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INDIA

Building Capacities for Public Private Partnerships



June 2006

Energy and Infrastructure Unit and
Finance and Private Sector Development Unit
South Asia Region



THE WORLD BANK

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Disclaimer

The policy note has been discussed with Government of India but does not necessarily bear their approval for all its contents, especially where the Bank has stated its judgments/ opinions/ policy recommendations.



Executive Summary

Both central government and the states are aiming to use public private partnerships (PPPs) more intensively to help meet gaps in the provision of basic services. India has seen real progress over the last 10 years in attracting private investment into the infrastructure sectors, first in telecommunications, and now in ports and roads, and in individual projects in other sectors. There is the potential for PPPs to contribute more and help meet the infrastructure gap in India. But PPPs are not a panacea. They represent a claim on public resources that needs to be understood and assessed by the government, and are often complex and long-term transactions in which mistakes in design can be costly.

The Department of Economic Affairs (DEA) asked the World Bank to provide recommendations on how capacities for identifying, procuring and managing PPPs could be further developed in India. Of particular focus is the possible role of the central government in developing these capacities. We look at both organizational and individual capacities, the former including policy and legal frameworks, and institutions and processes.

For the purposes of this report, we concentrate on projects where private investment has been made, and where the government is either the purchaser of services under the project, or where it provides a financial contribution through direct investment or through risk bearing. The main sectors of focus are transportation (ports, airports, roads, and rail), water and sanitation and other urban infrastructure (solid waste management, light rail, bus terminals).

Approaches elsewhere to developing capacities for PPPs

In shifting from more traditional methods of service provision, governments need to adapt both their skills and their processes to ensure that PPP programs deliver what is expected of them. The cornerstone of this is ensuring that PPPs that proceed are those which represent priority projects and are best done through the PPP route rather than through traditional public procurement. Governments embarking on PPP programs have often developed new policy, legal and institutional frameworks to provide the required organizational and individual capacities. New agencies are sometimes created to bring in financial and contract design skills not present in the government, and existing processes, for example in planning and budgeting, need to be adapted.

Although not all countries have developed specific new PPP legislation, nearly all have felt it necessary to amend existing legislation, if only to clarify that public entities have the needed powers to contract out services under PPPs. Comprehensive cross-cutting PPP legislation has been used more extensively in countries that operate under the civil code. Where used, it often covers aspects such as specifying which sectors PPPs can operate in, how tariffs for PPPs are set and adjusted, the role of different institutions in a PPP program, procurement of PPPs, and dispute resolution procedures. Even where not necessary, such legislation can consolidate existing provisions into one act, clarify processes for approving and procuring PPPs, and create new institutions that will play a key role in the PPP process.

Most countries engaged in a broad-based PPP program have felt the need to develop a cross-sectoral pool of expertise in a dedicated PPP unit to supplement capacities in the line agencies that contract for PPPs. These fulfill different roles depending on the needs of the situation. In some cases their role is limited to disseminating information on PPPs and providing broad guidance on good practices. In others they have an active role in helping line agencies and ministries successfully contract for PPPs, and in yet others they play a role in approving PPPs developed by other government agencies. Where they exist, these cross-sectoral units are often located in, or attached to, the Ministry of Finance or Treasury which may reflect concerns about the need to strengthen understanding and monitoring of the fiscal costs of PPPs. The functional nature of these units also reflects their roles. Units whose main focus is transactions are often established as companies, in some cases jointly owned by the government with the private sector. Those that provide information and guidance on PPP programs can function adequately as units within an existing government department.

There are risks of a conflict of interest in cross-sectoral PPP units that have multiple functions, even where these are purely public sector agencies, for example where a unit has a strong mandate to promote PPPs and increase deal flow, while at the same time having the responsibility for screening projects. The potential for conflicts of interest may be higher with respect to PPP units that are public-private joint ventures, and where success fees incentivize the closing of transactions. These have to be recognized and dealt with.

The role of national agencies relative to sub-national ones is often driven chiefly by basic legal and fiscal

relations between these levels of government, which are often set out in the constitution. In Australia, the national government has virtually no role in state level PPPs. In Canada, the Federal Government's P3 Office acts as a resource center and promoter of the benefits of rationale for using PPPs, rather than acting in an advisory role. Other countries which are more centralized have seen a stronger role for national level agencies, for example in South Africa where the Treasury's PPP Unit plays a role in both guidance and approval. Brazil intends to establish capacities at the national level to offer detailed guidance to the states in the development of PPPs.

PPPs in India

In the 12 states and 3 central agencies surveyed there are at least 86 PPP projects in our sectors of focus for which a contract has been awarded and projects are underway (in the sense that the projects are either operational, have reached construction stage or at least construction/implementation is imminent).¹ The estimated project cost of these PPPs is Rs 339.5 billion. There has been considerable innovation in the design of these, with different structures now being developed to attract private participation. But at the same time it is clear that this has been uneven – there are islands of progress, with some states having undertaken far more PPPs than others, and a much heavier use of PPPs in some sectors (roads by number of projects and ports by project size) than others. While there are a number of successful projects, there have also been a number of poorly conceptualized PPPs brought to the market that stood little chance of reaching financial closure.

Some states have made more attempts to develop a broad framework for PPPs, including cross-cutting legislation and the development of cross-sectoral

¹ The 5 infrastructure sectors of focus where PPP contracts have been awarded in the surveyed states and federal agencies are roads & bridges, ports, airports, rail, and urban (water & sanitation, solid waste management, bus terminals, light rail, ferries and a logistics hub – although for the last 3 sub-sectors there have been preparatory activities but no contract awarded yet). There also has been activity in health & education and e-governance, in addition to sectors not covered in this report such as power, tourism, and other construction (convention centres, industrial, IT & biotech parks, SEZs, and housing). See the tables in the Annex for more details.

units that play a role in the identification and preparation of PPPs. While progress to date has probably been driven as much by fundamentals such as political commitment, the lack of a cross-sectoral pool of knowledge makes it harder to transfer experiences across sectors.

