

What is PPP?

History shows us that there are two ways of providing public infrastructure, direct provision by the public sector and facilitation of private-sector provision, either by regulation, general tax subsidy or by contract.

Public-Private Partnerships “PPPs” may be considered as a way of facilitating private provision to help meet an increasing demand for public infrastructure.

By their very nature, PPPs in the highway sector bring together the public and private sectors in providing facilities essential to the efficient functioning of the economy and for economic and social development.

The benefits from effective and adequate highway service provision on the wider economy are great and of national strategic importance.

The public and private sectors both have essential and specific roles within a partnership in ensuring the most suitable combination of skills and resources to achieve the best possible service provision for the public in the highway sector.

The partnership seeks to enable private sector funding for highway investment by allowing the private sector sufficient scope for efficiency gains in project delivery and to share these benefits by the public and private sectors alike.

Public character of infrastructure

Public infrastructure can be defined as public goods, i.e. facilities which are necessary for the functioning of the economy and society, but which traditionally and for economic reasons has been largely provided by the public sector. Transportation is considered as an “economic” infrastructure, deemed essential for day-to-day economic activity.

There is thus a collective public interest in ensuring the provision of a network for the benefit of the economy at large. There is thus a need for direct government policy in directing and allocating resources for the development of the network. This public character of highway infrastructure may be represented by the following considerations.

Network benefits. Highways serve the public interest and permit economic development insofar as they are part of a coherent network which can allow service provision from origin to destination. Thus, although road transport services, including the associated cost of highway infrastructure, represent a small proportion of market prices for goods, the costs of any disruption to transport would likely be much greater than the direct transport cost itself. Likewise, since each link in the network provides part of the overall transport itinerary, it may only require one link to be disrupted, e.g. bridge closure, for the economic costs to be felt for the whole itinerary. There is thus a strong public interest in ensuring the coherence and functioning of the network as a whole, which overrides the specific interest on each link of the network.

Network externalities (or “spillovers”). Highway infrastructure can develop a large degree of benefits or costs on those who are neither the users or providers of the highway infrastructure. For example, industry benefits from more efficient road transport, whose benefits would partly be transferred to its workforce through higher employment and salaries, whether or not their employees were users of the road network. Conversely, congestion provides a negative externality, since it entails additional costs, an ultimately higher prices, on products, thus affecting both users and non-users of the road system. Whilst all products produce externalities, the “spillovers” provided by highway infrastructure are generally much greater than those for other activities.



Private financing of infrastructure and other long-term capital projects.
Journal of Applied Finance and Investment. Threadgold. 1996.

Public good. Highway infrastructure, as part of transport infrastructure, provides a service which is shared by community and which, for maximum public benefit, should have easy access by all the community. It is moreover difficult to restrict access from those who may not wish to pay for the service, on all or a significant part of the highway network. Indeed, outside of congestion effects, the marginal cost of an additional user both on the infrastructure and other users is negligible and greatest economic benefit is thus achieved with unrestricted use. This concept underlines the process of economic evaluation, the provision of government support and the definition of a tolling policy consistent with the public interest (Module 3).

Scale of investments. Highway infrastructure, as for much public infrastructure, involves a very large initial investment for a fixed infrastructure and generally greatly superior to operating costs. The costs of establishing an infrastructure are thus substantial and which by the time the service is made available, are “sunk costs”, i.e. which may not be recovered, whether or not usage is at the level anticipated.

Natural monopoly. When markets are naturally competitive and can be served efficiently by several firms, ordinary competition usually works well. However, the characteristics mentioned above, notably the scale of investments and the network effects mentioned above, generally make it impractical and inefficient to allow direct competition between providers. Highway infrastructure can thus be considered to be naturally monopolistic, in which normal head-to-head competition does not operate. Competitively auctioned contracts in these industries allow some of the benefits of competition to be brought to bear in the absence of direct competition between firms. Thus, in such contracts, competition in the market is substituted for competition for the market. However, monopoly provision requires some form of public control (regulators, Module 3).



