



REPORT
OF THE
COMMITTEE ON REVISITING AND REVITALISING
PUBLIC PRIVATE PARTNERSHIP MODEL
OF INFRASTRUCTURE

November, 2015

**Department of Economic Affairs
Ministry of Finance**

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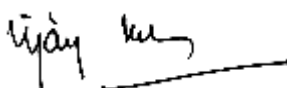
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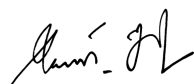
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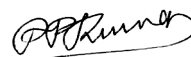
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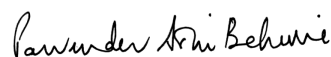
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EXECUTIVE SUMMARY

Executive Summary

A. Highlights of the Report

1. Public Private Partnerships (PPPs) in infrastructure refer to the provision of a public asset and service by a private partner who has been conceded the right (the “Concession”) for the purpose, for a specified period of time, on the basis of market-determined revenue streams, that allow for commercial return on investment.
2. The availability of high-quality infrastructure and the overcoming of India’s infrastructure deficit is crucial to attaining and sustaining rapid growth that generates the right kinds of jobs. PPPs in infrastructure represent a valuable instrument to speed up infrastructure development in India. This speeding up is urgently required for India to grow rapidly and generate a demographic dividend for itself and also to tap into the large pool of pension and institutional funds from aging populations in the developed countries (Chapter 3, paragraph 3.5.2).
3. India offers today the world’s largest market for PPPs. It has accumulated a wealth of experience in getting to this premier position. As the PPP market in infrastructure matures in India, new challenges and opportunities have emerged and will continue to emerge. Periodic review of PPPs, as in the present Committee's remit, are a must to help address issues before they become endemic and to mainstream innovations and foster new ones that improve the successful delivery of PPP projects. This has to be a dynamic process. Such reviews should ideally therefore be done frequently, perhaps once every three years, and more often if they become part of the work programme of the institute of excellence in PPPs that the Committee has recommended be set up urgently (Chapter 10, paragraph 10.1.3).
4. India’s success in deploying PPPs as an important instrument for creating infrastructure in India will depend on a change in attitude and in the mind-set of all authorities dealing with PPPs, including public agencies partnering with the private sector, government departments supervising PPPs, and auditing and legislative institutions providing oversight of PPPs. This change in attitude requires (1) moving away from a narrow focus on transactions to focussing on the relationship and on service delivery for citizens, (2) building in an approach of “give and take” between private and public sector partners, and (3) developing a mechanism for dealing with uncertainties inherent in long-time contracts. It must be kept in mind that given market and technological uncertainties, both public and private managers of long-term PPPs take decisions based on incomplete information. A decision that looks problematic ex-post cannot automatically be deemed to be mala fide. The Committee urges all parties concerned to foster trust between private and public sector partners when they implement PPPs (Chapter 10, paragraph 10.2.1). Implementation of projects under PPP frameworks should be based on an equitable partnership between different stakeholders in a manner that best delivers services to the citizens of India (Chapter 1, paragraph 1.2.2).
5. The Government may take early action to amend the Prevention of Corruption Act, 1988 which does not distinguish between genuine errors in decision-making and acts

of corruption. Measures may be taken immediately to make only malafide action by public servants punishable, and not errors, and to guard against witch hunt against government officers and bureaucrats for decisions taken with bonafide intention. The government may speed up amendment of the Prevention of Corruption Act, Vigilance and Conduct rules applicable to government officers (Chapter 6, paragraph 6.1.6).

6. The PPP eco-system in the country is well developed and has been continuously evolving to meet the many challenges encountered in the implementation of such projects. Experience has also underlined the need to further strengthen the three key pillars of PPP frameworks namely Governance, Institutions and Capacity, to build on the established foundation for the next wave of implementation.
7. In addition to changing mind-sets, there is an urgent need to rebuild India's PPP capacities. Structured capacity building programmes for different stakeholders including implementing agencies and customized programmes for banks and financial institutions and private sector need to be evolved. The need for a national level institution to support institutional capacity building activities must be explored. Every stakeholder without exception has strongly emphasised the urgent need for a dedicated institute for PPPs as was announced in the previous Budget. The Committee strongly endorses the "3PI" which can, in addition to functioning as a centre of excellence in PPPs, enable research, review, roll out activities to build capacity, and support more nuanced and sophisticated models of contracting and dispute redressal mechanisms (Chapter 6, paragraph 6.1.4). A dynamic 3PI can support a dynamic process of infrastructure design, build, and operate in India and thereby help deliver on the promise of reliable infrastructure services for all citizens.
8. The Committee cannot overstate the criticality of setting up of independent regulators in sectors that are going in for PPPs. The Committee recommends setting up these independent regulators with a unified mandate that encompasses activities in different infrastructure sub sectors to ensure harmonized performance by the regulators (Chapter 6, paragraph 6.1.8).
9. The Committee welcomes the current review and amendment of the Arbitration Act, and strongly endorses the need for time limits on hearings (Chapter 6, paragraph 6.1.7).
10. The dominant, primary concern of the Committee was the optimal allocation of risks across PPP stakeholders. Inefficient and inequitable allocation of risk in PPPs can be a major factor in PPP failures, ultimately hurting the citizens of India. The Committee notes that the adoption of the Model Concession Agreement (MCA) has meant that project specific risks are rarely addressed by project implementation authorities in this "One-size-fits-all" approach. A rational allocation of risks can only be undertaken in sector and project-specific contexts. This arrangement has to only be developed by the project proponents concerned in collaboration with other stakeholders (Chapter 4, paragraph 4.1.2). While risk allocation can be specific to the sector and project, the Committee also emphasizes that a generic risk monitoring and evaluation framework

should be developed encompassing all aspects across project development and implementation lifecycle. The Committee urges all stakeholders to then use this framework and allocate risk optimally in accordance with the basic principle that “the entity that is best suited to manage the risk is allotted that risk.” (Chapter 4, paragraph 4.1.3). The MCAs adopted in some sectors were extremely valuable in reducing transaction costs for the Authority. It is the Committee’s view that MCAs for each sector are reviewed to capture the interests of all participating stakeholders - users, project proponents, concessionaires, lenders and markets (Chapter 8, paragraph 8.1.3). The Committee has suggested some such changes which would require review to facilitate successful project delivery (paragraph 8.1.4). Responding to inputs provided by stakeholders, some sector specific recommendations have been made which are an indicative (though not an exhaustive) list of suggestions which will need detailed expert study (Chapter 9).

11. For the next generation of PPP Contracts, the Committee suggests the following broad guidelines while allocating and managing risks: 1) an entity should bear the risk that is in its normal course of its business; 2) an assessment needs to be carried out regarding the relative ease and efficiency of managing the risk by the entity concerned; 3) the cost effectiveness of managing the risk needs to be evaluated; 4) any overriding considerations/stipulations of a particular entity need to be factored in prior to implementing the risk management structure; 5) DEA, or preferably the 3PI, should deploy sophisticated modeling techniques that exist to assess risk probabilities and the need to provision for them; and 6) there should be ex-ante provisioning for a renegotiation framework in the bid document itself (Chapter 4, paragraph 4.1.6).
12. Typically infrastructure PPP projects span over 20-30 years and a developer often loses bargaining power related to tariffs and other matters in case there are abrupt changes in the economic or policy environment which are beyond his control. The Committee feels strongly that the private sector must be protected against what have been called an “Obsolescing Bargain”-the loss of bargaining power over time by private player in PPPs-through the four mechanisms discussed in Chapter 4 including the setting up of Independent Sector Regulators.
13. PPP projects can become distressed when risks emerge that may not have been contemplated at the time of signing. This could give rise to a call for amending the terms of the Concession Agreement to reflect new project realities better (Chapter 4, paragraph 4.3.2). The Committee has suggested benchmarks in Chapter 4 to be applied to each proposed renegotiation as well as set out a set of conditions that should not be accepted as valid reasons for a request for amendment of a concession agreement (Chapter 4, paragraphs 4.3.6 and 4.3.7).
14. The final decision on a renegotiated concession agreement must be based on 1) full disclosure of the renegotiated estimated long-term costs, risks and potential benefits; 2) comparison with the financial position for government at the time of signing the concession agreement; and 3) comparison with the existing financial position for government just prior to renegotiation. This will permit the Authority regulating the

concession to take a decision based on a full comparison of the likely outcomes over the future of the concession (Chapter 4, paragraphs 4.3.8 and 4.3.9).

15. The Committee notes that a number of stalled PPP projects need to be kick started. There is an urgent need to evolve a suitable mechanism that evaluates and addresses “actionable stress”-using stress and adversity to deal with the underlying systemic problems (Chapter 5, paragraph 5.3.3). Sector specific institutional frameworks should be developed to address these stalled infrastructure projects. The Indian highways sector has proven experience in dealing with stressed PPP projects, and learnings from this sector should be utilized for other sectors and frameworks established for other sectors with the necessary customization. At the same time, umbrella guidelines should be developed for stressed projects that provide an overall framework for development and functioning of sector-specific frameworks. The proposed Tribunal and IPAT approach, in the Committee's view, are the possible solution (Chapter 5, paragraphs 5.3.15 and 5.3.16). The Committee is of the view that only a statutorily-established, credible, empowered, multi-disciplinary expert institutional mechanism may be able to deal with the complex issues involved (Chapter 5, paragraph 5.3.4).
16. The Committee recognizes the need for a quick, equitable, efficient and enforceable dispute resolution mechanism for PPP projects. It is suggested that PPP contracts have clearly articulated dispute resolution structures that demonstrate commitment of all stakeholders and provide flexibility to restructure within the commercial and financial boundaries of the project, (Chapter 8, paragraph 8.2.1).
17. In the wake of new project proposals emerging in various infrastructure sectors, the Committee recommends that appropriate legal frameworks be developed against which these can be evaluated (Chapter 6, paragraph 6.2.1).
18. The authorities may be advised against adopting PPP structures for very small projects, since the benefits of delivering small PPP projects may not be commensurate with the resulting costs and the complexity of managing such partnerships over a long period. The transaction costs of well-structured PPP projects are significant, including essential but expensive expert advisory services (Chapter 6, paragraph 6.2.6).
19. Unsolicited Proposals (“Swiss Challenge”) may be actively discouraged as they bring information asymmetries into the procurement process and result in lack of transparency and fair and equal treatment of potential bidders in the procurement process (Chapter 6, paragraph 6.2.7).
20. Inherent in the concept of PPP is the role of a “Private Sector Partner” that will implement the project, based on the need to leverage private sector financing and also the managerial and operational efficiencies of the private sector party. It is in this context that the Committee is of the view that since state owned entities SoEs/PSUs are essentially government entities and work within the government framework, they should not be allowed to bid for PPP projects (Chapter 6, paragraph 6.2.10).

21. The authorities should not treat PPPs as an off-balance sheet funding method for the government's responsibility of providing reliable infrastructure services to its citizens. PPP should not be used as the first delivery mechanism without checking its suitability for a particular project. States and other agencies should also not treat Central PPP VGF as a source of additional grants that can be accessed by adopting a PPP delivery mode for projects that are not suitable for such a long-term financing structure (Chapter 6, paragraph 6.2.8).
22. There have been concerns raised by all stakeholders (Government and Private Sector alike) on the demand for developer books of account being subjected to government audit and for access under RTI and Article 12 of Constitution. Conventional audit by authority of private partner's books as per standard procurement process risks delivery of poor quality of service/ public asset provision if there is no certainty of processes in the medium term. To address this, the Committee recommends that the government notify comprehensive guidelines on the applicability and scope of such activities. The laid down process would enable review only of government internal systems, and not that of SPVs, but SPVs would need to follow best practices in corporate governance systems including those related to related party transactions, financial disclosures etc as in the Companies Act, 2013 (Chapter 6, paragraph 6.2.3).
23. Monetisation of viable projects that have stable revenue flows after EPC delivery may be considered. This should be seen as a monetisation opportunity that can attract risk-averse long-term funding like pension and institutional investors. By providing O&M PPP opportunities, the authority will be able to free up budgetary funds for fresh EPC and start a virtuous cycle of fresh investment fed by additional revenues (Chapter 7, paragraph 7.1.8).
24. Equity in completed, successful infrastructure projects may be divested by offering to long-term investors, including overseas institutional investors as domestic and foreign institutional investors with long-term liabilities are best suited for providing such long-term financing, but have a limited appetite for risk. Cash generated out of divestment of equity would be available for the creation of new infrastructure projects in the country (Chapter 6, paragraph 6.2.12).
25. Improving a PPP project's risk profile so that it is more suitable for overseas and domestic long-term investors can be accomplished through partial recourse to credible third-party institutions. This could be implemented through a partial credit guarantee or cash flow support mechanisms (Chapter 6, paragraph 6.2.12).
26. It is necessary to explore options for sourcing long term capital at low cost. Towards this, the Committee recommends, encouraging the banks and financial institution to issue Deep Discount Bonds or Zero Coupon Bonds (ZCB) (Chapter 7, paragraph 7.1.15). These will not only lower debt servicing costs in an initial phase of project but also enable the authorities to charge lower user charges in initial years.
27. Some countries have a legal framework for PPPs in the form of PPP Act/Law/Policy. MoF may develop and publish a national PPP Policy document. Ideally, such a policy

document should be endorsed by the Parliament as a policy resolution to impart an authoritative framework to implementing executive agencies as well as to legislative and regulatory agencies charged with oversight responsibilities (Chapter 6, paragraph 6.2.2). The Committee recommends an assessment of whether formulating and enacting a PPP Law will facilitate successful expansion of PPP into new sectors, including health, other social sectors, and urban transport (Chapter 10, paragraph 10.1.1).

28. In the final analysis, the success of deploying PPP as an additional policy instrument for creating infrastructure in India will depend on the change in attitudes and mindsets of all the authorities including public agencies partnering the private sector, government departments supervising the PPPs, and auditing and legislative institutions providing oversight of the PPPs. The PPP reflects a paradigm shift involving the private sector. It means moving away from “transaction to relationship,” accommodating “give and take” between private and public sector partners, and finally accepting uncertainties and appropriate adjustments inherent in implementing long-time contracts. Given the market and technological uncertainties, the PPP management will take decisions based on incomplete information. Hence, a decision which looks problematic “ex-post” need not necessarily be considered as mala fide. The Committee urges all parties concerned to foster trust between the private sector and public sector partners in implementing PPP. As mentioned earlier in the Report, PPP is an additional policy instrument to enable India to save time. Since the “demographic dead-lines” are staring at us, there is need to accelerate growth. By all accounts, there are only two or three decades left for India to complete the transition from a low-income country to a high-income and developed economy by overcoming the “middle income trap” (Chapter 10, paragraph 10.2.1).

B. Key recommendations:

1. Chapter 2- Revisiting PPPs: Achievements and Challenges

- a. Contracts need to focus more on service delivery instead of fiscal benefits (Paragraph 2.5.5, viii).
- b. Better identification and allocation of risks between stakeholders (Paragraph 2.5.5, viii).
- c. Prudent utilization of viability gap funds where user charges cannot guarantee a robust revenue stream (Paragraph 2.5.5, viii).
- d. Improved fiscal reporting practices and careful monitoring of performance (Paragraph 2.5.5, viii).

2. Chapter 3- Why it is Urgent for India to get Infrastructure PPPs Right

- a. Given the urgency of India’s demographic transition, and the experience India has already gathered in managing PPPs, the government must move the PPP model to the next level of maturity and sophistication (Paragraph 3.1.7).

- b. The Committee feels strongly that maturing the PPP model in India is an urgent priority also to take advantage of this historical conjunction of India's infrastructure needs and the availability of long-term funding (Paragraph 3.4.3).
- c. PPPs have the potential to deliver infrastructure projects both faster and better. Building on India's 15 years of experience with PPPs, there is need to iron out the difficulties in the performance of PPP at every stage of the contract (Paragraph 3.5.2).

3. Chapter 4- Re-balancing of Risk Sharing

- a. An assessment needs to be carried out regarding the relative ease and efficiency of managing the risks by the entity concerned (Paragraph 4.1.6).
- b. Cost effectiveness of managing the risk needs to be evaluated (Paragraph 4.1.6).
- c. Sophisticated modelling techniques are prevalent to assess probabilities of risks and the need to provision for them. DEA may hone its skills in this and provide guidance to project authorities (Paragraph 4.1.6).
- d. The final decision for a renegotiated Concession Agreement must be based on (Paragraph 4.3.8):
 - Full disclosure of long-term costs, risks and potential benefits;
 - Comparison with the financial position for government at the time of signing the Concession Agreement;
 - Comparison with the financial position for government at the time prior to renegotiation.

4. Chapter 5- Resolving Legacy Issues

- a. Only a statutorily established credible empowered multi-disciplinary expert institutional mechanism can deal with the complex issues involved (Paragraph 5.3.4):
 - An Infrastructure PPP Project Review Committee ("IPRC") may be constituted to evaluate and send its recommendations in a time-bound manner upon a reference being made of "Actionable Stress" in any Infrastructure Project developed in PPP mode beyond a notified threshold value.
 - An Infrastructure PPP Adjudication Tribunal ("IPAT") chaired by a Judicial Member (former Judge SC/Chief Justice HC) with a Technical and/or a Financial member, where benches will be constituted by the Chairperson as per needs of the matter in question
- b. In case procurement of land or clearance is pending from government authorities for more than prescribed number of days, the outstanding work should be de-scoped (under the provisions of Change in Law of Concession Agreement), and allow rest of activities for completed work. Balance work could be completed on a cash-contract basis, provided land and required clearances are in place (Box 6).
- c. Cancel projects that have not achieved a prescribed percentage of progress on the ground. Rebid them once issues have been resolved or complete them through public funds and if viable, bid out for Operations and Maintenance (Box 6).

5) Generic, Including Legacy Projects

- a. Sector specific institutional frameworks may be developed to address issues for PPP infrastructure projects (Chapter 5, paragraph 5.3.15). An entity should bear the risk that is in its normal course of its business (for instance, acquisition of land is a normal course of business for public entities). Overriding considerations/ stipulations of each entity to be factored in prior to implementation of risk management structure (Chapter 4, paragraph 4.1.6).
- b. Learnings from the Highways sector to be utilized for other sectors to customize and adopt such frameworks (Chapter 5, paragraph 5.3.15).
- c. Umbrella guidelines may be developed for stressed projects that provide an overall framework for development and functioning of the sector specific frameworks (Chapter 5, paragraph 5.3.16).
- d. DEA to finalize a national PPP Policy document (Chapter 6, paragraph 6.2.2).
- e. Unsolicited Proposals (“Swiss Challenge”) to be discouraged to avoid information asymmetries and lack of transparency (Chapter 6, paragraph 6.2.7).
- f. PPP structures not to be adopted for very small projects in view of the transaction costs involved. DEA to issue a threshold guidance (Chapter 6, paragraph 6.2.6).

6. Chapter 6- Strengthening Policy, Governance and Institutional Capacity

- a. Amend the Prevention of Corruption Act, 1988 to distinguish between genuine errors in decision-making and acts of corruption (Paragraph 6.1.6).
- b. Build up capacity in all stakeholders, including regulators, authority, consultants, financing agencies, developers (Paragraph 6.1.2).
- c. Set up an institution for invigorating private investments in infrastructure, providing guidance for a national PPP policy and developments in PPP, developing a mechanism to capture and collate data for decision making, undertaking capacity building activities. The 3P-I institute for PPPs announced in 2014 may be set-up without delay (Paragraph 6.1.4).
- d. Pre-qualified PPP consultancies could be empanelled by DEA as earlier which could be tapped at short notice (Paragraph 6.4.3).
- e. Revive the PPP Cells supported by the DEA over the last decade in Infrastructure Ministries and State Governments (Paragraph 6.1.5).
- f. An institutionalized mechanism like the National Facilitation Committee (NFC) to ensure time bound resolution of issues including getting timely clearances/approvals during implementation of projects for smooth running of such projects (Paragraph 6.2.5).
- g. Ministry of Finance to coordinate with other implementing ministries may develop a policy to promote secondary market for operational assets (Paragraph 6.1.9).
- h. Disallow statutory audit to books of SPVs governed by the provisions of the Companies Act. Ensure adoption of principles of good governance by the SPVs (Paragraph 6.2.3).

- i. Standard public authority requirements of audit till point of award (public books) and post-construction discharge by Authority of monitoring and oversight of project operations as per the concession agreement (public books) to be in the purview of statutory/government audit agencies (Paragraph 6.2.3).
- j. Essential to set up independent Regulators in sectors going in for PPP (Paragraph 6.1.8).
- k. Discourage government participation in SPVs that implement PPP projects unless strategically essential. DEA to issue guidance on Government participation in such JV-SPVs (Paragraph 6.2.9).

7. Chapter 7- Scaling Up Finance

- a. Restrict the number of banks in a consortium (Paragraph 7.2.3).
- b. Banks to build up their own risk assessment/appraisal capabilities (Paragraph 7.2.3).
- c. Check list of items listed as a guidance for lenders.
- d. RBI may provide guidelines to lenders on encashment of bank guarantees in line with ICC norms (Paragraph 7.1.3).
- e. Monetisation of viable projects that have stable revenue flows after EPC delivery should be considered (Paragraph 7.1.8).
- f. Equity in completed, successful infrastructure projects may be divested by offering to long-term investors.
- g. Ministry of Finance to allow banks and financial institutions to issue Zero Coupon Bonds which will also help to achieve soft landing for user charges in infrastructure sector (Paragraph 7.1.5).

8. Chapter 8- Revitalising Contractual Processes

- a) Need for review of the MCAs (Paragraph 8.1.1).
- b) Sample suggestions for generic changes, including for resolution of disputes, and sector-specific changes (Paragraph 8.1.4 and 8.2.1).

9. Chapter 9 - Reinforcing the Sectors

- a. Independent sector regulators essential (Paragraph 9.2.5).
- b. Build upon maturing landscape in Roads and Ports PPP and move into the next phase: Roads: avoiding delays, institutionalized dispute resolution, improved project development activity, monetization of operational assets, efficiency and transparency by electronic tolling, etc (Paragraph 9.3.6).
- c. Ports: review of role and need of Tariff Authority for Major Ports (TAMP), review of MCA, quicker clearances, rationalized leases and stamp duties (Paragraphs 9.3.1-9.3.5).
- d. Airport: PPPs to be encouraged where viable in Greenfield and brownfield projects, have policy that addresses potential demand for airport services in the country, notify a unified regulatory structure, clarity in delineation of Till policy,

calculation of aeronautical and other cash flows essential (Paragraph 9.4.1-9.4.9).

- e. Encourage use of PPPs in sectors like Railways, Urban, etc. Railways to have an independent tariff regulator, tap potentially useful PPP opportunities including brownfield assets (Paragraph 9.5.1-9.5.4).

10. Chapter 10 - Fast Forward PPPs

- a. Set up an institute of excellence in PPP to inter alia guide the sector, provide policy input, timely advice and undertake sustainable capacity building (Paragraph 10.1.3).
- b. Ensure integrated development of infrastructure with roadmaps for delivery of projects (Paragraph 10.1.5).
- c. India's demographic deadlines are staring at us. There are only two or three decades left to complete the transition from a country that has just attained middle-income status to that of a high-income and developed economy. Besides the basic problems for provision of adequate infrastructure, the middle-income trap is also to be averted. Without adequate infrastructure, this will simply not be possible. India is currently in a global win-win situation with a large young population that will need good jobs and a huge pool of global savings that can be tapped for building out our infrastructure. PPPs are an important policy instrument that will enable India to compress time in this journey towards economic growth and development. A successful and growing stream of PPPs in infrastructure will go a long way in accelerating the country's development process (Paragraph 10.2.1).

