Here we will look at two developmental indicators—growth of employment and GDP. Fifty years of planned development have been aimed at expansion of the economy through increase in national product and employment.

During the period 1960-2000, Gross Domestic Product (GDP) of India grew positively and was higher than the employment growth. However, there was always fluctuation in the growth of GDP. During this period, employment grew at a stable rate of about 2 per cent.

In the late 1990s, employment growth started declining and reached the level of growth that India had in the early stages of planning. During these years, we also find a widening gap between the growth of GDP and employment. This means that in the Indian economy, without generating employment, we have been able to produce more goods and services. Scholars refer to this phenomenon as jobless growth.

We have seen how employment has grown in comparison to GDP. Now it is necessary to know how the growth pattern of employment and GDP affected different sections of workforce. From this we will also be able to understand what types of employment are generated in our country.

Distribution of workforce by industrial sectors shows substantial shift from work to non-farm work.

In 1972-73, about 74 per cent of workforce was engaged in primary sector and in 1999-2000, this proportion has declined to 60 per cent. Secondary and service sectors are showing promising future for the Indian workforce. You may notice that the shares of these sectors have increased from 11 to 16 per cent and 15 to 24 per cent respectively.

The distribution of workforce in different status indicates that over the last three decades (1972-2000), people have moved from self-employment and regular salaried employment to casual wage work. Yet self-employment continues to be the major employment provider. Scholars call this process of moving from self-employment and regular salaried employment to casual wage work as casualisation of workforce. This makes the workers highly vulnerable.

INFORMALISATION OF INDIAN WORKFORCE

One of the objectives of development planning in India, since India’s independence, has been to provide decent livelihood to its people. It has been envisaged that the industrialization strategy would bring surplus workers from agriculture to industry with better standard of living as in developed countries. We have seen in the preceding section, that even after 55 years of planned development, three-fifth of India workforce depends on farming as the major source of livelihood.

Economics argue that, over the years, the quality of employment has been deteriorating. Even after working for more than 10-20 years, why do some workers not get maternity benefit, provident fund, gratuity and pension? Why does a person working in the private sector get a lower salary as compared to another person doing the same work but in the public sector?

A small section of Indian workforce is getting regular income. The government, through its labour laws, protects them in various ways. This section of the workforce forms trade unions, bargains with employers for better wages and other social security measures. Who are they? To know this we classify workforce into two categories: workers in formal sectors, which are also referred to as organized and unorganized sectors. All the public sector establishments and those private sector establishments which employ 10 hired workers or more are called formal sector establishments and those who work in such establishments are formal sector workers. All other enterprises and workers working in those enterprises form the informal sector. Thus, informal sector includes millions of farmers, agricultural labourers, owners of small enterprises and people working in those enterprises as also
the self-employed who do not have any hired workers.

Those who are working in the formal sector enjoy social security benefits. They earn more than those in the informal sector. Developmental planning envisaged that as the economy grows, more and more workers would become-formal sector workers and the proportion of workers engaged in the informal sector would dwindle. But what has happened in India? 93 per cent are in the informal sector. Out of 28 million formal sector workers, only 4.8 million, that is, only 17 per cent (4.8/28x100) are women. In the informal sector, male workers account for 69 per cent of the workforce.

Since the late 1970s, many developing countries, including India, started paying attention to enterprises and workers in the informal sector do not get regular income; they do not have any protection or regulation from the government. Workers are dismissed without any compensation. Technology used in the informal sector enterprises is outdated. Of late, owing to the efforts of the International Labour Organization (ILO), the Indian government has initiated the modernization of informal sector enterprises and provision of social security measures to informal sector workers.

UNEMPLOYMENT

It might have seen people looking for jobs in newspapers. Some look for a job through friends and relatives. In many cities, you might find people standing in some select areas looking for people to employ them for that’s work. Some go to factories and offices and give their bio-data and ask whether there is any vacancy in their factory and office. Many in the rural areas do not go out and ask for a job but stay home when there is no work. Some go to employment exchanges and register themselves for vacancies notified through employment exchanges. NSSO defines unemployment as a situation in which all those who, owing to lack of work, are not working but either seek work through employment exchanges, intermediaries, friends or relatives or by making applications to prospective employers or express their willingness or availability for work under the prevailing condition of work and remuneration. There are a variety of ways by which an unemployed person is identified. Economists define unemployed person as one who in not able to get employment of even one hour in half a day.

