PRIVATE SECTOR PARTICIPATION IN THE TRANSPORT SECTOR IN INDIA

B.N. Puri *

ABSTRACT

The Government of India recognizes the importance of the private sector in bridging the resource gap in investment and improving the operational and managerial efficiency in the transport sector in order to address capacity constraints and deficiencies in the existing transport infrastructure and meet rapidly growing demand. The Government is actively pursuing policies to promote private sector involvement in the development of transport infrastructure and services.

The experience in involving the private sector in transport development in India is the focus of the paper. It provides a broad overview of government policies and various initiatives that have been undertaken to promote private participation following various models. It also discusses achievements made in different subsectors and draws some conclusions on major policies and initiatives of the Government.

INTRODUCTION

It is universally recognized that transport is crucial for sustained growth and modernization. Adequacy of this vital infrastructure is an important determinant of the success of a nation's effort in diversifying its production base, expanding trade and linking together resources and markets into an integrated economy. It is also necessary for connecting villages with towns, market centres and in bringing together remote and developing regions closer to one another. Transport, therefore, forms a key input for production processes and adequate provision of transport

* Adviser (Transport), Planning Commission, New Delhi.

infrastructure and services helps in increasing productivity and lowering production costs.

The provision of transport infrastructure and services helps in reducing poverty. It needs no emphasis that various public actions aimed at reducing poverty cannot be successful without adequate transport infrastructure and services. It is difficult to visualize meeting the targets of universal education and healthcare for all without first providing adequate transport facilities.

All sectors, including transport, operate within the socio-economic framework provided by the State. Specific policies are designed within the framework for each sector in order to meet national goals and objectives. Currently, the main objective of development planning in India is higher growth in gross domestic product (GDP). The aim is to achieve a target of 8 per cent average GDP growth in the next 10 years. The higher rate of growth must also be accompanied by wider dispersal of economic activity and has to go together with the objectives of reduction in poverty, provision of gainful and high quality employment, improvement in literacy rates, reduction in the growth of population, reduction in gender inequality in illiteracy and wage rate, reduction in infant mortality, etc. As a service industry, transport does not exist for its own sake. It serves as a means to achieve other objectives. In formulating policy for the development of the transport sector, various macro objectives mentioned above therefore have to be taken into account. Some of these are economic in character while others are of a socio-political nature. Economic and non-economic objectives are not always consistent. However, their mix is one of the important factors which determines the pattern of investment and its funding in various sectors of economy.

Transport demand, both freight and passenger, is linked to the level of economic activity and development needs. It runs parallel to the growth of GDP. A higher rate of growth will therefore mean higher transport demand. However, as growth of GDP results in dispersal of economic activity, the demand for transport will go up further.

The demand for transport services is also affected by the structural changes that are taking place in the Indian economy. As a

result, the share of high value low volume commodities has been increasing, which in turn demands more flexible modes such as road transport. There has been an increase in the level of urbanization owing to migration and growth of population. The share of urban areas in the total GDP therefore has been on the rise. Such a spatial shift in the distribution and concentration of economic activity has a profound effect on the nature and level of transport demand. The most obvious result was the increase in demand for urban transport services. Taking various factors into account, it is expected that the elasticity of demand for freight traffic with respect to GDP growth will decline in the future but will still be more than one. With India's resolve to move to a higher growth path, it means that the demand for transport will continue to experience a high growth rate.

Large investments have been made for the development of the transport sector in India. This has resulted in the expansion of transport infrastructure and facilities. There has also been impressive qualitative developments. These include the emergence of the multimodal transport system, training centres of excellence and reduction in the arrears of over-aged assets. In spite of these impressive achievements, the transport infrastructure has not been developed to the extent that it can effectively address the problems of accessibility and mobility needs for the movement of people and goods. About 40 per cent of villages are yet to be linked with all-weather roads. More important, the existing transport network suffers from serious deficiencies, removal of which will also require large amounts of financial resources.

