CHAPTER - II

ROLE OF TRANSPORTATION IN ECONOMIC DEVELOPMENT
Chapter II

I. ROLE OF TRANSPORTATION IN ECONOMIC DEVELOPMENT

Transport plays an important role in the development of industry and agriculture. The aim of all economic activities involving movement of goods and men is to transform things in their present forms, places and time to more highly desired forms, places and time preferences. Value is thus added to the commodities by way of form, place and time utilities.

Whereas form utility is created by the production process of converting raw materials to finished goods, space and time utilities are the products of physical distributions in which transportation is the most important ingredient. The primary function of transportation is to provide space and time utility. Therefore, transportation has an important place in the overall production process creating value through addition of utility in the case of manufacturing industries or agricultural activities. It is the function of transport to bridge the gap between producers and consumers so that goods and services may be exchanged in time for their mutual benefit. As a supplier of space and time utility, it broadens the market and is an important element of satisfactory functioning of the economic market. The proper functioning of an economic market is helped by price stability and levelling of supplies. Transport charges form a substantial part of the price of any commodity, particularly of low value primary commodities like minerals, bricks, wood, sand etc.
A developed transport system helps large-scale production and mass distribution with accompanying regional specialisation and division of labour. Consequently a trend in the direction of a preferred regional distribution of population, industry and income would develop. Its "locational" contribution in formation of growth poles would be vital to the regional development. It would open up underdeveloped remote areas by releasing utilities trapped in these and enable new products and factors to be brought into exchange. It would help in increasing rural income by extending the money economy to the agricultural and rural sectors by raising its productivity on the one hand and retarding unhealthy urbanisation on the other.

As a service, transport of men and materials is a derived demand. It does not exist in isolation or for its own sake. Its objectives are mainly economic in character, as for example, exploitation of natural resources, increase of agricultural productivity and industrial output, enhancement of the level of consumption and diversification of the economy. Besides these, it has non-economic objectives like promotion of political cohesion, reinforcement of national security and encouragement of the desirable social pattern.

To increase the pace of economic development, adequate and effective transport service is always considered essential. There are two opinions on the role of transport in economic development. One opinion maintains that development of social overheads including transport should precede the growth of other economic activities instead of following the same. The reasoning behind this
opinion is that once the overhead capacity is created in transport, it generates external economies which reduce the cost of production of goods and their utilisation in other economic activities. This serves as a powerful means for exploiting unutilised resources, which would otherwise have remained unused for want of infrastructural facilities. The other view is that transport and other infrastructural facilities should be built only in response to bottlenecks and capacity shortages. The justification for this view is based on the uncertainty associated with long-term investment which is very large in the case of social overheads.

The case for creation of transport capacity in anticipation of its demand rests logically on two stronger considerations. Transport is a non-traded commodity and secondly, transport investment is time-taking in character. It has a long gestation period. Therefore, it is necessary to allocate funds for creating transport capacity even if the existing demand for its service does not justify investment on the basis of commercial viability. Secondly, the quantum of investment should be on a scale larger in relation to immediate demand. Transport investment will not by itself bring about economic upliftment of backward areas but the inadequacy of transportation generally acts as a barrier to the process of development. As developmental planning has become an integrated part of our life, the 'chicken and egg' argument for transportation is of academic interest. Investment in transportation forms an integral part of a development plan for a region. In such case any delay in the development of transport facilities until
sufficient traffic demand is built up, is like putting the cart before the horse. Therefore, where different sectors of the economy are expected to grow in close coordination, transport should be an essential element in the integrated plan of development.

Economists have mentioned that historically transportation has been the most powerful single initiator of industrial and economic revolutions. An adequate amount of investment in transport and communications is vital for growth in other sectors. The dominant role of transport is evident from the economic growth of countries like England and the United States. Role of transport has a reciprocal relationship between transport expansion and general economic growth.

