Public Private Partnership
The next continuum
Contents

1. Public private partnership in India 04
   1.1 Current status of PPPs in India 04
   1.2 Common forms of the PPP model in India 05
   1.3 PPP policy framework 06
   1.4 Role of multilateral agencies 09

2. Key sectors for PPP 12
   2.1 Roads 12
   2.2 Railways 15
   2.3 Ports 18
   2.4 Airports 20

3. Challenges for PPP in India 24

4. Experiences of other countries in overcoming PPP challenges 26

5. Recommendations 27

6. Conclusion 29
Development of infrastructure is a precondition for the economic growth of a country. Increasing demand for quality infrastructure can only be met with robust investment, proficient project management and technological advancement. To meet these requirements, governments are utilizing the capabilities of the private sector in a big way. Public-private partnerships (PPP) have become the preferred mode for the construction and operation of infrastructure projects, both in developed and in developing countries. As most governments in emerging economies are facing fiscal and capacity constraints, PPP provides a way for them to bridge the gap in infrastructure investment.

PPP not only brings in additional capital but also enables both public and private sectors to bring to the table their own experiences and strengths, resulting in efficient development of infrastructure and service delivery. The PPP mode, however, comes with its own set of challenges since attracting private investment is not easy. The private sector not only requires an investor-friendly regulatory environment, but also returns on investment. The Government of India (GoI), therefore, has been focusing on the development of enabling tools and activities to encourage private sector investments in the country through the PPP format.

1.1 Current status of PPPs in India

India has had 881 PPP projects worth more than INR5.4 trillion in awarded/underway status (i.e., in operational, construction or in stages where at least construction/implementation is imminent) as per data available till August 2012.

- Roads dominate the PPP scenario in India, accounting for 52% of all PPP projects.
- There is a need for mainstream PPPs in several areas, such as power transmission and distribution, water supply and sewerage, and railways. These are sectors where there are significant resource shortfalls, and a need for efficient delivery of services.
- There is also a need to focus on social sectors, especially health and education, which currently accounts for only 3.7% of PPP projects in India.

### PPP projects in India by sector (Total number of projects: 881)

- Roads: 52.0%
- Urban Development: 20.6%
- Energy: 7.1%
- Ports: 6.3%
- Tourism: 8.8%
- Education: 2.2%
- Healthcare: 1.5%
- Railways: 1.0%
- Airports: 0.7%

### Top five states in terms of number of PPP projects (Percentage of total projects in India)

- Karnataka: 108 (12%)
- Andra Pradesh: 100 (11%)
- Maharashtra: 88 (10%)
- Madhya Pradesh: 88 (10%)
- Gujarat: 74 (8%)

*Five states constitute 51% of all PPP projects in India*
1.2 Common forms of PPP model in India¹

While the preferred forms of PPP model are the ones where the ownership of underlying assets remains with the public entity during the contract period and the project gets transferred back to public entity on contract termination, the final decision on the form of PPP is determined using the Value for Money Analysis. Some of the commonly adopted forms of PPP include management contracts, build-operate-transfer (BOT) and its variants – design-build-finance-operate-transfer (DBFOT) and operate-maintain-transfer (OMT).

---

**Private sector to push infrastructure growth in the Twelfth Five Year Plan (FYP) 2012–2017**

The GoI realizes the importance of accelerating infrastructure development through increased private sector participation in order to boost the country's slowing economy.

- The Planning Commission has projected that investment in infrastructure will almost double to reach INR55.7 trillion during the Twelfth FYP (2012–2017), as compared to INR24.2 trillion in the Eleventh FYP (2007–2012).
- Out of this total investment, 48% is expected to come from the private sector, which accounted for 36% of investments in the Eleventh FYP.

**Sectoral investment in the Twelfth FYP (INR55.7 trillion)**

* MRTS - Metro Rail Transit System  
* Source: Draft Twelfth FYP (2012-17), Planning Commission, GoI

---

**Key PPP models used in India**

<table>
<thead>
<tr>
<th>Performance-based management/operations and maintenance contracts</th>
<th>BOT (build-operate-transfer) models</th>
<th>Modified design-build (turnkey) contracts</th>
<th>Lease contracts</th>
<th>Concession agreements</th>
<th>BOOT (build-own-operate-transfer) models</th>
</tr>
</thead>
<tbody>
<tr>
<td>PPP models supported by GOI</td>
<td>Other commonly used models</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* Source: Draft National Public Private Partnership Policy 2011 and PPP in India toolkit

Performance-based management/operations and maintenance (O&M) contracts: In such contracts, most or all of the operations and maintenance of a public facility or service is given to the private sector. The sectors meant for such form of PPP models include water supply, sanitation, solid waste management, road maintenance, etc.

Modified design-build (turnkey) contracts: In traditional design-build (DB) contract, the private contractor is paid a fixed fee after the completion of the designing and building phase. These contracts yield benefits in the form of time and cost savings, efficient risk-sharing and improved quality. The turnkey approach with milestone-linked payments and penalties or incentives can be linked to these kinds of contracts.

BOT models: Under BOT contracts, the responsibility for construction and operations rests with the private partner, while ownership is retained by the public sector. The BOT model and its variants are the most common form of PPP models used in India, accounting for almost two-thirds of PPP projects in the country. The two major forms of BOT models are:

- User-fee-based BOT model: commonly used in medium to large-scale PPPs for the energy and transport sub-sectors (road, ports and airports)
- Annuity-based BOT model: commonly used in sectors/projects not meant for cost recovery through user charges, such as rural, urban, health and education sectors

Lease contracts: Under leasing agreements, assets are leased, either by the public entity to the private partner or vice-versa. Build Lease Transfer (BLT) or Build-Own-Lease-Transfer (BOLT) or Build-Transfer-Lease (BTL) contracts have been used in India for greenfield projects, which last for 10 to 15 years.

Concessions: Under concession agreements, the responsibility for construction and operations rests with the private partner, while ownership is retained by the public sector. Concession contracts are generally for 20 to 30 years, and the private operator is responsible for all capital investment.

Build own-operate-transfer (BOOT) contracts: Under BOOT, the private partner has the responsibility of construction and operations. Ownership is with the private partner for the duration of the concession — generally 20 to 30 years — after which it is transferred to the public sector.

While there do exist build-own-operate (BOO) models, they are not supported by the GoI due to their finite resources and the complexities in imposing penalties in case of non-performance and estimation of the value of underlying assets in case of early termination. Furthermore, the GoI does not recognize service contracts, engineering-procurement-construction (EPC) contracts and asset divestitures as PPPs.

1.3 PPP policy framework

Significant growth in the number of PPPs in the past 15 years has made India one of the leading PPP markets in the world. As a result, a PPP eco-system has developed, and currently it comprises institutions, developers, financiers, equity providers, policies and procedures.

![Diagram of Institutional and Policy Framework]

**Major policy and institutional initiatives taken:**
- Setting up of PPP Appraisal Committee to streamline appraisal and approval of projects
- Preparation of PPP Toolkit to improve PPP decision making process
- Establishment of transparent and competitive bidding processes through model bidding documents
- Extending financing support through development funds, VGF, user charge reforms, etc.

