

# Development Positive

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## BREAKTHROUGH

Enabling better life with  
improved connectivity



# Foreword

The infrastructure sector is the cornerstone of the nation. Amongst one of the most resilient sectors, it plays a pivotal role in accelerating India's overall development, thereby driving its economic growth.



Increased government spending on more extensive scale projects offers strength to India's competitiveness across the globe. The Indian infrastructure sector has always shown remarkable growth, even during a challenging time like the COVID-19 pandemic. The speedy recovery and the resumption of infrastructure and construction activity during the unlock phase of the lockdown was a clear indicator of the potential it holds.

The Government of India has shown tenacity in meeting the infrastructure deficit. The government, in the Union Budget 2021, has allocated USD 32 billion towards transport infrastructure. Currently, over 9,000 projects across numerous infrastructure subsectors are in several stages and it is expected that about USD 1,950 billion will be spent to complete over 7,000 of these projects. Until 2025, an amount of USD 1.4 trillion has been allocated by the government for infrastructure development. This should help us improve our ranking in the Global Competitiveness Index, where India stood at 68 in 2019.

The Indian infrastructure sector has a multiplier effect on several other sectors. The nation is expected to become the world's third-largest construction market by 2023. Further, to strengthen the sector, the government has announced several initiatives which will have a remarkable impact on the country's infrastructure. Considering the ongoing scenario, the government has also announced its plans to enhance the transport infrastructure. Some flagship programmes of the Government of India have been implemented successfully. Recent launches like the Har Ghar Jal scheme which aims to provide functional tap water connection to every rural household by 2024, also saw an increase in allocation to INR 60,000 crore in 2022-23 from INR 50,000 crore last year. The government plans to cover 3.8 crore rural households in 2022-23.

Over the years, public-private partnership (PPP) has emerged as a resilient model to undertake infrastructural development encompassing several successful delivery models. From

private companies to the government, stakeholders are steering the sector to give it an edge. A combination of grant funding and private funding through several project financing models has enabled sector growth to some extent. Considering that infrastructure projects are capital-intensive with a long gestation period, it is imperative that there is strong collaboration among stakeholders.

The realisation of Grant Thornton Bharat's vision for urban India needs concerted efforts spanning many aspects and sectors, including upgradation of local capabilities and capacities. Grant Thornton Bharat offers services across a broad gamut of domains ranging from housing, water, sanitation, transportation and technology infrastructure to policy advisory, project implementation support and thereafter, monitoring and evaluation. Our services to the government sector have always been outcome-based and hence, we have enabled far reaching benefits to our clients and the sector. With perhaps the highest number of

financially closed transactions, the largest PPP transaction, one-of-its-kind project advisory and successful large project management units in several states in the country, we are creating a vibrant Bharat.

As a testimony to the above, this newsletter presents a flavour of a few such success stories of Grant Thornton Bharat. These are our recent engagements, the outcomes of which are measurable, impactful and sustainable.

**Padma Priya J**

Partner,  
Public Sector Consulting





# Catalysing India's economic development through road networks



## Collaborating with NHAI to deliver world-class roads and highways for a sustainable economy

With nearly 6 million kilometres of roads, India hosts one of the largest road networks in the world. Complementing this, the dependency on road transport for movement of goods and passenger traffic is the also the highest. Further, the sectoral allocation of the infrastructure pipeline is also high for the road sector. As a measure of enhancing the economic development of the country, huge capital outlays are allocated every year to the road and highways sector, both at the central and state level. Undoubtedly, the sector adds to the empowerment of India's transformation agenda and the path to becoming a USD 5 trillion economy.

National Highways Authority of India (NHAI), an authority under the Ministry of Roads, Transport and Highways (MoRTH), is the body responsible for the development of highways in the country. The authority has completed over 50,000 km of roads so far, developed through various models including PPP. To fast-track the development of road sector in the country, NHAI has also introduced the hybrid annuity model (HAM) for project financing.

### **A partnership of success**

For over a decade now, Grant Thornton Bharat has been a key





player in the development of roads in India. With interventions in conducting financial assessments of projects, we have been providing continued support and services to NHAI. As a part of the country's biggest investor on physical infrastructure, several of NHAI's PPP projects have been assessed and taken to financial closure.