Compared to other countries, some of the gaps in PPP frameworks and approaches in India are: the tendency for the policy rationale for PPPs to be limited to the use of PPPs as a source of investment capital when the public sector lacks funds; little systematic compilation and dissemination of information, even within the public sector, on PPPs implemented to date, including contractual approaches and their results; and not much use of rigorous ex-ante or ex-post assessments of the performance of PPPs versus traditional public options.

There is the potential for PPPs to play a greater role in the provision of infrastructure services in India. A number of issues have to be addressed, however, including basic questions such as the extent to which these projects will be paid for by taxpayers or by users, and if so whether the resources are available, and whether it will be possible, commercially and politically, to charge the required user fees. Improving capacities to identify potential PPPs will be critical, to bring them to the market properly structured, have them efficiently and competitively procured, and to monitor their performance and cost.

Developing and strengthening capacities for PPPs in India

Both experience to date in India and internationally shows that there is no unique formula for developing a sound PPP framework. However, successful programs are characterized by clear policy and legal frameworks for PPPs, competent and enabled institutions that can appropriately identify, procure and manage PPPs, and efficient oversight and dispute resolution procedures. The center's role in developing capacities for sub-national PPPs needs

careful consideration taking into account the size of the country, center-state fiscal and other relations, as well as the variety of experiences so far, with some states having made considerable strides and others having made very little progress.

Oversight of the fiscal costs of PPPs. Regardless of other actions, if there is to be an increase in the use of PPPs the center should work to strengthen oversight of the fiscal costs of PPPs. A priority need would be for the development of guidance on how states should approach the issues posed by PPPs. This should be supplemented by enhancing analysis of the fiscal costs of PPPs in central government, including the monitoring of the impact by PPPs on the fiscal position of the states. Capacity-building efforts should be led by the Government of India (GoI) Finance Ministry, with involvement from the Reserve Bank of India (RBI) as necessary.

Policy rationale. A policy statement covering both the rationale and also the limits to the use of PPPs would help to give the PPP program a clearer political mandate and could also be used to announce more clearly the institutional framework for PPPs. These would be useful at both the national and state level. While broad policies provide an important signal of political commitment, it may also be necessary to translate this into action plans and policies for individual sectors to provide a more precise orientation to encourage line ministries and agencies to pursue and implement PPP programs.

Legal frameworks. Cross-cutting PPP laws do not seem to be needed in India to permit central or state governments to enter into PPPs. Both the center and many states have done so without such laws. Sector specific legislation has of course been used to restructure industries and set up new institutions such as sector regulators. Cross-cutting legislation could however be beneficial by consolidating relevant legal provisions into one law, and legislating the use of certain processes for the procurement, development and regulation of PPP projects which may be better enforced if given the force of law. This might be more important at the state level, where

checks and balances and oversight are not as strong as at the center. The legislation already passed by Gujarat, Andhra Pradesh and Punjab provides possible models for other states. The development and passage of legislation also promotes an open debate about the rationale for PPPs and their expected benefits, and thereby can help increase the public legitimacy of PPPs.

Information dissemination and guidance materials. Despite the fact that there are nearly 90 PPPs in India under construction and operation, there is no publicly accessible database providing even the most straightforward information on them. There is also relatively little available in terms of information on the actual contracts used, and little guidance available to government officers on appropriate clauses and conditions to be included in PPP contracts. A number of practitioners in PPPs in India have argued that the lack of standard contracts or standard clauses makes bureaucrats more reluctant to sign off on PPP deals.

There is considerable scope for improving the flow of information regarding PPPs and for providing guidance materials to government officials on the development and implementation of PPPs. Guidance could cover issues related to contract design, procedures for identifying, procuring and managing PPPs, and even model PPP legislation. Information dissemination could cover a publicly-accessible database on PPPs at the national, state and local levels; training materials as well as workshops and other mechanisms to reach politicians, consumers and other stakeholders, so that they are better informed about the nature and structure of PPPs. Information on PPPs could be extended to analysis of successes and failures, case studies and a database on performance of projects.

Standardization and models have the potential to reduce transactions costs and diffuse good practices. There is however a risk that centrally sponsored model contracts could reduce the needed room for flexibility and innovation even where these models are advisory and not mandatory. This risk could be reduced by

having guidance provide a range of options where appropriate and also by being guided by a public-private group containing representatives from state as well as central agencies.

Information dissemination and guidance should be led from the center, given the public good nature of these activities. A single central ministry with cross-cutting responsibilities could take the lead in this. Specialized tasks would be contracted out and done by others under the oversight of this unit – for example the development and delivery of training materials would be undertaken by a specialized training institute.

A national PPP unit. Most countries engaged in a broad-based PPP program have felt the need to develop a cross-sectoral PPP unit although the role that this unit plays is sometimes restricted to information dissemination and the preparation of guidance material. The design response to two key issues – the role of a cross-sectoral unit vis-à-vis line ministries and the role of a national unit in sub-national PPPs – will be driven by the business practices within governments and the fiscal, and other, relations between the center and the states. This means that some models which are more centralized, such as those in the UK and South Africa where national level units have a prominent role in sub-national PPPs, will not be workable approaches in India.

At the **state** level, a dedicated PPP unit can both broaden the PPP program by transferring lessons and experiences across sectors, as well as improve the quality of PPPs by bringing to bear better transactions skills. Particularly where there is not a track record of PPPs, skills are probably best brought in from the private sector to supplement available capacities in the state government.