---

National PPP policy (2011) and Draft PPP Rules (2012)

In the light of growing PPP trends and policy/institutional intervention, the GoI had felt the need to have a broad policy framework in place. The Ministry of Finance drafted a National PPP policy for soliciting suggestions in 2011. Subsequently, it came out with a comprehensive set of draft PPP rules in 2012. The draft policy proposes to focus on assisting Central and State Government agencies and private investors by:

- Undertaking PPP projects through streamlined processes and principles
- Ensuring the adoption of value-for-money approach through optimization of risk-return allocation in project structuring
- Attaining adequate public oversight and monitoring of PPP projects
- Developing governance structures to facilitate competitiveness, fairness and transparency

Prominent features of the policy

- The GoI plans to formalize PPPs as preferred implementation models. It has laid down strong procedures to procure a PPP project. In order to instill transparency in the PPP process, it will publish separate mandatory disclosures and fair practices, set up a dedicated dispute resolution mechanism, develop new market-based products (e.g., pre-bid rating) and explore possibilities of setting up a web-based PPP market place.

- The PPP process should comprise four phases:
  - **PPP identification stage**: Strategic planning, project pre-feasibility analysis, value-for-money analysis, PPP suitability checks and internal clearances to proceed with PPP development.
  - **Development stage**: Project preparation (including technical feasibility and financial viability analysis), project structuring, preparation of contractual documents and obtaining of project clearances and approval.
  - **Procurement stage**: Procurement and project award.
  - **PPP contract management and monitoring stage**: Project implementation and monitoring over the life of the PPP project.

- Management information system (MIS) for continuous monitoring of the performance of PPP projects is to be put in place.

- Development of a strong and well-defined institutional structure for a sustainable PPP program:
  - Creation of nodal agencies, such as PPP cells, at the state or sector level
  - Laying down of appraisal mechanism for PPP projects by the PPP Appraisal Committee (PPPAC)
  - Audit mechanisms for transparency and fairness in projects
  - Independent regulatory mechanism (wherever there is no sector-specific regulator) to ensure protection of interests

The Draft Public Procurement Bill (2011)

The Draft Public Procurement Bill 2011 is also expected to impact the regulatory landscape of PPPs by introducing competitive dialogue and negotiations in government contracts. The Bill provides a framework for procurement of goods and services through PPPs.

Prominent features of the bill for PPP

- A grievance resolution mechanism for private bidder facing issues related to procurement
- Audit of the concessionaire’s books of accounts by the Comptroller and Auditor General of India, upon the request of the procuring entity
Proposal to set up a Central Public Procurement Portal, which is accessible to the public, for posting notices regarding public procurement

**Approval mechanism for PPP projects in India**

<table>
<thead>
<tr>
<th>Type of PPP Projects</th>
<th>Financial limits</th>
<th>Appraisal forum</th>
<th>Approval forum</th>
</tr>
</thead>
<tbody>
<tr>
<td>All PPP projects of central ministries or central PSEs and statutory authorities under their administrative control</td>
<td>Less than INR250 million</td>
<td>The concerned ministry, in its normal course</td>
<td>Secretary of Ministry/Department</td>
</tr>
<tr>
<td></td>
<td>From INR250 million up to INR1 billion</td>
<td>Standing Finance Committee</td>
<td>Minister-in-Charge</td>
</tr>
<tr>
<td>PPP projects of all Sector</td>
<td>More than INR1 billion but less than INR2.5 billion</td>
<td>Committee, comprising (a) Secretary, Department of Economic Affairs (b) Secretary of the Ministry/Department sponsoring the PPP Project</td>
<td>Cabinet Committee on Economic Affairs (CCEA) (a) Minister-in-Charge for PPP Projects less than INR1.5 billion (b) Finance Minister, for PPP Projects of INR1.5 billion and above.</td>
</tr>
<tr>
<td></td>
<td>More than INR2.5 billion</td>
<td>Public Private Partnership Appraisal Committee (PPPAC)</td>
<td>CCEA/Cabinet Committee on Infrastructure (CCI)</td>
</tr>
<tr>
<td>PPP projects under National Highway Development Project (NHDP)</td>
<td>INR2.5 billion or more but less than INR5 billion</td>
<td>Committee comprising (a) Secretary, Department of Economic Affairs (b) Secretary, Department of Road Transport and Highways (DORTH)</td>
<td>CCEA/CCI</td>
</tr>
<tr>
<td></td>
<td>More than INR5 billion</td>
<td>PPPAC</td>
<td>CCEA/CCI</td>
</tr>
<tr>
<td>PPP projects of government entities other than those listed above requiring capital grant from the GoI</td>
<td>All</td>
<td>Relevant appraisal authority</td>
<td>Relevant approving authority</td>
</tr>
</tbody>
</table>

*Source: Draft PPP Rules, 2012—discussion draft*

**Creating a conducive environment for PPPs**

Besides establishing a policy framework, the GoI has also undertaken several initiatives to induce private participation in infrastructure.
Regulatory initiatives

- The GoI has a progressive financial support system for PPP projects. Some of the key initiatives include India Infrastructure Project Development Fund (IIPDF), Viability Gap Funding (VGF), resources for annuities/availability-based payments, long-tenor lending, re-financing facility, infrastructure debt funds, etc. The GoI will provide legislative and policy support to develop equity, debt, hybrid structures and appropriate credit enhancement structures.

- The GoI is expected to undertake capacity building interventions to develop organizational and individual capacities for the purpose of identification, procurement and managing of PPPs.

- The PPP Cell in the Department of Economic Affairs will have professionals who provide technical support to the ministries and other authorities developing PPPs.

Financial initiatives

- Bank loans to earning-based PPP infrastructure projects under concession agreements are to be treated as secured advances. This is expected to boost infrastructure financing, particularly for BOT roads projects and power sector projects.³

- ECB norms have been relaxed to help infrastructure companies raise more funds from overseas markets⁴
  - Infrastructure companies are allowed to raise bridge finance from overseas market under the automatic route. Earlier, the companies were required to seek permission from the RBI in order to raise bridge finance.
  - Infrastructure companies are allowed to raise external commercial borrowings (ECB) for a maximum period of 5 years for importing capital goods. Earlier, the companies could raise ECBs for a period ranging from one year to three years only.
  - ECB limit has been increased for NBFC-IFCs (non-banking finance companies classified as infrastructure finance companies) under the automatic route from 50% to 75% of their owned funds, and hedging requirement for currency risk has been reduced from 100% of their exposure to 75%.

1.4 Role of multilateral agencies

The contributions of multilateral agencies, such as World Bank, Asian Development Bank (ADB) and Department for International Development (DFID) in infrastructure development play a key role in improving the investment climate and fostering private sector participation.

There has been a shift in the funding pattern of multilateral agencies from public sector infrastructure projects to projects having private sector participation. These agencies give priority to environment-friendly infrastructure projects.

Multilateral agencies provide financial and advisory support to infrastructure projects. They act as a stable source of long-term funds and knowledge base with strong PPP experience. They extend technical assistance (TA) to the governments to help them bring PPPs to the mainstream at the centre and state level through capacity building, e.g., establishing PPP cells in various states. Over the years, they have come up with new ways of providing financial assistance for infrastructure development, such as through multi-tranche financing facility and local currency loans⁵.

---
ADB provides funding through loans (senior debt, subordinated debt, mezzanine financing), equity investments (common shares, preferred stock or convertible) and guarantees (covering political and credit risk).