It is estimated that it would be necessary to increase the level of investment by up to three-four times its present level in real terms in order to meet the existing capacity shortages and deficiencies and to accommodate the future growth of transport demand in India. As the introduction of new technology has been slow in the past, the expansion of capacity must be accompanied by upgrading of technology for all modes of transport. As a matter of fact, the required nature and magnitude of capacity expansion and the need for improvement of operational efficiency offer an opportunity for simultaneous capacity expansion and upgrading of technology in the country.

Historically, transport infrastructure and services have been provided by the State. The massive investment requirement, long gestation period and uncertainty of return were mainly responsible for the lack of interest by the private sector. The presence of significant externalities also justified the dominant role of the State in providing basic infrastructure services. In the allocation of budgetary resources, therefore, the development of transport infrastructure is still given high priority. However, the resource requirements for maintenance and expansion have far exceeded the capacity of the budget. For long, the Government had contributed to the development of the transport sector. However, over the years, protected by restrictive practices, the public enterprises grew in size and have operated as "natural monopolies" providing poor quality of service at low prices. Most of them also incurred heavy losses and had to be supported by the Government. This has prompted the demand for liberalization to allow competition in the sector and restructuring for privatization of public enterprises.

Resource constraints, however, are not the only reason for encouraging private sector participation in the development of transport sector. It is also considered necessary to improve the efficiency of transport operations.

A number of benefits will accrue as a result of private sector participation in the development of transport infrastructure and services. The most obvious benefit will be the expansion of transport infrastructure. In addition, private sector participation is expected to help upgrade the technology, improve the quality of infrastructure services and lower the costs and prices of services.

However, as the experience in India demonstrates, it is not easy to associate the private sector in the development of transport infrastructure and services. As a matter of fact, the degree of success in this regard varies from one subsector to another. In what follows, the policy initiatives taken by the Government to involve the private sector in the development of various transport subsectors are highlighted and the current situation with regard to private sector participation is reviewed.

I. RAILWAYS

Indian Railways is one of the largest railway systems in the world. By carrying about 11 million passengers and over 1.20 million tonnes of freight per day the rail system occupies a unique position in the socio-economic map of the country and is considered a means and a barometer of growth. Rail is one of the principal modes of transport for carrying long-haul bulk freight and passenger traffic. It also has an important role as the mass rapid transit mode in the suburban areas of large metropolitan cities.

However, there has been a continuous decline in the share of railways in total traffic. Its share of the freight traffic came down from 89 per cent in 1951 to less than 40 per cent in 2000. Over the same period, the share of passenger traffic came down from 68 per cent to less than 20 per cent. This decline in the share of railways has caused serious distortions in the intermodal mix of traffic leading to various adverse consequences. In order to reverse the trend, it is necessary that the capacity of Indian Railways be augmented. Equally important is the need to improve the quality of rail services through technological upgrading and modernization. In the recent past, Indian Railways took some steps to involve the private sector in the development of railway infrastructure and services. Two separate schemes were initiated. These were own your own wagon scheme (OYWS) and build-own-lease-transfer (BOLT).

Own your own wagon scheme

Under OYWS, private sector firms procure wagons, own them and lease them to Indian Railways, which pays lease charges. The scheme was conceived as a strategy to enhance the capacity of railway transport and to meet the interests of the various sections of the economy by encouraging private parties to own their wagons and supplement the resources available with the railways for the acquisition of rolling stock.

For their investments in wagons, the owners are paid lease charges at the rate of 16 per cent per annum for the first 10 years and 10 per cent for the next 10 years. A number of major companies have

participated in the scheme. Initially, the response was quite encouraging. However, the interest in the scheme has waned lately.

Build-own-lease-transfer scheme

In order to bridge the gap between the requirement and availability of funds, Indian Railways initiated a scheme aimed at the participation of private sector financiers in the development of rail infrastructure which included electrification, gauge conversion, doubling of existing railway line projects, etc. Participation of the private sector through BOLT schemes was expected to serve two purposes. First, the Railways would be able to raise the funds for projects having long gestation periods. Second, as the project would be implemented by the private sector, it was expected that they could be commissioned in a shorter time period.

Under the scheme, a project was awarded to a provider who could undertake the construction of the project. As the BOLT project involved investment, which was generally beyond the resource capability of the provider, financiers/financial institutions were expected to arrange the funds. Financiers were allowed to enter into an agreement directly with the Railways so that they could get back the loans with interest through payments of lease rentals directly from the latter.

