

Academic Script

Role of Services in Economic Development.

INTRODUCTION

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. Out sourcing 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. Agriculture and mining is not a major source of employment in urban areas where people are mainly engaged in the service sector.

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.

Role of Infrastructure in Economic Development.

INTRODUCTION

Some states in India are performing much better than others in certain areas. Punjab, Haryana and Himachal Pradesh prosper in agriculture and horticulture. Maharashtra and Gujarat industrially more advanced 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. Karnataka's information technology industry attracts 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 they provide world-class communication facilities. All these support structures, which facilitate development of a country, constitute its infrastructure.

WHAT IS INFRASTRUCTURE?

Infrastructure provides supporting services in the main areas of

1. industrial production
2. agricultural production
3. domestic trade and commerce
4. foreign trade and commerce

These services include: -

1. roads,
2. railways,
3. ports,
4. airports,
5. dams,
6. power stations,
7. oil and gas pipelines,
8. telecommunication facilities,
9. the country's educational system including schools and colleges,
10. Health system including hospitals
11. sanitary system including clean drinking water facilities
12. 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.

Infrastructure has two categories —

1. economic infrastructure which includes (energy, transportation and communication) etc.
2. social infrastructure which basically includes (education, health and housing) etc.

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. It 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.
- 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 fuel wood to meet their

energy requirement. They walk long distances to fetch fuel, water and other basic needs. About 90 per cent of the rural households use bio-fuels for cooking. Tap water availability is limited in rural households. About 76 per cent of the population drinks water from open sources such as wells, tanks, ponds, lakes, rivers, canals, etc.

Though it is widely understood that infrastructure is the foundation of development, India is yet to wake up to the call. 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 communications. 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

Energy is a 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 fertilisers, pesticides and farm equipment. It is required in houses for cooking, household lighting and heating.

There are 2 conventional sources of energy:

Commercial: Commercial sources are coal, petroleum and electricity as they are bought and sold. They account for over 50 per cent of all energy sources consumed in India. While commercial sources of energy are generally exhaustible (with the exception of hydropower). At present, commercial energy consumption makes up about 65 per cent of the total energy consumed in India. This includes coal with the largest share of 55 per cent, followed by oil at 31 per cent, natural gas at 11 per cent and hydro energy at 3 per cent.

Non-commercial: Non-commercial sources of energy are firewood, agricultural waste and dried dung. These are non-commercial as they are found in nature/forests. These sources are generally renewable. Non-commercial energy sources consisting of firewood, cow dung and agricultural wastes account for over 30 per cent of the total energy consumption. The critical feature of India's energy sector, and its linkages to the economy, is the import- dependence on crude and petroleum products, which is likely to grow to more than 100 per cent in the near future.

Non-conventional Sources of Energy:

There are three other sources of energy which are commonly termed as non-conventional sources —

- solar energy
- wind energy
- 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.

Consumption Pattern of Commercial Energy:

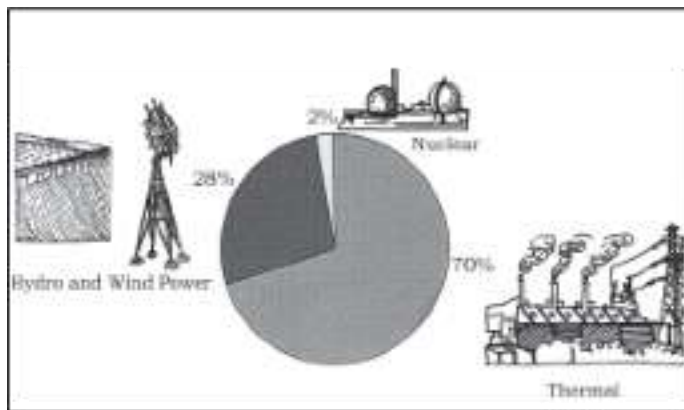
The transport sector was the largest consumer of commercial energy in 1953-54. However, there has been continuous fall in the share of the transport sector while the share of the industrial sector has been increasing. The share of oil and gas is highest among all commercial energy consumption. With the rapid rate of economic growth, there has been a corresponding increase in the use of energy.