The World Bank supports infrastructure development through lending, dialogue, analytical work, engagement with the private sector and capacity building. The Bank had also provided financial assistance to India Infrastructure Finance Company Limited (IIFCL). The World Bank plans to invest INR1.1 billion to improve the Mumbai suburban railway stations through construction of escalators, elevators and footbridges. IFC, the private sector financing arm of World Bank, has set up an India Infrastructure Fund that invests in a diversified portfolio of project equity investments.

These agencies provide funding based on their mandate to promote inclusive growth and development through poverty alleviation. High stipulated level of social and environmental standards followed by these agencies sometimes act as a deterrent for the private sector to avail funding. Some of the ground rules followed by multilateral agencies to enter a PPP contract are as follows:

- The project should avoid crowding out private investors through concessional loans or by providing loans in commercially attractive sectors
- It should have the highest standards of safeguard compliance and corporate governance
- It should support projects that enhance clean technology and low carbon growth

Given the magnitude of India’s infrastructure needs, multilateral institutions are expected to play an increasing role in bridging the infrastructure deficit and sustaining growth in the country.
2. Key sectors for PPP

Roads, railways, ports and airports are the key infrastructure sectors for PPP in India. As on August 2012, these four sectors constituted 60% (534 projects) of the total PPP projects in India. Among the four sectors, roads top the list with a share of approximately 85%, followed by ports (12%), railways (2%) and airports (1%).

Over the last few years, private sector participation, especially in transport infrastructure sectors, has slowed down due to various regulatory and financial hurdles. Private investment in railways, roads, airports and ports lagged behind and did not meet their investment targets during the Eleventh FYP. Railways was the least successful in attracting private investment, achieving only 23% of its planned target investment.

The strategy for the Twelfth FYP encourages private sector participation directly as well as through various forms of PPPs, wherever desirable and feasible. In the Twelfth FYP, the GoI will focus on increasing private participation, especially in the railways sector. Private sector participation in railways is expected to increase from 5% in the Eleventh FYP to 33% in the Twelfth FYP. Private investment is expected to not only expand capacity, but also improve the quality of service, besides minimizing cost and time overruns in the implementation of transport infrastructure projects.

### Private sector investment in infrastructure during Twelfth FYP (Percentage of total)

<table>
<thead>
<tr>
<th>Sector</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Railways</td>
<td>19%</td>
</tr>
<tr>
<td>Roads and Bridges</td>
<td>33%</td>
</tr>
<tr>
<td>Airports</td>
<td>80%</td>
</tr>
<tr>
<td>Ports</td>
<td>87%</td>
</tr>
</tbody>
</table>

*Source: Draft Twelfth FYP (2012-2017), Planning Commission, GoI*

The government has envisaged a total private investment of approximately INR6.5 trillion during 2012-2017 in these four sectors.

#### 2.1 Roads

India’s 4.7 million km of road network transports more than 60% of total goods and 85% of total passenger traffic. The majority of the roads are district, urban and rural roads, which account for 95% of the total road network. National highways (0.08 million km) and state highways (0.15 million km) account for only 5% of the total road network. The GoI has stated that the development of highways is a strategic priority for the country, and the private sector is expected to play a key role in its development.

**PPP slowed down in recent years:** When the National Highways Development Program (NHDP) had laid down ambitious targets for private participation, PPP in the roads sector had increased by leaps and bounds. Long concession periods and expectation of high returns had fuelled competition. Projects were awarded at premium as the sector saw aggressive bidding by developers. Of 51 projects awarded by NHAI, 31 were at a premium.

10. “Annual report 2012-13,” Ministry of Road Transport and Highways

However, the sector has been facing multiple challenges over the past two years, such as high interest rates, increase in cost of raw material and reduced availability of funds. With limited equity and credit lines, developers are staying away from bidding for new projects. NHAI has been able to award only 879 km on PPP mode in FY13 (as compared to 7,900 km in FY12)\(^2\).

**Case study: Delhi–Gurgaon Expressway**

The Delhi–Gurgaon Expressway Project was built in the BOT model in 2008 for a 20-year concession period. The expressway is plagued by heavy traffic jams, particularly at toll plazas.

**Key challenges faced in the project**

- Outdated traffic forecast: The traffic study was conducted in 1998 at the time of the project planning. This has resulted in gross underestimation of traffic projection from the very beginning of commercial operations, which was initiated 10 years after the completion of the study.

- Time and cost overruns: The project was originally planned to be completed by July 2005 at an estimated cost of INR5.5 billion. Factors, such as delays in land acquisition, regulatory approval from multiple agencies and frequent changes in scope resulted in significant time and cost overruns. The expressway finally commenced operation in January 2008 at an actual cost of INR11.75 billion. Majority of the escalated cost was borne by the private player.

- Traffic management and other challenges: The project is facing severe challenges in managing traffic at toll gate, securitization of revenues and accidents management, etc.

**Current status of PPP**

**National highways**

Most of the NHDP projects have been developed or are under development on PPP basis through the BOT Annuity and the BOT Toll mode. With a considerable number of new projects on offer under PPP in the roads sector, there exist several investment opportunities for investors and companies with diverse business lines, such as engineering companies, civil work contractors, O&M contractors and toll operators.

<table>
<thead>
<tr>
<th>PPP in NHDP across various phases</th>
<th>Number of PPP projects awarded</th>
<th>Length (km)</th>
<th>Total cost (INR billion)</th>
</tr>
</thead>
<tbody>
<tr>
<td>NHDP Phase I</td>
<td>17</td>
<td>930</td>
<td>59.5</td>
</tr>
<tr>
<td>NHDP Phase II</td>
<td>40</td>
<td>2,076</td>
<td>227.0</td>
</tr>
<tr>
<td>NHDP Phase III</td>
<td>117</td>
<td>10,292</td>
<td>834.9</td>
</tr>
<tr>
<td>NHDP Phase IV</td>
<td>28</td>
<td>3,990</td>
<td>297.0</td>
</tr>
<tr>
<td>NHDP Phase V</td>
<td>31</td>
<td>4,080</td>
<td>429.8</td>
</tr>
<tr>
<td>NHDP Phase VII</td>
<td>2</td>
<td>41</td>
<td>23.3</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>235</strong></td>
<td><strong>21,409</strong></td>
<td><strong>1,871.5</strong></td>
</tr>
</tbody>
</table>

*Source: NHAI, as on December 2012*

No projects have been awarded under NHDP Phase VI yet

- As of December 2012, out of the 235 projects awarded for national highways on PPP basis, 186 (79%) were awarded through the BOT (Toll) mode and the rest were awarded through the BOT (Annuity) mode.

- Use of PPP in NHDP Phase III picked up substantially, and as many as 117 projects were awarded under it in that phase.

Since 2008–09, more than 90% of national highway projects have been awarded on PPP basis. Furthermore, the Planning Commission has recommended that 85% of the NHDP projects in the later phases need to be developed through PPP.

State highways

With significant progress being made in case of national highways, PPP in state highways development also holds potential. Lack of appropriate PPP policy at state level, absence of regulatory authority, such as NHAI and institutional weaknesses to manage PPP have been hindering the growth of PPP in state highways. However, things are changing and state highways are also witnessing increased private participation.