The BOLT scheme, however, did not succeed in attracting the private sector. One of the reasons was that the financiers faced certain risks mainly on account of time and cost overruns. Moreover, the financiers were not eligible for the fiscal benefits offered to the infrastructure developer.

As financiers did not have the experience of railway assets creation, it would have been better if the Railways shouldered the responsibility of bearing the pre-commissioning risks. Further, the approved asset-builders of the Railways were small operators and they depended heavily on financial institutions for financing of the projects. For all practical reasons, the responsibility of the private entrepreneur would have ended after the assets were created and handed over to the Railways for operation. On the other hand, financial institutions could be receiving the lease charges from the Railways over a long period of time. Eventually, the scheme was discontinued.

Considering the progress made so far, it can be concluded that private sector participation in the railway sector has not met expectations. Indian Railways have now identified the major obstacles to private sector participation and defined the objectives of such participation more clearly. These redefined objectives would be achieved by encouraging various models of public-private partnership arrangements. These objectives and the new initiatives are discussed below.

Objectives of public-private partnerships

Based on its experience of private participation, the Railways have identified the following objectives:

(a) Supplementing government resources in railway infrastructure projects by private capital flows;

(b) Involving state governments in the creation/development of railway infrastructure for the common public good;

(c) Enhancing the capacity of rail transport to avoid supply-demand mismatch;

(d) Ensuring availability of transport needs consistent with the expected GDP growth of 7 to 8 per cent per year.

A number of partnership models will be adopted to achieve the above-mentioned objectives. These include:

(a) Special purpose vehicle (SPV) route;

(b) Build-own-transfer (BOT) route;

(c) Funding by state governments for viable projects;

(d) Private freight terminals;

(e) Funding by state governments for unremunerative projects;

(f) Suburban transport.

Special purpose vehicle

The identified viable projects can be implemented through various routes. One of these is through the creation of a special purpose vehicle (SPV). The salient features of this model are as follow:

(a) Indian Railways prepares a project report indicating the cost of the various components of the project as well their viability. If the Railways decide to participate in the project, the responsibility of land acquisition lies with the Indian Railways;

(b) The SPV scheme envisages the participation of the private sector and other beneficiaries and national-level infrastructure funding institutions for the development of railway infrastructure through appropriate concessions. Revenue from commercial operations would accrue to SPV through revenue sharing with Indian Railways or through payment of access charges by the Railways;

(c) The land required for a project is to be made available on lease to SPV. Commercial utilization of the Railway land may also be allowed;

(d) In case of green field projects, SPV is free to decide the process relating to project development, construction and maintenance. However, for gauge conversion and double tracking, Indian Railways undertakes maintenance works of the project. Indian Railways can use its own rolling stock for operating the facilities created by SPV. However, in specific cases the responsibility may be given to the private operators.

The concession period allowed for a SPV project can be fairly long. Initially, a concession is granted for 33 years, which may be extended further.

Build-own-transfer

This is an improved version of the earlier BOLT scheme described above. The BOT model envisages private sector participation through the formation of a consortium of construction contractors and financers. The salient features of the scheme are as follows:

(a) Under the scheme, the concessionaire will design, build and own the facility. After the concession period is over, the facility will be transferred to the Railways;

(b) The Concession will be granted through the bidding process. The main parameter for the grant of the concession will be the lowest bid decided on the basis of the present value of the future periodic access charges demanded by the bidder over the concession period;

(c) In order to give sufficient comfort to the lenders, the access charges will go in an escrow account through a tripartite agreement between the Railways, project sponsors and the lenders;

(d) Indian Railways will prepare the project report, which is to be given to all pre-qualified bidders;

(e) The facility created will be maintained and operated by Indian Railways.

Participation by state government

Indian Railways will also take up projects with the help of state governments by creating SPVs. Apart from the central and state governments, financial institutions may also participate in an SPV. Indian Railways may take up projects by creating an SPV in which both Indian Railways and the state government may provide equity.

Private freight terminals

Indian Railways encourage the private sector to develop freight terminals. The Railways pay service charges towards compensation for the capital cost. The private sector promoter is allowed to charge the customer separately for services such as handling/loading/unloading, warehousing and transport.