With thorough knowledge and deep-rooted expertise in the advisory services for the development of roads and highways, Grant Thornton Bharat has achieved key milestones with NHAI. We have completed more than 50 projects through 30 assignments with a value exceeding INR 30,000 crore through various modes like build-operate-transfer (BOT) for tolls, HAM, and engineering, procurement and construction (EPC). Among all the empanelled firms, we are the only consulting firm to have assisted NHAI in the first-of-its-kind international project in Myanmar.



Toll plaza

We conducted the risk assessment and finalised the framework for the bidding package, which estimated the values of basic bidding criteria such as grants and loans, for the evaluation of the reasonableness of the financial proposals.



Grant Thornton Bharat has completed more than 50 projects through 30 assignments with a value exceeding INR 30,000 crore.



Katraj

#### Delivering excellence: A snapshot of our work

- Assisting NHAI in the financial analysis of projects for deciding the mode of execution
- Bid process management including preparation of bid documents, providing response to pre-bid queries and bid evaluation
- Forming a special purpose vehicle (SPV)
- Signing of concession agreement or contract agreement till the review of financing documents for the purpose of financial closure of the project
- Complete transaction assistance for a project
- Creating an additional set of expertise within our team to assist in newer models of development
- Communicating our understanding of the new development strategy to NHAI
- Conducting knowledge sharing seminars
- Reviewing DPRs prepared by NHAI's technical consultants
- Reviewing project cost estimates and implementation schedule
- Developing an effective financial model for obtaining results such as bid project cost, estimated project cost, project internal rate of return (IRR), equity IRR, net present value (NPV) of cashflows and NPV of revenue streams
- Assisting in preparation of request for quote (RFQ) and request for proposal (RFP) along with draft bidding documents (contract/concession agreement) with the selection criteria in consultation with NHAI
- Identifying the qualifications and expertise critical to the scope of services needed for project execution
- Developing a project finance management information system to obtain all undertakings, submissions, and warranties from the selected concessionaire as part of the financial due diligence
- Reviewing concessionaire's adherence to SOPs made for financial closure of the HAM projects
- Ensuring adherence to the timeline provided by NHAI for timely completion of the assignment
- Helping NHAI in awarding the projects to contractors/concessionaires in a timely manner

The road network of India serves as the backbone for development and growth. Amalgamated with the vision of NHAI, our efforts have enabled us to create one of the biggest success stories for the road infrastructure development of the nation. Our association with NHAI is helping us to be a part of the journey of creating the largest road network of the future.



# Creating a vibrant ecosystem for sustainable transportation

## Building an integrated transport hub in Tiruchirappalli to aid commuters and industries

The urban fabric of a city is often described by its physical characteristics. An ecosystem is incomplete without proper linkages and last mile connectivity. Creation of an efficient transportation and a logistics system is essential to ensure that products reach the end users faster. Recognising this and in our endeavour to create vibrant cities, Grant Thornton Bharat structured a project in Tiruchirappalli – a city with more than one million people. The project not only aids in establishing

efficient transportation but also in creating a community where other sectors including agriculture and industries are benefitted.

Tiruchirappalli is the fourth largest municipal corporation and urban agglomeration in Tamil Nadu. The city, being an important industrial and educational hub of central Tamil Nadu, has witnessed more than anticipated growth in population, urban sprawl, vehicle ownership, traffic



volume and economy over the last two decades. Increasing traffic has resulted in congestion, delays and a rise in accidents and pollution levels. This poses a potential threat to living conditions, economic vitality and productive efficiency of the city.

To solve this issue, the government of Tamil Nadu and the Tiruchirappalli Municipal Corporation envisaged to create world-class transport facilities for its residents. Grant Thornton Bharat was appointed to provide transaction advisory and consultancy services to develop an integrated transport hub at Panjapur. With an area spanning 538 acres, it was envisioned that the project will host a multitude of facilities.