The Rationale for Concessions – natural monopolies.
In “Concessions for Infrastructure: A Guide to Their Design and Award”.The World Bank.

Strategic importance. Highway infrastructure ensures the widest accessibility of communities and regions, necessary for strategic issues of ensuring food security and the movement of national police and defense forces. In developing countries particularly,

where highway infrastructure is limited, the government may consider it desirable to have direct ownership and control of its national assets to facilitate rapid and unhindered intervention in time of need.

Commercialization of infrastructure

Public infrastructure is expensive. Free access puts direct and considerable burden on the public budget. Direct provision by the public sector through tax revenue inherently puts a cap on the level of infrastructure which may be provided. Moreover, use of public funds for highway investment and maintenance are subject to annual public sector budget reviews and which may suffer under more urgent needs in other sectors. Critical highway investments which may benefit the economy may be repeatedly delayed through lack of resources; maintenance programs may be may be downsized with fatal consequences to the physical infrastructure.

The financial reality of government budgets means that economic optimization may not be reached or even achievable under traditional procurement methods. Although experienced in all economies, such financial realities are most evident in the developing world.

We may recall two fundamental principles of funding for highway infrastructure:

- under the “taxpayer pays” principle (the “traditional” approach), public funds are mobilized. This method responds well to the highway characteristics of public good and network externalities by ensuring the participation of all tax-paying members of the community, whether direct road users or not. However, it may not encourage optimal use of resources, particularly under congestion, nor may it ensure the most equitable form of payment by the community, where direct user benefits outsize network externalities.
- under the “user pays” principle, road users are charged directly for the use of the road infrastructure, either through “right to roam” (access charges, defined as a fixed charge for unlimited access to the network, often presented by a sticker on the windscreen of the vehicle, referred to as a “vignette”) or direct tolling

These methods of infrastructure funding are often deeply embedded in political ideals and customs. This can make any changes in the approach to funding a highly charged political issue in the political process.

They moreover define the basic difference between the concession and PFI approaches to PPP, the concession approach relying on the “user pays” principle and allowing the direct mobilization of funds for highway investment; whilst the “taxpayer pays” principle relies on continued government support by availability payments under the PFI approach.

The commercialization of infrastructure aims at

- **enhancing public sector efficiency** to achieve the greatest return from public expenditure
- **increasing the use of the private sector** in providing and managing infrastructure

- **introducing road pricing** as an effective method of tackling the increasing problem of congestion by making the full costs apparent to the road user and in effect rationing the use of the highway infrastructure
- **redefining the role of the public sector** as procuring services on behalf of the public rather than acquiring assets. The public sector is thus redefined from that of service provider to that of facilitator and guarantor.

The public sector may achieve such an objective by being more focused on the requirements of the road user and by introducing private sector management methods practices into the public sector.

In order to introduce commercial practices to the highways sector, Ian Heggie and Piers Vickers have identified four complementary “basic building blocks” of the reform:

- **Assigning responsibility** in creating a consistent organizational structure with clear assigned responsibilities between the different department and levels of governments for managing different parts of the road network. These responsibilities include maintenance, operations, improvements, road network development, traffic management, accidents and claims resolution, and assessment of environmental impact.
- **Ensuring Ownership** requiring an active participation of road users to help win public support for an adequate level (and more stable) funding for road investments and maintenance through user-pay or fee-for-service arrangements. This calls for strengthened management and programming systems to enable the definition of the interventions in the road network and the required level and structure of users’ charges or contributions from the budget to pay for the preferred amount and quality of those interventions. The linkage of users’ payments to the benefits received from the interventions is a necessary step to bring ownership and support for the required funding. Participation in the definition of the program of interventions can further reinforce ownership.
- **Maintaining Steady Financing.** Adequate budget allocation to roads under present fiscal conditions is difficult to sustain. Several countries have separated road financing from the government’s consolidated budget, have introduced explicit road tariffs consisting primarily of vehicle license fees and fuel levies, and have secured the adequate auditing and control of those resources (in a few cases, through the creation of a fund with board-appointed chief executive officer).
- **Promoting Commercial management** in separating planning and management of road works from implementation. Road administrations have traditionally been centrally managed, combining governmental functions (such as administration, management and planning) with production functions (design, construction, maintenance and operation). They are now slowly and step by step moving towards an identification of client and producer functions, followed by a separation / corporatization / (privatization) of these functions. This usually involves contracting out of implementation activities to the private sector (requiring improvement of contracting capabilities) recruiting and paying capable staff, and building sound management information systems.