II. ROADS

The road network in India, which is seemingly very large with a length of about 3 million kilometres, cannot meet the accessibility and mobility requirements of a country of India's size and population. The

road network suffers from serious deficiencies in a number of areas. The road sector along with the rest of the transport sector has remained under funded over successive plan periods in the past. In order to raise resources and complete the projects at a faster pace, the National Highway Act, 1956 was amended in 1995 to encourage private sector participation in the development, maintenance and operation of national highways. The private sector can now invest in national highway projects, levy, collect and retain fees from user charges and is also empowered to regulate traffic on such highways in line with the provisions of the Motor Vehicle Act. A number of incentives are given to the private sector for the development of road projects. These are listed below:

(a) The Government bears the costs for:

(i) Project feasibility studies;

(ii) Shifting of utilities/services;

(iii) Environmental clearance, cutting of trees, etc.;

(iv) Land for the right of way and way side amenities;

(v) The land required for wayside amenities is treated as land required for the project.

(b) The National Highways Authority of India (NHAI) is authorized to provide a capital grant up to 40 per cent of the project cost to make the project viable. However, the quantum of the grant is to be decided on a case-by-case basis;

(c) Toll rates are indexed to the wholesale price index;

(d) A 10-year corporate tax holiday may be availed of within the 20 years after commissioning of the project;

(e) External commercial borrowing of up to 35 per cent of the project cost is permitted;

(f) Import duties on modern and high-capacity road construction equipment have been removed;

(g) Foreign direct investment up to 100 per cent is allowed. The total foreign equity can be up to 15 billion rupees;

(h) The operator can develop and operate wayside amenities such as restaurants, motels/hotels, rest/parking areas, petrol pumps and workshops;

(i) Infrastructure as defined in Section 80-1A (12) of the Income Tax Act now includes roads;

(j) Investment in NHAI bonds is exempted from the capital gains tax.

NHAI has taken up the development of the National Highway Development Project (NHDP), which comprises the Golden Quadrilateral and north-south east-west corridor projects. In addition, NHAI has also been entrusted with the responsibility of developing other national highways, which include roads linking major ports.

National Highway Development Project

One of the most prestigious projects launched in India is the National Highway Development Project (NHDP) comprising 5,846 km of the Golden Quadrilateral and 7,300 km north-south and east-west corridors. While the Golden Quadrilateral links Delhi, Mumbai, Chennai and Kolkata – the major metropolitan cities in the country, the north-south and east-west corridors link the north-south and east-west parts of the country. The north-south corridor links Srinagar in the north with Kanyakumari in the south and the east-west corridor links Silchar in the east with Parbandar in the west. The NHDP project is estimated to cost 540 billion rupees and is being financed through cess on petrol and diesel, market borrowing, multilateral funding and private capital.

The private sector has been involved in implementing a large number of National Highway projects, including those relating to NHDP. Associating the private sector in the development of highways, however, was not an easy task as the experience of NHAI shows. It was initially thought that it would be possible to develop the national highways,

particularly those relating to high traffic volume, exclusively through private sector participation with some support from the Government.

The success in associating with the private sector however has not been to the desired level. The experience indicates that the main issue that needs to be addressed is the traffic risk. It may be mentioned here that the private sector was involved in a number of road sector projects before the National Highway Authority of India took up the development of national highways. However, this involvement mainly related to bypasses and bridges and was implemented by the private sector on a build-operate-transfer basis. In all, 29 such projects involving a sum of 15,000 million rupees were taken up by the private sector.

The National Highway Authority of India has so far awarded 21 projects to the private sector. These projects aggregate to a total length of 1,109 km of highways and are being undertaken following three models of private participation namely, (a) build-operate-transfer, (b) annuity and (c) special purpose vehicle. The total cost of these projects is 68,670 million rupees as per the details shown in table 1.

