

## Public Private Partnership in Highway Construction in India

Mr. Mahesh M. Barad  
I/C HOD Civil Engg Dept.  
KPIT Mudal Vathar  
Maheshbarad1000@gmail.com

Dr. K. Ravi  
Director AMGOI  
KPIT Mudal Vathar

**Abstract:** Now a day in India the transportation sector is developing fastly. The government of India is now not fully capable to handle the large highway project because of the less man power, poor financing capacities, and inadequate advanced machinery. Because of these reason the project is going delay and also because of that cost of the project is also being increased. The PPP is the best solution to overcome these problems. The PPP handle the project very well as they has own man power, financing capacities, advanced equipment.

**Key Word** –PPP; BOT (Toll); BOT(Annuity).SPV.

\*\*\*\*\*

### I. INTRODUCTION

Traditionally in India, the road projects were fully financed, controlled and supervised by the government. The implementation of road projects was purely dependent on the availability of funds, their allocation and release out of the budget of the government. As the development construction and maintenance of roads involves huge costs, the government has not been in a position to allocate the required funds to the road sector. This is particularly because the government has to cater for the development of various other sectors and also for the social cause including care and education.

Because of the above constraints, commercialization of infrastructure project has become the need of the day. Besides reducing the burden on the budgetary allocation of the government, commercialization also helps in increasing the efficiency of the resources deployed in the project through enforcement of better management techniques under the 'Public Private Partnership' (PPP) schemes.

Several incentives have been announced by the government to attract private sector participation and foreign direct investment. These schemes are called 'Public Private Partnership' or PPP schemes.

The incentives announced include the following:

- a) Government to bear the cost of i) project feasibility studies ii) land for the right of way and way-side amenities iii) shifting of utilities and iv) environmental clearance, cutting of trees etc.
- b) Foreign direct investment up to 100% in road sector.
- c) Provision of subsidy up to 40% of project cost to make projects viable.
- d) 100% tax exemption in any consecutive 10 years out of 20 years after commissioning of the project.

- e) Duty – free import of high capacity and modern road construction equipment.
- f) Declaration of the road sector as an industry.
- g) Easier external commercial borrowing norms.
- h) Right to retain the toll; further toll rates can be revised based on the wholesale price index.

### II. LITERATURE REVIEW

#### Kalidindi S et al, (2009) [1]

National highways play a key role in the economic growth of the country. The Union Government of India has taken various measures to upgrade the capacity and quality of the National Highways network. PPP routes have been adopted by the government to meet the funding gap and use techno-managerial efficiencies of the private sector to obviate the inefficiencies in the traditional public procurement system.

#### Suresh M, et al, (2013) [2]

PPP has several advantages such as huge investment in public infrastructure, efficient delivery of services, cost effectiveness, performance based contracts, risks sharing, optimum use assets and long term investment opportunities. Though India follows the mixed economic approach which relies on public private involvement in economic activities. Public private partnership is delivering infrastructure services is now decade old, with majority of project coming in lie within last 5 years. In the context of new economic reforms and globalization, the scope for PPP's is vast and wide and likely to take lead in future. Union Finance Minister Hon PRANAB MUKHERJEE has rightly said that "with effectiveness use of PPP we can achieve the desired level of growth." Taking the lead from the above statement, it can be concluded that the need of India is not a PPP but effective PPP.

**GeethanjaliNataraj, et al,(2014) [3]**

The public sector is expected to continue to play an important role in building transport infrastructure. However, the resources needed are much larger than the public sector can provide and public investment will therefore have to be supplemented by private sector investment PPP. This strategy was followed in the eleventh plan and it has begun to show results. PPP's are still a relatively new phenomenon in India and in a nascent stage compared to the experienced of a number of other countries. PPP have compensated for the budgetary and borrowing constraints of the governments. They also imply efficient use of resources, availability of modern technology and better project design. They have also led to faster implementation, reduced life cycle cost and more optimal risk allocation. The private sector has responded to Governments attempts to encourage private sector led growth and investment for meeting infrastructure deficit. Projects in the road sector now attracts for more bidder than they did 5 year ago.

**Shri.ManmohanSighn, et al, (2014) [4]**

**(Source – PM inaugurate address at the conferences on PPP in national highway)**

Public Private Partnership projects takes much less time to complete and the government does not have to bear cost overruns. This will not only enable us to leverage our limited public resources but also improve efficient of service delivery.

**Das T, et al,(2014) [5]**

PPP is an assention between the legislature and the private segment with the end goal of provisioning of open administrations or foundation with a typical vision, the undertaking of both the segment is mixed in a stage for achievement of common advantages. It is one of the choices in the hands of Govt to draw in the speculation when it can't the only one bear the weight base improvement. An endeavor has been made in the study to look at its execution at various task level, all things considered, circumstance in Indian connection. Numerous states in India have depended on PPPs for financing foundation and other open utility administrations. Ventures in physical base segments secured under this model include: airplane terminals, instruction, human services, ports, power, railroads, street, tourism, urban advancement, duct and extensions, telecom. An endeavor has likewise been made to concentrate on the requirements that are uncovered in course of our study over the execution of PPP undertakings.

**What is mean by Viability Gap Funding –**

To make a project commercially viable, the Government of India has also been providing financial support through Viability Gap Funding (VGF). VGF is provided in the form

of a capital grant at the stage of project construction. VGF provides a maximum of 20% of the total estimated project cost. An additional 20% could be provided by the sponsoring Ministry or agency. The primary objective of India's VGF program is to fill the gap between the expected revenue stream and the project's cost. As such, a project can attract private investments even if the projected revenue stream is below the overall cost. VGF might have contributed to the initially high competition in the Indian PPP market. As the amount of VGF is the key selection criteria in the bidding process, there is a strong incentive for the private partner to limit the VGF to the minimum amount required. According to available data, 131 road PPP projects with a total cost of \$9.8 billion have been approved with VGF support of \$2 billion (almost 20% of the total cost).