REPORT

CHAPTER 1: CONTEXT

1.1 Introduction

- 1.1.1 Investment in infrastructure in India has posed a challenge in the last few years. Not only are there reports of delayed or stalled infrastructure projects¹ but the rate² of growth of gross fixed capital formation (GFCF) has also been disappointing. Inadequate acceleration in private sector projects has been attributed inter alia to unfavourable market conditions, lack of appetite for fresh investment by promoters and delays in obtaining environmental clearances. In the public sector, on the other hand, the slowdown in delivery of projects has been attributed to regulatory decisions, problems in land acquisition and scarcity of funds.
- 1.1.2 The Union Finance Minister, in his Budget speech of 2015-16, has emphasized the need for increasing public investment in infrastructure. Simultaneously, while referring to the importance of drawing in the private sector³, he emphasized the need for a review of the Public Private Partnership (PPP) model of infrastructure development, which harnesses private investment for providing public assets and services.
- 1.1.3 Public Private Partnership has been accepted as an important policy instrument for central and state governments in the implementation of commercially viable projects. However, PPPs have played a limited though significant role in the infrastructure delivery mechanism in sectors over the last decade. The Department of Economic Affairs (DEA), Ministry of Finance, with support from the erstwhile Planning Commission of India, has been overseeing the development of public infrastructure through the PPP model across the country.
- 1.1.4 The rollout of PPPs through these efforts has resulted in a portfolio of PPP projects, at various stages of delivery and operations, which surpasses all other countries today. This has also been accompanied by developments, which were not anticipated by either party in the PPP contract (the "Concession"). These developments have been due to macro-economic factors, sectoral regulatory meso-economic factors and micro-economic factors such as private sector specific. As a result, the DEA has issued a series of guidelines on: (i) building-in the required degree of flexibility in long-term PPP Concessions; and (ii) strengthening public sector management of operational PPPs. However, other aspects remain that need to be addressed by all stakeholders, including the public authorities, lending community and private partners.
- 1.1.5 As part of the government's efforts to revitalize private investment, a detailed review of risks in PPPs was considered essential to rebalance the allocation of risks, while in no way diluting the essence of a PPP structure. Building upon the strengths of the mature PPP landscape in the country, which has been acknowledged internationally⁴,

¹The Government of India's Economic Survey 2014-15 reported that at the end of December 2014, the value of all projects, mostly in the infrastructure sector, that have been stalled, stood at Rs. 8.8 lakh crore (i.e. 7% of GDP).

²Gross Fixed Capital Formation (GFCF) as a percentage of GDP at current market prices has been falling (2011-12-3.5%, 2012-13-31.4%, 2013-14-29.7%, Source: Economic Survey 2014-15).

³According to NITI Aayog Brief #5 infrastructure investment during the Eleventh Plan was Rs.23,74,307 crore (at current prices), which is 2.8 times the investment of Rs.8,37,159 crore realized in the Tenth Plan (2002-2007). This notable performance was largely contributed by private investment, resulting in the share of private investment increasing from 22% in the Tenth Plan to 37% in the Eleventh Plan.

⁴In the Economic Intelligence Unit's Infrascope report (2015) Evaluating the Environment for PPPs in Asia-Pacific 2014, India ranked first in "Operational Maturity for PPP Projects."

the government underlined its aim to: (i) rekindle private sector interest and investment to augment public investment; (ii) address all issues and identify key takeaways, including global best practices; and (iii) review and reorient the PPP model, keeping in mind the interests of all stakeholders. Emphasis was also laid on the need to ensure that government absorbs only those risks that cannot be borne by the private sector.

1.1.6 To this end, a 10-member Committee was constituted, to review and revitalize the PPP mode of infrastructure development chaired by Dr. Vijay Kelkar, Chairman, Governing Body, National Institute of Public Finance and Policy

1.1.7 The other members of the Committee were:

- i. Shri C. S. Rajan, Chief Secretary, Government of Rajasthan
 - ii. Shri S. B. Nayar, Chairman and Managing Director, India Infrastructure Finance Company Limited
 - iii. Dr. Shekhar Shah, Director-General, National Council of Applied Economic Research
 - iv. Shri P. Pradeep Kumar, Managing Director, Corporate Banking Group, State Bank of India
 - v. Shri Rohit Kumar Singh, Joint Secretary, Ministry of Road Transport and Highways
 - vi. Shri Vikram Limaye, Managing Director & Chief Executive Officer, IDFC Limited
 - vii. Shri Sudipto Sarkar, Barrister-at-law
 - viii. Dr. P. S. Behuria, IRS (Retd.)
 - ix. Ms. S. Chavaly, Joint Secretary, Department of Economic Affairs, Ministry of Finance, (Member Secretary)
- Special Invitee- Shri N. Muruganandam, Joint Secretary (Ports), Ministry of Shipping, Government of India

1.1.8 The Terms of Reference of the Committee were as follows:

- i. Review of the experience of PPP policy, including variations in the content of contracts and difficulties experienced with particular variations and conditions;
- ii. Analysis of risks in PPP projects in different sectors and existing framework of sharing such risks between the project developer and the government, thereby suggesting optimal risk sharing mechanism;
- iii. Propose design modifications in contractual arrangements of the PPPs, based on the above and international best practices, and our institutional context; and
- iv. Measures to improve capacity building in government for effective implementation of PPP projects.

1.1.9 The Committee, as part of its remit, held detailed discussions with stakeholders across the PPP spectrum, invited suggestions and views of experts, reviewed projects and sectors, and researched best practices in India and abroad. While recognizing the need to build upon the strong foundations that have been established, the Committee reviewed existing institutional frameworks and allocation of risks to identify the key factors that have led to successes or weaknesses, in order to address the issue of rebalancing of risks. The Committee recognized that all projects cannot be implemented under a PPP framework as that would lead to government taking on unjustified direct and contingent liabilities.

1.2 Report Structure

- 1.2.1 In preparing this report, the Committee was mindful that it would need to:
- i. Be knowledge-based
 - ii. Align with best practices
 - iii. Avoid complexity
 - iv. Impart flexibility with transparency
 - v. Be actionable for the authorities
- 1.2.2 This report is structured in 10 chapters. Chapter 1 addresses the scope of work set out for the Committee. Chapter 2 presents a broad overview of the infrastructure sector and how PPPs are situated in the current context. The Committee touches upon how the PPP ecosystem has transformed over the period, achievements in the country and challenges being faced due to external, legal and statutory developments, financing, contractual and development factors. The concerns and expectations of stakeholders are presented to set the premise for the Committee's research and recommendations. Chapter 3 highlights the implications of country's long term Demographic Dynamics and the strategic role of PPPs for enabling India's transition to a developed market economy by overcoming “the middle income trap”.
- 1.2.3 Implementation of projects under the PPP framework would entail forging an equitable partnership between different stakeholders in a manner that best delivers services to users. Risks that arise at macro-economic, sectoral and project levels need to be assessed and appropriately managed. The Committee also deliberated on the need for renegotiation provisions in the contracts and their role in project life cycles. Chapter 4 discusses these issues and presents guidance on how these should be managed for the maturing PPP landscape. It is important to address projects for which development activities have commenced and other projects in various stages of the life cycle - such as the construction phase or the early operations phase. Initiatives for resolving the legacy issues are discussed in Chapter 5.
- 1.2.4 Catering to the needs of the next generation of PPP projects needs systemic improvements and is an ongoing activity. The foundation for achieving better services through more resilient partnership models involves strengthening across the board the capacities of participating stakeholders through policy, governance and institutional

mechanisms. Chapter 6 presents the recommendations in this regard. Infrastructure finance has assumed a key role, and the Committee recognizes the relative merits of public and private finance in the off-take of PPP projects. The suggestions for scaling up of finance options are set out in Chapter 7.

- 1.2.5 PPPs are essentially contractual arrangements that describe the roles, responsibilities, obligations and other technical, legal and commercial aspects usually over long periods of time. There have been multiple requests to revisit contractual documentation being adopted, in order to ensure saliency and to remain up to date with best practices across the globe. Chapter 8 sets out broad directions on improvement in existing transactional and contractual processes. Sector-specific recommendations are spelt out in Chapter 9. Finally, in Chapter 10, the Committee concludes with an indication of the next generation of PPP frameworks that extend to sectors which offer opportunities in PPP project implementation for meeting the expectations of users, government, private sector and other categories of project stakeholders.

CHAPTER 2: REVISITING PPPs: ACHIEVEMENTS AND CHALLENGES

2.1 Infrastructure and PPPs in India

- 2.1.1 The high economic growth witnessed by India during the last decade was accompanied by realization of the need for enhanced investment in infrastructure. Rapid urbanization and industrial growth led to demand for basic infrastructure such as water supply and sanitation, transportation and energy. Rapid growth in purchasing power in the rural areas simultaneously meant a need for improving connectivity and services for attaining a seamlessly integrated network of logistics and facilities. In order to augment economic growth, the government initiated several policy and enabling measures to support the creation of high-quality infrastructure and efficient delivery of services to its citizens.
- 2.1.2 The Twelfth Five Year Plan (2012-2017) was formulated against the backdrop of a remarkable performance of the infrastructure sector during the Eleventh Plan. The Twelfth Plan projected an investment of Rs.55.75 lakh crores (at current prices) in infrastructure during the Plan period (2012-17), which was more than twice that achieved during the Eleventh Plan period. Furthermore, the Plan adopted a strategy of encouraging higher private investment in infrastructure which was projected to rise substantially from 37% in the Eleventh Plan to approximately 48% in the Twelfth Plan.
- 2.1.3 Macro-economic developments in the late 2000s saw an overall slowdown in delivery and investment in infrastructure projects in general, including private sector projects and non-PPP projects, as in the case of the power sector. This, combined with country-specific issues including weak capacity in public sector administration and private sector constraints to meet the requirements of a developing economy, led to a deleterious impact on investment in infrastructure, and choking of further capacity to invest by the private sector.
- 2.1.4 The performance in the first two years of the Twelfth Plan suggests that infrastructure investment has slowed and there will be a shortfall of approximately 30%, with the shortfalls in public investment (central and states combined) and private investment at 20% and 43% respectively⁵.
- 2.1.5 The use of PPP as an instrument of procurement for creation of infrastructure assets and delivery of public services has been recognized globally. Given the enormity of investment required and the limited availability of public resources for investment in physical infrastructure in India, the projected infrastructure requirements have made it imperative for the government to explore avenues for increasing investment in infrastructure through a combination of public investment and the PPP mode of delivery.
- 2.1.6 While augmenting delivery and financing of public projects, PPPs are expected to bring in new and cost-effective technology for creation of infrastructure assets, managerial efficiency, and superior competencies in service standards for the

⁵Economic Survey, 2015

operation and maintenance of public assets. There is a contractual accountability for the private party to guarantee timely and high-quality infrastructure services to end users.

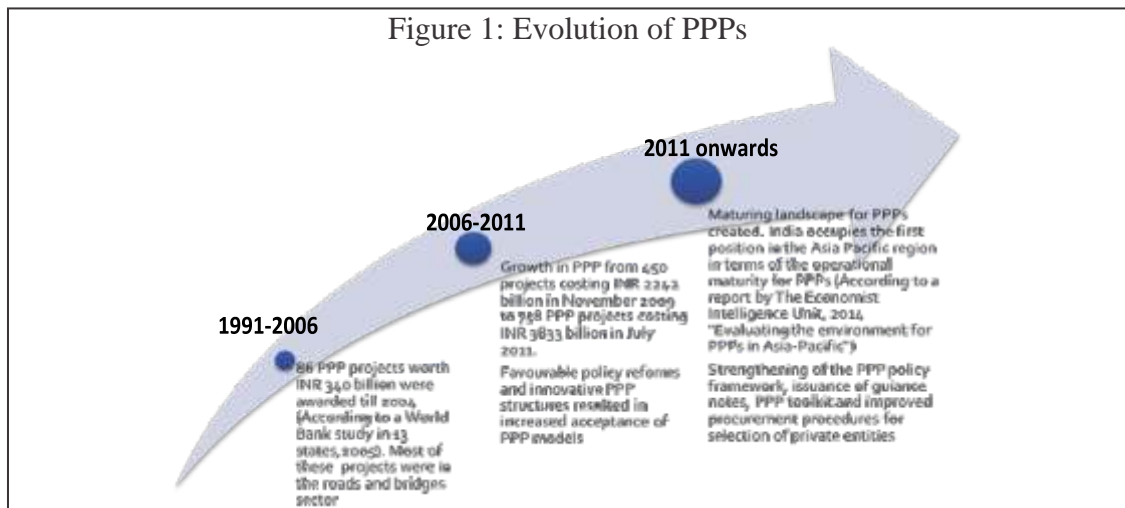
- 2.1.7 In India, PPP applies to a contractual arrangement between a government or statutory entity, or a government-owned entity on one side and a private sector entity on the other, for the provision of public assets or public services. This is done through investments made and management undertaken by the private sector entity for a specified period of time, with a well-defined allocation of risk between the private sector and the public entity, whereby the private entity receives performance linked revenues that conform or are benchmarked to specified and pre-determined performance standards, measurable by the public entity or its representative.
- 2.1.8 In essence, therefore, PPP refers to the provision of a public asset and service by a private partner who has been conceded the right (the “Concession”) for the purpose over a specified period on the basis of market-determined revenue streams that allow a commercial return on investment. The characteristics of a PPP framework include:
- i. Private sector involvement in building infrastructure assets and in providing services derived from those assets.
 - ii. Delivery of superior quality and well-maintained assets that provide pre-defined services with a higher level of accountability.
 - iii. Stress on long-term service delivery rather than asset creation.
 - iv. Implementation by an entity, which normally has no public sector equity (or minority shareholding by the public sector).
 - v. Asset reverts to the public authority at the end of the concession.
- 2.1.9 PPPs do not include public investment in private infrastructure, private investment in private infrastructure, private investment in avenues other than providing a public service or good or joint ventures between the government and the private sector for activities such as manufacturing or the New Exploration Licensing Policy for Production-sharing Contracts in the Oil sector.
- 2.1.10 While the fallout of the slowdown has been particularly harsh on the infrastructure sector, especially in projects that were not in PPP mode, the PPP segment overall has done reasonably well, both at the central government level and in some states. The measures taken by the Government of India over the last 10-15 years had resulted in a robust pipeline of projects at different stages of implementation (under bidding, construction and operations). The sectoral spread of PPPs has been fairly diverse in hard infrastructure sectors such as transport (roads, airports and ports), which has seen the largest share in terms of numbers and success. The new airports at Delhi, Mumbai, Bengaluru and Hyderabad and the large dimension of highway projects are part of the programmatic success of PPPs in the country.

2.1.11 The government, through the DEA has established institutional mechanisms for streamlining and speedy appraisal of PPP infrastructure projects (setting up of the Public Private Partnership Appraisal Committee or PPPAC), financial support to make PPP infrastructure projects commercially viable such as the Scheme for Financial Support to PPPs in the Infrastructure-Viability Gap Funding (VGF) scheme, supporting the development of a pipeline of bankable PPP projects through the India Infrastructure Project Development Fund (IIPDF) and the efforts of the DEA and the erstwhile Planning Commission to mainstream PPPs through a multipronged approach to standardization of documents (adaptable to individual projects) to enable easy adoption, capacity building and financial support schemes. This also saw the rollout of one of the world’s largest PPP programmes with active private sector participation. Simultaneously, the private sector has also continued to engage with government as contractors for contracts funded by public expenditure. Some state governments have formulated laws and policies and set up the necessary institutional structures for streamlining PPPs, thereby formalizing the PPP landscape at a sub-national level.

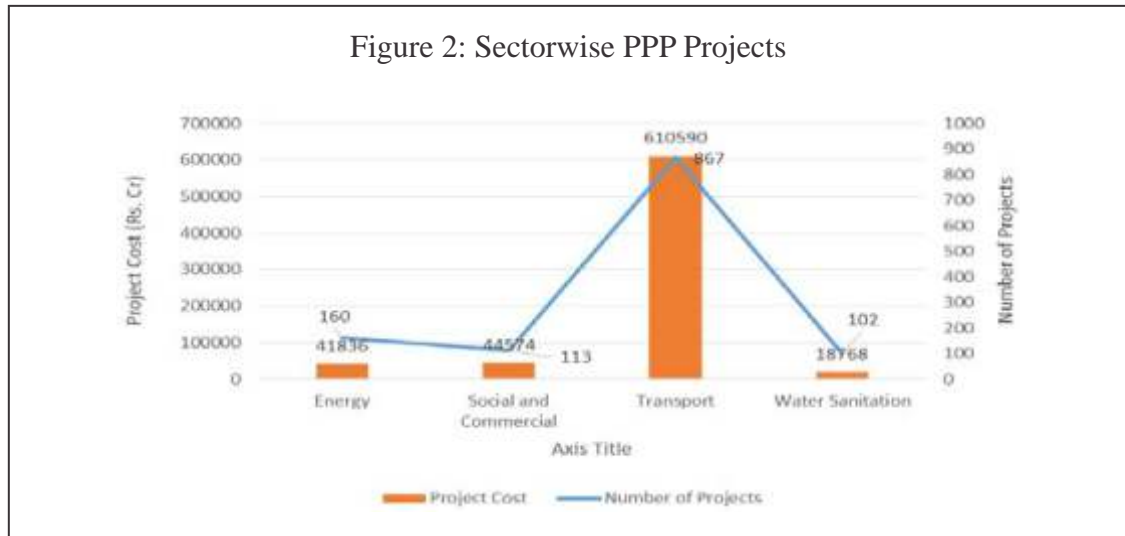
2.1.12 Some PPP projects were adversely affected by many of the issues that had impacted the infrastructure sector overall, which also affected fresh bidding in new PPP projects in some sectors. Furthermore, while there is widespread recognition that the PPP mode of implementation has significantly impacted the infrastructure landscape of the country, in sectors such as roads, airports and ports, challenges exist in improving regulatory frameworks, dealing with bottlenecks and creating an investment friendly climate for ensuring the long-term sustainability of PPPs.

2.2 Evolution of PPPs

2.2.1 The first decade of the twenty-first century saw a spurt in the number of projects being implemented with private sector participation. The growth was supported by favourable policy reforms and financial support for PPPs. According to the 2015 Infrascope report of The Economist Intelligence Unit, “Evaluating the Environment for PPPs in Asia-Pacific 2014”, India ranks first in the world in “Operational Maturity” for PPP projects, third for sub-national PPP activity and fifth overall in terms of having an ideal environment for PPP projects.



2.2.2 The growth in the number of PPP projects during the last 15 years has made India a leading PPP market in the global arena. The database maintained by the DEA⁶ indicates that there are currently over 1,200⁷ PPP projects in various stages of development and implementation, with an estimated investment of Rs 7.2 lakh crores. The sector-wise break up of these projects and investments is shown in figure below:



2.3 Enabling the PPPEco-System

2.3.1 In 2006, the government, through the DEA, took steps to create an ecosystem for mainstreaming PPPs. This has been helpful to stakeholders in the PPP space, including private developers, financial institutions and governments (at national, state and local levels). Details of the initiatives in this regard are presented in Annexure 1. The highlights are summarized below.

2.3.2 The key policy and institutional initiatives undertaken so far include:

- i. Setting up of the PPP Appraisal Committee (PPPAC)
- ii. Extending financing support through the VGF Scheme
- iii. Creation of PPP architecture
- iv. Setting up of the India Infrastructure Finance Company Limited (IIFCL)
- v. Establishment of the India Infrastructure Project Development Fund (IIPDF)
- vi. Preparation of PPP toolkits, guidelines and knowledge dissemination products
- vii. Establishment of transparent and competitive bidding processes - through creation of standardized procurement documents

2.3.3 The key enabling and capacity building initiatives include:

- i. National PPP Capacity Building Programme - with technical assistance from bilateral and multilateral agencies for Group A and B categories of officials of the government in various central and state government departments, para-statal agencies and urban local bodies (ULBs).

⁶www.infrastructureindia.gov.in

⁷Data collected upto October, 2015: Project with cost > Rs. 5 Crore.

- ii. Managing knowledge exchange programmes and other capacity building activities, namely training programmes, strategies, exposure visits for PPP cells in states and central line ministries and knowledge exchange programmes with other countries.
 - iii. Development of pilot projects in different sectors to enable testing, standardization of successful structures and rollout of schemes.
- 2.3.4 The government provides guidance for PPP projects, from the project conceptualization stage to final award in pilots, and supports them post-award through various schemes. Initiatives have been taken to build the capacity of public functionaries and institutions in preparing a pipeline of credible, bankable projects. To deepen the capacity of public functionaries at state and municipal levels, various training initiatives and knowledge transfer modules (such as PPP toolkits)⁸ have been developed.
- 2.3.5 Responding to requests from individual countries and multilateral institutions, national and international workshops have been organized for the exchange of best practices and advocacy of appropriate modes of PPP project delivery. There are ongoing knowledge sharing initiatives with a number of Asian and African countries, where India has shared its experience in infrastructure financing and PPPs and has facilitated project site visits.
- 2.3.6 India has evolved industry-specific frameworks which focus on attracting PPP and private capital in infrastructure. These frameworks address issues such as:
- i. Establishing a level playing field for private competitors to enter state owned enterprises (SOEs) dominated and monopoly industries, and compete for market share.
 - ii. Competitive access to alternative suppliers and consumer choice.
 - iii. Performance regulation with linkage of revenue to quality of supply.
 - iv. Assuring reasonable returns on investment and recovery of prudently incurred costs for the private partner, while addressing affordability for lifecycle deliverables.
 - v. Expert adjudication.
 - vi. In parallel, various initiatives taken by the central bank on infrastructure lending by banks like forbearance norms and the 5/25 flexible structuring scheme, welcomed by PPP partners.
- 2.3.7 The PPP ecosystem in the country is well developed and continuously evolving to meet the many challenges encountered in implementation. However, experience has underlined the need to further strengthen the three key pillars of PPP frameworks, namely governance, institutions and capacity, to build on established foundations for the next wave of implementation.

⁸web-based resource designed to improve the quality of the PPPs.

2.4 PPPs 2.0

2.4.1 The PPP projects which are maturing require fulsome response by the government to deal with changes in the contracting landscape, new skills required by all parties, increasing need to respond to often unfounded allegations of collusion, and the need for building changes in financing patterns during the concession period. During the initial phase of the PPP programme rollout by the Ministry of Finance, the country experienced high economic growth rates. The slowdown, combined with various other factors (that are detailed subsequently), had a deleterious impact on the infrastructure sector as a whole. Some PPP sectors as part of infrastructure, were also adversely affected, by: (i) financial stress of developers, who had over-leveraged at the level of their parent company; and (ii) shortfall in revenue realization in PPP projects and the consequent impact on project viability.

2.5 Emerging Challenges

2.5.1 The Committee welcomes the DEA's initiatives in supporting the project authorities in PPP project implementation through toolkits, guidance material for renegotiation framework and manual for post-award contract management. However, other issues have emerged that also need to be addressed.

2.5.2 The recent slowdown of PPP projects could be attributed to a combination of events, namely global economic slowdown, weak regulatory and institutional frameworks, delay in issue of clearances by authorities, financing issues (over-leveraged debt and paucity of equity), aggressive bidding by developers, contractual issues, including long drawn out dispute resolution arising in a maturing PPP landscape, inadequate diligence and appraisal by lenders, and lack of flexibility in contractual arrangements. Coupled with parallel developments of increasing stress in non-PPP projects in major sectors such as power, the lending appetite to private sector and capacity for fresh infusion of funds became constrained, in both ongoing and new projects.

2.5.3 Further, though 'transparency' in PPP projects is recognized as a crucial element for successful implementation of projects, (and projects pass through various stages and are configured based on complex policies and programmes),⁹ there were increasing demands from the private sector for a review of the "rigidity" in model concession documents and rebalancing of risks. While recognizing that government faces a moral hazard in allowing post-award change in contracts, the DEA undertook a study to address this issue, and also the need to institutionalize long-term contract management processes by public authorities. This is discussed in detail in subsequent chapters of the report.

2.5.4 Apart from public implementing authorities, some stakeholders have pointed towards the possibility of opportunistic gaming by developers in the bidding process, facilitated by inadequate appraisal by lenders. By inflating the Total Project Cost (TPC), developers achieve financial closure at an amount substantially greater than

⁹RBI Occasional Papers, Vol 29, No 1, Summer 2008, *Public-Private Partnership in Indian Infrastructure Development: Issues and Options*, L. Lakshmanan.

reasonable TPC and thereby source higher debt than the actual requirement. If the project is then jeopardized, the funds at risk are those of the lenders as there is virtually no "skin in the game" by the developer.