Bus terminal with taxi parking



Complex for offices, shops, recreation and health centres



Wholesale market complex



Traffic infrastructure facilities such as maintenance yard cum depot, omni bus terminus and multi-level parking

Grant Thornton Bharat was appointed to provide transaction advisory and consultancy services to develop an integrated transport hub at Panjapur. We structured the project to create an ecosystem with proper linkages and last mile connectivity.

#### Paving the road to success – Grant Thornton Bharat's role in the project

For a city bustling with enthusiasm, our aim was to develop a concept that guaranteed a more efficient, effective and inclusive urban transport ecosystem. Alongside, we wanted to make sure that the ecosystem we help build also facilitates development for other sectors such as agriculture and industries. To achieve this, we followed a holistic approach and adopted a decision-making framework to analyse all aspects of sustainability, user-friendliness, energy-efficiency, safety and security.

Our team of experts contemplated on innovative strategies and technologies for harmonious integration of all functional aspects of the project

including planning and design, socio-economic and environmental, finance and implementation. The proposed compact development ensured ample provision of open and green spaces, walkable precincts in the project area and vibrant public spaces that not only promote walking but also elevate non-motorised and public transport as efficient modes of transport.

The key challenge was to develop a technically robust proposal while optimising the overall project cost. This meant leveraging our strong local presence in India as well as our specialist expertise and excellent track record of projects in urban transportation.



### Key interventions

Our aim was to establish improved connections between transport networks to help commuters and neighbourhood residents while maximising the potential for urban regeneration. Our work involved:

- Formulating growth scenarios to conceptualise resilient design options to arrive at an optimal land use distribution based on the proposed mix and support infrastructure/facilities requirement
- Evaluating the market potential and supply-demand scenario of various products in the surrounding areas by understanding the economic and demographic trends business activity, user preference, recreational and hospitality industry
- Developing the proposal in synergy with the integral components of a transport hub such as entrance/exit, internal parking (bus), external multilevel car parking (MLCP) for private vehicles and administrative facility, etc., along with commercial space for retail establishments and supporting infrastructure for users/commuters
- Considering innovative financing strategies with different scenarios to analyse the returns and risks for the concessionaire and the government
- Adopting sustainable solutions to make the project more vibrant and environment friendly

### Pivotal outcomes

The development of road network in the proposed project will establish a vital infrastructure of roads, communication networks, commercial, recreational facilities and certain common infrastructure facilities like warehouses and truck

terminals. Making life easier for people, these conveniences will benefit the local population and improve the region's perception for future developments. In addition to providing a safe and reliable transport system to the citizens of Trichy, the project will also contribute to wider social, economic and community benefits. These benefits include:

- Promoting a sense of equality by improving conditions of transport infrastructure and its operation
- Promoting healthier lifestyles by reducing pollution and accidents
- Increasing environmental sustainability by reducing carbon footprint
- Creating employment opportunities for individuals of diverse capabilities ranging from unskilled/semi-skilled to skilled
- Triggering a series of economic, residential and recreational activity in the region
- Boosting economic activity
- Enhancing public transport system and encouraging modal shifts

The project is significant for those who have constrained access to public transport. It brings safety, convenience, and first and last mile connectivity to the residents of a city that's burgeoning rapidly. As one of the largest proposed integrated transport hubs in Tamil Nadu, this project offered us a unique opportunity. Not only did we play a fundamental role in defining the success of this project but also gained learnings which can be applied to a broad range of future projects.





# The road more travelled

How Grant Thornton Bharat executed the first successful PPP highway project in Kenya with a capital cost of USD 1.5 billion



Grant Thornton Bharat's biggest milestone in the international PPP transaction advisory space.


The Nairobi–Nakuru road stretch is an important milestone in the connectivity between the two main cities of Kenya. However, what made it stand out was a problem that needed immediate attention. It was one of the top 20 accident prone zones in the world. To make the road safer for passengers, the Government of Kenya intended to create world class road infrastructure to ease the traffic flow and improve transportation network.

The Nairobi–Nakuru–Mau summit highway project aimed to convert the existing trunk road into a 175-kilometer dual two-lane motorway. The vision behind the project was to transform the transportation scenario in Kenya and also serve as a gateway to tourism development in the country.

We were engaged to advise the PPP unit of the Government of Kenya, Kenya Highways Authority and the World Bank Group







for providing transaction advisory services (including financial advisory) to the proposed highway project.