At the **national** level, a PPP unit could undertake the information dissemination and guidance roles described above. It could also undertake a transaction advisory role by identifying areas where PPPs could be undertaken by central agencies and ministries, and working with these agencies to

conceptualize and bring to the market individual PPPs. However, this role would not be well-suited for sub-national PPPs. A hands-on transaction role in state and municipal PPPs would directly substitute for the development of state-level capacity and would be challenging to do for a large number of deals. Capacities should be developed at the state level, strengthened by the guidance and information provided by the national level unit.

A national level unit undertaking information dissemination, guidance and transactions support to central agencies could be established as a unit within a ministry or agency with cross-cutting functions. This would allow it to be integrated into existing governmental processes of review, and needed transactions skills could be contracted in by hiring consultants on long-term contracts.

If the center were to provide additional funding for PPPs (see para. xxvii below), then the national unit could take on the additional mandate of reviewing these PPPs to assess whether the contractual structure proposed is robust, that risks are efficiently allocated and that projects to be supported by the center are sound. The unit would need to provide clear guidance on what it viewed as being acceptable contract structures, approaches to risk allocation, assessment of affordability and value-for-money, and provider selection criteria.

Additional resources for PPPs. A catalytic role by the center is likely to be needed to expand the usage of PPPs, particularly in states and sectors where they have been less used so far. This would consist, in addition to information dissemination and guidance, of financial resources both to develop PPP frameworks and contracts and to fund government commitments under PPPs. This would help address important constraints to further development of PPPs in the country – namely, weak capacities to identify realistic PPPs and bring them to the market; a lack of willingness to pay for project development; and a lack of creditworthiness on the part of states to provide their financial contribution to PPPs.

A number of PPP units manage funds which defray

some of the costs of developing PPPs. There are two arguments for the use of these funds. The first is that many governments new to PPPs do not appreciate the need to spend more on preparation of PPP projects than was spent on developing procurement documents for civil works projects in the same sector. The second is that since PPPs are relatively new, the costs of preparing initial projects may be higher and that with learning some of these will come down. One important issue is the terms on which this fund would be accessed – a matching grant scheme which combines central grant funding with contributions from the state government provides some form of commitment by both parties and can focus resources on projects viewed as priorities by the state government.

The use of PPPs for the delivery of basic services by state and municipal governments would be encouraged by the provision of central funds to support their payments under PPPs. A substantial matching contribution from the government contracting for the PPP would also be important here to provide commitment to the project.

The detailed design of such a PPP fund is beyond the scope of this report and a significant effort would have to go into this to ensure that it is well targeted and efficiently used. It would be important both to ensure that projects supported by the fund are priorities, and that competition for subsidies is used to reduce the demands on public funds. On this last point, it would be far more difficult to size subsidies – and also less transparent – were projects first awarded by state governments and then subsequently the chosen developers approached the fund for support.

As noted above, project design, risk allocation, affordability and value-for-money should also be assessed for these projects to ensure that the center is supporting well-designed PPPs and this could be done by the national PPP unit. There might however be conflict of interest concerns if this unit received a success fee from working on transactions, in which case the involvement of others would be necessary in clearances.



1. Introduction

- 1.1 India has had policies in favor of attracting private participation in the infrastructure sectors since economic reforms were introduced in 1991. These initiatives have met with varying degrees of success, but real progress has been made in some sectors, first in telecommunications, and now in ports and roads, and with individual projects in other sectors. The central government and the states are hoping to build on this progress, both in sectors where few private projects have been realized as well as scaling up their use in sectors where progress has already been made. Many of these projects will not be commercially viable on the basis of user fees alone and will require financial contributions from the public sector in addition to substantial amounts of risk bearing. In some cases the government will be the purchaser of the services.
- 1.2 These public private partnerships (PPPs) can help meet the infrastructure gap in India, but are not a panacea. They represent a claim on public resources that needs to be understood and assessed. They are often complex transactions, needing a clear specification of the services to be provided and an understanding of the way risks are allocated between the public and private sector. Their long-term nature means that the government has to develop and manage a relationship with the private providers to overcome unexpected events that over time can disrupt even well-designed contracts. And they all involve services for which, in the eyes of citizens, the government ultimately bears responsibility, even if service delivery has been contracted out.
- 1.3 Governments embarking on PPP programs have often developed new policy, legal and institutional frameworks to provide the required organizational and individual capacities. These go beyond that needed to originate and financially close PPP deals, as they must also ensure that these deals are affordable to users and the public sector and provide ex-post evaluation of the success of PPPs in meeting their objectives. This framework needs to be in place in India to ensure a robust and successful PPPs program.
- 1.4 This report is prepared at the request of the Department of Economic Affairs (DEA), which asked the World Bank for recommendations on how capacities for conceptualizing, structuring and managing PPPs could be further developed in India. Of particular focus is the role of the center in developing these capacities. Our review covers both organizational and individual capacities. The skills of the individuals working on PPPs are critical. However, organizational capacity – the policy and legal frameworks, institutions involved and the processes developed – are as, if not more, important. While the focus is on the capacities required of the governments we also look at the need to develop capacities in the private sector and other stakeholders

Scope of this report

- 1.5 Not all forms of private participation in infrastructure should be considered PPPs. Though there is perhaps no standard definition of what a PPP is, they are generally regarded to be contracts for services traditionally provided by the public sector that combine investment with service provision and see significant risks being borne by the private sector. For the purposes of this report, we have focused on projects where private investment has been made, and where the government is either the purchaser of services under the project, or where it provides a financial contribution through direct investment or through risk bearing.
- 1.6 The main sectors of focus are transportation (ports, airports, roads, and rail), water and sanitation and other urban infrastructure (solid waste management, light rail, bus terminals). This represents the present areas of focus of many state governments in India. In consultation with DEA, it was decided to exclude the power sector from the analysis, given the complex issues involved in that sector and the range of other efforts both within the Bank Group and beyond focused specifically on power. We have also excluded many sectors considered infrastructure by state governments in India, including tourism infrastructure, housing, and convention centers, but do provide some coverage of other basic services such as the social sectors (education and health) and e-governance.
- 1.7 There are several themes related to PPPs that are not covered. We do not look in detail at the successes and failures to date in individual PPPs. Although international experience

shows there are significant gains from well-designed PPPs, the report does not advocate the use of PPPs in general nor particular approaches to structuring PPP transactions.