Table 1. Models of NHAI projects, road mileage and cost

Model	Length (km)	Estimated cost (millions of rupees)
BOT – Toll basis	435	33 140
Annuity basis	476	23 540
Special purpose vehicle	198	11 990
Total	1 109	68 670

Considering the need to develop about 13,000 km of national highways, the response of the private sector in developing national highways has not been very encouraging, as evident from the figures provided in table 1. In order to encourage greater involvement of the private sector, the Government of India has decided to follow the annuity approach in which the concessionaire does not need to bear the commercial risks involved with road operation. In this approach, the concessionaire provides road services in accordance with the project requirements as stipulated by NHAI. The concessionaire is compensated

with fixed semi-annual payments for his investments in the project. The project is awarded to a concessionaire on the basis of the lowest annuity payment demanded. The payment made to the concessionaire takes into consideration the cost of construction and maintenance during the concession period, the cost of raising funds for financing the project and a return on equity. Normally, the period of concession is 17.5 years, which includes a construction period of 2.5 years.

Annuity payments are made after the project is implemented. The system of payment is based on incentives, which ensures that the roads are maintained in good condition and equity of service provided in accordance with the predetermined standards.

In a BOT type of arrangement, the concessionaire is allowed to keep all toll revenues it collects. In addition, NHAI also provides equity or a cash grant up to 40 per cent of the total cost of construction of the project. However, no such incentive is allowed in the case of annuity projects.

NHAI also follows the special purpose vehicle model for the development of national highways as described in the previous section. This model is being increasingly used for the development of highways linking major ports. NHAI sets up an SPV by associating the concerned Port Trust and raises loans in accordance with the predetermined debt-equity ratio. The loan is serviced by toll collection through operation of the facility.

Although the private sector is now playing a role in the development of national highways by NHAI, the major source for funding has been through a cess on petrol and diesel. The contribution of the private sector has been about 20 per cent of the costs of National Highway Development Projects. However, the share of the private sector is likely to go up in the future as it gains more confidence in undertaking road projects through partnership arrangements with the public sector and the overall environment becomes more conducive to private participation.

III. PORTS

Ports are the gateways for India's international trade by sea and handle about 90 per cent of foreign trade. There are 11 major ports and 139 operable minor and intermediate ports along the long coastline of the country.

The major ports of the country handled 281 million tonne of cargo in 2000-01. By the end of 2007 Indian ports are expected to handle 415 million tonnes of cargo. This will require huge investments for the creation of additional facilities. There is also urgent need for the modernization of existing ports to improve their operational efficiency, which is quite low compared with major ports in the region.

In the past, the capacity of the major ports was not adequate to meet the traffic demand. This resulted in various adverse consequences. Efforts were made to create additional capacities at many ports. New port facilities were developed in many minor and intermediate ports. However, major ports still suffer capacity constraints despite the fact that the present aggregate capacity of Indian ports exceeds the available traffic.[1]

The focus therefore has to be on capacity enhancement of major ports through modernization, the provision of cost-effective services and enhancement of service quality rather than creating new capacity. There is also need to commercialize port operations. In such a scenario, the private sector has great potential to play an important role; in the last five years, private sector participation in the development of ports has been very encouraging. Seventeen private sector projects have been approved. These projects will create additional capacity of over 60 million tonnes with an investment of 45,000 million rupees. Other projects with private sector participation are also under consideration.

Private sector participation in the development of ports in India is encouraged through two models. Under the first model, the private sector can exclusively build and operate the facility and after completion

[1] Arpita Mukherjee and Ruchika Sachdeva in their article in this volume of the *Bulletin* discuss more about this problem of port development in India.

of the concession period transfers it to the concerned port authority. The second model envisages the involvement of the private sector through joint venture projects.

However, the private sector cannot participate in all types of port development projects. The areas allowed for private sector participation are listed below:

(a) Leasing out existing port assets;

(b) Construction/creation of additional assets, such as:

(i) Construction and operation of container terminals;

(ii) Construction and operation of bulk, break-bulk, multi-purpose and specialized cargo berths;

(iii) Warehousing, container freight stations, and storage facilities;

(iv) Cranage/handling equipment;

(v) Setting up of captive power plants;

(vi) Dry docking and ship repair facilities.

(c) Leasing of equipment for port handling and leasing of floating crafts from the private sector;

(d) Pilotage;

(e) Captive facilities for port-based industries.