- Private sector investment worth INR1 trillion is being made in 278 road projects in 13 Indian states. Of these, 148 projects have been completed at a total cost of INR165 billion, while 130 projects worth INR895 billion are under implementation.

- States are taking various initiatives, such as mobilization of private investment and multi-lateral funding to develop their respective roads networks.

- Several states, such as Bihar, Gujarat, Haryana, Karnataka, Kerala, Madhya Pradesh, Maharashtra, Punjab and Rajasthan have witnessed substantial growth in the commissioning and initiation of road development projects.

- Gujarat State Road Development Corporation has six upcoming roads PPP projects worth more than INR10 billion.

- Punjab has commissioned a PPP project to convert the Ropar-Phagwara expressway to six lanes, with an estimated investment of INR7 billion.

Government is seeking new avenues for PPP growth

The Government is seeking private participation in different segments of the sector. In one of the recent initiatives, the Cabinet Committee of Infrastructure has approved the operation, maintenance and transfer (OMT) policy for national highways in 2012. Under the new OMT model, contracts will be awarded for a fixed concession period, ranging from four to nine years, and the concessionaire will be responsible for the annual and major maintenance work. Earlier, maintenance of highways was done through different agencies on an annual contract basis funded from budgetary resources. The policy is expected to open up new opportunities for private sector participation in highways.

The Government has also collaborated with private players to roll out radio frequency identification (RFID)-based electronic toll collection (ETC) across all the toll plazas on National Highways by 31 March 2014. The private player will act as a central clearing house to pool the electronically collected toll, and later distribute the money among toll plaza operators according to respective usage by vehicles.

Several Government initiatives have been taken to enhance private sector participation (including PPP) in the road sector:

- Granted the right to collect and retain toll – the tolls are indexed to a formula linked with the wholesale price index
- Allowed ECB for capital expenditure under the automatic route for maintenance and operations of toll systems
- Allowed duty-free import of certain identified high-quality construction plants and equipment
- Permitted long concession period of up to 30 years
- Allowed 100% tax exemption in any consecutive 10 years out of 20 years
- Implemented Viability Gap Funding in the form of capital grants subsidy of up to 40% of the project cost

---

Private sector investment in roads to increase by 3.3 times in the Twelfth FYP

In the Twelfth FYP, the planned investment for development of roads and bridges has increased by more than 50% from the Eleventh FYP. Cumulatively, the private sector is expected to contribute 33% of the sector’s planned investment, up from 20% in the previous plan.

Approximately 8,270 km of the National Highways are expected to be upgraded in FY14. Construction/rehabilitation of 100 bridges and 4 bypasses as standalone projects are also expected to be completed in that year, at an estimated cost of INR233 billion.14

Estimated private sector investment in roads and bridges in the Twelfth FYP

![Graph showing private sector investment in roads and bridges from FY13 to FY17.]

Source: Draft Twelfth FYP (2012-17), Planning Commission, GoI

2.2 Railways

Indian Railways (IR) runs the fourth-largest railway network in the world. The number of passenger trains has increased from 8,897 in FY02 to 12,335 in FY12.15 IR has carried 1009.73 million tonnes of revenue earning freight traffic during the financial year 2012-13. The freight carried shows an increase of 39.95 million tonnes over the freight traffic of 969.78 million tonnes actually carried during the corresponding period last year, registering an increase of 4.12 per cent.

PPP experience has been a mixed bag

During the last 10 years, IR has experimented with various PPP schemes to set up railway lines, connect ports, privatize container trains, deploy dedicated parcel trains and introduce the Wagon Investment scheme – luxury trains as well as tourist lodges. The IR has also participated in some PPP projects directly and some through its agencies, such as Rail Vikas Nigam Limited (RVNL) and Indian Railway Catering and Tourism Corporation (IRCTC). For IR, the PPP experience has borne mixed results with success in projects with clear-cut demarcation of responsibilities, such as last mile port connectivity and delay in projects related to rolling stock and locomotives.

14 “Outcome Budget 2013-14,” Ministry of Road Transport and Highways

Case study: Delhi Airport Express Line

The Delhi Airport Express Line, built on PPP mode at an approximate cost of INR57 billion (out of which INR28 billion was invested by the concessionaire) has been generating various controversies ever since the project started. While Delhi Metro Rail Corporation (DMRC) provided civil structures for the project, the private partner was responsible for supply, installation and operation of rolling stock.

Key issues faced in the project:

- **Delay in commencement of operations:** The line started operations in February 2011, after a 5-month delay. The private developer was criticized by DMRC for shortcomings related to operation of the line related to frequency and speed of the trains, and service conditions.

- **Serious defects in the infrastructure:** The express link was shut down for six months in July 2012, when the operator pointed out cracks that had developed on its metro pillar structures. The private partner claimed damages for losses due to closure of the line and also tried to exit the project citing financial non-viability. However, in January 2013, the line was reopened with a reduced speed limit of 50 km per hour, as compared to the earlier speed of 105 km per hour.

- **Financial irregularities:** Recently, the Comptroller and Auditor General (CAG) has alleged that there were undue financial benefits to the private player in the Delhi Airport Metro link involving waived customs duty and investment of funds from an escrow account to various private group mutual funds without proper disclosure.

Private sector investment in railways to increase by nearly 11 times in Twelfth FYP

The Twelfth FYP focuses on accelerated capacity creation, induction of technology to enhance asset efficiency, upgrades of freight and passenger terminals, policy initiatives for last mile connectivity, infusion of private capital and improvement of passenger safety. To enhance last mile connectivity, the IR expects PPP investment of up to INR90 billion – INR38 billion for port connectivity, INR40 billion for coal mine connectivity and INR8 billion for iron ore mines connectivity.

**Estimated private sector investment in railways in Twelfth FYP**

![Graph showing private sector investment in railways in Twelfth FYP]

*Source: Draft Twelfth FYP (2012-17), Planning Commission, GoI*

In the Twelfth FYP, the Planning Commission has projected an investment of INR5.2 trillion for the railways, which is approximately 130% over the previous plan. Out of the total investment, around 80% (INR4.2 trillion) will be invested by the Central Government and the remaining 20% (INR1 trillion) will be raised through the private sector. Some

---


of the key PPP projects that are expected to be executed during the Twelfth FYP are:

- **Hyderabad Metro Rail Project:** The project is under construction on PPP mode (DBFOT), with a total cost of INR164.8 billion. It is the single-largest private investment in a PPP project in Railways with a viability gap funding of INR14.6 billion.

- **Dedicated freight corridors project:** DFCCIL awarded the contract worth INR33 billion for a 343-km section of the eastern corridor to a JV of Tata Projects Limited and Spain-based Aldesa.

- **MEMU coach manufacturing facility project:** IR and BHEL have signed an MOU to set up green field (Mainline Electric Multiple Unit) MEMU coach manufacturing facility at Bhilwara, Rajasthan.

- **PPP in high speed trains:** The IR is studying the feasibility of attracting private investment for high-speed trains for six routes. The six rail routes are Pune-Mumbai-Ahmedabad, Delhi-Agra-Lucknow-Varanasi-Patna, Hyderabad-Dornakal-Vijayawada-Chennai, Chennai-Bangalore-Coimbatore-Ernakulam, Delhi-Chandigarh-Amritsar and Howrah-Haldia.