**III. TYPES OF PUBLIC PRIVATE PARTNERSHIP  
ADOPTED IN INDIA FOR HIGHWAY**

**CONSTRUCTION:**

Many types of PPP schemes exist around the world; the common forms that are popular in the road sector in India are :

- a) Built Operate Transfer (Toll Basis)
- b) Built Operate Transfer (Annuity Basis)
- c) Special Purpose Vehicle (SPV) Basis.

**A) Built Operate Transfer ( Toll Basis) :**

In a BOT –Toll model, the organization which embraces the undertaking or the "Concessionaire" is required to meet to all the expenses including, development, upkeep and operation till the end of concession period ; the concessionaire is permitted to gather the recommended toll amid concession period. The concessionaire recoups the whole forthright cost alongside premium and degree of profitability out of future toll accumulation. In this model, the danger of activity variety is to be consumed by the concessionaire.

As ON April 2009, 94 ventures have been taken up at an estimation of about Rs 38,168 crore under Build Operate and Transfer (BOT) premise (Toll based projects). Out of this, 43 ventures have been finished and 51 task are under advancement. The movement income hazard, which is one of the basic dangers connected with the PPP street ventures in India, is additionally apportioned to the Concessionaire

**B)Built operate transfer (Annuity Basis):**

In a BOT – Annuity demonstrate, the concessionaire is required to meet all the expenses including development and upkeep till the end of concession period; operation is finished by the legislature and the concessionaire is paid a pre-decided annuity sum by the administration amid the

concession period. The concessionaire recuperates the whole speculation and a foreordained expense of return, out of the annuities payable by the customer/government. The tolling is finished by the administration. In this model, the danger of activity variety is consumed by the administration or the customer.

As on April 2009, 25 ventures esteemed at about Rs 9,412 crore have been tackled BOT –Annuity premise; out of this nine activities have been finished and the rest are under advancement.

#### B) Special Purpose Vehicle :

In some cases, the government may form a ‘Special Purpose Vehicle’ (SPV) and implement the project under a commercial format. The SPV involves the government department, the financial institutions and the concessionaire or the beneficiary organization. In this case the amount spent on developments of highways will be recovered in prescribed concession period by way of collection of toll by SPV.

#### IV. CONCLUSIONS

National parkways assume a key part in the monetary development of the nation. The Union Government of India has taken different measures to update the limit and nature of the National Highways system. PPP courses have been received by the legislature to meet the financing crevice and use techno-administrative efficiencies of the private segment to block the inefficiencies in the conventional open acquirement framework. Different changes have been presented by the Union Government of India to make an empowering domain for interest of the private segment in the improvement of the street ventures through the PPP course. Model concession assentions have been produced to encourage institutionalization of terms and conditions and guarantee consistency in the different understandings for PPP street ventures. BOT (Toll) and BOT (Annuity) are the two PPP models that have been utilized as a part of acquiring the National Highways ventures in India. The BOT (Toll) model is dominantly utilized for improvement of ventures as a part of extends with high movement thickness and money related suitability. Then again, BOT (Annuity) is the more appealing PPP model for

improvement of street tasks in those extends of the National Highway system with medium/low movement thickness. Henceforth, the danger profile of the ventures and budgetary feasibility of the task impacts the choice of the sort of PPP models. Regardless of the different activities taken by the Government, the support of the private part has not been up to the desires of the Government because of various saw dangers by the private segment.

#### V. SUGGESTION :-

By studying all factor of BOT (Toll) and BOT (Annuity), the BOT (Toll) model is best one because the risk absorption of increase in traffic density (which is major factor) is taken by the concessionaire in case of BOT (Toll) model.

#### VI. ACKNOWLEDGEMENTS

Author is very much thankful to Mr.Santosh.P.More, Principal,K.P.Patil Institute Of Technology Mudal and Mr.VikasK.Patil Trustee, K.P.Patil Institute Of Technology Mudal for their kind permission and support rendered in preparing this paper.

#### REFERENCES

- [1] Suresh M, Sundhararam R (2013), “Public Private Partnership in India : Relevance, Progress and Prospects” Indian Journal of Applied Research, Vol.3, Issue -9, pp.1-10.
- [2] Gupta A.K, Trivedi M.K, Kansal.R (2013) “Risk Variation Assessment Of Indian Road PPP Projects” International Journal of Science, Environment and Technology, Vol. 2, issue -5, pp.1-3
- [3] Nataraj G (2014), “Infrastructure Challenges In India: The Role Of Public Private Partnership.” Observer research foundation occasion paper 49.pp.1-9
- [4] Das T, Sikidar S ( 2014) “ Public Private Participation (PPP) In India-Its Operational Mechanism And Challenges Ahead” Abhinav International Monthly Refereed Journal of Research in Management & Technology, Vol.3,issue-4,.pp.5- 8.
- [5] Mathieu Verougstraete,Hyo Jin Kang (2014) “Mobilizing Private Funding: the Case of the National Highways of India” Economic and Social commission for Asia and the Pacific.
- [6] Khanna S.K, Justo C.G.E A. Veeraragavan,(2014) “Highway Engineering” Nem Chand and Bros Publication, Roorkee.