All ports can identify projects for implementation through private sector participation. The concerned port authority prepares the feasibility report of the project and invites tenders from investors based on the feasibility report. The evaluation of the bids is made on the basis of maximum realization to the port using the net present value analysis method. The BOT model is generally preferred. The assets revert to the port authority after the end of the concession period. The port authority decides the concession period for each case not exceeding the allowable maximum of 30 years.

To facilitate the process of private participation, the Government has prepared a model bid document. The salient features of which are as follows:

(a) Introduction of the concept of revenue sharing in place of minimum guaranteed throughput;

(b) Compensation for default;

(c) Permission of giving charge on assets in favour of lenders by the licensee for seeking financial closure.

As a part of the investment policy for ports, a number of incentives are given to the private sector. These are:

(a) Foreign equity up to 100 per cent is now permissible in the construction and maintenance of ports and harbors and in projects providing support services to water transport, such as the operation and maintenance of piers, loading and discharging of vehicles;

(b) Ten years of tax holiday can be availed of during the initial 20 years of concession;

(c) Concessional customs duty at 10 per cent on specified ports equipment.

IV. AIRPORT[2]

Air transport plays an important role in India where the industrial and commercial centres are located far apart and terrain and climatic conditions are quite different from one part of the country to the other. The full potential of the civil aviation sector in India, however, has yet to be realized. This may necessitate an improvement in the quality of services, competitive pricing, better airport infrastructure, etc.

In the past, steps were taken to improve the quality of air transport services. The emphasis was on liberalization of the air transport sector in order to encourage private sector participation. Over

[2] An article by Arpita Mukherjee and Ruchika Sachdeva in this volume provides more details of private sector participation in the air transport sector in India.

the years, the Government has disengaged itself considerably from commercial airline operations. Private sector participation in domestic air services has been aimed at bridging the resource gap in investments to meet the growing demand and improve the managerial and operational efficiency of air services. The process of dis-investment of public sector airlines namely, Air India and Indian Airlines, is under active consideration. In order to make the major airports world class, a decision has been taken to restructure the existing airports at Delhi, Mumbai, Chennai and Kolkata through long-term leases. While the process of disinvestment of Indian Airlines and Air India has received some setbacks, progress with regard to private sector participation in the development of the four metropolitan airports at Delhi, Mumbai, Chennai and Kolkata has been satisfactory.

CONCLUDING REMARKS

The development of the transport sector is a prerequisite for sustained growth of the economy. Availability of adequate transport services is also a key to encouraging foreign direct investment. In this context, it may be pointed out that an improved transport network has played a crucial role in China becoming the largest recipient of foreign direct investment.

India has long suffered from transport bottlenecks, mainly because of budgetary constraints and managerial inefficiencies. To overcome this handicap, conscious efforts are being made to improve transport infrastructure in the country. The importance of private sector participation in bridging the resource gap and improving the operational and managerial efficiency has also been recognized.

In assessing the role of the private sector, a distinction is made between infrastructure and services. The basic infrastructure, with a few exceptions, lies in the hands of the public sector. The long-term goal is to provide open access to fixed infrastructure for all modes of transport and to involve the private sector in the provision of infrastructure facilities. With this end in view, “market principles” are being applied for the development of transport infrastructure and services. Budgetary funds are being utilized to make private investment in fixed infrastructure more attractive.

Some success has been achieved in associating the private sector in ports and national highway projects. Efforts are also being made to make private participation models such as BOT more investor-friendly in the road sector by focusing on downside risks of low traffic volumes.

However, there is still a long way to go in the railway and civil aviation sectors. The effort to encourage private participation has not been very successful in the railways sector. A revised strategy therefore is being pursued and further liberalization is expected in the future. Efforts are also being made to involve the private sector in the development and operation of the four metropolitan airports in the country.

Drawing lessons from experiences in the past, the Government is formulating new policies, offering more attractive incentive packages and developing mechanisms to ensure greater participation of the private sector. With these new initiatives, it is hoped that the involvement of the private sector will increase in the future as the sector gains more confidence in undertaking transport projects through partnership arrangements with the public sector and the overall environment becomes more conducive to private participation through conscious efforts of government.