**PPP becoming an effective tool in urban rail development**

Currently, there are three operational metro networks in India. Many more metro and monorail projects are being planned across the country, most of which will be on PPP basis. However, PPP projects based on fares alone are not viable as the capital cost involved is huge. Thus, in order to improve the viability of these projects, PPP contracts are expected to include real estate development rights.

### Key ongoing metro rail/monorail projects (as of December 2012)

<table>
<thead>
<tr>
<th>City</th>
<th>Length (km)</th>
<th>Investment (INR billion)</th>
<th>Commencement of service (expected)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Metro</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mumbai</td>
<td>159.2*</td>
<td>360 (Phase I)</td>
<td>2013 (Line 1)</td>
</tr>
<tr>
<td>Hyderabad</td>
<td>71.2</td>
<td>163.8</td>
<td>2017</td>
</tr>
<tr>
<td>Bengaluru (Phase I)</td>
<td>35.6</td>
<td>116.1</td>
<td>2014</td>
</tr>
<tr>
<td>Gurgaon (Phases I and II)</td>
<td>11.6</td>
<td>31.9</td>
<td>2013 (Phase I) 2015 (Phase II)</td>
</tr>
<tr>
<td>Navi Mumbai</td>
<td>106.4#</td>
<td>41.63 (Corridor 1)</td>
<td>2014</td>
</tr>
<tr>
<td><strong>Monorail</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mumbai</td>
<td>19.5</td>
<td>27.16</td>
<td>Mid-2013 (Phase I); 2014 (Phase II)</td>
</tr>
</tbody>
</table>

Note: *includes 11.07-km long line 1 (Phase 1) which is currently under construction; #of this, 23.40-km corridor is under construction

Source: India Infrastructure research

---


23 “Key Developments,” Indian Infrastructure magazine, Volume 15, February 2013, p.64.
New policy to speed up the PPP process

The IR has come out with a new policy in order to address the key bottlenecks in the earlier Railways’ Infrastructure for Industry Initiative (R3i) policy regarding two of its aspects – change in participative models and faster decision making. The new policy that came into effect from 10 December 2012 is called “Policy for participative Models in Rail Connectivity and Capacity Augmentation Projects.” The policy has identified various models for private investment in PPP, and also aims to empower state governments to increase their role in the development of rail projects.

### New PPP models proposed in the new policy

- Private line model
- Joint Ventures
- Customer-funded models
- Build-operate transfer (BOT)
- SPV Model
- Capacity augmentation – Annuity model

Some of the key favorable measures under new policy include:

- In the joint venture model (JV), the cap of 14% ROI has been eliminated for first and last mile connectivity. Capping of returns and minimum traffic guarantee required from private players were the key deterrents for private investments.
- The minimum concession period has been extended to 35 years from 25 years, which is expected to make the projects attractive from the perspective of bank lending.
- According to the new customer-funded model, till the project beneficiary recovers the investment along with interest at a rate equivalent to the prevailing dividend rate payable by the railways (to the general exchequer at the time of signing the agreement), the railways will pay up to 7% of the amount invested through freight rebates. Earlier, the railways paid 10%-12% of the amount, only on incremental outward traffic.
- The Railway Ministry will expedite the decision-making process. It is now empowered to undertake specific projects by adopting appropriate models with the approval of the Railway Board. This will reduce the long process of approvals by the Cabinet.
- An empowered committee will be constituted under the Railway Board Chairman to address case-by-case concerns about the project.

### 2.3 Ports

India’s 12 major ports and 200 minor ports handle 90% of the country’s external trade by volume and 70% by value. During the period between FY08 and FY12, traffic at Indian ports increased to 912 million ton (mt) from 726 mt, recording a CAGR of approximately 6%, which has led to capacity constraint at most major ports. Therefore, the share of non-major ports in handling maritime traffic has gradually increased from 28% in FY08 to 39% in FY12.

In the ports sector, PPP has been primarily observed in segments, such as operation and management of ports,

---


25 Ministry of Shipping, Annual Report 2012-13
construction of deep water ports, container terminals, shipping yards and bulk ports.

In FY13, the Ministry of Shipping has managed to achieve only 18% of the investment target set for ports. Only 14 PPP projects were awarded in FY13, which is expected to generate an additional capacity of 80 million ton per annum (mtpa), as compared to the target of 244 mtpa.26

Current status of PPP in ports

<table>
<thead>
<tr>
<th>Stage</th>
<th>Number of projects</th>
<th>Cost (INR billion)</th>
<th>Capacity (in MTPA*)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Under operation</td>
<td>30</td>
<td>94.6</td>
<td>35</td>
</tr>
<tr>
<td>Under constructions</td>
<td>25</td>
<td>132.3</td>
<td>149</td>
</tr>
<tr>
<td>To be awarded**</td>
<td>31</td>
<td>195.3</td>
<td>248</td>
</tr>
<tr>
<td>Total</td>
<td>86</td>
<td>422.2</td>
<td>605</td>
</tr>
</tbody>
</table>

Source: Ministry of Shipping - PPP web portal accessed on 5th April 2013

** Includes projects in pipeline, RFP/under bidding, RFQ/EOI stage

- Out of the total 86 PPP port projects, Tamil Nadu (21) and Gujarat (16) are leading in terms of number of projects awarded to states.
- Jawaharlal Nehru Port Trust (INR9.1 billion) and Cochin port (INR8.4 billion) have attracted the maximum PPP investment among all major ports in India.
- Fourteen PPP projects were awarded in FY13, which will bring in an additional capacity of 80 mtpa at an investment of INR56 billion.27

Private sector investment in ports to increase by 4.7 times in the Twelfth FYP

- The Planning Commission estimates the cargo traffic to reach 1.8 billion ton by 2017 – an increase of almost 50% during the Twelfth FYP. India needs increased private sector investment to augment the total capacity to 2.3 billion ton by 2017 in order to adequately manage the growth in cargo traffic. Private-sector participation will also increase efficiencies in ports by introducing latest technology and better management practices.

The estimated private sector investment in ports in Twelfth FYP is as follows:

<table>
<thead>
<tr>
<th>Year</th>
<th>Private sector investment (INR billion)</th>
<th>% share of private sector investment</th>
</tr>
</thead>
<tbody>
<tr>
<td>FY13</td>
<td>363</td>
<td>82%</td>
</tr>
<tr>
<td>FY14</td>
<td>212</td>
<td>83%</td>
</tr>
<tr>
<td>FY15</td>
<td>301</td>
<td>86%</td>
</tr>
<tr>
<td>FY16</td>
<td>431</td>
<td>88%</td>
</tr>
<tr>
<td>FY17</td>
<td>622</td>
<td>90%</td>
</tr>
</tbody>
</table>

Source: Draft Twelfth FYP (2012-17), Planning Commission, GoI

- In the Twelfth FYP, the Planning Commission has projected a total investment of INR1.98 trillion in ports, which is 4.4 times the investment projected in the previous plan.

---


Out of the total investment, around 87% will be raised through the private sector and the remaining 13% will be invested by the Central and State Governments.

**Considerable private investment planned under “Maritime Agenda 2010–2020”**

India’s “Maritime Agenda 2010-2020,” which replaced the National Maritime Development Programme (NMDP), targets to grow India’s port handling capacity to 3.1 billion ton by 2020. The private sector is expected to play a key role in achieving this ambitious target.