### Identifying the DNA of the problem

Due to the absence of a national level toll policy, which if imposed could improve the revenue stream of the government to recover its capital expenditure and improve the operations and maintenance, it was unviable for the government to absorb the investment. Also, poor road conditions in this stretch led to higher vehicle operating costs and increased travel time.

### Propelling development through improved highways

The team's analysis revealed that undertaking this project as per international standards using PPP would have multiple benefits to both its users and the government. A major benefit was the reduction in accidents by more than 50% after the construction of an access-controlled road.

This was the first PPP project in Kenya in this sector through a 30-year concession period. We were involved from the inception of the project to its concession agreement signing. The team

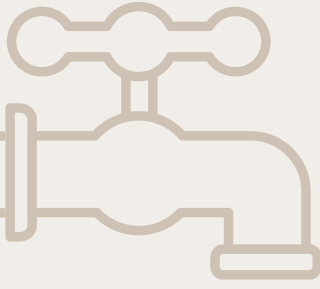
also provided further assistance in the financial closure. Several new concepts of road financing were involved in the preparation of the financial model, which was developed as per FAST standards.

The team developed a recovery toll tariff along with a toll escalation formula for each category of vehicles. Also, suitable fiscal commitments from the government were assessed. A contingent liability framework was developed to address project uncertainties and unsystematic risks. Further, a service payment method was proposed to attract global investors to participate in the project. This meticulously drafted strategy enabled larger participation from international private developers during bid process.

A notable achievement for our team was being able to catapult the government's plan of an improved road network in Kenya through this project. Not only did it reduce the travel time by nearly 2.5 hours per trip but also led to travel time cost savings of approximately USD 336 million. A cost saving of USD 1,100 million in vehicle operating cost is also projected.

The project has been currently awarded to a consortium of international and reputed bidders who have rich experience and expertise to make this project happen. The concession agreement was signed in Paris on 30 September 2020, in the presence of the President of the Republic of Kenya and the President of the French Republic.





# Quenching the thirst of 15 million people

Grant Thornton Bharat helps Haryana government achieve the objectives of Jal Jeevan Mission



Water is the essence of life and key to the survival of mankind. The right to clean water and sanitation acts as an enabler for people to live better. Usually, drinking water supply schemes are based on tube wells and surface sources. To facilitate private water connections to the people, ranney wells and pipeline distribution systems are laid in villages. However, this does not solve the problem of easy availability of safe drinking water. Other problems like water contamination, improper irrigation and lack of sewage facilities also hinder the progress and dwindle the quality of life. Eradicating these problems is the need of the hour.

With the purpose of resolving these issues, the state of Haryana decided to achieve 100% installation of functional household taps connection (FHTC) by December 2022 under the flagship scheme of Jal Jeevan Mission (JJM). JJM envisages supply of 55 liters of water per person per day to every rural household through FHTC by 2024. The Public Health Engineering Department is the principal department of the state government for providing and maintaining sanitary facilities. It is responsible for planning, implementing and maintaining water supply schemes for adequate safe drinking water to the urban and rural population.



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When the well's dry, we  
know the worth of water.

**Benjamin Franklin**

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### Delivering expertise, delivering water

With an in-depth knowledge and expertise in the water sector, Grant Thornton Bharat studied the process of the Public Health Engineering Department to propose action points on process re-engineering. Additionally, technical consultancy and program management support for an effective implementation of strategic inputs were also put in place. The purpose of these strategic inputs was to help overcome the issues arising due to poor sanitisation. Timely monitoring and implementation of best practices undertaken by the state enabled us in achieving the program objectives successfully.

The key objective for Grant Thornton Bharat in the project was driving the Har Ghar Jal yojana. A stronghold on the nuances of the water sector and the technical know-how of our in-house experts facilitated the government to achieve their mission.