2.5.5 Many of the issues listed in the report have been raised by stakeholders, while other issues have emerged from the Committee's research in successful and problem projects. The key challenges that have been noted by the Committee are summarized below.

i. External factors

- The economic slowdown across the world and the credit crisis slowed the demand for goods and services across the spectrum, affecting the infrastructure sector significantly. The PPP projects were also impacted by this demand slowdown.

ii. A series of judicial and statutory authority orders (e.g., banning of mining activity) that delayed the progress of development and implementation of PPP projects and revenue flows. New projects are finding it increasingly difficult to attract sponsors and financing (equity and debt) has become strained. Increased perceived risk of projects has further led to pension and insurance funds limiting their exposure to such projects.

iii. Legal and regulatory framework

- While the absence of an independent regulator did not dampen the progress of PPPs initially, sectors such as roads, airports and ports have either no independent regulator or multiple regulators (as in the case of airports). Overlap in the functions of such regulatory agencies has led to problems in certain cases, giving rise to calls for decisions taken at arm's length.
- Some sectors such as the urban sector are yet to evolve regulatory frameworks for sustainable and efficient delivery of PPP projects and services.
- Dispute resolution mechanisms are slow and not very well developed, often derailing project timelines and freezing funds, thus derailing project timelines.
- PPP projects have also been affected by factors such as delays in land acquisition and clearances, shifting of utilities, and right of way issues, leading to time and cost overruns. Delays have often been due to a silo approach to jurisdiction instead of macro assessment of economic, social, and financial risk-reward of a particular project.
- There is a lack of capacity within statutory authorities in understanding how PPPs work, and the attempt to bring corporate functioning under the ambit of standard government oversight, in addition to already applicable Companies Act requirements, has led to uncertainty on regulatory risk.

iv. Financing issues

- Bank appraisal of projects has in many cases suffered from lack of adequate diligence, sometimes due to inadequate appraisal skills. This has affected the quality of lending.
- There is a shortfall in equity capital with local sponsors. Delays in execution of projects further leads to equity getting trapped in ongoing projects, thus not being available for newer projects.
- Balance sheets of most prominent developers in the country are stressed and over leveraged.¹⁰ In the absence of a vibrant takeout market, refinancing of projects has not been taking place at the desired scale and pace.
- Underdeveloped debt markets have been a cause for concern for a while.

v. Multiplicity of institutions and overlap in roles

- Governments at all levels, including urban local bodies (ULBs), line departments, state agencies, are by and large unable to create a steady pipeline of projects due to institutional capacity constraints. This has also led to aggressive bidding by a few developers to garner market share.
- The network of multiple agencies involved in project implementation and an overlap in the functions of these agencies is leading to inordinate project delays.
- Effective co-ordination amongst various government agencies to deliver improved citizen value is cited as a key cause for delay of PPP projects.
- Inadequate capacity in authorities, consultants, financiers, developers, statutory audit and vigilance in the PPP context has given rise to misinformation.
- Lack of urban planning, and clear laws, regulations and procedures has resulted in a slowdown of urban infrastructure projects.

vi. Private sector problems

- Over-aggressive bidding with inadequate due diligence by bidders has sometimes led to unviable offers. Since determining whether a bidder's capital structuring permits such optimistic bidding is difficult for the Authority, despite its own conservatism in its project report, bids were accepted and later failed.
- The private sector did not develop its skills in pricing of risk, despite engaging the best consultants in the field. Coupled with the mistaken belief that the economy was growing at rapid pace in the second half of the 2000s, this led to myopic assessment of possible risk factors and a failure to build in mitigation measures.

¹⁰Economic Survey 2014-15, Government of India.

- Private sector developers, who were mainly construction experts, found they had no appetite for long-term operations and maintenance (O&M) of infrastructure assets. However, the country is yet to develop a specialist class of O&M developers who can take over during the operations phase.
- The quality of consultancy services in PPPs has not kept pace with the growing need for such services in the country. This is reflected in inconsistent quality of some advisory services.

vii. Contractual frameworks

- Inadequate provisions to address legal and contractual issues such as exit clauses provisions, default by parties, change of scope related events, and connectivity infrastructure, due to inadequate project preparation by authorities and appraisal by lenders have caused delays and projects not taking off as anticipated. Further, older concessions lock in lead sponsor equity, albeit at a reduced level, for the duration of the concession.
- Implementing agencies often adopt model bidding and contract templates as is, with little or none of the project-specific customization that is key to successful project design and implementation.
- Difficulties have been experienced with long-term PPP projects when parties are in dispute or unanticipated events lead to recourse to traditional long-drawn out legal systems for resolution.
- While there have been demands from developers for restructuring of existing contracts to sustain private sector interest, and bank asset quality would also benefit from such restructuring exercise, there is lack of appreciation of the sanctity of contracts and the need to restructure contracts that should be based on the project's revenues and long-term factors rather than temporary illiquidity and insolvency issues¹¹.

viii. Support and other issues

- PPPs can bring in the required efficiency and investments in infrastructure projects. For undertaking PPP projects successfully, several factors continue to remain valid and intact - need for the project, appropriate project development, adequate project preparation, equitable risk allocation, transparent competitive procurement and an administrative, legal and regulatory ecosystem that promotes better value and services to the citizens and the public authorities, which result in better and cheaper long-term services.
- Fundamental design flaws in PPP projects need to be tackled.¹² For instance, contracts need to focus more on service delivery instead of fiscal benefits, better identification and allocation of risks between stakeholders, prudent

¹¹Economic Survey 2014-15, Government of India.

¹²Economic Survey 2014-15, Government of India.

utilization of VGF where user charges cannot guarantee a robust revenue stream, improved fiscal reporting practices and careful monitoring of performance. Rigidity in concession documents has triggered renegotiation of long-term contracts. Developers of a few road PPP projects, that are currently in dispute, have approached the government to consider rescheduling of premium payments, which is currently under the scanner. Since the PPP landscape is in its maturing phase, the government needs to carefully consider the moral hazards and risks in allowing post-award changes.

- It has been observed in many delayed and stalled projects, that the framework to assess project risks and allocate them between stakeholders suitable to best manage the risks, has not been effectively developed. This has resulted in projects ending up in disputes, stretched project timelines and increased costs. Commercial and operational risks need to be passed on to the private sector under appropriate frameworks. Liabilities, direct and contingent, that would devolve on parties in a PPP concession along with risk-allocation needs to be ensured upfront by the parties to the concession and, where relevant, by the lenders.
- Most contracts in the PPP arena are under the construction and operations framework, while the need for model contracts for O&M and services is increasingly being perceived. There is a need to develop a new breed of O&M operators to take on projects that have been completed. The move to enable complete exit of promoters from the projects after a defined period, provides this flexibility.
- It is difficult to sometimes foresee upfront the likely demand for the project, especially in new and greenfield developments. Contracts should build in these uncertainties.

2.5.6 Overall, the Committee noted that inadequate and inconclusive stakeholder consultations are often observed in PPP project design. It is important to consult and obtain buy-in of stakeholders to ensure the smooth implementation of projects, especially with regard to access, willingness to pay and dispute resolution. Going forward, it is possible to better manage the various risks that have plagued the Indian infrastructure sector with a more involved and participatory role of the private sector, and the allocation of risks in a manner that allows for flexibility to address concerns and reflect the interests of stakeholders. Such measures will also attract greater inflows of external debt and equity capital and thus lower the overall cost of capital for financing the infrastructural needs.

2.5.7 Furthermore, the Committee notes that while there are certain cross-sectoral issues, the problems and challenges that have arisen are largely sector-specific. This report concentrates on the roads and ports sectors as an example but there are also challenges that will be faced in other sectors (Chapters 9 and 10).

Box 1: Myths and Realities about PPPs

There are several myths and misconceptions regarding PPP projects. A few of the major myths regarding PPP arrangements along with facts that help clarify such misconceptions are listed below:

Myth: Profit motive of private sector is incompatible with the service motive of public sector

No. The key is to harness the private sector's profit motive by incentivizing them to provide better quality service and earn a reasonable return through appropriate project structuring.

Myth: PPPs increase user tariffs

Not necessarily. When appropriate safeguards such as effective regulation and adequate competition are in place, prices do not increase arbitrarily. However, in sectors where existing tariffs are inadequate to cover the costs of a specified level of service, tariffs may initially require some upward adjustment. Over time, efficiency gains are expected to rationalize tariffs.

Myth: Money for PPPs comes from private “pockets”

Initially, yes. However, the private sector will make those investments provided they can recover them either from users or the government with a reasonable return.

Myth: Once a private sector partner is brought in, there is little or no role for the public sector

No. The public sector's role changes from direct involvement in construction and service provision to ensuring that the PPP delivers value for the government and better services for users.

Myth: PPPs do not provide value for eventual cost to the public sector

Value for the public sector comes from a number of factors such as competitive bidding, improved designs and service quality and efficiencies in project delivery.

Myth: Private operators are not committed to protecting the environment

Compliance with all applicable acts, guidelines and rules is built into the contracts through procedures to be followed.

Box 2: Stakeholder Concerns

Developers

- Project proponent defaults on concession agreement obligations need to be minimized.
- Discrepancies, inconsistencies and clauses that are not equitable in concession agreements and consequent commercial implications need to be sorted out.
- Lack of financing options, reduced flexibility in structuring due to approvals required from project proponents at multiple stages need to be addressed.
- Ensure that only malafide actions are punished, not errors.
- Higher level inter-ministerial groups can ensure time bound resolution of issues including getting timely clearances and approvals during implementation of projects and thereafter for smooth running of such projects.
- Government authorities need to stop abusing their sovereign authority. Further, they need to act more as partners and less as clients.
- Over-reach by statutory authorities, in addition to compliance requirements under the Companies Act, interferes with the contractual requirements of concession agreements.
- Bodies like the National Highways Authority of India (NHAI) to act solely like implementation agencies, relying on third party recommendations (independent engineer, for example). Disputes may continue simultaneously, but liquidity and project completion should remain uninterrupted.

- Linking contractual disputes to withholding of payment (bills, COS, grant, etc) which is the lifeblood for a concessionaire and contractor functioning in a tight margin or timeline, is an extremely unfair practice.
- Response to a handful of projects making super normal profits (which in a normal probability distribution is expected) should not be treated with knee jerk policy amendments to limit profits or upside in contracts.
- Focus on quality of preparation by the project authority for PPP award since Authority DPRs are widely off-target.
- Consider tax waivers and holidays for promotion of PPPs.

Lenders

- Project completion milestones to be linked to the land actually available for construction
- Stable regulatory and tax regime along with strong law and order and enforcement of contracts
- Government may consider relooking at its qualification process so as to ensure only the 'right' companies in terms of technical competence (experience, track record of timely completion, litigation history, etc) and financially capable (reasonable net worth, manageable leverage, healthy cash-flows, bank support, etc) be considered qualified for each project.
- It is absolutely critical that only well-prepared projects in terms of availability of right of way, crucial approvals (such as railways, environmental where applicable, and state support agreement) are brought into the bidding stage.
- An independent empowered regulatory mechanism is the need of the hour to address contractual disputes or help in arriving at a fair solution in case of changed circumstances, in an expeditious manner.
- There should be an element of reality in the Authority's DPR, especially revenue projections, costing and financing issues.
- Accept L1 bid only if it falls within an acceptable range that has been prepared pre-bid within the government.
- Due diligence of banks and their capabilities need to be significantly improved (to assess technology, key personnel, raw material availability, forecasts) being the structures for smooth functioning of consortia that need to be developed.
- Corporates are over leveraging by taking loans both at the corporate level and project-SPV level. There should be systems to streamline these.

Government and Other Stakeholders

- Delays and obstructions are caused by systemic failures, and general risk aversion of stakeholders.
- Relook at taxation provisions to promote infrastructure PPP investments.
- Lack of checks and balances to protect public servants ex-post for decisions taken.

2.5.8 The list of issues cited by various stakeholders as hampering the PPP project performance have been listed below, along with a prioritization by simple ranking (along the scale, '1' is higher priority for resolution and '3' is lower priority for resolution.)¹³

¹³Source: DEA study on *Developing a Framework for Renegotiation of PPP Contracts*. www.pppinindia.com

Box 3: Issues Hampering PPP Project Performance

Issue	Stage in PPP Cycle	Priority Rating
1. Site and Specification		
1.1. Site Not Available	Pre-COD	1
1.2. Design and Scope Changes	Pre-COD	1
1.3. Regulatory Approvals Delayed	Pre-COD	1
1.4. Changes in Operating Requirements	Post-COD	2
2. Financial		
2.1. Failure to Reach Financial Closure	Pre- Financial Close	1
2.2. Base Case Financial Model	Pre- and Post-COD	2
2.3. Changes in Interest Rates	Pre- and Post-COD	2
2.4. Changes in Debt Financing Terms	Pre- and Post-COD	2
2.5. Higher than Forecast Return on Equity	Post-COD	2
2.6. Lower than Forecast Return on Equity	Post-COD	2
2.7. Refinancing	Post-COD	1
3. Demand and Revenue		
3.1. Traffic Demand Above Forecast	Post-COD	2
3.2. Traffic Demand Below Forecast	Post-COD	1
3.3. Design Capacity Exceeded	Post-COD	3
3.4. Actions that Divert Traffic away (road closures or competing roads)	Post-COD	2
4. Economic and Tax Changes		
4.1. Macro-Economic Shocks	Pre- and Post-COD	2
4.2. Changes in Interest Rates	Pre- and Post-COD	2
4.3. Changes in WPI pre-Completion	Pre-COD	2
4.4. Changes in WPI post-completion	Post-COD	2
4.5. Changes in Tax	Pre- and Post-COD	2
4.6. Changes in Foreign Exchange Rates	Pre-COD	2
5. Contractual		
5.1. Delay in Completion	Pre-COD	1
5.2. Non-Completion	Pre-COD	1
5.3. Factors outside Concessionaire's Control	Pre- and Post-COD	1
5.4. Variations with Cost Increases	Pre-COD	2
5.5. Variations with Cost Savings	Pre-COD	2
5.6. Amendments	Pre- and Post-COD	1
5.7. Compensation for Public Party Breach	Pre- and Post-COD	2
5.8. Force Majeure	Pre- and Post-COD	2
5.9. Change in Law	Pre- and Post-COD	2

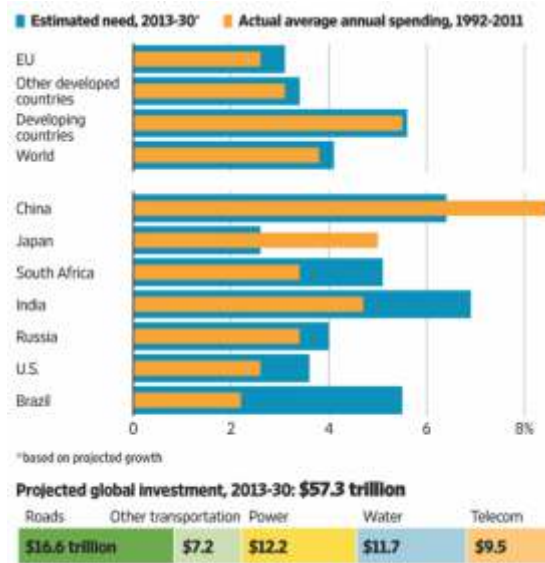
CHAPTER 3: WHY IT IS URGENT FOR INDIA TO GET INFRASTRUCTURE PPPs RIGHT

3.1 The urgency of tackling India's infrastructure deficit

- 3.1.1 India's infrastructure deficit-whether congested roads and ports, inadequate hospitals or wastewater treatment facilities, and slow trains-is a key factor constraining rapid, competitive economic growth and job creation and thereby imposing huge costs on society. Low productivity, poor competitiveness, high costs, and the slow pace of urbanization are some of the consequences of this deficit.¹⁴
- 3.1.2 There is absolutely no time to lose in addressing this deficit with every possible means available to the government. India will be the world's most populated country before 2030, outgrowing China. Without sustained rapid economic growth and the resulting productive jobs, India will be unable to convert its demographic transition into a demographic dividend. This demographic dividend-a very large working population supporting a relatively small non-working population-has propelled other countries to prosperity and higher incomes. Whether GDP and employment grow rapidly or not, India will have the world's largest working age population and thereafter the world's largest elderly population. For India to earn its demographic dividend, young Indians must have productive jobs, earn well, accumulate wealth, and save for their old age.
- 3.1.3 This raises the stark question: *can India become rich before it becomes old?* In other words, will India accumulate enough wealth to afford a decent quality of life for its young and its old in the decades ahead? It is urgent and important to ask this question now precisely because there is no stopping India's demographic transition. If India does not become rich before it gets old, there will be far-reaching consequences for many future generations of Indians, leading to a widening gulf between India's potential and its performance.
- 3.1.4 The sheer scale of the opportunity and the challenge that India faces is unprecedented. Current demographic trends suggest that 10-12 million youth will enter the working age group annually for the next 20 years, requiring a million new jobs a month or some 180 million new jobs. This will dwarf the job creating performance of any country in history. The Committee is convinced that sustained rapid economic growth, driven by sustained, high-quality infrastructure investments, has become more critical for India than ever before with the opportunity to leapfrog with its demographic dividend. Over the period 2013-30, India is currently projected to have the world's largest need for infrastructure investment, and the second largest infrastructure deficit based on its average spending during 1992-2011 (Figure 3). The deficit will have to be covered rapidly.

¹⁴India's infrastructure deficit was highlighted some 20 years back in a 1996 NCAER study called the *India Infrastructure Report: Policy Imperatives for Growth and Welfare*, prepared for the Government's Expert Group on the Commercialisation of Infrastructure Projects. The Report's covering letter addressed to the Finance Minister ended with the prophetic sentence, "We believe that only if infrastructure investment is accelerated in this manner that the 7 percent plus average annual income growth rate envisioned by you could be achieved over the next ten years."

Figure 3: Estimated Global Investment Needs



Source: McKinsey Global Institute, WSJ. Retrieved from: <http://www.wsj.com/articles/u-s-to-seek-collaboration-with-china-led-asian-infrastructure-investment-bank-1427057486>

3.1.5 In tackling the growing infrastructure deficit, the Committee recognizes that India has been at the centre of a revolution of how governments across the world are closing their infrastructure gaps. As noted in Chapter 2, PPPs have opened up immense opportunities for governments to team up with the private sector to finance, design, construct and operate new or refurbished infrastructure at a scale not possible with the traditional government monopoly of these functions. Governments are today making infrastructure services available to taxpayers that they simply would not have been able to do otherwise.

3.1.6 India already represents the largest PPP market in the world as the government has sought to leverage the three roles of PPP infrastructure: (a) generate real efficiency gains through construction management and operational efficiency; (b) bring innovation and creativity by infusing new technology and superior management practices; and (c) help accelerate the closing of the infrastructure deficit by attracting private funding much faster than the years it would take to deploy government funds without breaching fiscal targets.¹⁵ Most experts believe that PPPs make the most lasting contribution in the end by increasing efficiency gains. These include:¹⁶

- i. Bringing construction forward
- ii. On-time and on-budget delivery
- iii. Shifting appropriate construction and maintenance risk to the private sector
- iv. Cost savings
- v. Stronger customer service orientation
- vi. Enabling the public sector to focus on outcomes and core business

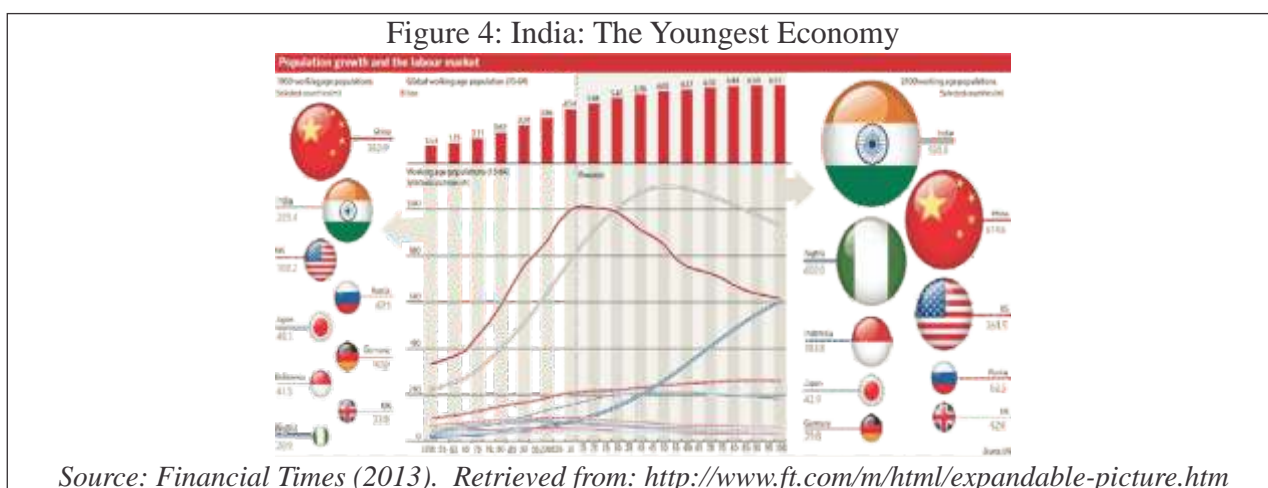
¹⁵Somanathan & Natarajan, 2014.

¹⁶Deloitte, 2006

- 3.1.7 Given the urgency of India's demographic transition, and the experience India has already gathered in managing PPPs, the government must move the PPP model to the next level of maturity and sophistication. Analysts have talked about three stages of a PPP Maturity Model, with countries like Spain, France, Canada and USA considered to be at the second stage of maturity of PPPs, and Australia and UK considered to be at the third stage.¹⁷ While India may still be at the first stage, it has already far exceeded many others in the level of PPP activity, and must now leapfrog to the second stage and perhaps even the third stage of maturity of PPPs based on the strong foundations it has built.
- 3.1.8 There is also a pressing need to harness the potentially large supply of global funding for infrastructure. In the developed world, populations are aging, with more savings than ever before in the form of pension, insurance and other institutional funds that are looking for stable, long-term returns that infrastructure investments in India could ideally offer. If India can improve the performance of its PPP markets and attract long-term debt and fixed income products, it can easily take advantage of this sweet spot where savings in the developed world can meet a part of its large need for infrastructure investment.
- 3.1.9 An adequate supply of high-quality infrastructure and its efficient management and operation over the next few decades can drive rapid economic growth that can generate the productive jobs needed to employ the world's largest young labour force. Productively employed, Indian workers can earn, save, and accumulate wealth. There is then every chance that India can indeed become rich before it gets old.

3.2 India cannot afford to forgo any of its demographic dividend

- 3.2.1 India has begun to enjoy a once-in-a-lifetime opportunity of its demographic transition, none of whose benefits it can afford to lose. India's demography is bringing large numbers of young people into the working ages for the first time, where they will remain as workers and earners for the next 40-50 years. By 2030, India will have the world's largest and youngest working age population of some one billion at its peak (Figure 4). By 2100, India will still have a working age population of some 931 million.



¹⁷Deloitte, 2006

3.2.2 What will be the economic impact of this demographic transition? A country's dependency ratio captures the relationship between the number of people who are not of working age and the number of people who are. The smaller the dependency ratio, the smaller the percentage of GDP that the country spends on caring for the young and the old, and the more it has available for earners to save and accumulate. Demographers estimate that declines in dependency ratios were responsible for about a third of the East Asian economic miracle of the post-war era. In the course of 25 years between 1965 and 1990, East Asia saw its dependency ratios decline 35% (Bloom, Canning, & Malaney, *Demographic Change and Economic Growth in Asia*, 2000).