<table>
<thead>
<tr>
<th>Total planned investment: INR3 trillion</th>
</tr>
</thead>
<tbody>
<tr>
<td>Major ports: INR1.3 trillion</td>
</tr>
<tr>
<td>Non major ports: INR1.7 trillion</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Private</th>
<th>Public</th>
</tr>
</thead>
<tbody>
<tr>
<td>66%</td>
<td>34%</td>
</tr>
<tr>
<td>96%</td>
<td>4%</td>
</tr>
</tbody>
</table>

Total private investment planned: INR2.45 trillion (84%)

- Construction or reconstruction of berths and jetties will account for 30% of the total 378 projects and 62% of the total private investment in major ports.
- Maritime states have drawn up ambitious programs to create additional capacity and develop their non-major ports. Gujarat is expected to continue to lead the non-major port segment, with a 45% share in planned private investments over the next 10 years.
- Maharashtra, Odisha and Andhra Pradesh are also expected to receive sizable private sector funding for development of their non-major ports over the coming decade.

**Recent policy initiatives to boost private sector participation in ports**

The GoI has taken several key policy decisions to boost private investment in the port sector and make it attractive to private terminal operators:

- **New guidelines for security clearances:** The GoI has announced that the security clearances granted for port projects will be valid for a period of three years. The new norms will apply to port projects being developed by coastal states as well as private ports. Earlier, these clearances used to be granted on a project-to-project basis.

- **Abolition of tariff rate fixation regulation:** The GoI has agreed to abolish the regulation that allows the Tariff Authority for Major Ports to fix tariff rates for port operators. The tariffs for new port projects will be determined by market forces, which may be a key factor in attracting private investment.

- **Approval of land licenses for PPP in ports:** The GoI has approved a proposal to allow land to be licensed to concessionaires for major ports developed under the PPP scheme.

- **New land policy proposed for major ports:** The Shipping Ministry is preparing a new land policy for major ports. The new policy is aimed at boosting regulatory transparency in the ports sub-sectors.

**2.4 Airports**

The Airports Authority of India (AAI) manages and operates 123 out of a total of 134 airports in India. This includes 12 international airports, 99 domestic airports and 12 customs airport. The remaining eleven airports (5 international airports and 6 domestic airports) are managed by PPP concessionaires, State Governments and the private sector.

The domestic air traffic improved at a CAGR of 11.3% – from 71 million in FY07 to 121.3 million in FY12. It is expected to touch 209 million by FY17. During the same period, international air traffic grew at a CAGR of 9.4% to reach 40.7 million, and is estimated to reach 60 million by FY17.
Government’s focus on PPP during the Eleventh FYP has borne results

During the Eleventh FYP, the private sector played an unprecedented role in the area of airport development. Five international airport projects were successfully completed through the public-private partnership (PPP) mode, viz. greenfield development of Hyderabad and Bengaluru international airports and modernisation of Kochi, Delhi and Mumbai international airports. Total investment made by private airport operators in the last five years was to the tune of INR 30,000 crore.

In recent years, airport modernization in the country has taken a new form, with private players bringing in new technologies that not only improve airport operations but also enhance customer experience. Five international airport projects have been undertaken through the PPP mode – the development of Cochin, Hyderabad and Bengaluru international airports, and the modernization of Delhi and Mumbai international airports. Of these, work in the Mumbai airport is still in progress, while work in the airports at Cochin, Bangalore, Hyderabad and Delhi have already been completed.

International airports developed through PPP mode in India

<table>
<thead>
<tr>
<th>City</th>
<th>Estimated project cost (at financial close)</th>
<th>Type of PPP</th>
<th>Commencement of operation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cochin International Airport Limited (CIAL)</td>
<td>INR3.03 billion&lt;sup&gt;28&lt;/sup&gt;</td>
<td>BOO</td>
<td>June 1999</td>
</tr>
<tr>
<td>GMR Hyderabad International Airport Limited (GHIAL)</td>
<td>INR17.6 billion&lt;sup&gt;29&lt;/sup&gt;</td>
<td>BOOT</td>
<td>March 2008</td>
</tr>
<tr>
<td>Bangalore International Airport Ltd (BIAL)</td>
<td>INR19.3 billion&lt;sup&gt;30&lt;/sup&gt;</td>
<td>BOOT</td>
<td>Apr 2008</td>
</tr>
<tr>
<td>Delhi International Airport Pvt. Ltd (DIAL)&lt;sup&gt;31&lt;/sup&gt;</td>
<td>INR86 billion&lt;sup&gt;31&lt;/sup&gt;</td>
<td>Lease Develop Operate Transfer (LDOT)</td>
<td>Mar 2010</td>
</tr>
<tr>
<td>Mumbai International Airport Pvt. Ltd (MIAL)</td>
<td>INR98 billion&lt;sup&gt;32&lt;/sup&gt;</td>
<td>LDOT</td>
<td>August 2014</td>
</tr>
</tbody>
</table>

Private sector investment in aviation to increase by three times in the Twelfth FYP

In the Twelfth FYP, the Planning Commission has projected an investment of INR877 billion for the airports, which is approximately 142% more than what was projected in the Eleventh FYP. Out of the total investment, around 80% is expected to be raised through private players.

Estimated private sector investment in airports in Twelfth FYP

After witnessing the success of PPP, the Airport Authority of India (AAI) has now planned to build 15 greenfield airports and modernize 50 other airports in non-metro cities over the next few years.

Key upcoming PPP projects

- **Seven greenfield airports in Andhra Pradesh:** New airports will be developed through the PPP mode and will entail a private investment in the range of INR10 billion–INR20 billion each. The Government will also offer concessions, including land, water, power and approach roads.

- **Six greenfield airports in Maharashtra:** The Government plans to build one international airport at Ckan (INR71 billion) and five domestic airports at Solapur (INR3.1 billion), Amravati (INR2.8 billion), Shirdi (INR2.6 billion) and Jalagaon (INR2.6 billion) on PPP basis.

- **International airport in Uttar Pradesh:** The Government of Uttar Pradesh plans to develop an international airport at Kushinagar worth INR3.5 billion through DBFOT.

- **International airport in Mopa, Goa:** The Government of Goa plans to develop its airport with an investment of INR30 billion over the next four years on PPP basis.

- **Greenfield international airport at Navi Mumbai:** The new airport is being built through PPP and the cost of the project is estimated to be between INR32 billion and INR40 billion.

---


35 “Key Developments,” Indian Infrastructure magazine, Volume 15, Jan 2013, p.4.


Airports in Kerala: Various airports are being constructed in Kerala in PPP mode:

- **International airport at Kannur:** The new airport is being built through BOO model at a total project cost of INR 11.3 billion. It is expected to commence operations in 2015.

- **International airport at Aranmula:** KSG Aranmula international airport is being built at a total project cost of INR 20 billion. The Government of Kerala has picked up 10% stake in the project.

- **Feeder airport at Wayanad:** The Government of Kerala has proposed to develop a feeder airport in the tourism-oriented Wayanad district.