Outline of the rest of this report

- 1.8 We first look at international experiences in developing frameworks for PPPs, focusing in particular on two issues. The first is the role of cross-sectoral PPP units vis-à-vis line ministries within a given level of government. The second is the role that national government plays in overseeing or providing support to the PPP programs of sub-national governments. Although these solutions reflect country-specific conditions, they allow some general lessons to be drawn and allow an assessment of the gaps in PPP frameworks in India.
- 1.9 We then provide an overview of the use to date of PPPs to provide infrastructure services in India. We present the results of a survey of PPPs in 12 states and 3 central agencies/ministries in our sectors of focus, and also examine efforts to develop PPP frameworks, particularly at the state level.
- 1.10 Finally, we look at what can be done to strengthen and develop capacities for PPPs in India and in particular the role of the central government. This builds upon the survey and other analyses of the experience of developing PPPs in India. We present a range of options for the role of the center, particularly where it concerns possible steps to catalyze state and municipal level PPPs, and provide an assessment of these options.



2. Developing Capacities for PPPs: International Experiences

- 2.1 An increasing number of governments are turning to the private sector to provide services hitherto delivered by the public sector. The motives for pursuing public private partnerships (PPPs) vary from fiscal opportunism, simply seeking to replace public finance with private finance, to a genuine desire to seek lower costs, both for taxpayers and consumers, or improved services.
- 2.2 There is no single accepted international definition of what a PPP is. In many countries the core of PPP programs are projects that are for services traditionally provided by the public sector, combine investment and service provision, see significant risks being borne by the private sector, and also see a major role for the public sector in either purchasing services or bearing substantial risks under the project. PPPs are therefore more than service contracts although some would include these in their definition of PPPs. A number of governments have developed definitions of what constitutes a PPP (Box 1). Developing a definition can facilitate the implementation of a process of oversight by clearly indicating which projects should fall under a given process, as was the case in South Africa.
- 2.3 In shifting from more traditional methods of service provision, governments need to adapt both their skills and their processes to ensure that PPP programs deliver what is expected. The cornerstone of this is ensuring that PPPs that proceed are those which represent priority projects and that are best done through the PPP route rather than through traditional public procurement. Much of this will hinge on an assessment of the extent of and benefits of risk transfer to the private sector, and an understanding of the residual risks and future payment obligations borne by the government. Once the project is under implementation, the government then has to fulfill a contract management and oversight role to ensure that services are delivered and both sides live up to expectations.
- 2.4 Factors outside government are also important. A successful PPP program presupposes that the private sector has the right skills and capabilities as well as access

Box 1: PPPs – Some Definitions

Most countries embarking on PPP programs have attempted to provide some form of definition of what a PPP is. Brazil's new PPP law defines, in its Article 2, that public private partnership contracts are agreements entered into between government or public entities and private entities that establish a legally binding obligation to manage (in whole or part) services, undertakings and activities in the public interest where the private sector is responsible for financing, investment and management. Ireland defines PPPs as any arrangement made between a state authority and a private partner to perform functions within the mandate of the state authority, and involving different combinations of design, construction, operations and finance. In South Africa, a PPP is defined in law as a contract between a government institution and a private party where the latter performs an institutional function and/or uses state property, and where substantial project risks are passed to the third party. The UK's Private Finance Initiative (PFI), where the public sector purchases services from the private sector under long-term contracts is the best known component of that country's PPP program. However, there are other forms of PPP used in the UK, including where the private sector is introduced as a strategic partner into a state-owned business that provides a public service.

Box 2: Encouraging policy-makers and government officials to use PPPs

At the federal level, the P3 Office, located in Industry Canada (a federal government department that promotes Canadian industry), has played the role of promoter and resource center. One of the main purposes of the P3 Office, with six full-time professionals at the peak of its activity, was to actively promote the idea of PPPs among politicians and officials in the provinces and to provide information – and counter misinformation – about PPPs. They do not engage in project-specific advice, as expertise about how to develop PPPs was expected to flow naturally to wherever it was demanded, diffused largely by consulting firms. The main obstacle instead was a lack of political will and the need for a new policy direction in some of the provinces, and this is where the P3 Office could play a useful role. In addition, they found that there was a demand for information about PPPs from the Canadian engineering industry, which wanted to prepare themselves well to compete in this market both in Canada and internationally. Another important role of the P3 Office has been to educate federal officials about PPPs. The main responsibility for PPPs lies with the provinces, but federal policies can either hinder or facilitate PPP programs at the provincial level.

to long-term finance in local currency for projects where this is needed. Effective dispute resolution procedures are also essential, including informal and rapid procedures for interim adjudication backed up by arbitration. Moreover, decisions reached in this way have to be respected by the courts.

Public sector capacities needed for a robust PPP program

- 2.5 Governments embarking on PPP programs have often developed new policy, legal and institutional frameworks to provide the required organizational and individual capacities. New agencies are sometimes created to bring in financial and contract design skills not present in the government, and existing processes, for example in planning and budgeting, need to be adapted.

Policy frameworks

- 2.6 A clear policy advocating the use of PPPs, as well as the rationale for their use, provides political commitment and support for the program. This is vital particularly in the early years of a PPP program. It is important that policies stress that PPPs are being pursued to provide better services, not simply to attract private sector resources to supplement those that the government lacks. Policies can also provide clarity on other aspects, such as the

approach towards risk transfer, procurement, financing, and the need for transparency. Setting policy also encourages the discussion of key issues among different stakeholders, furthering an increased understanding of the main characteristics of PPPs, their advantages, and their drawbacks. In addition, it may be important to look at other ways of developing an understanding of PPPs by policy makers, government officials and other stakeholders (see Box 2).