3.3 Infrastructure is critical to converting India's demography into a dividend

- 3.3.1 Rapid and high-quality infrastructure investments can help unlock India's demographic dividend. The positive effect of infrastructure provision on economic growth is well recognized. A rule of thumb sometimes cited by analysts is that each one percent of GDP growth requires one additional percent of GDP to be invested in telecommunications, energy, transport and water (Bhattacharya, Romania, & Stern, 2012). Infrastructure can support economic growth in two ways. First, the direct effect is the sectoral contribution of infrastructure to GDP through backward and forward linkages. Transportation services, for example, are produced in their own industries, with backward and forward linkages and corresponding contributions to output and growth. Greater road capacity tends to lower the cost of transport services for manufacturing, improves the sector's profitability, and thus provides an incentive to raise manufacturing output.
- 3.3.2 Second, infrastructure investments also produce indirect but significant spill over effects or externalities. Lower transport costs may create economies of scale and scope that lead, for example, to better inventory or supply chain management. Economists measure this indirect efficiency effect of infrastructure as total factor productivity growth—the unexplained residual left over once the contributions of machinery, human capital, and the working-age population have been accounted for in GDP growth.
- 3.3.3 The work of Rodrik & Subramanian (2005) suggests that the surge in public investment in the 1980s, particularly in infrastructure, can explain India's mysterious breaking away from its previously slow rate of GDP growth well before the reforms of the 1990s started. Assuming reasonably that public investment has a five-year lag in its productivity enhancing effect, the research suggests that public infrastructure investment, especially total public spending, could account for a substantial part of the overall growth of total factor productivity during 1981-90.
- 3.3.4 It can also be inferred from Kochar, et al., (2006) that poor infrastructure is partly responsible for India's transition from agriculture to services, bypassing low-skilled and semi-skilled manufacturing sector. This idiosyncratic pattern of growth has made India's recent growth to be infamously termed as “jobless growth”—where output and employment shares of the Indian manufacturing sector have hardly changed in the last 30 years.

- 3.3.5 Even though India has made the transition from agricultural output to services sector output, given its large and growing workforce it cannot afford to bypass the development of the manufacturing sector and the creation of large numbers of unskilled and semi-skilled manufacturing jobs (Government of India, 2015). The growth experience of the Asian Tigers shows that the early-stage manufacturing sector employs low skilled people, giving them a higher share in labour income. As the manufacturing sector expands and develops, the demand for skilled workers increases. Workers, equipped with higher incomes, respond to the demand by developing skills. Hence, the evolution of the manufacturing sector and workers' skill sets go together, supporting high productivity employment and growth in the economy.
- 3.3.6 The services sector alone is unlikely to be able to generate the large numbers of productive jobs that will be needed to convert India's demography to a dividend. Expanding infrastructure substantially will have direct and indirect effects on manufacturing sector growth and will therefore be able to contribute to substantial, productive, formal job creation.
- 3.3.7 Infrastructure is not only a direct supplier of jobs, but also has positive externalities for other sectors of the economy, which in turn increases demand for labour in these sectors. Box 4 highlights the direct and indirect effects of infrastructure provision on job creation.

Box 4: Infrastructure investments create jobs through multiple channels

Infrastructure investments, such as a new power plant, generate employment through several channels:

- 1. Jobs associated with construction, operation, and maintenance of infrastructure**
 - i. Direct effect:** Jobs that are created in a specific enterprise through additional and professional staff hired to build and then operate the power plant.
 - ii. Indirect effect:** Jobs in the supply chain (backward linkage) or distribution network (forward linkage) that are created because of the power plant that has been set up. The power plant buys inputs from other sectors like cement and cables (especially during construction), and these create employment through the backward supply chain.
 - iii. Induced effect:** Jobs created through additional rounds of effects, for example, spending by workers. For example, workers in the power generation plant and other firms supplying it spend more, which creates additional employment in various other sectors that supply to household consumption, creating a multiplier of further demands.
- 2. Second-order or growth-related jobs**

These effects occur throughout the economy as each constraint to growth is removed. An increase in power supply tends to lower the price and allows higher power consumption, generating more industrial production, economic growth, and hence employment.

Source: IFC (2013) p. 63.

3.4 Indian infrastructure can attract substantial OECD pension and institutional funds

- 3.4.1 While India is starting on its demographic transition, most of the OECD countries are at the other end of their demographic transition as their population ages and dependency ratios rise. As a result, institutional investors and fund managers are handling large pools of old age savings looking for relatively risk-free, stable, long-term assets to match their long-term liabilities.
- 3.4.2 Though it is not easy to estimate the volume of institutional investor funding for infrastructure that can come to emerging markets and developing economies, work done by the World Bank's Public-Private Infrastructure Advisory Facility (PPIAF) gives a rough idea of the order of magnitudes involved under reasonable assumptions (Inderst & Stewart, 2014). The PPIAF projections result in a rough estimate of a potential US\$350 to US\$700 billion in the medium term for Emerging Markets and Developing Economies Infrastructure. Assuming such changes occur over 10 years, the annual flows into infrastructure could be between US\$ 30 billion to US\$ 60 billion.
- 3.4.3 The Committee feels strongly that maturing the PPP model in India is an urgent priority also to take advantage of this historical conjunction of India's infrastructure needs and the availability of long-term funding. Institutional investors' appetite for infrastructure assets - with their core characteristics of stable yields over the long term, inflation-indexing, and little covariate risks with other asset classes - is likely to strengthen as developed country populations age and fund managers look for opportunities with these attributes.
- 3.4.4 Apart from access to additional funding, there are at least three other important reasons for India to try to tap into long-term institutional funds from overseas (Schwartz, 2015). First, for basic infrastructure such as roads, where the lifecycle cost is predominantly capital cost, amortizing these costs over long durations at lower interest rates can lower tariffs, raise affordability, and help reduce poverty. Second, pension funds and other institutional investors want “steady economic growth, stability and no drama” and have poor tolerance for corruption, scandal, or other forms of misgovernance, and are less likely to invest for 20 to 30 years in an infrastructure company that has cut corners. This can help improve the quality of firms and their infrastructure operations. Third, research shows that infrastructure investment is much more sensitive to sovereign risk such as the failure to uphold contracts than other forms of foreign direct investment. If a government can do what is necessary to attract long-term debt and fixed income products to infrastructure, the likelihood of that asset providing services over the long-term increases and so does the investment climate to attract other foreign investment.

3.5 Conclusions

- 3.5.1 India has embarked on its demographic transition. How it will convert this transition into a dividend will largely depend on how rapidly the Indian economy grows and what kinds of jobs it generates. It goes without saying that the more rapid this growth is

and the more unskilled and semi-skilled jobs it creates; the more successful will be India's demographic transition.

- 3.5.2 The availability of high-quality infrastructure and the overcoming of India's infrastructure deficit is crucial to attaining and sustaining rapid growth that generates the right kinds of jobs. Since India's demographic transition is proceeding apace, there is little time to be lost in bringing such high-quality infrastructure on line. PPPs have the potential to execute infrastructure projects both faster and better. Building on India's 15 years of experience with PPPs, there is need to iron out the difficulties in the performance of PPP at every stage of the contract.
- 3.5.3 In the developed world, populations are aging rapidly, and there is more saving than ever before in the form of pension, insurance and other institutional funds that are looking for stable, predictable, long-term returns that infrastructure investments in India could ideally offer.
- 3.5.4 If infrastructure investments, both public and private, make possible the sustained high economic growth that generates productive jobs, this will be an unprecedented opportunity for India. Since the demographic transition is already underway, the more India continues to live with its infrastructure deficit the more rapidly will this opportunity be lost and the costs of an increasingly dependent population will mount. Given this one-time opportunity, India should not allow its infrastructure deficit to force the economy to forgo any of this demographic dividend. There is immense urgency in raising the quality and quantum of PPPs in India's infrastructure portfolio as part of its overall efforts to reduce its infrastructure deficit. There is no time to lose.

CHAPTER 4: RE-BALANCING OF RISK SHARING

4.1 Risk Allocation Framework

- 4.1.1 The implementation process of PPPs in India follows from conventional item rate contracts, to design, build (Engineering-Procurement-Construction) frameworks to the PPP design, build, finance, operate and transfer (DBFOT) structures. This has required forging of new partnerships and attempts to improve well-defined expected service outcomes and equitable sharing of risks. The private sector's ability to manage risks was sought to be harnessed under PPP projects, but one of the primary concerns in the current context is to review the allocation of risks to reduce the threat of underperformance of PPP projects.
- 4.1.2 The allocation of risks is to be undertaken in a sector and project specific context. The arrangement would need to be developed by the project proponent, in collaboration with other stakeholders, together with best practices in risk management. A review of projects indicates that most of these are housed within larger PPP schemes and programmes. Infact, a significant number of projects are implemented within a broad umbrella structure in a given administrative area. For instance, the National Highway Development Programme and the various state highway development programmes have project frameworks of a similar structure and style, with limited project-specific modifications. The ports and airports sector projects were implemented in standardized structures. While this provides for developing standardized practice documents, reduces transaction costs and speeds up the bidding process, failure to assess project-specific risks and adoption of the "one size fits all" approach by implementing agencies has resulted in project implementation hurdles. The success of model documents was predicated on the expectation that while various risks that emanate from a sector are identified, and suitable allocation systems addressed, project-specific drill-down, identification of additional risks, if any, and adaptation of the umbrella framework is done by each project authority before the issue of bid documents.
- 4.1.3 The Committee notes that adoption of a Model Concession Agreement (MCA) has meant that project-specific risks are rarely addressed by the project implementation authorities. This has resulted in multiple obligations not being met, and the project purpose being compromised. The Committee emphasizes that a generic risk monitoring and evaluation framework must encompass all aspects across the project development and implementation life cycle, and urges stakeholders to allocate risk optimally in accordance with the principle, "the entity that is best suited to manage the risk be allotted that risk" and this, while having sector- specific aspects, also requires project-specific analysis.
- 4.1.4 While sufficient research is available for guidance on risk allocation and management, for the purpose of this report an example of general risk allocation as adopted in an infrastructure project in China¹⁸ is provided below. These may not be fully applicable to the Indian context and therefore only illustrate macro risks which need to be examined at the granular level of micro-risks in a particular project.

¹⁸Source: Risk Allocation in Public Private Partnership Infrastructure Projects: Comparative Study - Yongjian Ke; ShouQing Wang and Albert P. C. Chan .

Box 5: Risk Allocation in a PPP Infrastructure Project in China**Source: Comparative Study - Yongjian Ke; ShouQing Wang and Albert P. C. Chan.**

ID	Risk Factor	Definition
1	Corruption	Corrupt local government officials demand bribes or unjust rewards
2	Government's intervention	Public sector interferes unreasonably in privatized facilities/services
3	Expropriation and nationalization	Due to political, social or economic pressures, local governments takes over the facility run by a private firm without giving reasonable compensation
4	Government's reliability	The reliability and creditworthiness of the government to be able and willing to honour its obligations in future
5	Third party reliability	The reliability and creditworthiness of the government to be able and willing to honour its obligations in future
6	Public/political opposition	Prejudice from public due to different local living standards, values, culture, social system, etc
7	Immature juristic system	The lack of national PPP law leads to different ways of PPP implementation in different places in China
8	Change in law	Local government's inconsistent application of new regulations and laws
9	Interest rate	Unanticipated local interest rate due to immature local economic and banking systems
10	Foreign exchange and convertibility	Fluctuation in currency exchange rate and/or difficulty of convertibility
11	Inflation	Unanticipated local inflation rate due to immature local economic and banking systems.
12	Poor political decision making	Government officials place more emphasis on their career achievement, short-term goals or personal interests, with little PPP experience, resulting in poor political decision-making process
13	Land acquisition	The project land is unavailable, or unable to be occupied at the required time.
14	Approval and permit	Delay or refusal of project approval and permit by the local government.
15	Improper contracts	Improper arrangements in the contracts including inappropriate risk allocation among stakeholders, and commitment from public/private partners
16	Financial risk	Poor financial market or unavailability of financial instrument resulting in difficulty in financing
17	Construction/operation changes	Unanticipated changes and errors in the construction/operation resulting the improper design or poor investigation
18	Construction completion	Longer construction time than predicted, construction cost overrun or poor construction quality

ID	Risk Factor	Definition
19	Delay in supply	Subcontractors and suppliers not being able to supply labour or material on time
20	Technology risk	The technology adopted not being mature or able to meet the requirements
21	Ground/weather conditions	Poor or unexpected ground/weather conditions
22	Operation cost overrun	Operation cost overrun resulting from improper measurement, ill-planned schedule or low operational efficiency
23	Competition (exclusive right)	The government does not offer the exclusive right, or does not honour its commitment and builds another competitive project
24	Market demand change	Demand change from other factors, that is social and economic.
25	Tariff change	Improper tariff design or inflexible adjustment framework leading to insufficient income
26	Payment risk	The consumer/government not being able or willing to pay, due to social or other reasons
27	Supporting utilities risk	Supporting utilities, such as electricity, water, necessary for construction, operation and management would not be available in a timely manner or at fair rates
28	Residual assets risk	Assets transferred to the government at the end of the concession period would not be running normally
29	Uncompetitive tender	The tendering process and documents vary from project to project and from province to province in China without transparent or standardized models
30	Consortium inability	The consortium not being able to perform its obligations as a PPP project company
31	Force majeure	The circumstances that are out of control of both foreign and local partners, such as floods, fires, storms, epidemic diseases, war, hostilities and embargo
32	Organization and coordination risk	An increase in transaction cost or a dispute may occur because of improper organization and coordination
33	Tax regulation changes	Central or local government's inconsistent application of the tax regulation
34	Environmental protection	Stringent regulation which impacts the construction firms' poor attention to environmental issues
35	Private investor change	Due to the disputes among private investors or other reasons, one or some investors exit/enter the consortium
36	Subjective evaluation	Subjective evaluation and design of the concession period, tariff structure, and market demand
37	Insufficient financial audit	The government/tenders would not perform a careful audit of the financial status of the project company

4.1.5 Checklist of PPP risk factors: The preferred allocation of these risks to parties is set out below, based on their ability to bear the same. The allocation is premised on the macroeconomic, national, sector and project-specific details that each stakeholder has an influence on.

Box 6: Check list of PPP Risk Factors

Allocation	ID ¹⁹	Category	Risk Factor
Risks to be solely allocated to the public sector	3	Country	Expropriation and nationalization
Risks to be mostly allocated to the public sector	4	Country	Government's reliability
	2	Country	Government's intervention
	12	Country	Poor political decision-making
	13	Project	Land acquisition
	1	Country	Corruption
	14	Country	Approval and permit
	27	Project	Supporting facilities risk
	29	Country	Uncompetitive tender
	23	Project	Competition (exclusive right)
	8	Country	Change in law
	33	Country	Tax regulation changes
	7	Country	Immature juristic System
Risks to be equally shared by both parties	6	Country	Public/political opposition
	25	Project	Tariff change
	31	Country	Force majeure
	26	Project	Payment risk
	34	Country	Environmental protection
	37	Project	Insufficient financial audit
	36	Project	Subjective evaluation
	15	Project	Improper contracts
	11	Market	Inflation
	10	Market	Foreign exchange and convertibility
	21	Country	Ground/weather conditions
	24	Market	Market demand change
	5	Project	Third party reliability
9	Market	Interest rate	
Risks to be mostly allocated to the private sector	17	Project	Construction/operation changes
	28	Project	Residual assets risk
	32	Project	Organization and coordination risk
	30	Project	Consortium inability
	35	Project	Private investor change
	19	Project	Delay in supply
	18	Project	Construction completion
	16	Project	Financial risk
	22	Project	Operation cost overrun
20	Project	Technology risk	

¹⁹Col. reference in preceding Table

4.1.6 For the next generation of PPP contracts, the Committee suggests the following broad guidelines while allocating and managing risks:

- i. An entity should bear the risk that is in its normal course of its business (for instance, acquisition of land is a normal course of business for public entities);
- ii. An assessment needs to be carried out regarding the relative ease and efficiency of managing the risk by the entity concerned;
- iii. Cost effectiveness of managing the risk needs to be evaluated;
- iv. Any overriding considerations/stipulations of a particular entity need to be factored in prior to implementation of the risk management structure;
- v. Sophisticated modeling techniques are prevalent to assess probabilities of risks and the need to provision them. The DEA may hone its skills in this and provide guidance to project authorities;
- vi. There should be ex-ante provisioning of renegotiation framework of in the bid documents (Concession Agreement).

4.2 “Obsolescing” Bargains

4.2.1 Typically, infrastructure PPP projects span 20-30 years and it is not possible to accurately estimate project cash flows. The developer, who invests money in a project over a 4-5 year construction period, often loses bargaining power related to tariffs and other matters in case there are abrupt changes in the economic or policy environment, which are beyond his control. This phenomenon, often called “Obsolescing Bargain”, leads to government opportunism, giving the government authority and an upper hand over the private developer after project completion. In certain cases, the government may have a different interpretation of reasons for a particular delay, while a private developer might want to attribute a delay to reasons beyond his control. The absence of independent regulators in infrastructure sub-sectors further weakens the private sector's capacity to appeal against unwarranted delays.

4.2.2 To guard against Obsolescing Bargains the following steps may be considered:

- i. Appropriate safeguards for the project developer should be built ab-initio into the contract to ensure that he has some say in the negotiation on issues that do not compromise bid award sanctity, even after project completion.
- ii. For this, critical assumptions may be defined upfront and only if the actuals are significantly different from those assumptions, should an option to bilaterally renegotiate certain terms defined in the original contract be allowed.
- iii. Such an option will not only protect the developer from unexpected changes beyond his control, but also ensure that the option of renegotiation is not misused.
- iv. Independent Sector Regulators may be put in place without delay.

4.3 Renegotiation of Contracts

- 4.3.1 PPP agreements or concession agreements differ from agreements for the provision of commercial goods or services between two private sector entities in several ways. These include:
- i. PPPs relate to public services delivery, awarded through a competitive bidding process;
 - ii. PPPs are typically very high value contracts, often with huge capital costs and high ongoing operating costs and revenues, which makes it difficult for a party to such agreement cope with any losses to capital invested or revenue forgone;
 - iii. PPPs are usually long-term arrangements spanning 10-30 years and, hence, are not amenable for writing “perfect” contracts covering all situations and developments during project's lifetime; and
 - iv. PPPs are often intended to provide essential facilities that may sometimes have no substitutes and can be neither paused nor disrupted while contracting parties resolve the differences that may arise during the course of implementation.
- 4.3.2 Given the characteristics set out above and the fact that PPPs have been used in great numbers in many jurisdictions around the world, it is no surprise that a number of such projects can become distressed after the emergence of risks not contemplated at the time of signing. The forms of distress may vary but the factors that lead to such distress could give rise to a call for amending the terms of the concession agreement to better reflect project realities.
- 4.3.3 The Committee notes that such calls typically (but not always) originate from the private party to the concession agreement and, since the objectives behind such a call would be biased towards maintaining a required return on investment, or preventing a default under financing agreements undertaken by the private party, or avoiding a risk or set of risks, amending the concession agreement may not be in the best interest of the public concessioning authority acting on behalf of the government. It is therefore necessary to develop and implement a framework for dealing with such proposed amendments.
- 4.3.4 The DEA has issued a well researched guidance note for developing a framework for renegotiation of PPP contracts (“Renegotiation Framework”) with particular focus on the National Highway and Major Port concessions.²⁰ The Committee was also informed that the suggested legal clauses in concession agreements for incorporating the recommendations will be issued shortly.
- 4.3.5 The Committee was informed that model clauses based on established thresholds for renegotiation are being drafted, to distinguish quantified bid percentages and qualitative “materiality” type considerations. There should be no room for suggesting that the concessioning authority acts in anything other than a governance arrangement

²⁰The report can be accessed at http://pppinindia.com/NPBCP_images/PDFs/DEVELOPING%20A%20FRAMEWORK%20FOR%20RENEGOTIATION%20OF%20PPP%20CONTRACTS.pdf.

that uses a facts-based objective assessment of amendments. The guidelines would be extended to incorporate triggers for rebidding in the bid documents for the concession agreement.

4.3.6 The benchmarks to be applied to each proposed renegotiation trigger may include:

- i. Evidence that the project distress is material and likely to result in default under the concession agreement at some future point should it continue;
- ii. Not caused by the private party and likely to cause adverse outcomes for the government and/or users of the concession assets;
- iii. Evidence that a renegotiated concession agreement is likely to have direct cost implications for the government that are less than the financial outcomes of doing nothing;
- iv. Likely to have social benefits or avoided costs that provides better long-term outcomes; and
- v. Not materially different in terms of risk allocation to the Government of India.

4.3.7 It is also necessary to set out reasons that would not apply for any request for amendment of a concession agreement. These would include:

- i. Any event of distress that was foreseeable at the time of financial closure;
- ii. Any event that would affect the concessionaire just as any other company in its ordinary course of business (for example general changes in law);
- iii. Any impact arising from assumptions made or risks taken by the concessionaire in preparing its bid;
- iv. Any impact arising directly or indirectly from the performance, action or inaction of the concessionaire; and
- v. Any failure of any associated party for concessionaire to perform or provide finance to the concessionaire.

4.3.8 The final decision for a renegotiated concession agreement must thus be based on:

- i. Full disclosure of long-term costs, risks and potential benefits;
- ii. Comparison with the financial position for the government at the time of signing the concession agreement; and
- iii. Comparison with the financial position of the government prior to renegotiation.

This will permit the concessioning authority to make a decision based on awareness of likely outcomes over the foreseeable future of the concession.

CHAPTER 5: RESOLVING LEGACY ISSUES

5.1 NPAs in Overall Infrastructure Projects in India

- 5.1.1 The deteriorating asset quality of the Indian banking system has emerged as one of the major challenges facing banks today as it undermines the viability of the banking system. High levels of NPAs shake the confidence of investors, depositors and lenders, restricts the flow of credit to key sectors and puts the viability of the overall banking system at risk.
- 5.1.2 According to a study by ASSOCHAM, infrastructure investments worth approximately Rs 12 lakh crores²¹ remained stuck at different stages as of end-December 2014 owing to a variety of issues such as land acquisition, lack of clearances, unfavourable market conditions, and costly finances. According to the Ministry of Statistics and Programme Implementation (MOSPI), four out of every ten central government infrastructure projects are behind schedule or have overshot original cost estimates.²² In many projects, the actual revenues have turned out to be substantially lower than estimated. Since the repayment schedules were based on projections, such revenue shortfall has induced financial stress in several projects. According to a CRISIL study (October 2015), 26 out of 80 operational highways projects are not in a position to service their debt because of lower than estimated traffic.

5.2 Date of Commencement of Commercial Operations (DCCO)-based Asset Classification Norm by the RBI

- 5.2.1 The DCCO based asset classification norm may have resulted in many projects getting classified as NPAs. As per existing RBI norms, an infrastructure project may be treated as standard if the shift in DCCO is up to two years of the original DCCO. Another two-year shift, that is a total of four years is allowed in case the extension of DCCO is due to arbitration proceedings or a court case. For other reasons beyond the control of promoters, a period up to another one year, that is a total of three years is allowed.
- 5.2.2 Accounts that are presently classified as NPAs due to DCCO-based asset classification norms may be allowed a one-time dispensation and a revised DCCO may be fixed for such projects. Lenders may be allowed to treat such accounts as “standard” till the time they are able to meet the revised operation schedule. Such one-time dispensation may be allowed only if the lenders find the project viable in their re-assessment of viability.
- 5.2.3 It is suggested that a separate institutional mechanism (including the option of a dedicated team for PPP legacy cases in the current institutional mechanism of the Project Monitoring Group constituted in 2013 at the Cabinet Secretariat) be constituted, comprising representatives from the relevant line ministries for each of the sectors, to expedite resolution of pending issues. Where required, statutory changes may be initiated.

²¹<http://www.assochem.org/newsdetail.php?id=4985>

²²<http://164.100.47.132/LssNew/psearch/QResult16.aspx?qref=18677>

5.3 Actionable Stress and Multi-disciplinary Expert Institutional Mechanisms

5.3.1 The Committee notes that situation-specific efforts have been made to address insolvency issues although they have not succeeded in addressing the problem. The Interim Report dated February 2015 of the Bankruptcy Law Reform Committee reviewed the legal and regulatory framework and came to some noteworthy conclusions summarized below:

- i. The corporate insolvency and rehabilitation regime including the Sick Industries (Special Provisions) Act, 1985 have not achieved their objectives.
- ii. The regimes under special statutes such as the Securitization and Reconstruction of Financial Assets and Enforcement of Security Interest Act, 2002 (“SARFAESI Act”); Debt Recovery (DRT/DRAT regime); and the State Financial Corporation Act, 1951 have remained debt recovery tools that do not resolve insolvency situations.
- iii. It has made recommendations to strengthen the corporate rescue and insolvency liquidation regime under the Companies Act, 2013 with some noteworthy features as follows:
 - time-bound decision making on rescue or liquidation;
 - moratorium during transition;
 - interventions in management;
 - rehabilitation;
 - voice to lenders rescue financing and debt-restructuring.