Power/Electricity:

The most visible form of energy, which is often identified with progress in modern civilization, is power, commonly called electricity; it is one of the most critical components of infrastructure that determines the economic development of a country. The growth rate of demand for power is generally higher than the GDP growth rate. Studies point that in order to have 8 per cent GDP growth per annum, power supply needs to grow around 12 per cent annually.

Electricity is a secondary form of energy produced from primary energy resources including coal, hydro- carbons, hydro energy, nuclear energy, renewable energy etc. Primary energy consumption takes into account the direct and indirect consumption of fuels. It cannot give a complete picture in respect of the ultimate consumption of energy by consumers. The secondary sources in India consist of coal, oil, electricity and natural gas.

In India, in 2003- 04, thermal sources accounted for almost 70 per cent of the power generation capacity. Hydro, wind and nuclear sources accounted for 28 and 2.4 per cent respectively. India's energy policy encourages two energy sources — hydel and wind — as they do not rely on fossil fuel and, hence,



avoid carbon emissions. This has resulted in faster growth of electricity produced from these two sources.

Atomic energy is an important source of electric power; it has environmental advantages and is also likely to be economical in the long run. At present, nuclear energy accounts for only 2.4 per cent of total primary energy consumption, against a global average of 13 per cent. This is far too low.

Some Challenges in the Power Sector: Electricity generated by various power stations is not consumed entirely by ultimate consumers; a part is consumed by power station auxiliaries. Also, while transmitting power, a portion is lost in transmission. What we get in our houses, offices and factories is the net availability.

Some of the challenges that India's power sector faces today are

(i) India's installed capacity to generate electricity is not sufficient to feed an annual economic growth of 7 per cent. In order to meet the growing demand for electricity, between 2000 and 2012, India needs to add 1,00,000 MW of new capacity, whereas, at present, India is able to add only 20,000 MW a year. Even the installed capacity is under - utilised because plants are not run properly

(ii) State Electricity Boards (SEBs), which distribute electricity, incur losses which exceed Rs 500 billion. This is due to transmission and distribution losses, wrong pricing of electricity and other inefficiencies. Some scholars also say that distribution of electricity to farmers is the main reason for the losses; electricity is also stolen in different areas which also

adds to the woes of SEBs

(iii) private sector power generators are yet to play their role in a major way; same is the case with foreign investors

(iv) there is general public unrest due to high power tariffs and prolonged power cuts in different parts of the country

(v) thermal power plants which are the mainstay of India's power sector are facing shortage of raw material and coal supplies.

Thus, continued economic development and population growth are driving the demand for energy faster than what India is producing currently. More public investment, better research and development efforts, exploration, technological innovation and use of renewable energy sources can ensure additional supply of electricity. Though the private sector has made some progress, it is necessary to tap this sector to come forward and produce power on a large scale. One also has to appreciate the efforts made in this regard. For example, India is already the world's fifth largest producer of wind power, with more than 95 per cent investments coming from the private sector. Greater reliance on renewable energy resources offers enormous economic, social and environmental benefits.

HEALTH

Health is not only absence of disease but also the ability to realise one's potential. It is a yardstick of one's well-being. Health is the holistic process related to the overall growth and development of the nation. Though the twentieth century has seen a global transformation in human health unmatched in history, it may be difficult to define the health status of a nation in terms of a single set of measures. Generally, scholars assess people's health by taking into account indicators like infant mortality and maternal mortality rates, life expectancy and nutrition levels, along with the incidence of communicable and non-communicable diseases.

Development of health infrastructure ensures a country of healthy manpower for production of goods and services. In recent times, scholars argue that people are entitled to health

care facilities. It is the responsibility of the government to ensure the right to healthy living. Health infrastructure includes hospitals, doctors, nurses and other para-medical professionals, beds, equipment required in hospitals and a well-developed pharmaceutical industry. It is also true that mere presence of health infrastructure is not sufficient to have healthy people: the same should be accessible to all the people. Since, the initial stages of planned development, policy-makers envisaged that no individual should fail to secure medical care, curative and preventive, because of the inability to pay for it. But are we able to achieve this vision? Before we discuss various health infrastructure, let us discuss the status of health in India.