Legal frameworks

- 2.7 Although not all countries have developed specific new PPP legislation, nearly all have felt it necessary to amend existing legislation, if only to clarify that public entities have the needed powers to contract out services under PPPs. In the UK, the Local Government Contracts Act was passed in 1997 to more clearly set out the ability of local governments to enter into PPP contracts and related arrangements. Ireland passed the State Authorities (PPP Arrangements) Act in 2002 which defined the possible range of PPPs that State Authorities could enter into, as well as the role of the Minister of Finance in providing directions to ministries aiming to enter into PPPs. However, in the state of Victoria in Australia, PPPs have been executed without the need for new legislation.²

² However, in the UK and Australia sector-specific legislation has been used to introduce competitive markets, restructure industries and introduce new regulatory frameworks.

- 2.8 Secondary legislation and regulations can be developed to use existing laws as a framework for PPPs. In South Africa the national government developed new regulations under existing public financial management legislation to impose central government oversight and approval of PPPs being developed and signed by the provinces. This addressed the national government's main concern, namely that the provinces were using PPPs as a means of off-balance sheet financing to get round budgetary constraints.
- 2.9 Cross-cutting PPP legislation has been used more extensively in countries that operate under the civil code. Where used, it often covers aspects such as specifying which sectors PPPs can operate in, how tariffs for PPPs are set and adjusted, the role of different institutions in a PPP program, procurement of PPPs, and dispute resolution procedures.
- 2.10 Even where legislation is not strictly needed to permit PPPs, it can be helpful in a number of ways. It can for example define and limit the processes used in identifying and procuring PPPs. Many PPP laws for example go into considerable detail prescribing the procurement procedures that must be followed, and the form and content of a PPP contract. Legislation can also create new institutions which will play a key role in the PPP process. Finally, new laws can help clarify the overall legal framework for PPPs by consolidating, or referring to, all provisions needed in connection with PPP arrangements. Generally older laws were enacted without

PPPs in mind, and it may not be clear how they would apply in the new context. As a result, a number of countries have passed broad legislation relating to PPPs.

Human resources

- 2.11 The public sector needs individual capacities to be strengthened to provide the gamut of skills required for an effective PPP program, not just transactions skills, but also those involved in selecting which projects to be pursued as PPPs, estimating the fiscal costs of PPPs, oversight and contract management, and ex-post evaluation and auditing of the performance of PPPs. Developing the capacities to design and execute transactions may be the most difficult for the public sector, since the legal and financial skills may not be present and given public sector pay scales it may be difficult to attract skilled individuals in from the private sector.
- 2.12 Sustaining capacities is made more difficult by the rotation of staff out of positions once they have built up knowledge by closing transactions. This problem is likely to increase at the municipal or local level, where capacities are likely to be lower and the number of PPPs fewer, offering a reduced opportunity for learning-by-doing. Consultants can play a large role in providing specialist skills for public authorities in any PPP program. But certain core skills have to remain with the public sector or it will be impossible to make the best use of the consultants. Training will also help, and, as noted below, the development of clear

Box 3: Brazil's new PPP Law

Brazil has recently passed a new national PPP law that applies to all levels of government and to all entities/enterprises controlled by governments within Brazil. This law sets out the main guidelines to be followed in developing PPPs; the broad types of activities possible under PPPs; sets of clauses that PPP contracts must include; the bidding process required for procuring PPPs; the creation of an agency, under the Ministry of Planning, Budget and Management, that establishes procedures for contracting out PPPs; and a requirement for contracting entities to estimate the costs of PPPs, and to ensure that these costs are consistent with multi-year budget plans and relevant legislation on fiscal costs and do not lead to breaches of budgetary plans and relevant fiscal legislation.

processes and guidelines can accelerate the transfer of knowledge and learning-by-doing.

Procedures and guidelines

2.13 Many PPP programs develop standardized processes and approaches towards structuring contracts. The standardization of common contractual provisions is also recommended as it firms up an acceptable public sector risk profile and creates certainty in the market. It can also promote a common understanding of the technical, operational and financial risks that are typically encountered in PPPs, a common understanding of how such risks should be allocated or shared, a consistent approach to risk transfer, risk sharing and value for money across PPPs falling in the same sector, and a reduction in time and cost of negotiations. Sector toolkits can be developed once sufficient sector experience has been achieved. Guidelines are often developed which provide specific rules on how projects are to be selected for pursuit through PPPs, on contract design and procurement, and on contract management. These can help ensure that issues such as affordability of the PPP to the government, value-for-money, overall fiscal costs, and public legitimacy concerns are addressed properly. Most countries that develop guidelines and manuals develop training courses on these for contracting authority staff.

Organizations: the role of cross-sectoral PPP units

2.14 Most countries engaged in a broad-based PPP program have felt the need to develop a cross-sectoral pool of expertise in a dedicated PPP unit to supplement capacities in the line agencies that contract for PPPs. These fulfill different roles depending on the needs of the situation. In some cases their role is limited to disseminating information on PPPs and

providing broad guidance on good practices. In others they have an active role in helping line agencies and ministries successfully contract for PPPs, and in yet others they play a role in approving PPPs developed by other government agencies, for example looking at the quality of the PPP deal, affordability and expected fiscal cost. Where developed, these cross-sectoral units are often located in, or attached to, the Ministry of Finance or Treasury. This probably reflects concerns about the need to strengthen understanding and monitoring of the fiscal costs of PPPs.

