing business units.
- The majority of the world's underdeveloped countries are poor not because of a lack of capital, lack of infrastructure, unskilled labour, or a lack of natural resources, but because of a **severe lack of entrepreneurshi**p.
- As a result, it is critical in developing countries to foster entrepreneurship by emphasising education, new research, and scientific and technological advancements.
- The significance of entrepreneurship cannot be underestimated.

10.2 Measures Taken to Ensure Economic Growth

- **Entrepreneurs' new products and services** can have a cascading effect, stimulating related businesses or sectors that need to support the new venture, thereby advancing economic development.

    - For example, during the 1990s,the **IT industry in India** was made up offew information technology firms. The industry grew quickly, and it benefited many other industries.
    - Businesses in related industries thrived, such as call centre operations, network maintenance companies, and hardware providers.
    - Education and training institutions bred a new generation of IT workers who were offered better, higher-paying jobs.
- Entrepreneurial ventures contribute to the creation of new wealth.
    - Existing businesses may be restricted to existing markets and may reach an income ceiling.
    - Entrepreneurs' new and improved products, services, or technology enable the development of new markets and the creation of new wealth.
- Furthermore, **increased employment and higher earnings** contribute to higher national income through increased tax revenue and government spending.
    - The government can use this revenue to invest in other struggling sectors and human capital.
- Entrepreneurs break away from tradition by providing one-of-a-kind goods and services, reducing reliance on obsolete systems and technologies. This can lead to higher quality of life, higher morale, and greater economic freedom.
    - For example, smartphones and apps have transformed work and play around the world. Smartphones are not limited to wealthy countries or people; more than 5 billion people worldwide own mobile devices.
    - As the smartphone market expands, technological entrepreneurship has the potential to have a profound and long-term impact on the world.
- Furthermore, as a result of **technological globalisation**, entrepreneurs in developing countries now have access to the same tools as their counterparts in developed countries.
    - They also benefit from lower living costs, allowing a young entrepreneur from a developing country to compete with a multimillion-dollar existing product from a developed country.
- Entrepreneurs frequently support the endeavours of others who share their vision. They also invest in community projects and donate money to local charities. This allows for further development outside of their own ventures.
    - Some well-known entrepreneurs, such as **Bill Gates**, have used their wealth to support worthy causes ranging from education to public health.
- The characteristics that make one an entrepreneur can also be the characteristics that motivate entrepreneurs to pay it forward through philanthropy later in life.

10.3 Criticism - Entrepreneurship

- Regulation is critical in fostering entrepreneurship. **Unregulated entrepreneurship** may result in undesirable social outcomes such as unfair market practises, widespread corruption, and criminal activity.
- Paradoxically, a large number of entrepreneurs may result in **fierce competition and the loss of career options** for individuals.

- When there are too many entrepreneurs, aspirations tend to rise and because of the variability of success in entrepreneurial ventures, having too many entrepreneurs may result in income inequality, making citizens unhappier.

10.4 Conclusion

For policymakers and business owners, understanding the relationship between entrepreneurship and economic development is critical. Understanding the advantages and disadvantages of entrepreneurship allows for a more balanced approach to fostering entrepreneurship, which can have a positive economic and societal impact.

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11 Human Resources Development

Human Resources Development or **Human capital** refers to workers' **knowledge, skill sets, and experience** in an economy. **Human Resources Development** and **economic growth** are strongly linked. Human capital influences economic growth and can aid in the development of an economy by broadening its people's knowledge and skills.

Since a knowledgeable workforce can lead to **increased productivity**, the skills have economic value. Human capital is the recognition that not everyone possesses the same skill sets or knowledge. Investing in people's education can also improve work quality. Human Resources Development is a very important topic for the UPSC IAS exam Economy subject.

11.1 Human Resources Development as Economic Factor in Economic Growth

- A good quality of population is critical in determining the level of economic growth.
- As a result, investment in human capital in the form of educational, medical, and other social schemes is highly desirable.
- Human resource development improves people's knowledge, skills, and capabilities, which drives **innovation, productivity gains**, and economic growth.
- Since workers can move from place to place, regions must improve their **liveability, or quality of life, in order to retain existing talent** and attract new talent.
- **Quality-of-life factors** are increasingly influencing economic development as the mix of skills and occupations becomes more important to the economic well-being of regions.
- Since investment tends to boost productivity, human capital is positively correlated with economic growth.
- The amount of skilled labour required is determined by the level of economic growth driven by **consumer spending** and **business investment**.
- Investing in workers has a proven track record of improving employment conditions in economies around the world.

11.2 Measures Taken to Ensure Economic Growth

- A country's **human resources** should be sufficient in number and equipped with the necessary skills and abilities in order to achieve economic growth.
- Governments' role is critical in expanding a country's population's skill sets and education levels.
    - Some governments are actively involved in improving human capital by providing free higher education to citizens.
    - These governments recognise that the knowledge gained through education contributes to the development of an economy and the acceleration of economic growth.
- Workers with **more education or better skills tend to earn more**, which boosts economic growth through increased consumer spending.

- Businesses also invest in human capital in order to increase profits and productivity.
- The process of educating a workforce is a type of investment, but it is an investment in human capital rather than capital investment such as equipment.

11.3 Conclusion

Investing in workers has a proven track record of improving employment conditions in economies around the world. When the labour market improves, consumer spending rises, resulting in increased revenue for businesses and additional business investment. As a result, employment is a key indicator or metric for forecasting GDP growth.

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