

1. A government can't afford to invest in infrastructure all by itself. It requires a partnership with the private sector. What are the different types of partnership that the government enters with the private sector for infrastructure expansion? Discuss.

Demand of the question – Explain the first two lines of question initially and then elaborate upon the different types of partnerships that government enters with private sector for infrastructure expansion and evaluate these different types.

Introduction

For an emerging economy like India, with more than a billion people, infrastructure, which provides essential services, also reflects reliability, assurance, low-cost production, and market competitiveness. Public investment in the nation's infrastructure has been insufficient to develop the foundation for long-term growth.

Body

- In this regard, India will unveil a series of infrastructure projects as a part of a plan to invest 100 trillion rupees (US\$1.39 trillion) in the sector over the next five years, in a push to improve the country's ailing economy.
- Such an enormous level of investments can't be afforded by the government alone and thus necessitates partnerships with various stakeholders in the private sector.
- Furthermore, infrastructure can provide social and economic advantages only when the capital and operating costs can be financed sustainably, either by the revenues a project generates or by the government sponsor.
- Too many projects become an economic burden and drain on finances when a government borrows money for an undertaking and neither its revenues nor its direct and indirect economic benefits adequately cover the cost.
- Considering that infrastructure development require huge upfront investments, the Government has embarked on a policy of promoting Public Private Partnership (PPP) as a means of augmenting investment in infrastructure.

In this regard, the various types of PPPs can be seen as given below:

1. In a traditional PPP agreement, the public component of the partnership acts as a contracting officer. It looks for funding and has overall control of the project and its assets. Almost any partnership between a private contractor and a government entity can be considered a PPP.
2. Operation and Maintenance PPP, wherein the private component of the partnership operates and maintains the project, while the public agency acts as the owner of the project. Examples of these contracts include bridges and toll ways.

3. A design-build PPP is similar to a client-contractor arrangement. The private partner designs and builds the facility, while the public partner provides the funds for the project. The public partner retains ownership of the project and any assets generated through its use.
4. Design-build-operate PPPs- are similar to design-build PPPs but include ongoing operation and maintenance of the property facility or project by the private party. The public partner acts as the owner of the installation and provides the funds for construction and operation.
5. Design-Build-Finance-Operate PPP- A variation of the design-build-operate PPP includes the component of general financing supplied by the private contractor. With a design-build-finance-operate arrangement, the private party provides financing and design, then builds, possesses, and operates the facility. The public partner provides funding only while the project is being used or is active.
6. Build-Transfer-Operate PPP- Under a build-transfer-operate P3, the private partner builds the facility and transfers it to the public partner. The public partner then leases operation of the facility to the private party under a long-term lease agreement.
7. Build-Own-Operate PPP- Under a build-own-operate contract, the private contractor builds, possesses, and operates the facility and also has control over profits and losses generated by the facility. This is similar to a privatization process.
8. A lease P3 involves the public owner leasing a facility to a private firm. The private company must operate and provide maintenance for the facility per specified terms, including additions or a remodelling process.
9. With a concession P3, the private agency operates and maintains the facility for a specific period of time. The public partner has power over the ownership, but the private partner possesses owner rights over any addition incurred while the facility is being operated under its domain.

Conclusion

Adequate investment in infrastructure development is a prerequisite for higher economic growth. Due to low investment in infrastructure development, India suffered from a huge infrastructure deficit but things seem to be on the uptick now where target of a 5 trillion dollar economy needs adequate infrastructure development.

2. What has been the overall experience of running mass rapid transit systems by independent agencies like the DMRC? Can such models be replicated in other infrastructure projects and operations also? Critically examine.

Demand of the question – You need to explain the overall experience of DMRC like independent agencies in infrastructure projects and operations in the 1st part of answer and then examine whether such models can be replicated in other projects too and this examination should be comprehensive and all round.

Introduction

For inclusive and environmentally sustainable growth process, an efficient urban transport system including Mass Rapid Transportation System (MRTS) is vital. In this regard, Delhi Metro Rail Corporation Limited, abbreviated to DMRC, is a Centre-state Public Sector company that operates the Delhi Metro.

Body

DMRC has received multiple awards for its "Outstanding Contribution" for promoting world class services in Urban Transportation and adopting best practices of Project Management. The overall experience of agencies like DMRC is discussed below-

1. The Delhi Metro project became the first railway project in the world to be certified for carbon credits for reducing greenhouse gas emissions by the United Nations in 2011. DMRC saved 112.5GW of power by using regenerative brakes in the trains and reduced carbon emissions by 630,000t a year. Thus, these help in environmental conservation through eco-friendly measures.
2. Delhi Metro was designed to be integrated with other public transport. DMRC signed an agreement with bus operator Delhi Transport Corporation (DTC) to integrate management and through-ticketing. Consequently, these help in free flowing system of transportation.
3. The organisational structure that the DMRC followed was very functional, consisting of only two departments: Organisation and Operations. This meant that costs were limited to specific factors of energy, manpower and materials and unnecessary expenditure was kept to a minimum. Thus, they help in improving organisational efficiency.
4. The DMRC's approach to cooperating with local stakeholders and the federal government's recognition of the need to refrain from interfering with the DMRC's decision-making were major factors in aligning the project's stakeholders. Thus, they help in broad basing decision making.
5. But at the same time, the Central Groundwater Board has accused the DMRC of illegal dewatering practices during metro construction. It claimed that large-scale dewatering has led to a lowering of the groundwater table in Delhi.