2.15 Line departments will usually retain the primary responsibility for PPPs within their mandate. The role that central units play depends on a number of considerations. The most important is the deal volume in the line department. If a department develops a large number of PPPs, it may make the most sense to build up full capacity within the department to handle these activities. For example, in the U.K., the Prison Service and the Highways Agency both have their own dedicated PFI teams. However, many PFI projects for hospitals and schools are implemented by National Health Service trusts and local education authorities, each responsible for one or two projects. It would not be cost effective for each trust or authority to set up a permanent dedicated PFI unit.

2.16 It may also be a matter of timing. It may be appropriate for a cross-sectoral unit to provide assistance to a line department at the start of its program, when the line department does not yet have sufficient experience. The converse may however also be true, with some pioneering line departments having more hands-on experience than a newly-created PPP unit. In these cases, it will be important for a cross-sectoral unit not to slow down these more experienced agencies, whilst at the same time ensuring that critical issues (e.g.

affordability and value-for-money) are properly addressed.

- 2.17 Cross-sectoral units can perform a broad set of functions, including: undertaking the development of PPP policies and legislation; the development of guidance material including standard contracts, manuals and processes for identifying and developing PPPs; clearance and approval functions during the PPP process; a source of expertise in one or more aspects of PPP procurement and management; development of training programs; dissemination of information on PPPs; and assessment of the fiscal costs (direct and contingent) of PPPs. Box 4 shows the range of responsibilities granted to the South African PPP unit. Like units or agencies elsewhere, such as in the Netherlands and with several of the agencies involved in the UK PPP program, they have developed training material to supplement or reinforce the guidance material and contractual or procedural approaches they have developed.
- 2.18 One important policy decision is whether the cross-sectoral unit will have the power to impose mandatory requirements on the line departments – and in that case, what kind of requirements. This is often done by involving the PPP unit in approval of the PPPs. In South Africa, the Treasury relies on the PPP Unit to assess whether the expenditures

incurred by PPPs developed by line agencies and provinces can be met within their future budgets. The PPP Unit is involved at three different points: after the feasibility study, before issuing the bidding documents, and before signing the contract. In contrast, in some countries – e.g. Italy – the national cross-sectoral PPP unit plays only an advisory role.

Purely public versus public-private cross-sectoral units

- 2.19 Particularly where PPP units are to provide transactions skills and experience careful thought needs to be given to the nature of the unit and its ability to buy in these skills from the private sector. One option is to establish a unit within a ministry and rely on long-term consulting skills to supplement capacities. Greater independence can be achieved by setting up the unit as an autonomous entity, attached to but not fully part of the government bureaucracy as with the Philippines BOT center. A third approach comes from Canada, where Partnerships British Columbia is a government-owned company that works with line departments and other agencies to identify and procure PPPs in that province. This is overseen by a public/private board and offers salaries outside the normal civil service ranges to attract people with relevant financial and transactions skills.

Box 4: The role of the South African PPP Unit

In 2000, South Africa set up a PPP Unit to serve as the focal point for coordinating and managing the PPP program. The PPP Unit reports to the Budget Office of the National Treasury. The PPP Unit in South Africa is a good example of a central organization with a wide range of tasks, both advisory and mandatory, relating to PPPs. The key functions of South Africa's PPP Unit, which has 11 professional staff at present, are: formal approval at three different stages of project preparation to ensure compliance with Treasury regulations; in-depth technical assistance to departments throughout the PPP project cycle; assistance to departments in appointing transaction advisors; development of policy, guidelines, and instructions, including the PPP Manual and the Standardized PPP Provisions (contract terms); training courses and workshops, based round this Manual; promotion of public awareness of PPPs through the PPP Quarterly publication, website, and conferences; and management of the Project Development Facility that provides funding for the government's transaction costs.

2.20 Another way is to set up a joint venture company that is owned in part by private sector shareholders. This is usually complemented by incentivizing the unit by allowing it to benefit financially from success fees to be paid by the winning bidder when the deal is closed. One example of this is Partnerships U.K. (PUK), established in 2000. PUK, 51% owned by the private sector, considers itself to be a bridge between the public and private sectors. It focuses on structuring and negotiating the commercial aspects of the deal. PUK regards itself as a PPP “developer,” playing a more active role along with the public authority.

Possible conflicts of interest within cross-sectoral units

2.21 There are risks of a conflict of interest in cross-sectoral PPP units that have multiple

functions, even where these are purely public sector agencies. A conflict of interest can occur when the unit has a strong mandate to promote PPPs and increase deal flow, while at the same time having the responsibility for screening deals and ensuring that the projects are affordable to the government. Conflicts also arise if the same body promotes or assists in developing projects and then is asked to carry out ex post evaluations. The best solution in both cases may be to split the functions. In South Africa, the PPP unit faced a conflict of interest in providing transactions advice for projects and granting approvals. This was handled by seeking approvals on projects from individuals from other groups within Treasury. In British Columbia, the Treasury retains approval powers, as these are not granted to Partnerships British Columbia, as is also the case in the UK.

Box 5: Institutions involved in the UK’s PPP programs

The institutional system relating to the Private Finance Initiative (PFI) in the U.K. began in 1992 with the establishment of the Private Finance Panel and then, in 1997, the Treasury Task Force. Since then, the system has gone through a number of changes. At present, the main organizations dealing with PFI, in addition to the line departments and local governments that have primary responsibility, are the following:

The **Private Finance Unit** in the Treasury is the body responsible at present for formulating policy and preparing policy and practice guidelines for PFI – e.g. concerning the preparation of a “public sector comparator.”

Partnerships UK (PUK) was set up in 2000 to handle the development of specific projects. The focus is on structuring the contracts, managing the procurement process, and supporting negotiations. PUK is now 51% owned by private institutions (e.g. financial services companies involved in financing PFI projects) and 49% by the government. Its role is to work closely with government departments to develop PFI transactions. It commonly takes a success fee when deals are closed.