Normally the increase in freight movement is faster than the increase in GNP particularly in the developing world. In the earlier stages of the process of industrialisation, accompanied by increased movement of heavy materials, the increase in transport requirements is at a much higher rate than the rise in economic activity. Later, as development proceeds, the further processing of raw materials will result in adding greater values to the product for given volume of transport. Thus, the rate of traffic growth will eventually be closer to the growth rate of the economy. Table-I indicates the relationship of growth in freight traffic in comparison to the growth in GNP in a few countries for a period from 1948 to 1960.
<table>
<thead>
<tr>
<th>Country</th>
<th>Percentage increase in GNP</th>
<th>Percentage increase in freight traffic in (Ton Km)</th>
<th>Ratio of b : a</th>
</tr>
</thead>
<tbody>
<tr>
<td>Canada</td>
<td>5.1</td>
<td>5.7</td>
<td>1.12</td>
</tr>
<tr>
<td>Ceylon</td>
<td>3.2</td>
<td>7.0</td>
<td>2.19</td>
</tr>
<tr>
<td>Cambodia</td>
<td>3.7</td>
<td>12.0</td>
<td>3.24</td>
</tr>
<tr>
<td>India</td>
<td>2.5</td>
<td>8.0</td>
<td>3.2</td>
</tr>
<tr>
<td>Japan</td>
<td>8.6</td>
<td>9.0</td>
<td>1.04</td>
</tr>
<tr>
<td>Korea -S</td>
<td>3.6</td>
<td>9.0</td>
<td>2.5</td>
</tr>
<tr>
<td>Malaysia</td>
<td>1.8</td>
<td>9.0</td>
<td>5.0</td>
</tr>
<tr>
<td>Pakistan</td>
<td>2.2</td>
<td>7.0</td>
<td>3.18</td>
</tr>
<tr>
<td>Taiwan</td>
<td>6.3</td>
<td>12.0</td>
<td>1.9</td>
</tr>
<tr>
<td>Thailand</td>
<td>4.4</td>
<td>20.00</td>
<td>4.54</td>
</tr>
<tr>
<td>U.S.A.</td>
<td>3.9</td>
<td>2.8</td>
<td>0.72</td>
</tr>
</tbody>
</table>

Table-I supports the contention that the percentage increase in freight traffic relative to the rate of increase in GNP per year is larger and for developing countries it varies from 1.9 (Taiwan) to 5.0 (Malaysia) whereas for developed countries it is between 0.7 (USA) and 1.12 (Canada).

Transport has two components of demand viz., freight and passenger traffic. The freight portion is directly connected with the level of economic activity and development needs, and has always received greater attention in planning priorities. But the need of passenger transportation cannot be ignored. Passenger traffic, particularly the journey to and from work and business travel is as essential to development and maximisation of production as freight traffic. It is incorrect to label non-work passenger journeys as socially wasteful. In a developing country like ours, travel undertaken by people in cities and on inter-city routes is linked with essential social needs such as visits to families, educational institutions, religious centres etc.

A transport system must concern itself with the rural sector, which accounts for 77 percent of the total population of our country. No doubt, transport requirements for development of the nation's productive potential should receive priority. In formulation of transport policy, which ensures internal consistency in development planning, it is necessary to pay proper attention to transport needs of the rural areas together with inter-urban and intra-urban passenger travel.
Transport demand has two dimensions. First, it relates to the number of people to be carried or the tonnes of goods to be moved and secondly, the average distance covered. Broadly, the number of people to be carried and goods tonnage to be moved are related to the size of population and level of economic activities, whereas the average load depends on the location of people and their activities in regional and urban spaces. The quantum of transport demand expressed in passenger kilometers or tonne kilometers is thus closely linked with land use patterns and location of centres of economic activities. Efficient land use and location planning can help in optimisation of transport effort in two ways. First, to the extent that it promotes dispersal of economic activities to the rural areas and small towns, it is likely to slow down the migration of people to larger urban centres. Secondly, as productive activities and residential opportunities are juxtaposed, it can reduce movement of men and material on inter-urban as well as intra-urban transport systems.

While a good land-use plan is of vital importance for development of an optimal transport system, there are two major constraints which limit in practice its usefulness in promoting the planning of spatial allocation in economic activity. Since regions in a given economic setting are often differentially endowed with natural resources, efficiency in spatial allocation of resources may be inconsistent with the needs of balanced regional growth. Secondly, the land-use planning generally tends to ignore agglomeration
economies or diseconomies. In real life, however, such economies exist on a large scale and constitute the primary factor accounting for concentration of activities in larger urban centres. A good land-use plan is necessary for development of an optimal transport system.