It can be seen that following a model on the lines of independent agencies like DMRC can be largely beneficial for other infrastructure projects and operations as discussed in the points below:

1. Project design. In India, major infrastructure projects are often stalled because of lack of funds, political interference, lack of professionalism and accountability, property disputes, and corruption. The DMRC attempted to put in place effective systems to ensure the smooth progress of the project to avoid problems.
2. Institutional setting. The DMRC board of directors has absolute freedom to make technical decisions and depends on the government principally for funding and land acquisition. This arrangement has proven effective in reducing interference from politicians and bureaucrats.
3. Skill transfer. To strengthen its own technical expertise and human resources, DMRC made sure that its staff members were central to the project and did not rely overly on general consultants.
4. Project finance. Globally, most urban metro projects were financially unviable because the fares could not be fixed solely on a commercial basis. To avoid such a situation, the Delhi metro project was conceived as a social sector project. This allowed a significant portion of the project cost to be funded through a soft loan provided by the Japanese government through JICA (former Japan Bank for International Cooperation).

At the same time, it is necessary to learn from DMRC types of systems to avoid pitfalls in other infrastructure projects like environmental neglect in auxiliary fields and avoiding too much reliance on individual leadership qualities and focusing on strengthening the institutional structures. Also, oversight needs to be increased in other infra projects in terms of transparency and public outreach while strategic projects need to be further scrutinised for viability in such projects.

Conclusion

New cities make new technologies come alive, often replacing inefficient alternatives. Electricity illuminated 19th century England and became commonplace. Now, the Internet is spreading a communications revolution that promises to change the way we work and play. New India must take all these innovations into account and plan for its destined course in multiple ways.

3. In your views, what type of investment model is best suited for the development of logistic hubs in the country? Discuss.

Demand of the question – You need to enumerate various investment models and then discuss the best suitable for the development of logistics hub in the country.

Introduction

Logistics cost in India accounts for 13-17% of the Gross Domestic Product (GDP) which is nearly double (6-9%) the logistics cost to GDP ratio in developed countries such as the US, Hong Kong and France which clearly demonstrates the need for logistic hubs where much of the higher cost could be attributed to absence of efficient intermodal and multimodal transport systems.

Body

- Investment models are of various types wherein based on who invests in assets for increasing production, there are three major investment models:
 1. Public Investment Model: For a government to invest, it needs revenue (mainly tax revenue), but the present tax revenues of India are not sufficient enough to meet the budgetary expenditure of India. So this type of model can be counter-productive for development of logistics hub as it entails high investment.
 2. Private Investment Model: The private investment can come from India or abroad. If it's from abroad – they can be as FDI or FPI. Also, for a country to grow and increase its income, the investment has to be increased. Infrastructure to support production – transport, energy and communication – should also be developed. Here, it can be seen that this model is suited for the development of a logistics hub.
 3. Public Private Partnership Model: PPP means combining the best benefit from both public and private investments. Some of the Project Finance Schemes are as below:
 - a. BOT (build-operate-transfer).
 - b. BOOT (build-own-operate-transfer).
 - c. BOO (build-own-operate).
 - d. BLT (build-lease-transfer).
- In terms of investment in logistics hubs, there are two other investment models-
 1. Domestic Investment Model – It can be from Public, Private or PPP.
 2. Foreign Investment Model – It can be 100% FDI or Foreign-Domestic Mix.
- And, depending on where the investment goes (or how investments are planned), there are various investment models. A few include:
 - Sector Specific Investment Models (In SEZ or MIZ etc).
 - Cluster Investment Model

- We can thus say that cluster investment model can be best suited for investment in logistics hub development in India where 100% foreign direct investment (FDI) in the storage and warehousing sector under the automatic route has been permitted since several years.
- In addition to this, the government has recently announced infrastructure status to the logistics industry.
- Further, in order to facilitate private investments to create modern warehousing, especially on identified nodes, exclusive warehousing zones needs to be created to develop new and modern warehousing infrastructure.
- Also, Creation of logistics and warehousing policies separate from industrial promotion policies is needed.

Conclusion

Despite everything, technology has opened boundaries for the logistics industry. Digital freight marketplaces are increasingly turning up and these are not driven mainly by the big players in the industry but are being controlled by smaller start-ups too which showcases the employment generation capacity of the industry and need to focus on investment in this sector.