The **Office of Government Commerce (OGC)**, an independent office of the Treasury reporting to the Chief Secretary, focuses on improving central government procurement in all its aspects, not just PFI. Specific PFI-related responsibilities have now been taken over by the Private Finance Unit in the Treasury.

The **Public Private Partnerships Programme (4ps)** was set up in 1996 to provide support and advice to local governments, especially about procurement matters but extending over the entire project cycle. Advice concerns PPPs broadly, not just PFI projects. (In U.K. terminology, “PPP” can refer to a broader category that encompasses a number of different ways that the public and private sectors can work together.)

The **National Audit Office (NAO)**, as auditor of central government expenditure, carries out ex post reviews of PFI projects and programs as part of its mandate to evaluate whether government departments are achieving value for money. These are placed in the public domain.

Select Committee on Public Accounts of the House of Commons (PAC), as the parliamentary watchdog, prepares reports on PFI projects and questions on selective basis.

Traditional oversight bodies also have a role — the U.K. National Audit Office has undertaken a number of reviews of the government’s PPP program.

- 2.22 There is a special risk of conflict of interest with respect to PPP units that are public-private joint ventures, and where success fees incentivize the closing of transactions. The risk of capture by private interests could be high. Careful structuring of the arrangements for corporate governance is needed. Private sector participation is added to orient the unit more to the private sector’s mode of thinking and working, but the unit still has to maintain the policy perspective and objectives of the public sector. In the U.K, for instance, one way that this is intended to be accomplished in Partnerships UK is through an Advisory Council, made up exclusively of members from the public sector, which was established by Treasury to oversee PUK. The Advisory Council approves the selection criteria used by PUK in deciding which projects to be involved in.
- 2.23 In general, it is clear that a public-private unit would not be the right place to issue PPP policies, though they could play a role in their development. Therefore, a public-private unit that provided transactions support would need to be complemented by the development of capacities elsewhere (typically in Finance) which could perform these functions. These tensions can mean that it may be useful to have a number of different institutions involved in different aspects of the PPP program (see Box 5), as is now the case in the UK.

The roles of national and sub-national agencies

- 2.24 All the countries discussed so far have undertaken many PPPs in areas where service responsibilities lie with sub-national

governments or agencies. The role of national agencies relative to sub-national ones usually reflects legal and fiscal relations between these levels of government, deriving from the constitution and existing budgetary practices.

- 2.25 In the UK, there are many PPPs that have been entered into by Local Authorities. These access advisory support from national level agencies, and all local government PFI projects are approved by a central government inter-departmental committee chaired by Treasury. In South Africa, the oversight role of the national PPP unit has already been mentioned. It has also played an important role in developing standards and procedures to improve the quality of PPP transactions. The legislation recently passed in Brazil envisages a role for a national level entity to establish procedures for contracting PPPs and to identify projects that should be taken up as PPPs as a priority.
- 2.26 Other countries have adopted a more decentralized approach. In Canada, several of the provinces (for example British Columbia and Quebec) have their own cross-sectoral PPP units. The federal government created an agency, the P3 Office, to act as a resource center and promoter of the benefits of rationale for using PPPs, rather than in a more hands-on advisory role. This has included the development of information resources including a portal and guides and “self-help” tools.
- 2.27 The national government in Australia has virtually no role in state level PPPs and instead has largely focused on PPPs for services for which it, as national government, is responsible. State governments have taken responsibility for developing PPPs for the services they are responsible for with very little involvement by the national government. The

states have established their own information-sharing structures, with a PPP forum, for government policy-makers, meeting annually, and a PPP working group, for the heads of PPP agencies, which meets more often with a mandate to coordinate over the project pipeline, provide consistent (though separate for each state) guidance, and try to develop

standards for contract principles and drafting. However, as noted in Box 3, Brazil is intending to establish capacities in the center to offer detailed guidance to the states in the development of PPPs. Table I summarizes the main functions performed by existing cross-sectoral PPP units in a number of different countries.

Table 1 – Functions of Cross-sectoral PPP Units

	Frame-work law enacted	Nature of PPP unit established	Approval power over PPPs**	Intensive project specific advice	Role as project developer (a)**	Role in contract oversight**	Resource center***	PPP guidance material***	Funding for preparation(b)
Australia: Victoria		①					✓	✓	
Canada: British Columbia		③		✓	✓	(f)	✓	✓	
Ireland	✓	(c)		(d)			✓	✓	
Italy ^(h)	✓	①					✓	✓	✓
Netherlands		①		✓		✓	✓	✓	(g)
Philippines	✓	②		✓		✓	✓	✓	✓
South Africa		①	✓	✓			✓	✓	✓
U.K. ⁽ⁱ⁾		④	(e)	✓	✓	(f)	✓	✓	

Notes:

* "PPP unit" in this table means a cross-sectoral unit. Legend for this column: ① = unit is part of ministry or department; ② = autonomous or quasi-autonomous administrative unit; ③ = public authority or publicly owned company (outside civil service); ④ = public-private joint venture company; x = no distinct cross-sectoral PPP unit exists.

** Refers to the dedicated PPP unit.

*** Might be provided by the dedicated PPP unit or by another cross-sectoral department or central ministry.

(a) Greater responsibility than an advisor and charges fees that are based on some measure of performance (e.g. achievement of milestones or close of deal).

(b) Refers to funding (outside the normal budget) to pay for consultants working with the line department or local government, not with the PPP unit.

(c) In Ireland, Central PPP Unit (dealing with policy and general PPP procurement issues) is ①; National Development Finance Agency (giving advice about financial structuring, financing, and risk evaluation) is ③.

(d) In Ireland, the National Development Finance Agency gives project-specific advice about financing and financial structuring. The Central PPP Unit was involved in project-specific work for the pilot projects so that they could get hands-on knowledge to develop the policy and guidance material. But now, they do not become involved in specific projects.