5.3.2 The Interim Report of the Bankruptcy Law Reform Committee is neither meant to, nor does it address, the following two crucial concerns:

- i. Early assessment of actionable stress and quia-timet action for rescue.
- ii. Maximizing welfare by optimal continued availability of infrastructure facilities.

5.3.3 The Committee notes that some stalled projects are PPPs and need to be kick started. One of the key areas requiring urgent attention is evolving a suitable mechanism to expeditiously evaluate and address the circumstances that pose imminent threats to the economic foundation of any PPP project (“Actionable Stress”). The Committee is conscious of the fact that this exercise must be undertaken in a time-bound manner to optimise the underlying investment, while preventing the moral hazard of abuse or undeserved gains. The guiding considerations are aimed at maximising welfare by:

- i. Securing overarching public interest involved in infrastructure assets by ensuring continued availability of such facilities or services at fair prices.
- ii. Securing long-term viability of the asset by recouping the investments made including timely repairs and maintenance as also life-cycle replacement, rehabilitation and modernization.

- iii. Maintaining sanctity of contract. This mechanism must have in-built safeguards to ensure against it being reduced to a gateway for wholesale renegotiation or revision in the contract. It must be invoked only in extraordinary circumstances of actionable stress, only after 18 months of completion of construction of the facility.

5.3.4 The Committee is of the view that only a statutorily established credible empowered multi-disciplinary expert institutional mechanism should deal with the complex issues involved and proposes the following:

- i. An Infrastructure PPP Project Review Committee (“IPRC”) to be constituted with one expert each from the following disciplines:
 - Finance and economics.
 - One or more sectoral experts – preferably engineers with a minimum of 15 years experience in the industry in question.
 - Law.
- ii. The mandate of the IPRC would be to evaluate and send its recommendations in a time-bound manner upon a reference being made of “Actionable Stress” in any infrastructure project developed in PPP mode beyond a notified threshold value.
- iii. An Infrastructure PPP Adjudication Tribunal (“IPAT”) chaired by a Judicial Member (former SC Judge or HC Chief Justice) with a technical and financial member, where the benches are constituted by the chairperson as needed for the matter in question.

Box 7: Suggested Framework of Infrastructure PPP Project Review Committee (IPRC) and the Infrastructure PPP Adjudicatory Tribunal (IPAT)

It is advisable that a statute is enacted under Article 323B of the Constitution of India and should provide for constitution of a two-tier mechanism comprising the IPRC and the IPAT as follows:

- i. The IPRC and IPAT shall be empowered and obliged to determine whether there is such change in the economic foundation or economic viability of a project which requires any intervention amongst options contemplated in that statute.
- ii. The guiding principles on the basis of which the IPRC and IPTA may perform their functions in exercise of jurisdiction vested.*
- iii. The detailed evaluation of the underlying technical and financial issues should be considered by the IPRC.
- iv. In case a substantial question of law is involved, the matter should be directly heard by the Tribunal.
- v. Parties will continue to perform their obligations under their respective contracts, notwithstanding an order of reference.
- vi. Define the touchstone of who may make such reference and on what basis and format it should be filed must be a part of the legislation.
- vii. Once a reference is made by any stakeholder, no court shall entertain any matter related to the project which overlaps the scope of the reference.

The institutional mechanism and procedural aspects of the IPRC and IPAT are set out in Annexure 3.

*Reference may be made to Section 61 of the Electricity Act, 2003 which lays down the principles which strike a balance amongst affordability and viability for guidance of the electricity commissions for determination of tariff.

5.3.5 It is recommended that the statutory framework must also provide for:

- i. Defining the principles and tests of what constitutes “Actionable Stress” in infrastructure assets developed in PPP format.
- ii. Prescribe that the overarching concern shall be to ensure continuity of the infrastructure services, while preserving or restoring viability of the investment made (not necessarily in the same hands) to prevent it from being impaired or rendered fallow.
- iii. Lay out the elements of underlying guiding factors for exercise of discretion, keeping in mind Article 39 of the Constitution of India and factors elaborated in the attachment hereto.
- iv. Clarify that the institutional mechanism is not meant to substitute or overtake the existing contractual and regulatory mechanism to handle the lifecycle of a PPP Project, including issues of routine adjustments and escalation mechanism.

5.3.6 It is the Committee's considered view that some critical elements of the proposed framework would be:

- i. Once any stakeholder files a reference before the Tribunal, and the IPAT takes cognizance of it, no party or stakeholder shall approach any court of law, and all courts shall refrain from adjudicating upon any proceedings initiated that are related to the project in question.
- ii. Intervention must be considered once the IPAT is prima-facie satisfied that the undeserved and unbearable material impact will destroy the substratum and economic foundation of the project (“Actionable Stress”).
- iii. The obligations under the contract may be considered as *de minimis* obligations (financial and contractual), which the parties should mandatorily perform (assuming no event warranting a reference exists). [Ref: Directives 8 and 9 of Directive 2014/23/EU of the European Parliament and of the Council of February 26, 2014 on the award of concession contracts stipulates the mode for determining the thresholds with respect to a concession contract below which a renegotiation may not be considered. Also, read Recital 75 of the said Directive.]
- iv. The objectives of evaluation and intervention are to ensure continued provision of essential services in the face of adversity keeping in mind some key principles as follows:
 - ? Principles enshrined in sector specific legislation or regulations.
 - ? The objective of creating the infrastructure facility in PPP mode including the underlying value-for-money proposition.
 - ? The time value of money.
 - ? Salvaging the assets facing imminent risk of impairment through case-specific interventions²³ evolved by experts from amongst a specified set of options like expropriation, rebid, financial re-engineering and restructuring to

back-end costs, LPVR (least present value of revenue) and revision of concessions with due regard to liquidity issues.

- ? Prevent ruinous impact on the economy of potential NPAs and stranded capital (debt and equity).
- ? Prevent ruinous impact of moth-balling infrastructure facilities and idle installed capacity comes at great economic cost and disuse which invariably leads to impairing of facilities.

5.3.7 It is necessary to define in clear terms the following elements of the mechanism, ideally through a legislative framework:-

- i. The touchstones/triggers constituting the Stress Test that must be demonstrated by the referring party for the Adjudicatory Tribunal or Project Review Committee when seeking an evaluation and intervention to remedy 'Actionable Stress'.
- ii. The touchstones for the Adjudicatory Tribunal or Project Review Committee to prima-facie conclude that the project is facing Actionable Stress for admissibility of a reference for a PPP project by any stakeholder (developer, lender, grantor, user, supplier or government agency) for evaluation of possible interventions.
- iii. The overarching principles and framework that must define and determine the evaluation and recommendations - which intrinsically must balance between:
 - ? Access of essential facilities to citizens, affordability of the services and viability of the investment made (recovery of prudent cost incurred for delivering the service with reasonable return to service the debt and equity capital invested).
 - ? The underlying value proposition of the infrastructure asset being developed in PPP format.
- iv. The institutional mechanism and processes including timelines for the evaluation process by the Project Review Committee and its submission of Recommendations for consideration by the Adjudicatory Tribunal.
- v. The institutional mechanism of the Adjudicatory Tribunal and processes including the timelines for consideration and decision upon such recommendations by the Adjudicatory Tribunal with clarity of implementation.

Recent Initiative by MoRTH

5.3.8 The Committee appreciates that every sector has specific requirements and typicality, including the nature and treatment of various categories of stressed projects under PPP mode. Therefore, a sector-specific approach is suggested for addressing this issue. The approach set out below has been usefully adopted by MoRTH and could be

²³Since 2014 a set of measures have been debated to address concerns of stranded assets including issues of additional finance to complete them. Some of the recent noteworthy measures are

(a) CCEA decision regarding Exit and Fund Infusion for BOT Projects dated May 13, 2015, as amended on August, 2015;

(b) RBI circular dated February 26, 2014 titled 'Framework for Revitalising Distressed Assets in the Economy - Guidelines on Joint Lenders' Forum and Corrective Action Plan';

(c) RBI circular dated June 8, 2015 on 'Strategic Debt Restructuring Scheme'.

explored by other ministries as a transitory measure, subject to prevailing contractual arrangements and statutory provisions. As the current approach lacks statutory backing, that may be considered prior to adoption by other sector agencies.

5.3.9 In the highways sector, stressed projects can be classified broadly under two categories:

- i. Languishing or Stalled Projects - where work is stopped during the construction stage after signing of the contract. This may be due to various reasons, not necessarily attributable to the concessionaire or authority.
- ii. Projects involving disputes - where legal disputes arise between the concessionaire and the authority with respect to contractual or other provisions and mostly involve raising of financial claims.

5.3.10 Treatment of languishing highway sector projects - till recently there were 73 NHAI projects stalled in the construction stage, subsequent to award, for reasons that included land acquisition and utility shifting issues involving state governments, environment and forest clearances involving the Ministry of Environment and Forests and others. The MoRTH and NHAI have been monitoring the status of such projects and identifying and addressing the issues involved. For example, an Infrastructure Group chaired by the Minister has been set up for addressing inter-ministerial clearances and other related issues. Most such issues have been sorted out. The Committee appreciates the initiatives taken by MoRTH and urges other ministries and agencies to adopt similar practices after addressing the appropriate legal and statutory requirements. Some customized policy initiatives were also taken including a recent policy on one-time fund infusion by NHAI, subject to adequate due diligence of such languishing projects on a case-to-case basis through an institutional mechanism. The ministry is also proposing a policy on rationalized compensation to concessionaires for languishing BOT projects for delays not attributable to concessionaires. Such compensation is proposed through extension of tenure of the concession period (in order to keep the originally envisaged 'operations period' unchanged) for BOT (toll) projects and by paying compensatory annuity to the concessionaire based on actual period of delay for BOT (annuity) projects.

5.3.11 Treatment of highway sector projects facing legal disputes. Disputes that arise between the parties for NHAI projects are resolved in three stages in accordance with contractual provisions, depending on the mode of implementation of the project, as detailed in the following table:

Box 8: Stages in Dispute Resolution in NHAI Projects

S. No.	Provision in EPC Contract	Provision in BOT Contract
(a)	Dispute, in the first place, is resolved by mediation by the supervision consultant or engineer of the project.	The dispute is settled by mediation by an independent engineer.
(b)	If the supervision consultant or engineer fail to resolve the dispute or the decision is not acceptable to the parties, it is referred to a dispute review board or dispute review expert within 14 days of the failure or the decision.	If the independent engineer fails to resolve the dispute, it may also be referred to the Chairman-NHAI and the chairman of the board of directors of the concessionaire, for amicable settlement and they shall meet within even days and settle the disputes within 15 days and sign a written statement within 30 days or mutually extended period.
(c)	If the recommendation of DRB/DRE is not acceptable, the dispute may be referred to the arbitration tribunal comprising three arbitrators within 28 days of the decision of DRE/DRB.	If the dispute is still not resolved then it is referred to an arbitration tribunal comprising three arbitrators for arbitration.
(d)	If the arbitration award is not acceptable to either party, it can be challenged in court within the limitation period of 90 days, as provided under the Arbitration & Conciliation Act, 1996.	If the Arbitration award is not acceptable to either party, it can be challenged in court within the limitation period of 90 days, as provided under the Arbitration & Conciliation Act. 1996.

5.3.12 To effectively resolve such disputes in a time-bound manner, a “One Time Amicable Settlement Mechanism” applicable across all modes of delivery of highway projects has been developed and involves:

- a. Initial negotiation on the dispute is to be carried out by a Committee of three Chief General Managers (CGM) to be nominated by the Chairman. The report of this committee is placed before an Independent Settlement Advisory Committee (ISAC) consisting of a retired high court judge and two other members with sufficient experience in administration, finance and technical fields.
- b. The ISAC may agree with the CGMs' Committee or summon the contractor or concessionaire for clarification or negotiation.
- c. The recommendation of the ISAC shall be placed before the board or executive committee for approval. If no negotiable settlement is reached, the matter shall continue to be pursued legally in accordance with the contract.

5.3.13 The MORTH informed the Committee that dispute related claims worth Rs 17524 crores have been settled for Rs 1404 crores in 84 project packages under this mechanism and that, in addition, a Society for Affordable Resolution of Disputes (SAROD) has been created by NHAI along with the NHBF for affordable resolution of disputes in a time bound manner.

5.3.14 However, the Committee also notes the concerns expressed by private developers that settling of disputes at an amount far lower than originally claimed is often driven by their desperation to reach a conclusion and unblock stuck investments. Since the authorities also pointed to instances of gaming and over-aggressive predatory bidding

leading to inflated claims and a predilection for raising disputes, the Committee underlines the need for independent third party resolution of disputes in a time bound manner, in order to reduce the high amount of risks attributable to the current impasse.

Recommendation

5.3.15 Sector specific institutional frameworks may be encouraged for addressing the issues of stressed infrastructure projects in PPP mode. Considering the proven experience for the highways sector in the country in this regard, learning from this sector may be utilized for other sectors, and established frameworks for the sector may be adopted with necessary customization.

5.3.16 At the same time, umbrella guidelines may be developed for such stressed projects that provide an overall framework for development and functioning of sector specific frameworks. The proposed tribunal and IPAT approach detailed above is, in the Committee's view, the solution.

Box 9: Proposal for Actionable Measures

- i. In case procurement of land or clearance is pending from government authorities for more than prescribed number of days, the work outstanding is de-scoped (under the provisions of Change in Law of Concession Agreement), and allow the rest of the activities on completed scope (such as tolling operations).
- ii. The remaining work could be completed on a cash-contract basis, provided land and required clearances are in place.
- iii. It is recommended to cancel projects that have not achieved a prescribed percentage of progress on the ground. Such projects may receive rebids, once the issues have been resolved, or constructed through public funds and if viable, bid out for Operations and Maintenance.
- iv. If delays are not on the account of concessionaire, no penalties should devolve upon them.
- v. A mechanism constituted to reach faster settlement of claims through a quasi-judicial process is essential. In case the dispute relates to both project proponent and concessionaire, the claims could be settled pro-rata.
- vi. Lending institutions to these projects need to assess if any instance of criminal, economic, regulatory or statutory default, penalty, or legal action is pending against major group companies, directors or promoters. If there is any such instance, its effect on viability needs to be assessed before remedial action is initiated.
- vii. For delays resulting from the concessionaire's default or financial stress not related to project delays, concessions may be terminated or bridge financing as permitted may be allowed but a penal charge or a haircut may be imposed on the concessionaire.

CHAPTER 6: STRENGTHENING POLICY, GOVERNANCE AND INSTITUTIONAL CAPACITY

6.1 Systemic Improvements

- 6.1.1 The Committee emphasizes the need to: (i) augment the basic building blocks of project implementation under PPP format; and (ii) set up a framework for continuously evaluating policy, governance and institutional capacities relating to infrastructure investments and service delivery. It is evident that the pace of PPP project implementation has exceeded the pace of growth of skills, volumes and institutional capacity in the public and private sectors. While noting the progress in providing a conducive environment for PPP project implementation, the Committee also recommended the need for continual monitoring to ensure optimal balance between the goals of private partners and the government's target of improved asset and service delivery. It is imperative to develop systems and behaviour that improve the host government's PPP system as a whole, in order to foster sound project development, planning, governance and management skills across all stakeholders.
- 6.1.2 The Committee recommends the need to: (i) set up an institution for invigorating private investment in infrastructure; (ii) prepare and provide guidance for a national PPP policy; (iii) develop a mechanism to capture and collate data for decision making; and (iv) undertake capacity building activities, including preparation of knowledge modules for different stakeholders.
- 6.1.3 In order to develop a broad, robust and diversified portfolio of PPP projects at the central, state and local self government levels, a specialized entity devoted to facilitating PPPs and infrastructure investment is overdue. Most countries which have mature PPP ecosystems (UK, Australia for example), have agencies that support PPP project implementation. Developing nations such as Indonesia and Pakistan have also set up or are in the process of setting up such institutions. For India's diverse needs, and institutional and governance capabilities, it is essential to have an agency with a mandate to promote better PPP practices.
- 6.1.4 The Finance Minister in the Union Budget 2014-15 speech had proposed setting up an institution to provide support to mainstreaming of PPPs, the 3P-India ('3P-I'). While current in-house effort by the DEA on periodic issues are commendable, the Committee was surprised to note that all such activities are undertaken by an understaffed PPP unit in the DEA. Professional support at a programmatic level is essential for policy implementation and regulatory assistance, and also for delivery guidance at the project level. A centre of excellence in PPPs, enabling research, activities to build capacity, more nuanced and sophisticated contracting models and developing a quick dispute redressal mechanism is overdue. Every stakeholder without exception had underlined the urgent need for setting up the 3P-I institute for PPPs. The Committee strongly endorses this.

- 6.1.5 The PPP Cell in the DEA is understaffed and requires professional support at a programmatic level, for policy implementation and regulatory assistance, and also for delivery guidance at the project level. The key requirements of a successful PPP programme and project activities such as contract management support, and implementation of strategies to strengthen capacities for executing projects, advocacy and communication can be undertaken by a dedicated institute for developing and promoting PPPs.
- 6.1.6 The government may take early action to amend the Prevention of Corruption Act, 1988 which does not distinguish between genuine errors in decision-making and acts of corruption. Every wrong decision does not have a malafide intention and decisions are often judged “wrong” only with the benefit of hindsight. Measures may be taken immediately to make only malafide action by public servants punishable, and not errors, and to guard against witch hunt against government officers and bureaucrats for decisions taken with bonafide intention. The government may speed up amendment of the Prevention of Corruption Act, Vigilance and Conduct rules applicable to government officers.
- 6.1.7 The Committee welcomes the current review and amendment of the Arbitration Act and strongly endorses the need for time limits on hearings.
- 6.1.8 The Committee cannot overstate the criticality of setting up independent regulators in sectors going in for PPPs. The Committee therefore recommends setting up independent regulators with a mandate that encompasses activities in different infrastructure sub-sectors to ensure harmonized performance.
- 6.1.9 The Ministry of Finance, in coordination with other implementing ministries, may develop a policy that aims to promote secondary markets for operational assets. Such a policy should also address issues that are unclear with respect to project structure and agreements, such as traffic trigger levels.
- 6.1.10 Regulators of domestic pension, insurance and long-term funds may be encouraged to allow investment in PPP SPVs with a lower than AA rating if developers access credit-guarantee instruments. Active investment in take-out financing vehicles, including infrastructure debt funds (IDFs) and infrastructure investment trusts (InvITs), which de-risk returns, may also be encouraged.
- 6.1.11 Efforts must be made with the central bank to strengthen project appraisal and project loan monitoring skills by banks.
- 6.1.12 The Committee notes that the pool of qualified and capable PPP consulting talent that can assist various project proponents is inadequate and thus there is a risk of insufficient experience and capability. There is need for the government to work with industry associations to catalyze upgrading of PPP technical, financial and legal consultants for supporting the sector, and suggests that such capacity be augmented through a concerted process.

- 6.1.13 Since poorly designed PPP projects could result, inter-alia, in huge direct costs, contingent liabilities, risks of litigation and delays in project delivery, the consultancy services may be periodically rated by rating agencies based on the variation between their projections vis-à-vis actuals in the initial five or six years of project operations.
- 6.1.14 For smoother implementation of infrastructure projects, the Committee recommends that project authorities/SPV should engage with actual users/beneficiaries and other stakeholders through a well designed outreach programme.

6.2 Policy Initiatives

- 6.2.1 In the wake of new project proposals emerging in various infrastructure sectors, the Committee recommends that these be substantiated with appropriate legal frameworks to facilitate a credible environment for development of infrastructure projects in the country.
- 6.2.2 The DEA may develop and publish a national PPP Policy document. This policy can lay down how the Indian infrastructure PPP market should evolve in relation to other peer nations, how to allocate resources for better value addition, a rigorous framework for project selection, development and monitoring. Ideally, such a policy Document should be endorsed by the Parliament as a policy resolution. This will then impart an authoritative framework to implementing executive agencies as well as to legislative and regulatory agencies charged with oversight responsibilities.
- 6.2.3 All stakeholders have raised concerns on the demand for developer books of account being subjected to government audit and for access under RTI and Article 12 of Constitution. Since corporate entities are governed by the provisions of the Companies Act, and other government directives, they wish to be excused from this process. Concerns have been raised by all stakeholders (government and private sector alike) that project implementation under these frameworks would reduce to a trickle and ultimately disappear if there is no certainty of processes in the medium term. Conventional audit by authority of private partner's books per standard procurement process risks delivery of poor quality of service and public assets. There is need for an overarching mechanism wherein the boundaries of operation of various statutory bodies is clearly defined. To address this, the Committee recommends that the government notify comprehensive guidelines on the applicability and scope of such activities. The laid down process would enable review only of government internal systems, and not that of SPVs but SPVs would need to follow best practice in corporate governance systems including those related to related party transactions, financial disclosures etc as in the Companies Act, 2013. Standard public authority requirements of audit till point of award (public books) and of post-construction discharge by the authority for monitoring and oversight of project operations per the concession agreement (public books) must lie within the purview of government audit agencies. The audit of SPV books (construction, operations and maintenance) would be addressed under the Companies Act provisions.

Box 10: Aspects of PPP required to be seen by Statutory Audit

Best practices of Government audit in countries with effective oversight and successful delivery of PPPs:

- i. Covers broadly the audit of the contract/arrangement with Government.
- ii. Does not extend to any aspect of the private partner's commercial transactions
- iii. Conventional audit of the public partners procedures and papers upto the stage of award of concession (pre-contracting stage in the development of PPPs is long and complex).
- iv. Post-contracting stage, during the concession period: performance and service delivery that are to be audited per reporting systems laid down in the Concession Agreement.
- v. At end of concession: the return of the asset to be audited in terms of the contractual requirements.

Data, records, analysis of the decision making process of the public authority

- i. Assessment of the transparency and integrity of the bidding process.
- ii. Public authority's project documents (from conceptual stage to formulation and approval stages).
- iii. Evaluation of the PPP arrangement made by the public sector agency for compliance of contractual conditions and provision of the public service entered into between the parties.
- iv. Focus on the effectiveness of quality of service delivery experienced by users and stakeholders based on the outcomes delivered vis-a-vis mandated benchmarks to measure performance.

- 6.2.4 The lead financial institution and escrow agent may, in parallel, ensure full oversight of transactions under their preview.
- 6.2.5 In order to sort out inter-ministerial issues involving the state and central governments, an institutionalized mechanism like the National Facilitation Committee (NFC) may be put in place to ensure time bound resolution of issues including getting timely clearances and approvals during implementation of projects for their smooth running.
- 6.2.6 The authorities may be advised against adopting PPP structures for very small projects. The transaction costs of well-structured PPP projects are significant and costly expert advisory services are essential. The benefit of delivering a small PPP project would not be commensurate with such costs. The DEA should, based on best practices, identify a guidance limit as the floor below which PPP models become inadvisable.
- 6.2.7 Unsolicited proposals (“Swiss Challenge”) may be actively discouraged as they bring information asymmetries in the procurement process and result in lack of transparency and in the fair and equal treatment of potential bidders in the procurement process. Furthermore, the tendency of the authorities to call any pre-identified project to be delivered through a 'DBFOT' model as “Swiss Challenge” needs to be curbed. Unsolicited proposals are inherently different from DBFOT. A vague definition of the term “Swiss Challenge” risks the danger of encouraging opacity in the bidding process.
- 6.2.8 Besides, the Committee notes that practices for adopting PPPs at state government and other agencies' levels need to be reviewed. While further suggestions are

presented in section 6.3 of this chapter, the authorities should be discouraged from treating PPPs as off-balance sheet funding methods and using PPP as the first delivery mechanism without checking its suitability for a particular project. The states and other agencies must also refrain from treating Central PPP VGF as a source of additional grants that can be accessed by adopting the PPP delivery mode for projects that are not suitable for such a financing structure.