There are three sources of data on unemployment: Reports of Census of India, National Sample Survey Organization’s Reports of Employment and Unemployment Situation and Directorate General of Employment and Training Data of Registration with Employment Exchanges. Through they provide different estimates of unemployment, they do provide us with the attributes of the unemployed and variety of unemployment prevailing in our country.

Do we have different types of unemployment in our economy? Economists call unemployment prevailing in Indian farms as disguised unemployment. What is disguised unemployment? Suppose a farmer has four acres of land and he actually needs only two workers and himself to carry out various operations on his farm in a year, but if he employs five workers and his family members such as his wife and children, this situation is known as disguised unemployment. One study conducted in the late 1950s showed about one third of agriculture workers in India as disguisedly unemployment in India.

We have noticed that many people migrate to an urban area, pick up a job and stay there for some time, but come back to their home villages as soon as the rainy season begins. Why do they do so? This is because work in agriculture is seasonal; there are no employment opportunities in the village for all months in the year. When there is no work to do on farms, men go to urban areas and look for jobs. This kind of unemployment is known as seasonal unemployment. This is also a common form of unemployment prevailing in India.

Though we have witnessed slow growth of employment, scholars says that in India, people cannot remain completely unemployed for very long because their because their desperate economic condition would not allow them to be so. You will rather find them being forced to accept jobs that nobody else would do, unpleasant or even dangerous jobs in unclean, unhealthy surroundings. The government has taken many initiatives to generate acceptable employment, ensuring at least minimal safety and job satisfaction, through various measures.

GOVERNMENT AND EMPLOYMENT GENERATION

Recently the government passed an Act in Parliament known as the National Rural Employment Guarantee Act 2005. It promises 100
days of guaranteed wage employment to all adult members of rural households who volunteer to do unskilled manual work. The families, which are living below poverty line, will be covered under the scheme. This scheme is one of the many measures that the government implements to generate employment for those who are in need of jobs in rural areas.

Since independence, the Union and state governments have played an important role in generating employment or creating opportunities for employment generation. Their efforts can be broadly categorised into two – direct and indirect. In the first category, government employs people in various departments for administrative purposes. It also runs industries, hotels and transport companies and hence provides employment directly to workers.

When output of goods and services from government enterprises increases, then private enterprises that supply materials to government enterprises will also raise their output and hence increase the number of employment opportunities in the economy. For example, when a government owned steel company increases its output, it will result in direct increase in that government company. Simultaneously, private companies, which supply inputs to the government steel company and purchase steel from it, will also increase their output and thus employment. This is the indirect generation of employment opportunities in the economy.

Many programmes that the government implements, aimed at alleviating poverty, are through employment generation. They are also known as employment generation programmes. All these programmes aim at providing not only employment but also services in areas such as primary health, primary education, rural shelter, rural drinking water, nutrition, assistance for people to buy income and employment generating assets, development of community assets by generating wage employment, construction of houses and sanitation, assistance for constructing houses, laying of rural roads, development of wastelands/ degrade lands.

CONCLUSION

There has been a change in the structure of workforce in India. Newly emerging jobs are found mostly in the service sector. The expansion of the service sector and the advent of high technology now frequently permit a highly competitive existence for efficient small scale and often individual enterprises or specialist workers side by side with the multinationals. Outsourcing of work is becoming a common practice. It means that a big firm finds it profitable to close down some of its specialist departments (for example, legal or computer programming or customer service sections) and hand over a large number of small piecemeal jobs to very small enterprises or specialist individuals, sometimes situated even in other countries. The traditional notion of the modern factory or office, as a result, has been altering in such a manner that for many the home is becoming the workplace. All of this change has not gone in favour of the individual worker. The nature of employment has become more informal with only limited availability of social security measures to the workers. Moreover, in the last two decade, there has been rapid growth in the gross domestic product, but without simultaneous increase in employment opportunities. This has forced the government to take up initiatives in generating employment opportunities particularly in the rural areas.

Introduction

Some states in India are performing much better than others in certain area? Punjab, Haryana and Himachal Pradesh prosper in a agriculture and horticulture? Maharashtra and Gujrat industrially more advance than others? Kerala, popularly known as ‘God’s own country’, has excelled in literacy, health care and sanitation and also attracts tourists in such large numbers? Why does Karnataka’s information technology industry attract world attention?