State of Health Infrastructure:

The government has the constitutional obligation to guide and regulate all health related issues such as medical education, adulteration of food, drugs and poisons, medical profession, vital statistics, mental deficiency and lunacy. The Union Government evolves broad policies and plans through the Central Council of Health and Family Welfare. It collects information and renders financial and technical assistance to state governments, union territories and other bodies for implementation of important health programmes in the country.

Over the years, India has built up a vast health infrastructure and manpower at different levels. At the village level, a variety of hospitals have been set up by the government. India also has a large number of hospitals run by voluntary agencies and the private sector. These hospitals are manned by professionals and para-medical professionals trained in medical, pharmacy and nursing colleges.

Since independence, there has been a significant expansion in the physical provision of health services. During 1951-2000, the number of hospitals and dispensaries increased from 9,300 to 43,300 and hospital beds from 1.2 to 7.2 million; during 1951-99, nursing personnel increased from 0.18 to 8.7 lakh and allopathic doctors from 0.62 to 5.0 lakh. Expansion of health infrastructure has resulted in the eradication of

smallpox, guinea worms and the near eradication of polio and leprosy.

Items	1951	1981	2000
Hospital	2694	6805	15888
Hospital/ dispensary beds	117000	504538	719861
Dispensaries	6600	16745	23065
PHCs	725	9115	22842
Sub-centres	-	84736	137311
CHCs	-	761	3043

Private Sector Health Infrastructure:

Source: National Commission on Macroeconomics and Health, Ministry of Health and Family Welfare, Government of India, New Delhi, 2005.

In recent times, while the public health sector has not been so successful in delivering the goods about which we will study more in the next section, private sector has grown by leaps and bounds. More than 70 per cent of the hospitals in India are run by the private sector; they control nearly two-fifth of beds available in the hospitals. Nearly 60 per cent of dispensaries are run by the same private sector. They provide healthcare for 80 per cent of out- patients and 46 per cent of in-patients.

In recent times, private sector has been playing a dominant role in medical education and training, medical technology and diagnostics, manufacture and sale of pharmaceuticals, hospital construction and the provision of medical services. In 2001-02, there were more than 13 lakh medical enterprises employing 22 lakh people; more than 80 per cent of them are single person owned, and operated by one person occasionally employing a hired worker. Scholars point out that the private

sector in India has grown independently without any major regulation; some private practitioners are not even registered doctors and are known as quacks.

Since the 1990s, owing to liberalisation measures, many non-resident Indians and industrial and pharmaceutical companies have set up state-of-the-art super-specialty hospitals to attract India's rich and medical tourists. But since the poor can depend only on government hospitals, the role of government in providing healthcare remains important.

Indian Systems of Medicine (ISM):

It includes six systems:

1. Ayurveda,
2. Yoga,
3. Unani,
4. Siddha,
5. Naturopathy
6. Homeopathy (AYUSH).

At present there are 3,004 ISM hospitals, 23,028 dispensaries and as many as 6,11,431 registered practitioners in India. But little has been done to set up a framework to standardise education or to promote research. ISM has huge potential and can solve a large part of our health care problems because they are effective, safe and inexpensive.

Indicators of Health and Health Infrastructure—A Critical Appraisal:

As pointed out earlier, the health status of a country can be assessed through indicators such as infant mortality and maternal mortality rates, life expectancy and nutrition levels, along with the incidence of communicable and non-communicable diseases. Some of the health indicators, and India's position, are given in Table 8.4. Scholars argue that there is greater scope for the role of government in the health sector. For instance, the table shows expenditure on health sector as five per cent of total GDP. This is abysmally low as compared to other countries, both developed and developing.

One study points out that India has about 17 per cent of the world's population but it bears a frightening 20 per cent of the global burden of diseases (GBD). GBD is an indicator used by experts to gauge the number of people dying prematurely due to a particular disease as well as the number of years spent by them in a state of 'disability' owing to the disease.

In India, more than half of GBD is accounted for by communicable diseases such as diarrhoea, malaria and tuberculosis. Every year around five lakh children die of water-borne diseases. The danger of AIDS is also looming large. Malnutrition and inadequate supply of vaccines lead to the death of 2.2 million children every year.

At present, less than 20 per cent of the population utilises public health facilities. One study has pointed out that only 38 per cent of the PHCs have the required number of doctors and only 30 per cent of the PHCs have sufficient stock of medicines.