Commercial Management and Financing of Roads, Heggie and Vickers, 1998.



Talvitie A.P. TRB 1996 International Experience in Restructuring the Road Sector

The planning function of the public sector is moreover reinforced. The public sector must develop an effective transport policy through the development of a strategy and specific actions. The policies will vary per country, depending on factors such as the stage of national economic development reached and the geographical and natural conditions but should ensure that the community has access to affordable, safe and efficient transport services. When the transport sector performs badly, all groups tend to pay a high price. A national transport policy framework should set out the objectives and guidelines for sector reform.

Role of public-private partnerships

PPP seeks to obtain the best from the public and private sectors by employing private sector innovation and business skills where appropriate, while allowing overall planning, coordination and regulatory control of the infrastructure networks to remain within the public sector.

The levels at which the balance between the public and private sectors in transport can be changed are oversight, execution, and finance. Oversight generally involves user participation in the planning and regulatory aspects of sector operations. Execution refers mainly to how institutions actually undertake their work, including the extent to which public institutions subcontract to private enterprises and how they do this. Finance means the level at which the private enterprise provides some or all of the capital financing that would otherwise have come from the public sector.

At one end of the spectrum are government departments that execute the work with their own labor forces; at the opposite end are private enterprises that fully undertake this responsibility. In between are many alternative structures of PPP for the assignment of risks and responsibilities at the management level

The various legal and economic histories have resulted in many forms of PPP worldwide, each adapted to their own specific culture, legal and administrative frameworks and financing sources. Despite the diversity of application, some common characteristics may be identified.

A Public-Private Partnership (PPP) constitutes a sustained collaborative effort between the public sector (government agencies) and private enterprises to achieve a common objective (e.g., the road project) while they pursue their own individual interests. In a PPP each partner:

- shares in the design of a road project;
- contributes a portion of the financial, managerial and technical resources needed to execute and sometimes operates the project in accordance with each partner's comparative advantage, and;
- partially shoulders the risks associated with the project and obtains the benefits -those expected by each partner- as defined in the project contract.

A PPP project requires the following:

- **Change in roles:** A PPP requires a shift in the roles and attitudes of public and private entities, moving away from the conventional client-contractor approach, towards focusing on the core functions of supervision and regulation for the public authorities, and by the assuming of greater responsibilities and risks in execution, operation and the mobilization of resources for the private sector. This change requires the partners to transform as some capacities of the public sector are transferred to the private sector. In the partnership, the public sector is usually represented by the roads agency, and the private sector (enterprise(s) or consortium of firms, road operators, consultants, entrepreneurs, and/or financial entities).
- **A common objective:** the provision to road users of facilities and services that meet clearly defined physical and performance standards, encompassing interventions that range from the construction and operation of a new road to the simpler maintenance of an existing infrastructure. Each partner must bring his resources (money, property, authority, reputation), insofar as they find value to the partnership.
- **A sustained collaborative effort:** the basis of the third "P" of the PPP, entailing a joint alliance between the public and private sectors beyond the traditional contractual relationship, that brings the best of each partner competences to optimize the achievement of the common objective. Given the mid- or long-term nature of that objective and the transformation generated by the shift in roles, the partnership needs to be sustained over a long period of time. The longer the nature of the objective, the larger are the uncertainties associated with the project and the more critical and relevant becomes the third "P" of a PPP.

The individual interests of each partner: generally, a return on the investment for the private partner, and a net benefit to the society and the economy as a whole for the public entity (through the achievement of specific transport-related goals, such as the improvement of accessibility or the reduction of transport costs). These interests are channeled through the definition of risks. Thus, a clear assignment of risks is a precondition of the implementation of a PPP initiative.