Investment in transport system has three characteristic features: investment is made in large indivisible chunks, each time a new transport facility is created; the long-term nature of transport investment introduces an element of risk and uncertainty in the appraisal procedure, for example, the expected demand for the transport service may fail to materialise or technological developments in transport may render the facility obsolete; and inordinately long lags are generally involved in construction of transport projects. These features create difficulty in planning transport supply.

Economic development requires adequate as well as effective transport service. For any country at a specified stage of development, a theoretically optimum amount of transport capacity is generally accepted. Inadequacy of transportation acts as an inhibiting factor in the actual process of development. Construction of transport facilities therefore form an integral part of the development plan for the region and selection of the project is based on comparative cost analysis of different modes of transport. Its construction will be an essential pre-condition without which development of the region will be hampered. Therefore, creation of transport...
capacity in anticipation of future demand rests logically on sound considerations.

II. TRANSPORT DEVELOPMENT IN INDIA DURING THE PLAN PERIODS:

In formulation of a national transport policy, due weightage has been given to the development of our transport system. Before independence, the transport system, comprising mostly of railways and roads, was developed primarily to provide communications with major ports and larger cities, keeping in view the administrative needs and trade imperatives of the time. The focus of transport development changed after independence. Efforts were made to rehabilitate railways and roads neglected during World War-II and in rebuilding the transport network and linking it with developmental needs of the economy. The magnitude of the effort devoted to development of the transport sector is broadly expressed in Plan outlays for transport.

Importance of the transport sector in development of the national economy was recognised at the beginning of the plan period. But financial constraints did not permit required allocation to the transport sector. The approach was generally to create capacity mainly for specific categories of traffic in the industrial and agricultural sectors and for providing relief to the existing congested routes. These limited steps were taken keeping the financial constraints in view. What was lacking more was a comprehensive long-term transportation plan for the
country keeping in view its potential economic and industrial growth. A transport plan for the whole country is a difficult and complex problem as it requires detailed data and analysis of regional trade flows and comparative resource cost of movement by various modes of transport. The Planning Commission has taken steps, though only on a limited scale, by introducing a study through Rail India Technical and Economic Services Limited (RITES) and by constituting a Transport Policy Planning Project with an objective to improve forecast methodology of transport demand in this country. Between the First and the Sixth Five Year Plans of our country, the outlay of transport rose from Rs. 434 crores to Rs. 18621 crores at current prices. Despite the phenomenal increase in absolute figures, the share of transport in total plan outlays which was 22.1 percent in the First Plan declined steeply to 10.1 percent in the Eighth Plan.

As it takes time to build transport capacity, planning for transport investment has to be undertaken in anticipation of demand so that transport congestions or bottlenecks do not seriously impede progress of the economy. Allocation of funds to the transport sectors with instances of lumpiness are not heavy.

There is need for taking a long-term view of transport requirements of the country. In our country, while planning the future transport requirement, we cannot ignore the rural sector where nearly 77 percent of our population live. Transport requirements for development of the nation's productive potential should continue to receive priority. But in the
formulation of the future transport policy, attention should also be given to transport needs of the rural areas for maintaining internal consistency in planning.

Orissa is very rich in mineral resources. For exploitation of mineral resources and for setting up mineral based industries, a comprehensive transport network is needed. But unfortunately, right from the British period, the rail lines and major roads have been constructed in Orissa as a part of the national requirement without keeping the economic interest of the State in view. However, after independence some rail lines and roads have been planned and constructed for specific projects.

CONCLUSION

Transport plays a vital role in the economic development of a country. Transport as an infrastructure should be created in advance for other industrial and economic activities to follow and flourish. From experience it is clear that the transport sector has helped in the progress of the advanced countries in the early stages of their economic growth.

In India the modern transport system was started by the British. The objective was to mobilise troops from one part of the country to the other for effective administrative control and for carrying raw materials to the ports for shipping them to England. The transport system suffered a set back during World War II and its rehabilitation was
undertaken after India became independent. The importance of the transport sector was realised but adequate funds could not be allocated because of resource constraints. Only specific works were taken on hand to move mainly specific categories of traffic connected with industrial projects and to provide relief to the congested routes.

There was no comprehensive plan for the integrated development and growth of transport sector in our country. It is necessary to have a long-term view of the transport requirements of the country, considering primarily the needs related to the industrial and economic growth of the country and also at the same time keeping in view the needs of the rural sector.

Orissa being endowed with rich natural resources there is need for a planned development of transport infrastructure.