Government initiatives to improve policy environment in aviation

The Ministry of Civil Aviation has taken steps to improve the regulatory environment in the country. The Ministry plans to come out with a new civil aviation policy (Vision 2020) and establish a new Civil Aviation Authority. Some of the recent policy initiatives taken are as follows:

- **FDI investment in civil aviation:** In September 2012, an amendment was made in the Civil Aviation policy that allowed foreign airlines to take equity share in the operating scheduled air transport services, subject to a limit of 49% of their paid-up capital.

- **New aviation regulator:** A new bill is expected to be introduced in the Parliament to establish a new regulator, to be called the Civil Aviation Authority (CAA) replacing the Directorate General of Civil Aviation (DGCA). It will have full operational and financial autonomy.

- **PPP mode for airport development:** PPP mode will enable privatization and modernization of airports in metro as well as non-metro cities, and will give priority to the development of regional and remote connectivity in the country.

- **Simplification of building rules near the airport:** The Government has approved changes in the byelaws regulating building activities around airports. The changes are expected to bring increased transparency and efficiency in the processes of approval for construction of buildings around airports.
The GoI has set ambitious targets for infrastructure development in the Twelfth FYP, primarily through private sector participation. However, multiple challenges at every stage of the PPP process are hampering the development of the PPP ecosystem in India.

### Challenges in PPP in India

#### Project development stage
1. Project structuring
2. Lack of information
3. Land acquisition
4. Environmental clearances
5. Financing constraints
6. Capacity of private players
7. Issues in dispute resolution
8. Multiple approval agencies
9. Lack of institutional capacity

**Project structuring**

Project development activities, such as detailed feasibility study, risk allocation and concession agreements are not given adequate importance by concessioning authorities in India. Risk allocation among the sponsoring agency and the developer is not appropriate, which makes it difficult to attract developers for bidding. The absence of adequate project development leads to reduced interest by the private sector, mispricing and, many a times, delays at the time of execution.

**Lack of information**

The PPP program in India lacks a comprehensive database of the projects/studies to be awarded under PPP. An online database, comprising all the project documents, including feasibility reports, concession agreements, and status of various clearances and land acquisitions will be helpful to all bidders.

**Land acquisition**

Land acquisition is a major roadblock in development of infrastructure projects under PPP. Several projects have been stalled or delayed due to land acquisition issues, primarily due to resistance from local communities. There is generally a considerable difference between the registered value offered and the actual market value, which results in disputes and litigation. Amendments to the Land Acquisition and Rehabilitation & Resettlement Bill (LARR) are under discussion to ease the process of land acquisition and reduce the number of litigations.
Public Private Partnership: The next continuum

Several highways and ports projects have been delayed in recent years due to lack of environmental and forest clearances. While the concerned Ministry states that the delays are primarily due to non-compliance with the environmental procedures and circulars issued, private developers feel that terms of compliance are complex and time consuming. Delays in conducting environment appraisal meetings and in constituting State-level Expert Appraisal Committees (SEACs) slows down the project approval process.

The private sector depends on commercial banks and equity markets to raise financing for PPP projects. These projects are capital-intensive in nature and have a long gestation period. With commercial banks reaching sectoral exposure limits, and large Indian infrastructure companies being highly leveraged, funding the PPP projects is becoming difficult. Equity markets are also not favorable for financing projects because of uncertainties in the global economy and due to long regulatory requirements that limit exit options.
4. Experiences of other countries in overcoming PPP challenges

In the ever-changing economic environment, governments across the world cannot afford policy paralysis. Taking prompt decisions is critical to adapt to a dynamic business environment. With political unrest in the US and the Eurozone debt crisis impacting business sentiments, financing of infrastructure projects with long gestation periods is becoming challenging.

Conditions, such as austerity measures, weak capital markets and a challenging project financing environment have put pressure on the infrastructure industry. Despite difficult conditions, developed countries, such as Canada, Australia, the UK and the US continue to invest in their infrastructure. They are taking a second look at the existing terms and structures of projects to make them viable and find new sources of funding.

In the UK, following concerns that the public sector was not getting value for money over the duration of Private Finance Initiative (PFI) contracts, the Government of UK announced a new PPP framework in December 2012 to encourage private finance investment in infrastructure. To help in funding equity, the Government will act as a minority shareholder in infrastructure projects with overall equity in a project ranging from 30% for a standard accommodation project to 49% for a more unconventional procurement. This implies that the Government will also have a share in investment returns, improving the value for money in such projects for taxpayers.

The Mexican Government has also taken requisite actions to face changing economic conditions. Through its National Infrastructure Fund (NIF), the Government of Mexico supports projects that have high social impact but insufficient financial returns. Assistance is provided to private developers not only through non-refundable mechanisms (grants and contributions), but also through refundable mechanisms, such as subordinate debt to bridge the equity gap.

**Case Study: a toll road project in Mexico**

In this road project, there was a delay in the release of right of the way. The additional expenses caused financial imbalance in the project. The following measures were taken to bail out the concessionaire and complete the project on time:

- The Government of Mexico agreed to extend the concession period for an additional 15 years and increase tariffs by 20%.
- A unique financing mechanism was developed, wherein the NIF monetized the additional cash flow through a loan as a subordinate debt with a tenure of 45 years. The repayment of NIF constituted 70% of the increase in tariff during the first 30 years and the entire income beyond the 31st year.

Securitization improved the terms and conditions of financing of the project (lowered interest rate and increased tenure) and assured completion of a strategic project on time.
India’s infrastructure sector requires immediate interventions to overcome challenges and accelerate development and implementation of PPP projects. These interventions will need to range from PPP policy and regulatory changes, and revision of concession agreements to development of long-term financial instruments, which are likely to create a conducive environment for attracting investments to the sector.

### Recommendations for accelerating PPP in India

#### Policy framework and institutions
- Set up a “one-stop shop” for handling PPP program: With the express objective of meeting PPP targets, an independent regulatory authority should be set up to act as a single window for all PPP-related activities. It should be responsible for creation of PPP database, identification of best practices, facilitating regulatory clearance and coordination with various departments.
- Agency for speedy dispute resolution: The Government should consider setting up a single quasi-judicial authority for all infrastructure sectors. This authority will have statutory powers to resolve disputes between the authorities and private developers. Such an authority will make the dispute resolution process more effective and may accelerate project execution and reduce costs.
- Expedite land acquisition and environmental clearances: The GoI should ensure that PPP projects should be awarded only after a sufficient amount of land has been physically acquired. The contractual mechanisms should ensure the Government agencies’ continued commitment toward land acquisition, even after the awarding of the project. The Ministry of Environment and Forest (MoEF) should take steps to expedite environmental and forest clearances for PPP projects, particularly in the case of land-driven projects.

#### Concession agreement
- Revisions in model concession agreements to support the concessionaire: The model concession agreements (MCAs) provide precise policy and regulatory framework for various PPP infrastructure projects. Most of these
MCAs have become dated and require a revamp with changing market condition. The Government should incorporate provisions to ensure more accurate revenue projections, remove redundant policy provisions and modify the termination contracts without undermining any of the stakeholders concerned. A mechanism for time-bound review of MCAs should incorporate the latest development in the sector as well as learnings made during the course of time from implementing such projects and incorporating the best practices from the international PPP market scenario. Optimal allocation of risks, authority and accountability: The concession agreement should ensure unambiguous distribution of responsibility, costs and risks between the public and the private sector. In several cases, due to lack of proper project development, public authorities are not able to fulfill their responsibilities, resulting in project delays. In such cases, it is seen that the private sector has to bear losses, with no appropriate framework for compensation.

