

## Effect of Inaccuracy of Traffic Growth Rate in a Highway PPP Project - A Case Study

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**Abstract:** - This paper represents a case where traffic growth has not met the approximations done by the contractor before commencement of the project. Due to low revenue generation from expected toll collection the entire project has become financially non viable which ultimately led to surrender of the project and a tremendous loss to public interest due to a potential delay of 4 years in project completion.

**Keywords:** - Traffic Growth Estimation, PPP/BOT

### I. INTRODUCTION

Major policy initiatives have been taken by the Government to attract foreign as well as domestic private investments. To promote involvement of the private sector in construction and maintenance of National Highways, Some Projects are offered on Build Operate and Transfer (BOT) basis to private agencies. After the concession period, which can range up to 30 years, this road is to be transferred back to NHAI by the Concessionaries.

Traffic is the prime source of revenue for any BOT project and it is utmost necessary to assess existing traffic and give a projection model of traffic growth over the concession period of the BOT project. As of now various projects are stalled due to reasons mostly being non viability of project on the decided finance structures and contract provisions. This non viability is due to gap between present tollable traffic count and projected traffic count at the start of the project planning.

Traffic gets generated as a result of several inter-connected factors, encompassing the prevailing socio-economic conditions such as population, gross domestic product, vehicle ownership, sectoral economic activities etc. Traffic demand estimation, therefore, requires detailed studies and investigations concerning these factors as well as the magnitude and characteristics of the existing traffic flows and its past trend in respect of nature, composition and growth.

### II. PROJECT BACKGROUND

The project road under study is a section of NH6 in the state of Maharashtra. The project corridor starts from end of Amravati Bypass at km 166+725 of NH-6 on East Side and ends near Jalgaon at km 441.95 of NH-6 on West side. The total length of project road is 275 kms. The project corridor passes through important places like Akola, Khamgaon, Malkapur, Bhusawal, Jalgaon, Dhule, Sakri and Navapur under Amravati, Akola, Buldana, Jalgaon, Districts of Maharashtra.



The Project was awarded to L & T after successful bid of premium of Rs 135 Crore to be given to the NHAI with 5% increment every year. This aggressive bid was done on the basis of substantial amount of money coming in from the toll revenues in the range of 200 Crore and above.

### III. TRAFFIC GROWTH REPORT AND ESTIMATES

Fig 1. Growth rates % As per DPR Para no 6.10.5

Sr. No.	Period	Car	BUS	LCV	2-A Truck	3-A Truck	MAV
1	2013-17	8.00	7.30	11.20	5.00	6.4	6.4
2	2018-22	7.30	6.60	10.80	5.00	6.2	6.2
3	2023-27	6.60	6.00	10.40	5.00	5.9	5.9
4	2028-32	6.10	5.50	10.00	5.00	5.7	5.7
5	Beyond 32	5.80	5.30	10.80	5.00	5.6	5.6

These are the Growth Rates adopted by the DPR consultant at the stage where project was being evaluated for viability purposes. These growth rates are modest but also rationally correct due to the slack in the infrastructure sector in the country and less growth of traffic in the running years. The DPR consultant had recommended a bid of amount 10-15 Crores in premium or less but the winning bid was of the amount 135 Crore.

Fig 2 . Growth Rates adopted by Contractor L & T

	2013	2014	2015	2016	2017-21
Car	5	5	7	7	9
Bus	3	3	4	4	5.5
LCV	7	7	8	9	10
2A Truck	-3	-3.5	-4	-4.5	-4.5
3A Truck	3	5	7	8	8.5
MAV	22	20	18	16	10

#### **IV. EFFECT OF MISCALCULATION**

The result of such varied traffic growth approximations has resulted the contractor to realise that the project cannot be executed on the current price and costing and has forfeited the project. The estimated toll collection from the current traffic volume was around 50-60 Crore which was way less than the required 200 Crore collection to make the project financially feasible. If the project would have been executed then the company would have been not in a position to recover the losses because the quantum being so huge. The Project stated to start in Oct 2012 is now up for retender and would likely start by 2016 delaying the completion of project to around 2018-2019.

#### **V. CONCLUSION**

The tremendous delay of the project is due to various factors but inaccuracy in traffic growth projections is a major reason where apart from the contractor the government also did not cross verify it to find reasonable solution to such aggressive bidding. Money lost due to the delay is in the range of 2000Cr and this loss is directly affected to the common man as tax payers money is used for government projects.

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