Urban-Rural and Poor-Rich Divide:

Though 70 per cent of India's population lives in rural areas, only one-fifth of its hospitals are located in rural areas. Rural India has only about half the number of dispensaries. Out of about 7 lakh beds, roughly 11 per cent are available in rural areas. Thus, people living in rural areas do not have sufficient medical infrastructure. This has led to differences in the health status of people. As far as hospitals are concerned, there are only 0.36 hospitals for every one lakh people in rural areas while urban areas have 3.6 hospitals for the same number of people. The PHCs located in rural areas do not offer even X-ray or blood testing facilities which, for a city dweller, constitutes basic healthcare. States like Bihar, Madhya Pradesh, Rajasthan and Uttar Pradesh are relatively lagging behind in health care facilities. In the rural areas, the percentage of people who have no access to proper care has risen from 15 in 1986 to 24 in 2003.

Villagers have no access to any specialised medical care like paediatrics, gynaecology, anaesthesia and obstetrics. Even though 165 recognised medical colleges produce 12,000 medical graduates every year, the shortage of doctors in rural

areas persists. While one-fifth of these doctor graduates leave the country for better monetary prospects, many others opt for private hospitals which are mostly located in urban areas. The poorest 20 per cent of Indians living in both urban and rural areas spend 12 per cent of their income on healthcare while the rich spend only 2 per cent. What happens when the poor fall sick? Many have to sell their land or even pledge their children to afford treatment. Since government-run hospitals do not provide sufficient facilities, the poor are driven to private hospitals which makes them indebted forever. Or else they opt to die.

Women's Health:

Women constitute about half the total population in India. They suffer many disadvantages as compared to men in the areas of education, participation in economic activities and health care. The deterioration in the child sex ratio in the country from 945 in 1991 to 927, as revealed by the census of 2001, points to the growing incidence of female foeticide in the country. Close to 3,00,000 girls under the age of 15 are not only married but have already borne children at least once. More than 50 per cent of married women between the age group of 15 and 49 have anaemia and nutritional anaemia caused by iron deficiency, which has contributed to 19 per cent of maternal deaths. Abortions are also a major cause of maternal morbidity and mortality in India.

Health is a vital public good and a basic human right. All citizens can get better health facilities if public health services are decentralised. Success in the long-term battle against diseases depends on education and efficient health infrastructure. It is, therefore, critical to create awareness on health and hygiene and provide efficient systems. The role of telecom and IT sectors cannot be neglected in this process. The effectiveness of healthcare programmes also rests on primary healthcare. The ultimate goal should be to help people move towards a better quality of life. Private-public partnership can effectively ensure reliability, quality and affordability of both drugs and Medicare. There is a sharp divide between the urban and rural healthcare in India. If we continue to ignore this

deepening divide, we run the risk of destabilising the socio-economic fabric of our country. In order to provide basic healthcare to all, accessibility and affordability need to be integrated in our basic health infrastructure.

Coming to infrastructure, the Planning Commission has estimated that infrastructure investment ought to grow from the current levels of around 4.6 per cent of GDP to 8 per cent for sustaining the 9 per cent real GDP growth as envisioned in the Eleventh Plan. Thus, investment in infrastructure is expected to rise by over three percentage points of GDP over the Plan period; over the same period, the Planning Commission anticipates that overall investment rate of the Indian economy should grow by six percentage points. In other words, almost one half of the total increase in overall investments is expected to be on account of the infrastructure requirements. For such an increase in infrastructure investment to take place over the Plan period, both public sector and private sector investment will need to grow much faster than in any previous period.

SUMMARY

Infrastructure, both economic and social, is essential for the development of a country. As a support system, it directly influences all economic activities by increasing the productivity of the factors of production and improving the quality of life. In the last six decades of independence, India has made considerable progress in building infrastructure, nevertheless, its distribution is uneven. Many parts of rural India are yet to get good roads, telecommunication facilities, electricity, schools and hospitals. As India moves towards modernisation, the increase in demand for quality infrastructure, keeping in view their environmental impact, will have to be addressed. The reform policies by providing various concessions and incentives, aim at attracting the private sector in general and foreign investors in particular.