Following are some of the key highlights of the approach we followed

- Extensive support in designing and implementing mechanisms for various central/state programmes and bid process management. Capacity building of public health engineering (PHE) officers for improved service delivery so as to achieve the desired social outcomes
- We studied the process and reengineered some critical activities that would strengthen the policies in favour of effective implementation of installing FHTC in every rural household in Haryana
- While working as a project management unit (PMU) for implementation of Jal Jeevan Mission and Mahagram Yojana, we provided advisory and project management support that drove the pace of the project
- Not only did we cater to the problem of project management by implementing strategic inputs but also developed effective service level agreements (SLAs) for the implementation support agency (ISA) working in the JJM space and other schemes
- We monitored the progress against JJM quality parameters such as conversion of regularised water connection, information, education and communication (IEC) expenditure and availability of water for sustainability. Our intervention aided the government to successfully achieve the desired outcome
- Following a comprehensive approach, we assisted the state government using strong project management systems and tools which led to an increase in efficiency and helped achieve program objectives on time



Our efforts and interventions have enabled the state to achieve  
100% FHTC on 1 April 2022.

# About Grant Thornton Bharat

Grant Thornton Bharat is a member of Grant Thornton International Ltd. It has 6,500+ people across 15 offices around the country, including major metros. Grant Thornton Bharat is at the forefront of helping reshape the values in our profession and in the process help shape a more vibrant Indian economy. Grant Thornton Bharat aims to be the most promoted firm in providing robust compliance services to dynamic Indian global companies, and to help them navigate the challenges of growth as they globalise. Firm's proactive teams, led by accessible and approachable partners, use insights, experience and instinct to understand complex issues for privately owned, publicly listed and public sector clients, and help them find growth solutions.



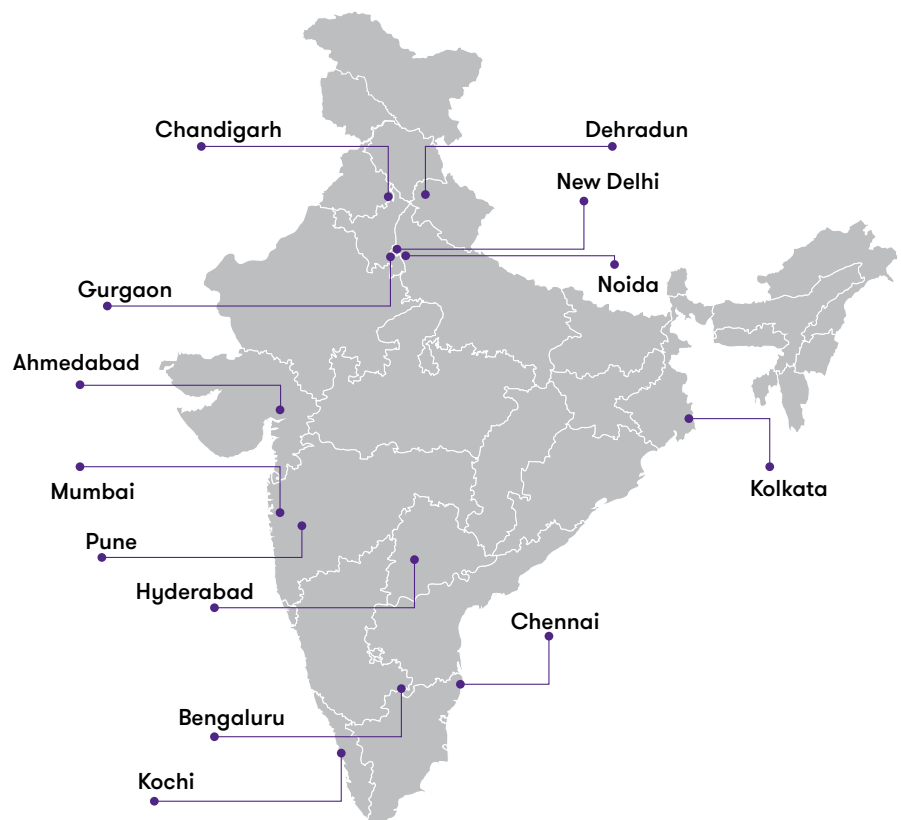
6,500+  
people



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and Consulting firms



To know more about how we can make a **Development Positive** impact, connect with us at [GTBharat@in.gt.com](mailto:GTBharat@in.gt.com)



## Notes

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