- 6.2.9 The DEA may issue guidance material on government participation in JV- SPVs that implement PPP projects. In general, such participation may be discouraged, save for well articulated strategic reasons so as to enable independence in functioning of the company to gain from private sector efficiencies while being at arm's length from the government. It would also avoid the possibilities of conflict of interest for government officials. Where it is felt that active involvement of government is absolutely essential for clearly defined strategic reasons, it may be restricted to minority participation with limited liability for government officials on the board of the SPVs. The decision for such participation may be taken at a sufficiently high level and in no case at a level lower than secretary to government in case of central sector projects and principal secretary to government for state projects.
- 6.2.10 Inherent in the concept of PPP is the role of a “Private Sector Partner” that will implement the project, based on the need to leverage private sector financing and also the managerial and operational efficiencies of the private sector party. It is in this context that the Committee is of the view that since state owned entities SoEs/PSUs are essentially government entities and work within the government framework, they should not be allowed to bid for PPP projects as private sector participants. The Committee is of the view that a project delivered by government contracting a concession with a PSE-counterparty cannot be treated as a PPP. This is also borne out by the fact that the Committee noted that some PSEs are themselves sponsors of PPP projects.
- 6.2.11 The Committee notes that the use of TPC as a bid parameter is currently being experimented with. The Committee cautions against this as worldwide best practices in infrastructure projects have proved that TPC as a bid parameter is more suited to small or social sector projects rather than large hard infrastructure transport projects. Apart from uncertainty over the required resources from the authority (as the TPC based on life-cycle costing will only be discovered via the bids), there are likely to be problems with post-bid analysis by audit and vigilance authorities, in estimation of life-cycle costs, possibilities of cartelization to ensure higher TPCs, and base cost comparators vis-à-vis discovered TPC complicating bid evaluation.
- 6.2.12 Equity in completed infrastructure projects may be divested by offering it to long-term investors, including overseas investors. This would enable channelization of both equity and long-term debt funds from overseas investors. The cash generated out of such disinvestment would then be available for creation of new infrastructure projects in the country. As regards partial recourse in infrastructure financing, institutional investors, domestic and foreign with long- term liabilities are best suited

for providing such long tenor financing. However, they have a limited risk appetite and also limits on exposure to lower rated projects. Improved credit profile so that the revised risk profile is suitable to overseas and domestic long-term investors could be accomplished through the structure having partial recourse on credible third party institutions. This could be implemented through a partial credit guarantee or cash flow support mechanisms (RBI recently allowed this to be extended by the commercial banks) or other such mechanisms. Partial recourse is helpful only in case of operational projects and helps churning of portfolio of the banks. This also help banks charging a risk based pricing, instead of the current pricing which keeps in view retention in their books even after it is operational. Greenfield projects with a significant level of construction risk and, usually no rating by external rating agencies may require full recourse till the project is operational in order to get a rating high enough to attract overseas and domestic long-term investors. In such case, 100% liquidity support may be required but is likely to be unviable.

6.2.13 The government could consider commercially viable greenfield projects with access to a mechanism like the Bond Guarantee Fund to provide full guarantee or full recourse to long-term investors in selected projects in the next few years. Once investors gain experience and appropriate regulations are put in place to attract long-term funds for such projects, full recourse may be replaced by partial recourse. Options like credit enhancement, loan guarantees, and de-risking through insurance agencies are available but require a few market mechanisms like mature derivatives market, interest and currency risk; this will also require a common benchmark interest rate.

6.2.14 Independent regulators: The Committee-stresses the need to establish independent sector regulators to enable faster and smoother implementation of infrastructure projects. It is essential to promote understanding of PPP structures in this regulatory set-up.

6.2.15 The definition of private SPVs may need to be reviewed to ensure ownership by the sponsors putting their equity at risk and "skin in the game".

6.3 Limits of PPPs

6.3.1 The tendency to use PPPs as a technique for off-balance sheet financing, which ignores the contingent liabilities to government, should be guarded against. The Committee notes that some projects, which should not have been considered for delivery through PPP structures, have been retrofitted into the PPP model either because the authority lacks funds for standard public delivery or sees the central VGF scheme as an additional grant that can be accessed without assessing whether the project is viable as a PPP in terms of cost to government and risks borne by the government. A cost-benefit and value proposition analysis comprising commercial viability and structuring of risks need to be assessed prior to choosing an implementation option, including PPPs.

- 6.3.2 The Committee notes that bidding processes such as quality-cum-cost-based selection (QCBS), and two packet system are already in vogue in public procurement in government. In cases of technical design complexity or DBFOT concession, the system of adding a weightage for technical scores to financials can also be considered, with the process clearly explained in the bid documents.
- 6.3.3 The Committee recommends the adoption of transparent and competitive bidding processes, based on suitability to the context and nature of projects. Some of the methods internationally adopted include least-cost basis, quality and cost base, and average bid. Project implementing authorities are required to explore the best method suited to the project, without compromising transparency and competitiveness.

6.4 Capacity Building in Government and Knowledge Dissemination

- 6.4.1 The PPP Cell, the specialized entity in the Ministry of Finance, Government of India, may resume the lead in augmenting public sector capacity in the PPP arena. This includes training for scenario thinking, project identification and management, partner selection and management, outcome definition and monitoring and setting up metrics and monitoring. It could serve as a hub of expertise for PPP projects which government officials, while contemplating or engaging in PPPs, could access for guidance. Such initiatives at the central government level would then have to be followed up at the level of state governments as well.
- 6.4.2 Structured capacity building programmes for different stakeholders need to be evolved - refresher courses for officials who have already undergone training, sensitization programmes for oversight agencies, strengthening of PPP cells at the sub-national level to provide hand-holding support to implementing agencies, customized programmes for banks and financial institutions, private sector and other stakeholders. The need for a national level institution to support institutional capacity building activities must be explored.
- 6.4.3 Appropriately qualified PPP infrastructure legal, commercial and technical teams could be empanelled by the PPP cell. Such teams could then be tapped at short notice. However, the issue of rapid turnover in consultancy teams and the need to update qualifying criteria will continue to be a challenge, and it is suggested that the DEA frame guidelines to address such issues.
- 6.4.4 Establishment and revival of PPP cells in infrastructure ministries and state governments (as was supported by DEA for approximately 10 years) is strongly suggestedⁱ.
- 6.4.5 Post Award Contract Management: Active use of the guidance material developed by DEA for improving the post-award management of PPPs, with particular focus on day-to-day monitoring and proactive management of key risks in a manner that best preserves the interests of the users of infrastructure services and the concessioning authority may be ensured.
- 6.4.6 Other knowledge products like tool kits, practitioner's guide and guidelines on the website (www.pppinindia.com) may be actively accessed by the authorities.

ⁱSee Annex 6 : End Notes

CHAPTER 7: SCALING UP FINANCE

7.1 Guiding Principles

- 7.1.1 The Committee believes that a significant amount of stress that has handicapped fresh equity infusion by PPP developers, was caused by a factor extraneous to individual PPP projects, sector specific PPP models or the PPP framework itself. This stress resulted in stalling of infrastructure projects in general, and particularly the power sector, and those working with sub-optimal PLFs. Even though these projects are not implemented under PPP frameworks, it is imperative to resolve issues in the power sector to encourage fresh investment, lending to other infrastructure sectors, and consequently PPPs.
- 7.1.2 There have been a large number of requests for relaxation and exemption from various taxes and duties from the developer community. The Committee is of the opinion that stakeholders, when undertaking project structuring and financial assessment, may take cognizance of such taxation impacts, and financial proposals be quoted accordingly. However, in order to make projects more attractive, and thereby promote better private participation, the Ministry of Finance, in consultation with the Reserve Bank of India, may review applicable taxes and duties, and propose relaxations as appropriate. Such an exercise could be undertaken periodically, say once in three years, to reflect prevailing market conditions.
- 7.1.3 The Committee suggests that the RBI reviews and provides guidelines to lenders with respect to encashment of bank guarantees in line with ICC norms (URDG 758).
- 7.1.4 Project proponents and the government must refrain from taking any retrospective decision or treatment in project financials or commercial terms (airport or port sectors for instance), including decisions that risk the moral hazard of post-award change in bid conditions. State support agreements should be enforced and states asked to face punitive costs for not completing their obligations as part of centre-state initiatives.
- 7.1.5 It is necessary to explore options for sourcing long term capital at low cost. Towards this, the Committee recommends, encouraging the banks and financial institution to issue Deep Discount Bonds or Zero Coupon Bonds (ZCB). These will not only lower debt servicing costs in an initial phase of project but also enable the authorities to charge lower user charges in initial years. In other words user charges do not get “Front loaded” and thus reducing considerably the political difficulties faced by the authorities.
- 7.1.6 Refinancing terms may be streamlined to allow automatic refinancing, if project proponent's liability is unaffected provisions in model documents be altered to provide for timely approvals and deemed consent in such cases. The tenor of the refinanced debt shall be decided by the lenders based on their assessment of the project cash flows at the time of refinancing. The repayment thereof should be completed no later than one year prior to expiry of the concession period. The project proponent must explicitly agree that the revised repayment schedule will be considered for termination payment calculation without increasing the quantum of liability of the concessioning authority.

- 7.1.7 Analysis of infrastructure finance in India indicates that the financial instruments used are largely loans (through a consortium of lenders) and equity; bonds and other instruments are used to a very limited extent. Conventionally, projects are evaluated on a standalone basis. It is preferable to create a pool of assets in which investors can invest as this carries lower risk than individual projects. This can be 'administered' by any commercial bank. The investment can be of both equity and debt. It can be for greenfield projects, brownfield projects or to sell existing assets of developers or government.
- 7.1.8 Monetization of projects: Active identification of viable projects that have stable revenue flows after EPC delivery is recommended. This should be seen as an opportunity for monetisation which can attract risk-averse long term funding like pensions and endowments. By providing O&M PPP opportunities, the authority will be able to release budgetary funds for fresh EPC and start a virtuous cycle of fresh investment fed by additional revenues. This will also encourage larger inflow of foreign capital.

7.2 Strengthening the Processes of Lending Institutions:

- 7.2.1 As earlier recommended, project appraisal skills in lenders have to be built up on an urgent basis. This will help address various factors that could have contributed to the impaired assets problem being faced by many banks, though the Committee notes that these are largely for non-PPP projects.
- 7.2.2 The loan syndication methodology followed in the developed markets could be considered by lenders wherein a bank does the appraisal and then invites other lenders to join on terms and conditions already agreed between the lead syndicator and the borrowing company with some underwriting.
- 7.2.3 To restrict the number of banks in a consortium, which at times is also the consequence of debt size to be syndicated, part of the funding even during construction stage could be done through credit enhanced bonds, which if adequately enhanced, can attract financing from provident or pension funds – domestic and international. The RBI currently permits a 20% limit for banks, which may have to be enhanced to 40-45%. Banks will also have to build up their own risk assessment and appraisal capabilitiesⁱⁱ.

ⁱⁱSee Annex 6 : End Notes

CHAPTER 8: REVITALISING CONTRACTUAL PROCESSES

In Chapter 5, the Committee has discussed the issue of dispute resolutions and suggested institutional mechanisms for resolution of such disputes. Further to that, the Committee notes that current provisions in MCAs do not support speedy resolution of disputes. Stakeholders have stressed the need to not only address “legacy issues”, but also take steps to reduce cause for dispute to the extent possible. The Committee, in this chapter, also suggests additional changes at a generic level in the model documents, which may help in reducing the propensity of parties to enter into such disputes.

8.1 Changes in MCA

8.1.1 MCAs adopted in some sectors were extremely valuable in reducing transaction costs for the authority, enabling certainty on generic clauses and providing authorities with the comfort of an approved template that could be adapted for project specific requirements. However, these very advantages have also led to lack of flexibility and a reluctance to introduce project specific readjustment and reallocation of risks. The Committee has been unable to exhaustively study all the MCAs which would need sector-specific expertise and further detailed analysis. However as an illustration, some sector specific MCA issues are listed in this section.

8.1.2 The common law legal system, on which India has based its judicial system, enables better innovation, improved service delivery and better project structures. However, with the advent of technical, commercial, financial and legal knowledge providers, contract frameworks and models have become more voluminous and complex, leading to challenges in monitoring. Difficulties in forecasting accurately and envisioning different economic situations has led to under performance of such MCAs.

8.1.3 It is the Committee's view that concession agreements (or those in other formats) capture the interests of all participating stakeholders - users, project proponents, concessionaires, lenders and markets.

8.1.4 The Committee suggests the following changes in the MCAs:

- i. RFPs may not be issued until at least 80% of land required is available and delay in acquisition of the balance will not affect declaration of COD, partial COD and user comfort.
- ii. The qualification process may be streamlined to shortlist appropriate interested and qualified bidders for PPP projects.
- iii. In relation to the achievement of COD, if the concessionaire fails to achieve any relevant milestones but achieves the COD within the overall time frame, no liquidated damages need be paid and the concessioning authority should refund all liquidated damages paid by concessionaire in respect of delay in achievement of any milestone. Furthermore, liquidated damages for failure to achieve the COD should be payable only after the scheduled commercial operation date.

- iv. Judgments or orders of courts, which have Material Adverse Effect be construed as changes in law and the provisions of concession agreements be made applicable to such changes in law.
- v. The definition be amended such that a financial default under the substitution agreement occurs only if lenders finally determine that the default is such that it requires the substitution of the concessionaire.

8.2 Disputes Resolution

8.2.1 The Committee recognizes the need for a quick, equitable, efficient and enforceable dispute resolution mechanism for PPP projects. It is suggested that PPP contracts have clearly articulated dispute resolution structures that demonstrate commitment of all stakeholders and provide flexibility to restructure within the commercial and financial boundaries of the project, backed by:

- i. Sector specific monitoring and regulatory committeesⁱⁱⁱ set up as a platform to periodically revisit contractual and commercial relationships between parties. Such committees can perform if called upon by the parties after a minimum period of three to five years. Only officers who have decision-making powers may be enrolled in these committees.
- ii. The monitoring and regulatory committee and the dispute resolution mechanism must be independent of involvement in the public sector.
- iii. The mechanism for dealing with legacy issues and resolution of disputes has been detailed in Chapter 5.
- iv. Fundamental concerns during disputes relate to the extent of profits that the private sector is making. The Committee suggests that one-off profit seeking by a private party should not be a benchmark for policy making, but the project proponents continually evaluate the risk sharing framework and devise mechanisms that enable benefits to all stakeholders commensurate with their obligations.
- v. For effective and speedy dispute resolution independent sector regulators are essential.

ⁱⁱⁱSee Annex 6: End Notes

CHAPTER 9: REINVIGORATING THE SECTORS

Sector-specific Interventions

The Committee recognizes that sector-specific recommendations would require domain expertise and needs a much longer term than given to it. Responding to inputs provided by stakeholders, the Committee provides the following indicative (though not an exhaustive) list of suggestions which will need detailed expert study :

9.1 Power

9.1.1 In addition to the robust processes required for PPP projects as a whole, it is essential to ensure that sector-specific initiatives be undertaken in a manner that reflects the economic and business case of the sub-sector. The influence of one sector now stretches to a wide range of other sectors. Most power sector projects have not been developed under PPP frameworks. However, the challenges faced in the power sector have had a far reaching impact on infrastructure PPPs and the Indian economy. Several projects in the power sector have become unviable owing to reasons that include fuel linkages, over leveraging, and DISCOM-related issues.

9.1.2 For example, many thermal power projects have been affected by the availability of fuel, cancellation of mines allotments, unfavourable exchange rate, and change in regulations with fallout on fuel price. For this and other reasons, many projects with fixed-tariff power purchase agreements have been classified as NPAs. This has resulted in shrinking availability of bank finance for other sectors.

9.1.3 The Committee stresses that the larger issue of power sector loans needs to be immediately addressed. Failure to do this would lead to deepening of the crisis and locking up bank loans that hamper the ability to support investments across the board, including those in PPP projects.

9.1.4 The Build-Own-Operate (BOO) models of ultra mega power projects are addressed by the Central Electricity Regulatory Commission (CERC) as they relate to post-award changes with financial repercussions. Hence, the Committee has consciously not looked into those matters. Since the BOT model of PPP in the sector is yet to be mainstreamed, the Committee is restricting its remarks on the Power sector to the above.

9.2 Roads

9.2.1 Experiences with PPPs vary by sector, ranging from formative ones to very advanced ones with longer experience. The PPP projects in the roads sector are considered advanced in all aspects of maturity due to their relatively longer experience in India. This sector witnessed development of multiple PPP frameworks, model agreements and attracted developers and financial institutions alike. The sector also witnessed mixed results. The Committee recommends the following action to enable road sector projects to be implemented on PPP modality.

- 9.2.2 In the case of BOT toll projects, the NHAI can focus on projects with longer concession periods wherein, the NHAI and the concessionaire can opt for a revenue share, after amortization of major capital investments, on a case to case basis.
- 9.2.3 In case of projects that are not viable on BOT toll basis due to issues of traffic and very high capital cost, the options to fund the project through hybrid models, grant of VGF, part annuity, O&M grants, and debt instruments, maybe explored.
- 9.2.4 The exit clause for road developers maybe relaxed to enable concessionaires monetize their entire equity investment post-COD, subject to lenders' NOC and bid for new projects. In May 2015, the Cabinet Committee on Economic Affairs (CCEA) permitted 100% equity divestment after two years of completion of construction for BOT road projects across all concessions signed prior to 2009. The NHAI may approve changes in ownership in a definite timeframe.
- 9.2.5 All pending disputes including change of scope, delayed land handover, delayed COD, termination, cost overrun, delayed payments, penalties, and claims may be disposed of in a time-bound manner through an independent body with representatives of NHAI, developers, lenders and an independent chairman.
- 9.2.6 Going forward, new projects may adopt electronic tolling. For operational projects, the NHAI may encourage concessionaires to move to electronic tolling in a time-bound manner by incentivizing them with extension of the concession period.
- 9.2.7 The concessioning authority may undertake detailed project development activities (including demand assessment, soliciting stakeholder views on project structure) and financial viability analysis to estimate a shadow bid, which could be used to compare actual bids received. A bidder who quotes a very high revenue share may be asked to justify it by a business case presentation. On assessment, if the concessioning authority finds the bid unviable, it should be prepared to reject it.
- 9.2.8 The concession agreement should be equitable in terms of obligations of parties, performance standards (and an audit mechanism to assess performance standards of both parties), penalties, timeframe, and align project risks with anticipated revenues. The penalty mechanism may be in monetary terms, which helps the BOT operator to remain in the same financial position as estimated at bid-award. The concessioning authority may also extend the term of the concession agreement in proportion to time lost. In case the authority is unable to execute a particular task as part of its obligation, then it may be assigned to the BOT operator, and may reimburse the amount incurred by the BOT operator for completing the task.

9.3 Ports

- 9.3.1 The methodology and guidelines adopted for determining the ceiling tariff has been revised periodically by the Tariff Authority for Major Ports (TAMP) in 1998, 2005, 2008 and 2013. Frequent revisions have resulted in multiple business frameworks for similar nature of projects, depending on the period of their concession, which has led to concerns of developers who are evaluating and bidding for projects all the time. It is

suggested that a path for moving from pre-TAMP to current TAMP method be provided.

- 9.3.2 There is an urgent need to focus on strengthening the systems to speed up the overall environmental clearance process in general and in particular for the port sector by increasing manpower, infrastructure and competencies with statutory authorities at the state and central level. More institutions (at least two per each state) are required to be given authorization for conducting CRZ demarcation.
- 9.3.3 It is advisable to reorient the MCA by adapting best practices including the models followed in some minor ports (as in Gujarat) in terms of stipulating specified cargo handling capacity and qualitative parameters of facilities. The concession may also make the authority responsible for providing support infrastructure facilities (including land, reliable access to utilities, dredging, rail and road evacuation infrastructure) through enforceable obligations.
- 9.3.4 There is a need for clarity regarding assessment of stamp duty on concession agreements in the ports sector. Currently, there is considerable ambiguity and uncertainty whether the concession agreement is to be treated as an “Agreement” or “Lease” or “License”.
- 9.3.5 Various stakeholders, including developers and financial institutions have provided suggestions on modifications to MCA clauses, tabulated in Annexure 4. However, these are illustrative and a detailed sector-wise MCA analysis needs to be carried out by sector experts and authorities. The Committee has not undertaken a detailed review of the merits of the suggestions.

9.4 Airports

- 9.4.1 Airport privatization has been debated in government and private forums in relation to costs incurred (accusations of “gold plating” in a large airport), disagreement in tariff models that are proposed and consequent extent of user development fees. There seems to be a disconnect in how private sector and government proponents view airport projects, reflecting on aeronautical and non-aeronautical revenue accrual in projects.
- 9.4.2 The volume of passenger traffic has almost trebled in the last ten years, and independent reports predict a multiple increase in the coming decade or two, with most metro airports fast crossing their existing capacities, and requiring new facilities. Such growth numbers cannot be achieved with conventional procurement options, and there is a need to selectively utilize PPP frameworks in airport development. There would be multiple opportunities for city-side land development with appropriate contract structures including revenue share mechanisms.
- 9.4.3 It would be inadvisable to adopt sector-wide implementation approaches without basing them on viability of individual projects. The PPP projects have a role to play, given fiscal and capacity constraints, and it would be prudent to use such formats where project economics and institutional structures are conducive.

- 9.4.4 The structure of contracts and concessions need to be designed keeping in view experiences of implemented projects on PPP frameworks. The development of brownfield and greenfield airports with defined structure, revenue share mechanisms, standards, specifications and collaboration could be planned in advance to meet the impending needs.
- 9.4.5 Suggestions have been made by various stakeholders, including the AAI, for an appropriate PPP mechanism. It is recommended that the project development mechanism be evolved to encourage private participation by including the following elements:
- i. Develop a bidding criteria in tune with project economics to take into consideration non-aeronautical revenues.
 - ii. Provide guidance norms for design and costs in line with prevailing best practices and standards - for asset allocation of aero and non-aero facilities, undertaking capital expenditure and O&M expenditure.
 - iii. Set out financial structuring norms and acceptable practices for assessing revenues, costs, source of funds and other elements that have a bearing on project delivery standards.
- 9.4.6 To avoid regulatory uncertainties, concession agreement may stipulate important commercial parameters such as return on equity, policy, treatment of land for non-airport activities, treatment of cargo, ground handling, and fuel facilities, so as to avoid misinterpretation by the regulator while fixing the aeronautical tariff.
- 9.4.7 The Ministry of Civil Aviation should prepare a policy that addresses the expected growth parameters of the sector and promotes PPPs in the sector.
- 9.4.8 The Committee recognizes that to perform efficiently all stakeholders including sovereign service providers such as customs, immigration and security need to forge a unified partnership. Provisions may be made to ensure that all agencies work towards a unified objective of service delivery.
- 9.4.9 Strengthening the regulatory supervision of airports: currently various services are being provided or monitored by different agencies, with limited cross-cutting roles. The Committee suggests that the regulation aspects should be unified in a single body so as to ensure open access to all relevant activities for all operators, and guard against a monopolistic nature of essential activities such as access to fuel, landing facilities gates and parking.

9.5 Railways

- 9.5.1 The Committee suggests that relatively simpler PPP projects be commenced in the railways sector to build market credibility.
- 9.5.2 Projects could be brownfield assets such as monetization of existing station premises (to tap commercial revenue streams through optimal use of available floor space), or

heritage station buildings (through frameworks such as “Adopt-a-monument”). Greenfield development of stations, maintenance and operations of identified tracks (on a track access charge basis) could also be explored.

9.5.3 There are several models of PPP in the railways worldwide that could be adapted to the Indian context.

9.5.4 However, the railways would need to provide for an independent regulator able to adjudicate on technical issues such as track access charges.