It is all because these states have better infrastructure in the areas they excel than other states of India. Some have better irrigation facilities. Others have better transportation facilities, or are located near ports which makes raw materials required for various manufacturing industries easily accessible. Cities like Bangalore in Karnataka attract many multinational companies because the provide world-class communication facilities. All these support structures, which facilitate development of a country, constitute its infrastructure. How then does infrastructure facilitate development?

WHAT IS INFRASTRUCTURE?

Infrastructure provides supporting services in the main areas of industrial and agricultural production, domestic and foreign trade and
commerce. These services include roads, railways, ports, airports, dams, power stations, oil and gas pipelines, telecommunication facilities, the country’s educational system including schools and colleges, health system including hospitals, sanitary system including clean drinking water facilities and the monetary system including banks, insurance and other financial institutions. Some of these facilities have a direct impact on the working of the system of production while others give indirect support by building the social sector of the economy.

Some divide infrastructure into two categories – economics and social. Infrastructure associated with energy, transportation and communication are included in the former category whereas those related to education, health and housing are included in the latter.

RELEVANCE OF INFRASTRUCTURE

Infrastructure is the support system on which depends the efficient working of a modern industrial economy. Modern agriculture also largely depends on it for speedy and large-scale transport of seeds, pesticides, fertilisers and the produce by making use of modern roadways, railways and shipping facilities. Modern agriculture also has to depend on insurance and banking facilities because of its need to operate on a very large scale.

Infrastructure contributes to economic development of a country both by increasing the productivity of the factors of production and improving the quality of life of its people. Inadequate infrastructure can have multiple adverse effects on health. Improvements in water supply and sanitation have a large impact by reducing morbidity (meaning proneness to fall ill) from major waterborne diseases and reducing the severity of disease when it occurs. In addition to the obvious linkage between water and sanitation and health, the quality of transport and communication infrastructure can affect access to health care. Air pollution and safety hazards connected to transportation also affect morbidity, particularly in densely populated areas.

THE STATE OF INFRASTRUCTURE IN INDIA

Traditionally the government has been solely responsible for developing the country’s infrastructure. But it was found that the government’s investment in infrastructure was inadequate. Today, the private sector by itself and also in joint partnership with the public sector, has started playing a very important role in infrastructure development.

A majority of our people live in rural areas. Despite so much technical progress in the world, rural women are still using bio-fuels such as crop residues, dung and fuelwood to meet their energy requirement. They walk long distances to fetch fuel, water and other basic needs. The census 2001 shows that in rural India only 56 per cent households have an electricity connection and 43 per cent still use kerosene. About 90 per cent of the rural house holds use bio-fuels for cooking. Tap water availability is limited to only 24 per cent rural households. About 76 per cent of the population drinks water from open sources such as wells, tanks, ponds, lakes, rivers, canals, etc. Another study conducted by the National Sample Survey Organization noted that by 1996, access to improved sanitation in rural areas was only six per cent. Which shows the state of some infrastructure in India in comparison to a few other countries. Though it is widely understood that infrastructure is the foundation of development, India is yet to wake up to the call. India invests only 5 per cent of its GDP on infrastructure, which is far below that of China and Indonesia.

Some economists have projected that India will become the third biggest economy in the world a few decades from now. For that to happen, India will have to boost its infrastructure investment. In any country, as the income rises, the composition of infrastructure requirements changes significantly. For low-income countries, basic infrastructure services like irrigation, transport and power are more important. As economies mature and most of their basic consumption demands are met, the share of agriculture in the economy shrinks and more service related infrastructure is required. This is why the share of power and telecommunication infrastructure is greater in high-income countries.

Thus development of infrastructure and economic development go hand in hand. Agriculture depends, to a considerable extent, on the adequate expansion and development of irrigation facilities. Industrial progress depends on the development of power and electricity generation, transport and communication. Obviously, if proper attention is not paid to the development of infrastructure, it is likely to act as a severe constraint on economic development.
ENERGY

Why do we need energy? In what forms is it available? Energy is critical aspect of the development process of a nation. It is, of course, essential for industries. Now it is used on a large scale in agriculture and related areas like production and transportation of fertilizers, pesticides and farm equipment. It is required in houses and cooking, household lighting and heating. Can you think of producing a commodity or service without using energy?

Sources of Energy: There are commercial and non-commercial sources of energy. Commercial sources are coal, petroleum and electricity as they are bought and sold. The account for over 50 per cent of all energy sources consumed in India. Non-commercial sources of energy are firewood, agricultural waste and dried dung. These are non-commercial as they are found in nature/forests.