Financing arrangement

► Developing corporate bond market: There is an immediate need to develop the corporate bond market. The proposal to set up infrastructure debt funds (IDFs) is a step in the right direction. Furthermore, in order to boost the corporate bond market in infrastructure projects, commercial banks, while funding the project, can compulsorily fund some part of the debt by subscribing to bonds. These bonds can be listed on exchanges. The large commercial banks and NBFCs can also play market makers in infrastructure bonds during the initial years.

► Encouraging participation by pension funds and insurance companies: Given the fact that the commercial banks are concerned about asset liability mismatches and concentration risks, the GoI should alternately consider domestic institutional investors for investment in infrastructure. The GoI should make investment policies and regulatory guidelines of the insurance companies and pension funds more conducive and flexible toward investing in the infrastructure sector. The regulations, such as rating requirements and treatment of investments by insurance companies in the infrastructure sector can be reviewed.

► Stimulating PE investments in infrastructure sector: Global and domestic private equity funds have the capability to provide finance for infrastructure growth in India. To attract PE funds for bidding in infrastructure projects, the eligibility criteria should be suitably amended, and apart from financial net worth, the “Funds under Management” for PE and Venture Capital funds should also be included.
Conclusion

The Twelfth FYP intends to achieve a huge infrastructure investment target through PPPs. Currently, PPP in infrastructure is at the crossroads with initial euphoria around the PPP models slowing down. Delay in clearances, poorly defined contracts and red tapeism are pushing away the private sector from taking up new projects.

The Government needs to work on each stage of PPP development – planning, designing, contracting, financing and monitoring. New models for PPP are required to be created to cater to the current challenging business climate. Unless project agencies are suitably empowered for effective and time-bound decision making, PPP agenda of the country is going to take time to evolve and develop. There needs to be a clear demarcation of the risks to be borne by public and private parties.

Despite various bottlenecks, PPP in infrastructure holds great potential in a country like India. A long-term sustainable infrastructure plan needs to be developed that will create an environment for increased private sector investments for faster execution of the projects. Collective efforts by both the private and the public sector and enabling policy provisions may help in achieving the infrastructure PPP agenda of the government.
**FICCI contact**

Abdul Salam  
Deputy Director  
FICCI  
Federation House, Tansen Marg, New Delhi 110 001  
Email: abdul@ficci.com  
Tel:  + 91-11-2376 5082  
Fax:  + 91-11-2332 0736  
Mobile: + 91-99 998 84 007  
Web:  www.ficci.com

**EY contact**

**GPS India Leader**

Gaurav Taneja  
National Director  
Government Advisory Services  
Tel:  +91 124 464 4000  
Email: gaurav.taneja@in.ey.com

Sunil R Chandiramani  
Partner & National Director  
Advisory Services  
Tel:  +91 22 4035 6310  
Email: sunil.r.chandiramani@in.ey.com

**PPP & Transaction Advisory**

Abhaya Krishna Agarwal  
Partner & Leader  
PPP Government & Transaction Advisory Services  
Tel:  +91 11 4363 3060  
Email: abhaya.agarwal@in.ey.com

Adil Zaidi  
Associate Director  
Government and Transaction Advisory Services  
Tel:  +91 11 4363 3230  
Email: Adil.Zaidi@in.ey.com
Ernst & Young offices

Ahmedabad
2nd floor, Shivalik Ishaan
Near. C.N Vidhyalaya
Ambawadi
Ahmedabad-380 015
Tel: +91 79 6608 3800
Fax: +91 79 6608 3900

Bengaluru
12th & 13th floor
“U B City” Canberra Block
No.24, Vittal Mallya Road
Bengaluru-560 001
Tel: +91 80 4027 5000
Fax: +91 80 6727 5000 (12th floor)
Fax: +91 80 2224 0695 (13th floor)

1st Floor, Prestige Emerald
No.4, Madras Bank Road
Lavelle Road Junction
Bengaluru-560 001 India
Tel: +91 80 6727 5000
Fax: +91 80 2222 4112

Chandigarh
1st Floor
SCO: 166-167
Sector 9-C, Madhya Marg
Chandigarh-160 009
Tel: +91 172 671 7800
Fax: +91 172 671 7888

Chennai
Tidel Park
6th & 7th Floor
A Block (Module 601,701-702)
No.4, Rajiv Gandhi Salai
Taramani
Chennai-600 113
Tel: +91 44 6654 8100
Fax: +91 44 2254 0120

Hyderabad
Oval Office
18, iLabs Centre
Hitite City, Madhapur
Hyderabad - 500 081
Tel: +91 40 6736 2000
Fax: +91 40 6736 2200

Kochi
9th Floor “ABAD Nucleus”
NH-49, Maradu PO
Kochi - 682 304
Tel: +91 484 304 4000
Fax: +91 484 270 5393

Kolkata
22, Camac Street
3rd Floor, Block C’
Kolkata-700 016
Tel: +91 33 6615 3400
Fax: +91 33 2281 7750

Mumbai
14th Floor, The Ruby
29 Senapati Bapat Marg
Dadar (west)
Mumbai-400 028, India
Tel: +91 22 6192 0000
Fax: +91 22 6192 1000

5th Floor Block B-2
Nirlon Knowledge Park
Off. Western Express Highway
Goregaon (E)
Mumbai-400 063, India
Tel: +91 22 6192 0000
Fax: +91 22 6192 3000

NCR
Golf View Corporate
Tower - B
Near DLF Golf Course
Sector 42
Gurgaon-122 002
Tel: +91 124 464 4000
Fax: +91 124 464 4050

6th floor, HT House
18-20 Kasturba Gandhi Marg
New Delhi-110 001
Tel: +91 11 4363 3000
Fax: +91 11 4363 3200

4th & 5th Floor, Plot No 2B
Tower 2, Sector 126
Noida-201 304
Gautam Budh Nagar, U.P, India
Tel: +91 120 671 7000
Fax: +91 120 671 7171

Pune
C-401, 4th floor
Panchshil Tech Park
Yerwada (Near Don Bosco School)
Pune-411 006
Tel: +91 20 6603 6000
Fax: +91 20 6601 5900
About FICCI

Established in 1927, FICCI is one of the largest and oldest apex business organizations in India. FICCI's history is closely interwoven with India's struggle for independence, industrialization and emergence as one of the most rapidly growing global economies. FICCI has contributed to this historical process by encouraging debate, articulating the private sector’s views and influencing policy.

A not-for-profit organization, FICCI is the voice of India's business and industry.

FICCI draws its membership from the corporate sector, both private and public, including MNCs; FICCI enjoys an indirect membership of over 2,50,000 companies from various regional chambers of commerce.

FICCI provides a platform for sector specific consensus building and networking and is the first port of call for Indian industry and the international business community.

Our Vision
To be the thought leader for industry, its voice for policy change and its guardian for effective implementation.

Our Mission
To carry forward our initiatives in support of rapid, inclusive and sustainable growth that encompasses health, education, livelihood, governance and skill development.

To enhance the efficiency and global competitiveness of the Indian industry and to expand business opportunities both in domestic and foreign markets through a range of specialized services and global linkages.