CHAPTER 10: FAST FORWARD - PPPs 3.0

10.1 Potential for enlarging the domain of PPPs

- 10.1.1 Some countries have a legal framework for PPPs. The Committee recommends an assessment of whether enactment of PPP law will facilitate expansion of PPP into sectors including health, urban transport and other social sectors.
- 10.1.2 The Committee notes that as PPP landscapes mature, new challenges and opportunities will continue to emerge. These include innovative financing techniques to reduce cost to public authorities, improved project delivery techniques that can reduce cost of construction to private partners, and increased efficiency in risk mitigation. Macroeconomic developments would also affect PPP. However, there cannot be a single silver bullet to address all issues at one point. Hence, the Committee is of the view that periodic review of PPPs, as in the present Committee's remit, would help address issues before they become endemic and also mainstream innovations that improve delivery of PPP projects.
- 10.1.3 An Institute of excellence in PPPs, which the Committee feels is overdue, could undertake this task and present a White Paper to the government periodically.
- 10.1.4 Internationally, PPPs are prevalent in the urban, tourism and social sectors. These projects, however, would have very diverse characteristics owing to the inherent nature of services. The projects could witness hybrid models (from those that are used in the transport sector) where emphasis needs to be placed on tailored solutions and results. The Committee recommends appropriate project development activity for such projects, given the risk of high social cost arising due to poorly designed PPP projects.
- 10.1.5 With cities growing rapidly in size and population, there is a major space constraint to expand basic infrastructure.²⁴ Approximately 400 cities with a population of more than one lakh face severe shortage of services, finances and city management and governance issues overall. It is increasingly being acknowledged that the ULBs alone cannot address these issues.²⁵ The approach to developing urban infrastructure calls for an integrated development strategy, which includes mass rapid transport systems, drinking water and sanitation, solid waste management, urban roads, and other city infrastructure with involvement of citizens and participation of the private sector. The DEA has an ongoing pilot scheme for municipal bond financing of ring-fenced PPP projects which could become the model for future ULB project delivery.
- 10.1.6 The Government of India has been evaluating projects in the rural sector under the PURA (Provision of Urban Amenities in Rural Areas) scheme. There are also requirements to address other census towns that are not adequately covered under rural schemes. It would be useful to develop and implement a scheme that aims at simultaneous implementation of infrastructure services through PPP with a focus on

²⁴RBI Occasional Papers, Vol 29, No 1, Summer 2008, Public-Private Partnership in Indian Infrastructure Development: Issues and Options, L. Lakshmanan.

²⁵RBI Occasional Papers, Vol 29, No 1, Summer 2008, Public-Private Partnership in Indian Infrastructure Development: Issues and Options, L. Lakshmanan.

sustained service delivery for a specified operations period. This would be based upon the following principles:

- i. Optimizing delivery of infrastructure assets through convergence of different development schemes available for rural and small towns.
- ii. Use of government funds from existing schemes and implemented through a project mode with well-defined risk sharing arrangements.
- iii. Outcomes with delivery focus and fixed timeframes for implementation.

10.1.7 The Committee had requested Prof. Mahalingam of IIT Chennai and Dr. Jessica Seddon of Okapi Research to recommend, on the basis of international experience, PPP contracts designs that enable flexibility. Implementation of these proposals would require considerable upgradation of capacity for evaluating and monitoring complex contracts. The Committee recognizes that unless this precondition is met it would be somewhat early to introduce such innovations in our PPP Contracts.

10.2 Conclusions

10.2.1 In the final analysis, the success of deploying PPP as an additional policy instrument for creating infrastructure in India will depend on the change in attitudes and mindsets of all the authorities including public agencies partnering the private sector, government departments supervising the PPPs, and auditing and legislative institutions providing oversight of the PPPs. The PPP reflects a paradigm shift involving the private sector. It means moving away from “transaction to relationship” accommodating “give and take” between private and public sector partners, and finally accepting uncertainties and appropriate adjustments inherent in implementing long-time contracts. Given the market and technological uncertainties, the PPP management will take decisions based on incomplete information. Hence, a decision which looks problematic “ex-post” need not necessarily be considered as mala fide. The Committee urges all parties concerned to foster trust between the private sector and public sector partners in implementing PPP. As mentioned earlier in the report, PPP is an additional policy instrument to enable India to save time. Since the “demographic dead-lines” are staring at us, there is need to accelerate growth. By all accounts, there are only two or three decades left for India to complete the transition from a low-income country to a high-income and developed economy by overcoming the “middle income trap”.

ANNEXURES

ANNEX 1: INITIATIVES BY GOVERNMENT OF INDIA FOR PROMOTING PPPs

In order to bridge the infrastructure gap, and to create an enabling environment for private sector investment in infrastructure through PPPs, the Government of India has made a concerted effort to develop a dedicated PPP programme, with several initiatives to support PPP development. The initiatives include:

Institutional and Financial Support Mechanisms

1. A dedicated PPP cell was set up in the DEA to serve as the secretariat for the various committees that appraise and approve central sector projects and for innovative interventions and financial support mechanisms for facilitating PPPs in the country, and managing training programmes for capacity building for PPPs.
2. The appraisal mechanism for PPP projects has been streamlined to ensure speedy appraisal of projects, eliminate delays, adopt international best practices and ensure uniformity in the appraisal and guidelines. The notified appraisal mechanism includes setting up of the PPPAC responsible for the appraisal of PPP projects in the central sector. These include projects in roads, ports, civil aviation, tourism infrastructure, and housing.
3. Standardized bidding and contractual documents have been notified. These include: (i) Model Request for Qualification (RFQ); (ii) Request for Proposal (RFP) and RFP for technical consultants; (iii) MCAs for different sectors including highways (both national and state highways), ports, urban transport (metro), and power sectors.
4. Standardized contractual documents have been prepared and notified, such as sector-specific MCAs, which lay down the standard terms relating to allocation of risks, contingent liabilities and guarantees as well as service quality and performance standards, and standardized bidding documents such as Model RFQ and Model RFP.
5. The India Infrastructure Finance Company (IIFCL) has been setup with the specific mandate to play a catalytic role in the infrastructure sector by providing long-term debt for financing infrastructure projects. The IIFCL funds viable infrastructure projects through long-term debt, refinance to banks and financial institutions for loans granted by them, with tenure exceeding 10 years or any other mode approved by the government. Steps have been taken to use foreign exchange reserves for building infrastructure. The IIFCL has also set up an offshore SPV to utilize part of the foreign exchange reserves for infrastructure development. The IIFCL has also been authorized to raise tax free bonds for specified amounts for refinancing bank lending of longer maturity to eligible infrastructure, bid-based PPP projects.
6. The government introduced a scheme for financial support to PPPs in infrastructure, which provides VGF with the purpose of meeting the financing gaps for infrastructure PPP projects. The scheme provides financial support in the form of grants, one time or deferred, to PPP projects to make them commercially viable by providing VGF upto 20% of the total project cost by the Government of India and the sponsoring authority, if it so decides, may provide additional grants out of its budget upto a further 20%. Viability Gap Funding under the scheme is normally in the form of a capital grant at the stage of project construction.

7. While good quality advisory services are fundamental to developing well-structured, viable PPPs, the costs of procuring PPPs and particularly the costs of transaction advisors are significant. Development of robust projects with a sound financial structure and optimal risk allocation is critical for evincing market response in respect of the projects. The scheme for India Infrastructure Project Development Fund (IIPDF) has been launched to finance the cost incurred towards development of PPP projects. The IIPDF supports up to 75 % of the project development expenses.

Capacity Building and Mainstreaming of PPPs

8. A dedicated website for PPPs “www.pppinindia.com” giving comprehensive information on the PPP initiatives and various knowledge resources and government guidelines has also been developed along with a web enabled database “www.infrastructureindia.gov.in” to provide information on infrastructure projects including PPPs. The database is a repository of information on infrastructure projects and their status of implementation across sectors and regions.
9. As part of wide ranging efforts for knowledge dissemination on PPPs, the DEA has developed online toolkits to help project authorities design and develop projects and has published several knowledge products for PPP practitioners. The toolkits cover five infrastructure sectors, namely highways, water and sanitation (W&S), ports, municipal solid waste management (SWM), urban transport (bus rapid transport systems - BRTS).

Renegotiation of PPP Contracts

10. A report on the framework for renegotiation of PPP contracts has been developed, with a particular focus on the National Highway and Major Port Concessions. The report identifies issues and changes needed in the contractual and institutional arrangement post-award of the projects. Work on identification of the legal clauses in concession agreements is underway.

Contract Management

11. Guidance material has been developed for the highways, ports and the education sectors for improving the post-award management of PPPs, with particular focus on day-to-day monitoring and proactive management of key risks to preserve the interests of the users of infrastructure services and the concessioning authority. The manuals have been developed on a step- by- step approach on various activities required to be undertaken at different stages of the project lifecycle. The web-based online toolkits will be available in the public domain for easy access on www.pppinindia.com

PPPilot Project Programme

12. The DEA also has a PPP Pilot Projects Programme where the process of structuring PPP projects in challenging sectors is hand held by the central government to develop demonstrable PPP projects. The objective of the initiative is to develop robust PPP projects and successfully enable bids for them to establish their replication potential in the sectors concerned.

ANNEX 2: RECOMMENDATIONS FOR ZERO COUPON BONDS (ZCB)

Introduction

1. India needs to deepen its capital market so that infrastructure projects can tap a wide variety of bond market instruments. One such instrument which appeals to both infrastructure projects, on the one hand, and certain types of bond investors, on the other, are zero coupon bonds (ZCB).
2. A zero coupon bond (commonly called 'zeroes'), unlike a regular bond, pays no periodic interest to the holder. Conceptually, it pays a single premium, over and above the principal amount, on its date of final maturity.²⁶ An investor can either hold the instrument until maturity, or trade out of it at anytime prior to its final maturity at a market or negotiated price. Such bonds can either be rupee or foreign currency denominated. Depending on demand, the maturity of such bonds can range between three years to ten years or more.

Benefits to Issuers

3. In the case of an infrastructure project²⁷ such bonds can be a useful source of long-term capital particularly during the construction phase when the project does not generate any cash flows. Since no periodic interest has to be paid on a ZCB, the cash flow characteristics of a greenfield project match well with the cash outflows of a ZCB. Once the project is completed, the project company can raise new debt at a lower cost and retire the ZCB.
4. Another benefit of a ZCB is that other lenders gain comfort from it because their loans may be structured to be repaid prior to the maturity of the ZCB. In this situation, the ZCB effectively performs the role of subordinated debt and serves to enhance the creditworthiness of other project debt.

Benefits to Investors

5. A ZCB is considered as a high-risk security because its repayment is deferred until maturity. However, certain investors like its cash flow characteristics and prefer to invest in them.
6. An insurance company or a pension fund has long-term liabilities. The availability of long-term ZCBs enables them to lock in a fixed yield for the entire maturity of their investment. Thus by investing in ZCBs these institutions are able to avoid the reinvestment risk arising from declining interest rates.
7. Certain hedge funds, particularly those employing interest arbitrage strategies, may also invest in ZCBs in order to lock-in the yield on their investment. They may trade out of the instrument when market rates move in the desired direction.
8. Central banks and bond market players also like to see the development of a ZCB market of differing maturities. A mature ZCB market helps central banks create and

²⁶In practice the bond is issued at a deep discount to its face value. On the date of maturity, the investor receives a single payment equal to the face value.

²⁷In the case of infrastructure and real estate projects, the proceeds of zero coupon bonds should be kept in an escrow account and used only for the purpose disclosed in the related bond prospectus or offer document.

map a yield curve of various interest rates corresponding to various maturities. The existence of a zero curve, helps in the pricing of non-zero coupon bonds as well as other government and corporate bonds.

Sinking Fund Characteristics and Regulations in India

9. The issuer of a ZCB can repay the bond at maturity in various ways. It can voluntarily begin setting aside a sinking fund out of cash flows a few years before the maturity of the ZCB, or it can raise new debt to repay the maturing zero. If the ZCB is used to finance the construction of a greenfield infrastructure or real estate project, it will not be feasible to set up a sinking fund because the project would not have cash flows to create a sinking fund.
10. A sinking fund requirement should not be mandatory. It should be a feature which is negotiated by the bond investor and the bond issuer. For example, if the issuer has a satisfactory projected debt service cover ratio and, in the bond investors' judgment, it is considered creditworthy, then several bond investors will not require a sinking fund.
11. What is more important is that the bond is rated by at least two rating agencies. The market will resolve the issue by then factoring in the presence, or absence, of a sinking fund in the negotiated price of the ZCB. If the yield is considered low in terms of the risk, bond investors will not invest in a no-sinking-fund ZCB. If the price correctly reflects the risk characteristics and opportunity cost, then bond investors will consider investing in a no-sinking-fund ZCB.
12. A mandatory sinking fund has various disadvantages and essentially aborts the development of the bond market. The reasons are twofold, as stated below:
 - i. Firstly, the amounts kept aside in a sinking fund earn a negative spread that is, the implicit interest cost of a ZCB exceeds the yield on a sinking fund.
 - ii. Secondly, certain investors who have the capacity to assume the risk of a no-sinking-fund ZCB are denied the supply of such instruments. The net result of these two factors results is the killing, rather than the development of a lively corporate bond market.
13. India has three regulations governing mandatory sinking funds, which deter the development of a bond market in India. These have been issued by the Ministry of Corporate Affairs, SEBI and RBI.
14. The rules under the Companies Act, 2013²⁸ require that the bond issuing companies mandatorily create a debenture redemption reserve (DRR) and set aside a sinking fund equal to 15% of the amount of debentures, maturing during the financial year, in low-interest-bearing investments, comprising bank deposits and certain other specified securities.

²⁸Section 71(5) of the Companies Act, 2013 requires every company that issues debentures to create a debenture redemption reserve (DRR) account out of its profits. Such an account can only be utilized to redeem debentures. The Companies (Share Capital and Debentures) Rules, 2014 ('Rules') issued by the Ministry of Corporate Affairs on 27 March 2014, mandatorily required companies to create a DRR equivalent to at least 50% of the amount raised through the debenture issue. Subsequently, the Rules published in the Official Gazette on 3rd April 2014 (effective from 1st April 2014), changed the requirement for creation of DRR.

15. The effect of this sinking fund requirement, is to increase the cost of bond funding for issuers due to the negative spread on DRR investments and the yield on the bonds they have issued.
16. The RBI mandates²⁹ that banks should not invest in ZCBs issued by NBFCs unless the issuer NBFC builds up a sinking fund for all accrued interest and keeps it invested in liquid investments and securities (government bonds). On the other hand, there is rightly no restriction on mutual funds, foreign portfolio investors (FPIs) and insurance companies which are permitted to hold ZCBs. It is seen that Fixed Maturity Plans (FMPs) and FPIs prefer to invest in ZCBs.
17. The SEBI, under its SEBI (ICDR) Regulations, also requires bond issuers to create a debenture redemption reserve in accordance with the provisions of section 117C of the Companies Act, 1956 which was replaced by section 71 of the Companies Act, 2013).

Taxation

18. From a tax perspective, India has two types of ZCBs – notified and others:
 - i. Notified bonds

For notified ZCBs, the tax treatment stipulates that the discount or premium would be taxed as capital gains and not as interest. Long-term capital gains on such bonds would be taxed at a concessional rate of tax, that is at 10% of the gains computed without indexation of cost. The second advantage is that the tax on income from such bonds does not have to be paid each year, but only on maturity or sale. Further, the redemption price paid by the issuer is not subject to TDS. Therefore, the advantages of notified ZCBs include a beneficial tax rate of 10% on Long-term capital gains against 30% on interest, tax required to be paid only on maturity or sale and no TDS levied on sale proceeds.

- ii. Other than Notified bonds:

In 2002, the CBDT issued a circular, clarifying that the income on such bonds was taxable annually by computing the difference between the market prices of such instruments at the end of the year and at the end of the preceding year, and treating such difference as interest income of the year.

Therefore, the disadvantages of non-notified bonds include taxability at 30% as interest income, wherein tax has to be paid on the basis of MTM valuation without actual receipt of income. The quantum of interest income could vary drastically every year due to fluctuation in the rate of interest, leading to changes in market valuations.

A liability to short-term capital gains tax (30%) will occur in case of intermediate transfer before maturity. Furthermore, there would be a liability for deducting TDS on redemption proceeds – timing difference between offering of income (annually) and claim of TDS (only at maturity).

²⁹The Gazetted Rules exempt certain bond issuers from creation of the DRR and in case of other bond issuers, reduce the percentage of DRR from 50% to 25% of the value of debentures issued.
Master Circular on Bank Finance to Non-Banking Financial Companies (NBFCs), https://rbi.org.in/Scripts/BS_ViewMasCirculardetails.aspx?id=8994.

Accounting issues

19. The Ministry of Corporate Affairs has laid down a road map for companies above a specified threshold (Rs. 500 crore net worth and above) to mandatorily prepare their accounts from 1st April 2016 in accordance with IND(AS) (new set of Indian standards converged with international standards).
20. These standards are to be applied in a phased manner over a period of time. In terms of the International Financial Reporting Standards (IFRS) liability is recorded at present value and discount is factored in while arriving at the effective interest rate of the instrument which is amortized over the term of the ZCB.
21. The “un-amortized” amount is parked under the “other assets” schedule of Revised Schedule VI and is bifurcated into current and non-current based on its expected amortization in the next 12 months.

Recommendations

22. Government encouragement: the government should encourage the creation of a rupee-denominated, ZCB market and should be an active issuer in this market by offering zeroes of maturities upto 15 years. This will also help promote the general bond market in the country and attract investments from certain categories of investors such as pension funds and insurance companies.
23. Removal of Mandatory Sinking Fund Requirement: There should be no mandatory sinking fund requirement and such requirements in the Companies Act, 2013 and RBI's Master Circular should be expunged. Instead, the RBI should institute a prudent investor architecture in the financial institutions it regulates.
24. TDS: exemption from TDS should be provided where the investment is coming in for infrastructure projects.
25. Repatriation of income: relaxation from restrictions should be provided to foreign investors for repatriation of income where investments are made for infrastructure projects. The investment climate should not be clouded by confusing, obstructive, non-transparent tax administration.
26. Cell for infrastructure related taxation: a separate cell should be created in the tax administrative setup to give easy pass through for investment in infrastructure so that investors do not face difficulties by obscure and contradictory application and understanding of tax laws and inefficiencies in the system.
27. Taxation of ZCBs: all ZCBs should be taxed in the same manner as they are for notified zero coupon bonds. In the case of all ZCBs held for three years or longer, the capital gains determination should factor in increases in the relevant inflation index.
28. Central Board of Direct Taxes (CBDT), is required to issue a notification which will broadly cover: (a) eligibility, (b) tenure of bonds, (c) rate of interest, and (d) limits of repatriation, subject to the rules of FEMA. Additionally, it will need to notify “pass through” benefits. RBI and SEBI can frame appropriate regulations in this regard. The notification will also stipulate that no TDS should be deducted.

ANNEX 3: PROPOSED INSTITUTIONAL MECHANISM OF IPRC AND IPAT

Reference of Actionable Stress and Admission

1. A stakeholder seeking reference may move the IPAT for setting up of a 'Infrastructure PPP Project Review Committee' (IPRC). Constitution of a multi-disciplinary Expert Committee, that is an IPRC, with relevant expertise³⁰ from a credible panel of experts would be crucial.
2. Upon such application being made, the IPAT will hear interested parties in a time-bound manner to consider the admissibility of the reference, provided that the IPAT will not entertain applications from strangers to the project who may try to seek orders from the IPAT on the ground of 'public interest'.
3. The IPAT shall, after hearing the parties concerned, with a reasoned order decide on admissibility. If it considers it to be a fit case, the IPAT shall make a reference to the IPRC for its recommendations based on the Terms of Reference (ToR) finalised by the Tribunal.
4. The order making or rejecting reference should be:
 - (a) A reasoned order evaluating the facts of the case in context of the statutory objectives and principles and guidelines; and
 - (b) Dwell upon how the reference meets the stated policy objectives.
5. The tribunal's order making or rejecting a reference should not be permissible for appeal at that stage since it constitutes the tribunal's preliminary view.
6. An order rejecting reference should not be a bar to a subsequent application by the same or any other concerned party. The IPAT may take a different view on the subsequent application, if justified by the circumstances of the case as recorded in writing.
7. The order of reference would constitute a prima facie view on the issue whether the economic viability of the project requires reconsideration by the IPRC, and guidelines for the IPRC to evaluate the project. The IPAT will fix the time limit within which the IPRC would issue its final recommendations.

Interim and miscellaneous orders

8. The IPAT will have the power to pass interim orders in relation to the project, or any of the contracts in relation to the project. The interim arrangement can continue till an order upon the application seeking reference is passed or till the IPAT passes a final order after receiving recommendations of the IPRC. Since such an order may affect the interests of a stakeholder to the project, such interim order will be appealable before the Supreme Court of India. At the stage of issuing interim orders, the IPAT may impose such terms and conditions on the party seeking interim protection as it may deem fit to safeguard the interest of other parties with respect to the final outcome, including costs and damages associated with the interim measures if found without merits later.

³⁰Legal, financial, economic and technical expertise relevant to the industry concerned and the nature of issues in reference.

9. The IPAT may also pass orders in aid of the proceedings before IPRC. For example, an order directing any person to appear or depose before the IPRC or to produce documents. The IPAT will continue to exercise supervisory jurisdiction over IPRC till the time the latter issues its final recommendations. This supervisory power may include the power to substitute an IPRC member in case of death or unavailability. The IPAT may also decide about the question of bias or any serious irregularity in the IPRC proceedings.
10. The IPAT will also have the power to review any order passed by it. The grounds of review may be similar to those provided in Order 47, Rule 1 of the Civil Procedure Code, 1908, with the review application to be filed and disposed of within prescribed time limits.

Infrastructure PPP Project Review Committee (IPRC)

11. If the IPAT takes a prima facie view in favour of an application for reference, it will constitute an IPRC from the panel, giving due consideration to the requirement of the issues to be decided. The IPAT may also consider the views of the parties regarding selection of the panel members.
12. The members to the IPRC will be selected by the IPAT from a pre-approved panel of experts after obtaining their consent. The members will be persons of eminence having extensive knowledge and experience in various issues affecting a PPP project. Even a foreign national may be selected on the panel by the tribunal. Such persons could be experts in economics, finance, legal or specific sectors such as roads, railways and ports and will act as consultants whenever they are selected by the IPAT to act in an IPRC.
13. The role of IPRC members will not be that of arbitrators and will not act in the arbitral capacity. [The role of an expert is different from that of an arbitrator. This division is provided in the Expert Determination Rules, 2010 (Australia), Standard form Public Private Partnership Agreement, 2013 by New Zealand Government and in the standard contract (Draft), 2012 of UK].
14. The selected members of the IPRC, in principle before accepting the appointment, may be required to submit to the IPAT a statement of their qualifications and a statement of their impartiality, independence and disclosure of any conflict of interest and undertaking of confidentiality. [Reference: as an instance, Arbitration Rule 6(2); Conciliation Rule 6(2), Article 13(2) of the Arbitration (Additional Facility) Rules issued by International Centre of Settlement of Investment Disputes (“ICSID”) has stipulated a format for a declaration³¹ for arbitrators and the conciliators. The declaration is required to be made on case to case basis. A similar approach may be considered in the case of the IPRC.]
15. The IPAT will decide the terms of engagement of IPRC members, including their fee. The IPAT may also order a party or parties connected to the project to bear the cost of reference.

³¹The format of the declaration may be accessed at <https://icsid.worldbank.org/apps/ICSIDWEB/arbitrators/Documents/Declaration%20-%20ICSID%20Convention%20Conciliation.docx>

16. The parties to be represented at any preliminary conference or meeting convened by the IPRC to agree on procedural matters should comply without delay with any direction or ruling by the IPRC as to procedural or evidentiary matters. [Reference:the concept of preliminary conference is found in Rule 8 of the Expert Determination Rules, 2010 (Australia) to allow the parties to discuss and agree on the issues in dispute and formulate the procedures under which the issues can be clarified and agreed upon.]³²
17. The parties will be entitled to make oral and written submissions to the IPRC within a definite time detailing each party's understanding of the factual background of the case, its position on how the case should be resolved, relief asked for and arguments in support of its position.
18. The parties will be entitled to file a response to the other parties' written submission.
19. The IPRC will give its non-binding recommendations to the IPAT spelling out with reason:
 - (a) Whether a case is made out for a review of the project and the changes required in the framework or working of the project to make it economically sustainable for its lifetime;
 - (b) The recommendations shall keep in mind the principle referred to in Box 7 (ii) in context of the terms of the contract.³³
20. The IPRC may also issue interim recommendations if the circumstances so require.
21. In reaching the determination, the IPRC will take into account the submissions of the parties and may also:
 - (a) Rely on their own knowledge, skill and experience; and
 - (b) Make their own enquiries without reference to the parties.
 (Reference: Rule 89 of the Standard form Public Private Partnership Agreement, 2013 of the Government of New Zealand).
22. The members of the IPRC will maintain confidentiality of the information and documents disclosed by the parties for the purpose of making recommendations, unless the disclosure is compelled by law.
23. The IPRC's recommendation report should:
 - (a) come out within a definite timeframe set by the IPAT and in case of delay, IPRC should provide explanation for such delay.
 - (b) carry corrections of any errors occurring in its recommendations but may not review the same unless ordered by the tribunal.