While commercial sources of energy are generally exhaustible (with the exception of hydropower), non-commercial sources are generally renewable. More than 60 per cent of Indian households depend on traditional sources of energy for meeting their regular cooking and heating needs.

Non-conventional Sources of Energy: Both commercial and noncommercial sources of energy are known as conventional sources of energy. There are tree other sources of energy which are commonly termed as non-conventional sources – solar energy, wind energy and tidal power. Being a tropical country, India has almost unlimited potential for producing all three types of energy if some appropriate cost effective technologies that are already available are used. Even cheaper technologies can be developed.

SUSTAINABLE DEVELOPMENT

Environment and economy are interdependent and need each other. Hence, development that ignores its repercussions on the environment will destroy the environment that sustains life forms. What is needed is sustainable development: development that will allow all future generations to have a potential average quality of life that is at least as high as that which is being enjoyed by the current generation. The concept of sustainable development was emphasized by the United Nations Conference on Environment and Development (UNCED), which defined it as: ‘Development that meets the need of the present generation without compromising the ability of the future generation to meet their own needs’.

Read the definition again. You will notice that the term ‘need’ and the phrase ‘future generation’ in the definition are the catch phrases. The use of the concept ‘need’ in the definition is linked to distribution of resources. The seminal report-Our Common Future-that gave the above definition explained sustainable development as ‘meeting the basic needs of all and extending to all the opportunity to satisfy their aspirations for a better life’. Meeting the needs of all requires redistributing resources and is hence a moral issue. Edward Barbier defined sustainable development as one which is directly concerned with increasing the material standard of living of the poor at the grass root level – this can be quantitatively measured in terms of increased income, real income, education services, health care, sanitation, water supply etc. In more specific terms, and secure livelihoods that minimize resource depletion, environmental degradation, cultural disruption and social instability. Sustainable development is, in this sense, a development that meets the basic needs of all, particularly the poor majority, for employment, food, energy, water, housing, and ensures growth of agriculture, manufacturing, power and services to these needs.

The Brundtland Commission emphasises on protecting the future generation. This is in line with the argument of the environmentalists who emphasise that we ha a moral obligation to hand over the planet earth in good order to the future generation; that is, the present generation should bequeath a better environment to the future generation. At least we should leave to the next generation a stock of ‘quality of life’ assets no less than what we have inherited.

The present generation should promote development that enhances the natural and built environment in ways that are compatible with (i) limiting the human population to a level within the carrying capacity of the environment. The carrying capacity of the environment is like a ‘plimsoll line’ of the ship which is its load limit mark. In the absence of the plimsoll line for the economy, human scale grows beyond the carrying capacity of the earth and deviates from sustainable development (ii) technological progress should be input efficient and not input consuming (iii) renewable resources should be extracted on a sustainable basis, that is, rate of extraction should
not exceed the rate of regeneration (iv) for non-renewable resources rate of depletion should not exceed the rate of creation of renewal substitutes and (v) inefficiencies arising from pollution should be corrected.

**STRATEGIES FOR SUSTAINABLE DEVELOPMENT**

Use of Non-conventional Sources of Energy: India, as you know, is hugely dependent on thermal and hydro power plants to meet its power needs. Both of these have adverse environmental impacts. Thermal power plants emit large quantities of carbon dioxide which is a green house gas. It also produces fly ash which, if not used properly, can cause pollution of water bodies, land and other components of environment. Hydroelectric projects inundate forests and interfere with the natural flow of water in catchment areas and the river basins. Wind power and solar rays are good examples of conventional but cleaner and greener technologies which can be effectively used to replace thermal and hydro-power.

LPG, Gobar Gas in Rural Areas: Households in rural areas generally use wood, dung cake or other biomass as fuel. This practice has several adverse implications like deforestation, reduction in green cover, wastage of cattle dung and air pollution. To rectify the situation, subsidized LPG is being provided. In addition, gobar gas plants are being provided through easy loans and subsidy. As t a large petroleum gas (LPG) is concerned, it is a clean fuel – it reduces households pollution to a large extent. Also, energy wastage is minimized. For the gobar gas plant to function, cattle dung is fed to the plant and gas is produced which is used as fuel while the slurry which is left over is a very good organic fertiliser and soil conditioner.

