



## Public Private Partnership: Vadodara-Halol Toll Road

### Project Description

Vadodara Halol Toll Road Company Ltd. was a company constituted and promoted by Gujarat government for developing and implementing Vadodara Halol Road Project under Built, Own, Operate and Transfer (BOOT) method. This has been a flagship project by the Gujarat government for fulfilling its Vision 2010- an infrastructure master plan developed by the government, which consequently paved way for similar projects being undertaken by the governments in the rest of India. The underlying principle of the vision was to develop infrastructure projects in Gujarat by attracting private sector participation. The project involved widening and strengthening of 32 kilometres (km) of the existing two-lane State Highway (SH 87) connecting Vadodara to the industrial town of Halol into a four-lane tolled expressway. The construction of VHTR commenced on 1st March 1999 and completed on 15th September 2000. The toll operations commenced on 24th October 2000. VHTRL manages, operates and maintains the road for 30 years starting from 2000.

### PPP Structure of the project

The Vadodara Halol Toll Road (VHTR) project was developed by means of constituting a special purpose vehicle (SPV) - Vadodara Halol Toll Road Company Ltd. (VHTRL). It entered into a concession agreement with the Gujarat government to design, finance, build, operate, maintain and transfer the facility after recovery of a predetermined return. VHTRL appointed Punj Lloyd and IRCON International Ltd. as contractors to construct, operate and maintain the project.

The Government of Gujarat (GoG) commissioned Infrastructure Leasing and Financial Services (IL&FS) to jointly promote and develop Vadodara-Halol project and entered into a MoA to this effect. The cost of the project was Rs. 161 cr. of which the construction cost accounted for approximately Rs, 119 cr. Equity of Rs. 67.9 cr. was raised from GoG, IL&FS, and the consortium of contractors. IL&FS also raised debt of

Rs. 93.2 cr. through various Indian and foreign financial institutions including the World Bank.

After signing the MoA, a consulting firm was selected by GoG and IL&FS through a competitive bidding process and commissioned to undertake a preliminary technical-economic feasibility study. Based on the findings of this study, GoG approved widening and strengthening of the existing two lane road to four with the provision of service roads. Investment recovery was recommended in the form of toll collection. The development of the 31.7km stretch was achieved in a single phase with all the required road works and release facilities being developed. While the concessionaire was to ensure completion of all works within a period of 18 months, the construction of the entire stretch was completed 4 months ahead of schedule.

One of the key features of this project was its Environmental and Social Impact Assessment and Mitigation plan which estimated around 300 families to be affected by this project. A systematic analysis of various alternatives was undertaken and bypasses were introduced at various critical locations. The extent of resettlement was hence reduced and resulted in the resettlement of only 10 project affected households. VHTRL also undertook voluntary relocation of temples, schools and environmental infrastructure. It also created additional facilities such as pedestrian subways and compound walls and provided additional houses for the relocation of communities. This project was in fact designated by the World Bank as a 'best practice' example for its environment risk mitigation and social rehabilitation plan in India amongst World Bank assisted projects.

The work of the project was completed by September 2000 and the operations commenced in October 2000. The contract made provision for five major items of operations and maintenance during the life of the project. These were:

- a. Routine Maintenance (continuous)

- b. Periodic Overlay (every five year)
- c. Periodic Renewal (every fifteen year)
- d. Toll operation and management (once a year)

The concession period will end in 2030. However, in case the developer is unable to recover project cost and earn a return, there is a possibility of extension of the concession period. The typical extension allowed under the Concession Agreement is for two years. This is a rolling period, which means that the concession period will keep extending by two years till the time the Concessionaire is able to gain a return of 20% on the investment.

### Key Lessons

The case study provides several insights that need to be highlighted so that lessons can be drawn and applied to other projects as well.

- **Assessment of market is critical:** The VHTR case makes it amply clear that the pre-development preparations need to be more robust since such preparations can impact the long term objectives of the project. For instance, the traffic estimations for the project were based on the assumptions that the industrial incentives available for the area would continue for long-term. Eventually, with time the incentives were withdrawn and the traffic was almost 50% lower than the projected traffic. Such unaccounted risk factors can jeopardize the project and lead to significant losses.
- **Bidding through competitive method yields benefit:** Competitive bidding for a long term concession for critical infrastructure projects is extremely critical. This not only brings in the best private sector capabilities, but also allows the government to get the best possible financial terms by ensuring competition and a level playing field. This also, to an extent, requires capabilities within the government machinery to structure projects in fashion where the private sector capabilities are tapped in the best possible manner. VHTR was promoted by the GoG and IL&FS and did not create adequate competitive tension since there were no precedents that were available to develop such a structure. The appointment of the contractor was, however, through a competitive bid process.
- **Need to create a balance risk return profile:** The risk return profile of the project was skewed in favour of the private developer. For instance, the

concession agreement ensured that the private developer earned toll revenues till he was able to achieve a return of 20% on the overall investment. This was further protected with a provision for additional revenues i.e. development rights on land parcels abutting the road, in case the toll revenues did not result in the expected returns. There was also an annual toll revision linked to wholesale price index/consumer price index to the extent of 100% of the rates which resulted in the developer having an assured revenue stream. Further, the lack of penal provision for non-compliance with performance standards during operation and maintenance meant that the developer could save on costs if desired. Adverse effects of Change in Law, occurrence of a Force Majeure event, unexpected increase (more than 25%) in the estimated costs of any maintenance expenditure, interest rates fluctuations, inflation exceeding 50%, were all made pass through to the consumers.

- **Environmentally and Socially responsive development framework:** The VHTRL was the first project that introduced Environmental and Social Safeguards measures as part of the contractual obligation of the developer. This created a benchmark and had immense demonstration value since it highlighted that infrastructure can be developed in an environmentally and socially responsible manner.

### Further Readings:

1. G. Raghuram 'The Case of the Vadodara–Halol Toll Road', mimeo, Indian Institute of Management, Ahmedabad, Sept. 2003, available on <http://www.iitk.ac.in/3inetwork/html/reports/IIR-2004/Chap%2011%202003.pdf>
2. About Vadodara Halol Toll Road Ltd. (VHTRL), available on <http://www.rnbgujarat.org/vhtrl.htm>

Prepared By: Molshree Bhatnagar