³²Chile follows an approach similar to Australia where the parties are required to settle the issues through negotiations. In the event the negotiations are not successful, any of the parties may appeal for conciliation.

³³A contract should not be: (a) opened due to endogenous reasons; (b) if the risks are allocated appropriately, objective exogenous reasons could lead to renegotiations only in extreme circumstances; and (c) some renegotiations may be necessary due to changes in policy (subjective, political and exogenous reasons), but that can also open the window to opportunistic behaviour of the policy maker (not all policy initiatives are legitimate). [Source: Public Private Partnerships for Transport Infrastructure: Renegotiations, How to Approach Them and Economic Outcomes Roundtable Summary and Conclusions, Issued by International Transport forum].

The Infrastructure PPP Adjudicatory Tribunal

Constitution of the tribunal

24. There is sufficient guidance available under other statutes and also judgments of the Supreme Court of India. These can be taken into consideration while framing provisions for the constitution of the tribunal.
25. It must be prescribed by statute to ensure that the tribunal contains the right mix of persons from legal as well as technical backgrounds.

Jurisdiction of the tribunal

26. The IPAT will not be able to assess the need for a review of a particular project, unless the statute itself provides the framework and the guidelines³⁴ which will be the touchstone for the IPAT for:
 - (a) passing any order of reference;
 - (b) evaluating the IPRC recommendations and
 - (c) finally determining the question of review of the project.

Final Order

27. Upon receiving the recommendations from the IPRC, the IPAT shall:
 - (a) Issue time-bound public notice informing all stakeholders of the summary recommendations being taken up for final consultation and permitting them to participate.
 - (b) Give an opportunity of hearing to the parties concerned with the project. The hearing will have to be conducted within a time limit without unnecessary extensions.
 - (c) Upon receiving the IPRC's recommendations, and after hearing all concerned parties, the IPAT would proceed to pass a final order on the reference. The tribunal would have the authority whether or not to accept the recommendations, or to pass such other orders in relation to the project as it may be deemed expedient.
 - (d) The IPAT in its final order will have the power to order change to any contract or other document in relation to the project (including any direction to the government affecting its policy). Ultimately, it should be left to the IPAT to decide by a reasoned order and to pass appropriate directions keeping the overarching statutory principles and guidelines in mind (paragraphs 1-4 and 10).
 - (e) Should the IPAT consider it fit to remand to IPRC for recommendations, it should do so in a time-bound manner and this shall not want a re-hearing.
28. The final order made by the IPAT will be eligible for appeal before the Supreme Court of India.

³⁴Two of the aspects which may be considered for invoking the tribunal's jurisdiction are:

- 1) If the central or state government, in its capacity of a concessioning authority, demands a change in project, the contractor may prefer an application to the tribunal to adjudicate, on the following grounds (Source: Section 11.3.4 of Standardization of PF2 contracts, for Ports, draft -2012)-
 - (i) if it requires the services to be performed in a way that as per the contractor, infringes any law or is inconsistent with good industry practice;
 - (ii) if it would cause any consent to be revoked (or a new consent required to implement the relevant change in services to be unobtainable);
 - (iii) if it would materially and adversely affect the contractor's ability to deliver the services;
 - (iv) if it would materially and adversely affect the health and safety of any person;
 - (v) if it would require the contractor to implement the change in services in an unreasonable period of time;
 - (vi) if it would (if implemented) materially and adversely change the nature of the project (including its risk profile); and
 - (vii) if the concessioning authority does not have the legal power or capacity to require the implementation of such a change.
- 2) A material change in scope leading to the insurance company being exposed to substantially increased risks.

ANNEX 4: STAKEHOLDER SUGGESTIONS ON MODIFICATIONS TO MCA CLAUSES

ROADS

1. The exit clause for road developers may be relaxed to enable concessionaires to monetize their entire equity investment post-COD, subject to lenders' NOC and bid for new projects. In May 2015, the Cabinet Committee on Economic Affairs (CCEA) permitted 100% equity divestment after two years of construction completion for BOT road projects across all concessions signed prior to 2009. The NHAI may grant approval for change in ownership in a definite timeframe or alternatively provide for deemed approval mechanism.
2. During implementation, in case of termination on account of either the concessionaire or concessioning authority's default, the debt due maybe taken over by the NHAI (inserted from the NHAI document).
3. The procedure for 'Change of Scope' maybe streamlined (cost implication, sharing, and funding timelines). The concessionaire shall not undertake any change in the scope of work unless it has been approved and advance paid by the NHAI. Furthermore, the NHAI will pay interest for any delay in the release of such payments. The concession agreement maybe suitably modified to reflect these changes.
4. Waiver obtained by the NHAI from the developer towards its right for claim or compensation may be disallowed, subject to the conditions laid out in the concession agreement.
5. As Project Completion Date/Pre-Appointed Date, all land which may prevent the construction of any critical element such as toll plaza, structures having revenue implication upon COD (such as bridges and bypass where toll rates are linked to structure cost) and thus affect issuance of Provisional Certificate, may be granted upfront and this Condition Precedent cannot be waived by the NHAI.
6. Under the MCA, 80% of vacant and unencumbered land is to be handed over to the concessionaire on the appointed date and the remaining 20% within 90 days. In practice, the NHAI has been declaring the appointed date on the publication of 3D notification of the NH Act which is the date on which the lands vests absolutely with the government. Actually, the determination of the compensation amount under Section 3G and its payment under 3H takes anything from six months to one year from the 3D notification and this leads to disputes regarding extension of time.
7. The NHAI may allow a charge on the receivables in favour of the lenders from date of accrual, subject to fulfillment of statutory liabilities, payment of government taxes and payments relating to construction of the project highway.
8. The concession agreement needs to be modified to include assignment of rights and “obligations” in clause 2.1 of the substitution agreement which states assignment of only rights and does not mention the obligations of the concessionaire.

PORTS

9. The calculation methodology for detailing storage charges needs to be streamlined. Either the storage charges can be removed from the tariff fixation process, or the annual revenue requirement from cargo handling activity can be apportioned over two sources: (i) cargo handling charges, and (ii) miscellaneous charges. The share of storage charges in annual revenue requirement can be added to the share of cargo handling charges. To ensure that there is no evacuation deficiency (due to not having storage charges), tariff guidelines may prescribe maximum number of days of dwell time that the concessionaire may allow to the users. In case storage charges cannot be removed from the tariff fixation framework and are to be levied, then the anomalies in fixation of storage charges are to be removed. A formula taking into account the evacuation pattern and volume of cargo expected to be stored for each week during the evacuation period may be used to arrive at the storage charges.
10. Changes may be made to the concession agreement to ensure that the project facilities and services have to be offered on a first come first serve basis. The concessionaire may offer preferential or priority berthing to any one or more shipping lines or vessel owners or operators to optimize the use of the project facilities and services. Such preferential or priority berthing shall be subject to the priority berthing norms as may be mutually determined by the parties in accordance authorized under applicable laws or guidelines issued by the government concessioning authority.
11. In accordance with the present Article 7.1 (a) (xii), the concessionaire is required to meet the minimum cargo requirement i.e. Minimum Guaranteed Cargo (MGC) as prescribed in the MCA. A default on this score can trigger termination of the MCA. It is to be noted that the prescribed MGC may not be achieved due to a variety of reasons including the reasons beyond the control of the concessionaire. Taking into consideration the fact that it makes no difference to the concessioning authority, if the concessionaire makes up deficiency in one type of cargo by exceeding MGC in other cargo, introduction of concept of minimum guaranteed revenue in place of MGC may provide some flexibility to the concessionaire. Accordingly, the Committee therefore recommends that the concept of “Minimum Guaranteed Cargo” may be replaced by “Minimum Guaranteed Revenue”.
12. The MCA needs to be equitably structured for minimizing losses (non-achievement of financial closure) or the consequential implication on time and cost overruns and operational performance as also the environment, health and safety (EHS) standards arising due to delay in achieving the conditions precedent. Handing over port assets without encumbrances after submission of performance guarantee by the concessionaire may be made a condition precedent. Time for fulfilment of conditions precedent must be enhanced to 180 days from the existing limit of 90 days.
13. It is suggested that the condition precedent of furnishing the O&M contract be changed to furnishing of undertaking to enter into such contract within a specified timeframe, with a stipulation that a failure to comply shall constitute a Concessionaire

Event of Default. The MCA must incorporate a provision for utilization of idle capacity per specific terms and conditions as the parties may agree, with a view to optimally utilize the installed capacity.

14. The MPT Act be amended to provide a comprehensive expert adjudicatory mechanism with specific statutory guidelines governing the economic and welfare aspects of the port concessions to guide the discretion of adjudicating authorities.
15. A multi-disciplinary expert regulator empowered to constitute a bench of suitable experts at the first instance be constituted.
16. Time bound expert adjudication be provided for in the MCA with a panel of experts from different disciplines.
17. Since ad-hoc arbitration is time consuming and expensive which may lead to challenges in courts of law and resultant delays, an expert institutional arbitration could be an option.

ANNEX 5: LIST OF ABBREVIATIONS

ASSOCHAM	:	Associated Chambers of Commerce of India
BOO	:	Build Own Operate
BOT	:	Build Operate and Transfer
BRTS	:	Bus Rapid Transport Systems
CBDT	:	Central Board of Direct Taxes
CCEA	:	Cabinet Committee on Economic Affairs
CERC	:	Central Electricity Regulatory Commission
COD	:	Commercial Operations Date
DBFOT	:	Design, Build, Finance, Operate and Transfer
DCCO	:	Date of Commencement of Commercial Operations
DEA	:	Department of Economic Affairs
DISCOM	:	Distribution Company
DRR	:	Debenture Redemption Reserve
DRAT	:	Debt Recovery Appellate Tribunal
DRT	:	Debt Recovery Tribunal
EMDE	:	Emerging Markets and Developing Economies
EPC	:	Engineering, Procurement and Construction
FMPs	:	Fixed Maturity Plans
FPIs	:	Foreign Portfolio Investors
GFCF	:	Gross Fixed Capital Formation
ICSID	:	International Centre of Settlement of Investment Disputes
IDFs	:	Infrastructure Debt Funds
IFRS	:	International Financial Reporting Standards
IIFCL	:	India Infrastructure Finance Company Limited
IIPDF	:	India Infrastructure Project Development Fund
InvITs	:	Infrastructure Investment Trusts
IPAT	:	Infrastructure PPP Adjudication Tribunal
IPRC	:	Infrastructure PPP Project Review Committee
ISAC	:	Independent Settlement Advisory Committee
JV	:	Joint Venture

LPVR	:	Least Present Value of Revenue
MCA	:	Model Concession Agreement
MORTH	:	Ministry of Road, Transport and Highways
MOSPI	:	Ministry of Statistics and Programme Implementation
NFC	:	National Facilitation Committee
NHAI	:	National Highways Authority of India
NPA	:	Non-Performing Asset
O&M	:	Operations and Maintenance
PLF	:	Plant Load Factor
PPIAF	:	Public-Private Infrastructure Advisory Facility
PPP	:	Public Private Partnership
PPPAC	:	Public Private Partnership Appraisal Committee
PSU	:	Public Sector Undertaking
QCBS	:	Quality- Cum-Cost-Based Selection
RFP	:	Request for Proposal
RFQ	:	Request for Qualification
SARFAESI	:	Securitization and Reconstruction of Financial Assets and Enforcement of Security Interest Act, 2002
SAROD	:	Society for Affordable Resolution of Disputes
SOEs	:	State Owned Enterprises
SPV	:	Special Purpose Vehicle
SWM	:	Solid Waste Management
TAMP	:	Tariff Authority for Major Ports
TDS	:	Tax Deducted at Source
TPC	:	Total Project Cost
ULBs	:	Urban Local Bodies
VGf	:	Viability Gap Funding
W&S	:	Water and Sanitation
ZCB	:	Zero Coupon Bonds

ANNEX 6: END NOTES

- i DEA could develop a unit that could be tasked with creating a sector specific repository of PPP experience and developing a framework of experience sharing/ hand-holding during development, construction and operations phases by providing precedence of already implemented projects. Other responsibilities may be
- to train respective ministry / state cadres tasked with developing / implementing PPP projects
 - to hand hold specific ministry / state projects
 - to provide operational oversight for projects being executed within respective ministry/ states

Larger states with well-developed sector pipelines could have separate sector based PPP units. Large ULBs with adequate staff assigned to different infrastructure sectors could be treated in the same fashion as a state. Small ULBs without adequate staff to be facilitated by a separate Urban PPP Unit at State Level.

ii. Illustrative Checklist for Project Appraisal

Aspect	Risk area	Illustrative aspects that may be examined
Group/ sponsors/ promoters	<p>Entity/ people behind the project are critical in limited/ nonrecourse project financing, first for completing the project, including any additional support that may be required, and then for operating the same successfully - revenue streams take time for realisation and the expenditure has to take place first over a future period of time.</p> <p>Assessment, therefore, of their capacity/ capability, track record, experience, project management team, etc. assumes significance</p>	<ol style="list-style-type: none"> 1. Experience of Promoters/ shareholders in the proposed line of business 2. Track record of Promoters in project execution/ management/ delivery, of comparable scale 3. Experienced Promoter team for execution/ operations of projects of similar nature and scale. 4. Group resources - financial, managerial, etc.- to take up new/ current projects - visibility on equity flow and meeting any contingencies like cost overrun, etc. 5. Outlook for promoter core business. 6. Status of physical/ financial resources for other projects at hand with the promoters 7. Group/ sponsor leverage – they are not raising debt to provide equity for new projects/ business ventures. 8. Status of other projects at hand with the promoters - difficulties/issues. 9. Corporate governance - Group reputation/ professional management 10. Promoters are not faced with past defaults, material legal/ regulatory action etc. 11. Major promoter has investment grade ECR < 1yr old 12. Major promoter has acceptable internal rating < 1yr old 13. Project internal rating/ KYC report - acceptability

<p>Sponsor (If holding co.)</p>	<p>Corporates at times create a holding company as a part of the Group to take up multiple infrastructure projects on SPV basis. The holding company is virtually a shell company without any financial or other capabilities and depends upon some Group companies/ others for equity flow and other requirements.</p> <p>Foreign entities/ investors also create similar structures for project development. Equity flow/ other sponsor related commitments/ obligations will require due diligence on the source/ higher level of holding structure. In the case of foreign entities/ owners, due diligence in the country of origin, intermediate countries etc. will be required. Similarly, some of the shareholders may not be willing to extend uncapped sponsor support for project completion, etc. or not be agreeable for joint and several liabilities, and so on.</p>	<ol style="list-style-type: none"> 1. Key sponsors are resident overseas - equity, management control will flow through multiple layers. 2. Clarity/ visibility regarding timely flow of equity in required amounts as also to meet any additional sponsor funding contingency on account of cost overrun etc. 3. Detailed due diligence - legal and financial resources/ capacity - to be carried out regarding the ultimate sponsors/promoters and any intermediate entities by acceptable consultants. 4. Domestic regulatory framework - permits proposed investment. 5. Sponsors capacity and readiness to provide sponsor support to meet their contingent obligations - cost overrun, etc. 6. Sponsors can be bound legally to meet their obligations and commitments (e.g. cost overrun, timely equity infusion) 7. Valid charge can be created & perfected, as required (e.g. pledge of shares, legal jurisdiction, charge on assets, registration of charge)
<p>Company/ SPV executing the project</p>	<p>Corporates at times create a holding company as a part of the Group to take up multiple infrastructure projects on SPV basis. The holding company is virtually a shell company without any financial or other capabilities and depends upon some Group companies/ others for equity flow and other requirements.</p> <p>Foreign entities/ investors also create similar structures for project development. Equity flow/ other sponsor related commitments/ obligations will require due diligence on the source/ higher level of holding structure. In the case of foreign entities/ owners, due diligence in the country of origin, intermediate countries etc. will be required. Similarly, some of the shareholders may not be willing to extend uncapped sponsor support for project completion, etc. or not be agreeable for joint and several liabilities, and so on.</p>	<ol style="list-style-type: none"> 1. Project Company - incorporated entity. 2. Company is set up as a JV - roles, responsibility, obligations, commitments of all shareholders should be clearly defined and acceptable. 3. Management team/ Board should have a good blend of competent professionals experienced in the proposed sector/ industry. 4. Whether PE has major shareholding. 5. proportion of quasi equity in the capital structure - acceptability 6. Project core team - experience in execution/ operations of projects of similar nature and scale. 7. Powers to bind, borrow funds. 8. Ownership, constitution of Board of Directors, etc. - as per the Companies Act, any other applicable internal/ external law/ regulations/ policy. 9. Ownership structure should not hinder creation/ perfection of security in the desired form.

<p>Industry/ Sector</p>	<p>Projects depend on several external factors/ inputs, largely not in the control of the project company, for their successful implementation and operations. Policy and regulatory framework is one such area. Another complexity is the multitude of government ministries/ instrumentalities spread across local/state and central government levels providing inputs/ approvals necessary for the project during its different life cycle phases. A structured coordination mechanism is lacking currently and at times the views/ standard agreements of different authorities may be at variance adding to the risks, including delays.</p> <p>An in-depth understanding of the procedures and processes, inter relationships, changing dynamics, etc. is critical at the appraisal stage and for subsequent pro-active action.</p> <p>Tradability of the output is critical from market risk perspective, which may also be dependent on the terms of the bid award document/ supply agreement etc.; e.g. while the services provided by a road segment are non-tradable, new power sector documents restrict use of concessional coal to power supply to state DISCOMs, etc.</p> <p>Similarly, competitiveness/ long term sustainability/ viability of a project may also depend on certain choices made initially, e.g. fuel source/ type in power generation, technology selected in generation of power, e.g. super critical or sub critical.</p>	<ol style="list-style-type: none"> 1. Sector outlook 2. Past experience -construction related impediments, e.g. delays - time and cost overrun, penalties. 3. Implementation impediments include exogenous factors not in the control of project proponents - e.g. land, approvals, water 4. Key input raw material - Govt. controlled for availability/end use/ price (e.g. coal, gas) 5. Off take of output/ service - Govt. controlled for quantity and price/ tariff (e.g. power, roads, major ports, airports) 6. Operations related issues arise - market risk largely cannot be mitigated (e.g. traffic) 7. Output cost/ off take - influenced of source/ nature of input (e.g. own coal mine/ linkage coal/ imported coal/ power) 8. Viability of the sector - dependent on Govt. policy and its compliance (e.g. renewable energy) 9. The sector/ industry - regulated/ requires license to operate (e.g. PPP infrastructure, telecom) 10. Equipment cost changes over short periods/ technology are influencing capital/ operating costs (e.g. solar power) 11. Procedures/ processes followed for project preparation/ development/ bidding, standardised project agreements like CAs, have associated risks which cannot be negotiated, e.g. project award criteria, assessment of project cost/ termination payment, security creation, addressing unforeseen events, change in law, etc. 12. Project concessioning authority is normally not able to meet its obligations critical for project implementation, e.g. acquisition of land/ critical approvals, etc. 13. Terms of key project agreements are not aligned/ are not negotiable (e.g. FSA & PPA) 14. Competition - marked by choice of technology /capital cost/access to cheaper source of raw material
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Project	<p>Site selection and its suitability from the perspectives of accessibility, availability of support/ essential infrastructure etc. impact project implementation – time and cost. Land acquisition, obtaining required approvals and permits, etc. are delay prone areas.</p>	<ol style="list-style-type: none"> 1. Project site - approvals related issues (e.g. environment, CRZ, forest, tribal /reserve area, usage) – delays, additional expenditure may take place. 2. Status of Environment/ social impact and other studies. 3. Status of R & R plan . 4. Project awarded under PPP mode – there is significant difference between the first and second bids, project cost as per the CA and proposed for financing 5. Project site - connectivity by road/ rail for movement of equipment, personnel, cargo, etc. 6. Access to project site - availability throughout the year. 7. Availability of Construction related other infrastructure - (e.g. water, power) 8. Project site - additional capital expenditure required (e.g. levelling, shifting of utility, etc.) 9. Status of land acquisition
Project Tie ups	<p>Projects largely do not have all physical inputs tied up upfront and delays are experienced subsequently. For example, even in PPP projects where land, approvals etc. form a part of the conceding authority's obligations, delays take place leading to time/ cost overruns. Disbursals take place in anticipation with mitigants stipulated. Risks are distributed through agreements/ contracts executed – project and financing agreements.</p> <p>Further, Projects at times require infrastructure to support its own operations which may be entrusted to different agencies not related to the project. For example, a hydro power project in NE will require transmission corridor for evacuation of power generated. The line/ network may be developed by, say, PGCIL on its own or again through third parties. Coordination between all could be an issue and risk.</p>	<ol style="list-style-type: none"> 1. Required land - acquired. 2. Required quantity of water for processing - allotted/ is available on long term basis 3. Status of tie up of key raw material for operations (e.g. FSA - coal/ gas, spectrum, ore) 4. Tie up of sale of output tie up (e.g. PPA - power, transmission capacity) 5. Status of Conceding authority obligations (e.g. land, right of way, approvals) 6. Status of ordering for plant and machinery 7. Technology - well established/ proven – licensing, certification, warranties/ guarantees, etc. 8. Status of contractors - (e.g. EPC) selection on competitive bidding basis; Group companies have been selected/ are proposed. 9. Reputation/ track record of consultants assisting the sponsors/ SPV (e.g. technical (DPR, design, implementation), financial (debt tie up), legal (contractual terms), environment & social impact analysis, etc.) 10. Selection process for Contractors/ consultants - competitive bidding basis 11. Terms of the key agreements.

		<ol style="list-style-type: none"> 12. Independent validation of critical parameters - by consultants during appraisal process to establish availability and demand/ market forecast/ sustainability (e.g. traffic, wind/solar irradiation, mineral resource) 13. Due diligence reports by lenders' consultants have been examined (e.g. technical, legal etc.) 14. Market reports/ opinion, our experience regarding contractors/ suppliers/ consultants employed - taken note of. 15. Status of project related utilities forming part of the project scope 16. Status of utilities necessary for plant operation by 3rd parties outside the scope of the project(e.g. port/ jetty for coal, transmission line for power evacuation, captive power, pipe line, common rail facility, mine).
Project Financials/ Security	Reasonability of assumptions made and stress testing. Concession agreements place restrictions on security that can be created in favour of lenders; some other constraints may also be there.	<ol style="list-style-type: none"> 1. Project cost (per unit) is within acceptable norms (e.g. peer level/ past data comparison, conceding authority estimate, validation, etc.) 2. Hedging of foreign currency payments – project cost. 3. Debt servicing capacity - acceptable range. 4. Project leverage - acceptable range. 5. Sponsor capability to meet its funding obligations 6. Time line for Debt tie up - acceptable/ stipulated time frame. 7. Financing mix includes foreign currency loan – hedging, terms, etc. 8. Experience with/ terms of any Government financing support - (e.g. VGF/ capital grant/ partial toll) 9. Security cover - acceptable range. 10. Impact of payment to conceding authority on project viability (e.g. premium/ concession fee, royalty) 11. Loan parameters - structuring in line with assessed project debt servicing capacity (e.g. tenor, moratorium, repayment schedule) 12. Project BEP - acceptable range. 13. Sensitivity analysis- Debt servicing - within normal variations in project parameters (e.g. delay, interest rate) 14. Viability - assessment at reasonable assumptions. 15. Output cost - competitive.

		<ul style="list-style-type: none"> 16. Concession agreement - provisions for viability protection due to change in circumstances (e.g. pass through of input costs, shortfall in traffic, currency risk, impact of change in law in supplier's country) 17. Acceptability of rating. 18. Position regarding Security creation/perfection on project assets (e.g. land, plant & machinery, project agreements), including likely time frame. 19. PPP projects - treatment as secured loan under RBI guidelines. 20. Insurance cover – type and adequacy; restrictions under project agreement, if any.
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- iii. The Monitoring Committee should primarily consist of technical people in the sector concerned. This Committee can be constituted by appointment made by the Government but if there are misgivings since the Government/public sector will be a contracting party the members can be chosen from a panel to be prepared. The lender should also have a voice before the Monitoring Committee as by and large they are bound to have a substantial stake.

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