CNG in Urban Areas: In Delhi, the use of Compressed Natural Gas (CNG) as fuel in public transport system has significantly lowered air pollution and the air has become cleaner in the last few years. Wind Power: In areas where speech of wind is usually high, wind mills can provide electricity without any adverse impact on the environment. Wind turbines move with the wind and electricity is generated. No doubt, the initial cost of high. But the benefits are such that the high cost gets easily absorbed.

Solar Power through Photovoltaic Cells: India is naturally endowed with a large quantity of solar energy in the form of sunlight. We use it in different ways. For example, we dry our clothes, grains, other agricultural products as well as various items made for daily use. We also use sunlight to warm ourselves in winter. Plants use solar energy to perform photosynthesis. Now, with the help of photovoltaic cells, solar energy can be converted into electricity. These cells use special kind of materials to capture solar energy and then converted the energy into electricity. This technology is extremely useful for remote areas and for places where supply of power through grid or power lines is either not possible or proves very costly. This technique is also totally free from pollution.

Mini-hydel Plants: In mountainous regions, streams can be found almost everywhere. A large percentage of such streams are perennial. Mini-hydel plants use the energy of such streams to move small turbines generate electricity which can be used locally. Such power plants are more or less environment-friendly as they do not change the land use pattern in areas where they are located; they generate enough power to meet local demands. This means that they can also do away with the need for large scale transmission towers and cables and avoid transmission loss.

Traditional Knowledge and Practice: Traditionally, Indian people have been close to their environment. They have been more a component of the environment and not its controller. If we look back at our agriculture system, healthcare system, housing, transport etc., we find that all practices have been environment friendly. Only recently have we drifted away from the traditional system and caused large scale damage to the environment and also our rural heritage. Now, it is time to go back. One apt example is in healthcare. India is very much privileged to have about 15,000 species of plants which have medicinal properties. About 8,000 of these are in regular use in various systems of treatment including the folk tradition. With the sudden onslaught of the western system of treatment, we were ignoring out traditional systems such as Ayurveda, Unani, Tibetan and folk systems. These healthcare systems are in great demand again for treating chronic health problems. Now a days every cosmetic produce – hair oil, toothpaste, body lotion, face cream and what not – is herbal in composition. Not only are these products environment friendly, they are relatively free from side effects and do not involve large-scale industrial and chemical processing.

Biocomposting: In our quest to increase agricultural during the last five decades or so, we
almost totally neglected the use of compost and completely switched over to chemical fertilizers. The result is that large tracts of productive land have been adversely affected, water bodies including ground water system have suffered due to chemical contamination and demand for irrigation has been going up year after year.

Farmers, in large numbers all over the country, have again started using compost made from organic wastes of different types. In certain parts of the country, cattle are maintained only because they produce dung which is an important fertiliser and soil conditioner.

Earthworms can convert organic matter into compost faster than the normal composting process. This process is now being widely used. Indirectly, the civic authorities are benefited too as they have to dispose reduced quantity of waste.

Biopest Control: With the advent of green revolution, the entire country entered into a frenzy to use more chemical pesticides for higher yield. Soon, the adverse impacts began to show: food products were contaminated; soil water bodies and even ground water were polluted with pesticides. Even milk, meat and fishes were found to be contaminated.

To meet this challenge, efforts are on to bring in better methods of pest control. One such step is the use of pesticides based on plant products. Neem trees are proving to be quite useful. Several types of pest controlling chemicals have been isolated from neem and these are being used. Mixed cropping and growing different crops in consecutive years on the same land have also helped farmers.

In addition, awareness is spreading about various animals and birds which help in controlling pests. For example, snakes are one of the prime groups of animals which prey upon rats, mice and various other pests. Similarly, large varieties of birds, for example, owls and peacocks, prey upon vermin and pests. Lizards are also important in this regard. We need to know their value save them.

Sustainable development has become a catch phrase today. It is, indeed, a paradigm shift in development thinking. Though it has been interpreted in a number of ways, adherence to this path ensures lasting development and non – declining welfare for all.

Conclusion

Economic development, which aimed at increasing the production of goods and services to meet the needs of a rising population, puts greater pressure on the environment. In the initial stages of development, the demand for environmental resources was less than that of supply. Now the world is faced with increased demand for environmental resources but their supply is limited due to overuse and misuse. Sustainable aims at promoting the kind of development that minimizes environmental problems and meets the needs of the present generation without composing the ability of future generation to meet their won needs.