(e) Partnerships UK prepares a report for each local government PFI project; the report goes to an interdepartmental committee that has the power of approval.

(f) Can be requested by its clients (line departments and local governments) to play a role in oversight and monitoring, but there is no obligation to use the unit for this purpose.

(g) EU provides grant funding for the transaction costs for some large-scale transportation PPPs (rail and roads).

(h) This refers to the central PPP unit. There are also PPP units of various kinds in six of Italy's regions. Certain regions have considerable autonomy.

(i) This row refers just to Partnerships UK.

Source: World Bank analysis



3. PPPs in India: Islands of Progress

3.1 There is now over 10 years experience in India in the development and use of PPPs for delivering infrastructure services. Policies in favor of attracting private participation have met with varying degrees of success, but real progress has been made in some sectors, first in telecommunications, and now in ports and roads, and with individual projects in other sectors. There has been considerable innovation with different structures now being developed to attract private participation. But at the same time progress has been uneven: there are islands of progress, with some states having undertaken far more PPPs than others, and a much heavier use of PPPs in some sectors than others. And while there are a number of successful projects to the present date, there have also been a number of poorly conceptualized PPPs brought to the market that stood little chance of reaching financial closure. In terms of frameworks for PPPs, some states have made more attempts to develop this, including cross-cutting legislation and the development

of cross-sectoral units that play a role in the identification and preparation of PPPs. Others however have worked within the bounds of their existing organizational structure.

3.2 Given the lack of an existing database on PPPs in India, a survey was undertaken both to provide information on the current usage of PPPs as well as the frameworks developed for their implementation. The main sectors of focus are the basic public services excluding power: transportation (ports, airports, roads, and rail), water and sanitation, and other urban infrastructure (solid waste management, light rail, bus terminals).³ This represents the present areas of focus of many state governments in India. The survey covered 12 of the states regarded to have been most active in the development of PPPs, as well as the 3 central agencies undertaking PPPs in the areas of focus.⁴ The survey also provides some indication of the possible pipeline of PPP projects in India.

³ We also provide some coverage of other basic services such as the social sectors (education and health) and e-governance, but they are not reflected in the main text charts as the available data are not as comprehensive in their coverage. In consultation with DEA, it was decided to exclude the power sector from the analysis, given the complex issues involved in that sector and the range of other efforts focused specifically on power both within the Bank Group and beyond.

⁴ This analysis is based on a non-comprehensive survey of PPP activities to-date in 3 central agencies – National Highways Authority of India (NHAI), Ministry of Shipping, Road Transport and Highways (MOSRTH) and Rail Vikas Nigam Ltd. (RVNL)—and 12 states across basic infrastructure sectors, supported by PwC; although it does not cover the universe of PPPs, it reflects most projects in basic infrastructure sectors in the most active states. The 5 infrastructure sectors of focus where PPP contracts have been awarded in the covered states and federal agencies are roads & bridges, ports, airports, rail, and urban, which in turn includes water & sanitation, solid waste management, bus terminals, light rail, ferries and a logistics hub (although for the last 3 sub-sectors there have been preparatory activities but no contract awarded yet). There also has been activity in health & education and e-governance, in addition to sectors not covered in this report such as power, tourism, and other construction (convention centers, industrial, IT & biotech parks, SEZs, and housing). The states covered are Andhra Pradesh, Delhi, Gujarat, Karnataka, Kerala, Madhya Pradesh, Maharashtra, Orissa, Punjab, Tamil Nadu and West Bengal (though the survey did not include any awarded PPP project in Orissa, only pipeline projects). See the tables in the Annex for more details.

The role of PPPs so far

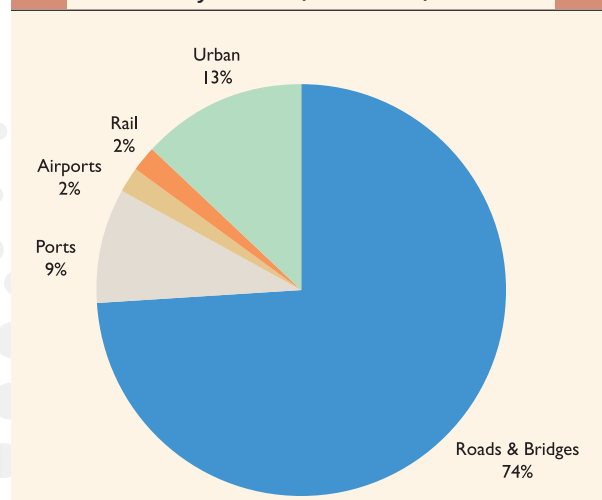
3.3 In the surveyed states and central agencies, there have been at least 86 PPP projects in our main sectors of focus where a contract has been awarded and projects are underway – in the sense that they are either operational, have reached construction stage, or at least construction/implementation is imminent. Over 70% of these are in the roads sector. The other transport sectors have seen much fewer projects, with 8 ports (4 major and 4 minor ports), 2 airport and 2 rail projects underway. In the urban infrastructure sector, 11 PPP projects have been awarded, with 8 solid waste management, 2 water and sanitation and one bus terminal projects. Outside of the sectors of immediate interest and hence not included in the main text totals and charts, the survey found 6 PPP projects in e-governance and 2 in education. Though the coverage may not have been exhaustive for these last two sectors, it is clear that the potential use of PPPs in e-governance and health and education sectors remains largely untapped across India as a whole.

3.4 When looking at the total estimated project cost of PPPs, we see that road projects

account only for 36 percent of the total because of the small average size of projects. Ports, with a much larger average size of project, account for 56 percent of the total. It is noteworthy that if ports and central road projects are excluded from the total, there is in fact a relatively small value of deal flow, at only Rs 30 bn in basic infrastructure PPPs to-date, suggesting a significant potential upside for PPP projects across sectors where states and municipalities have primary responsibility.

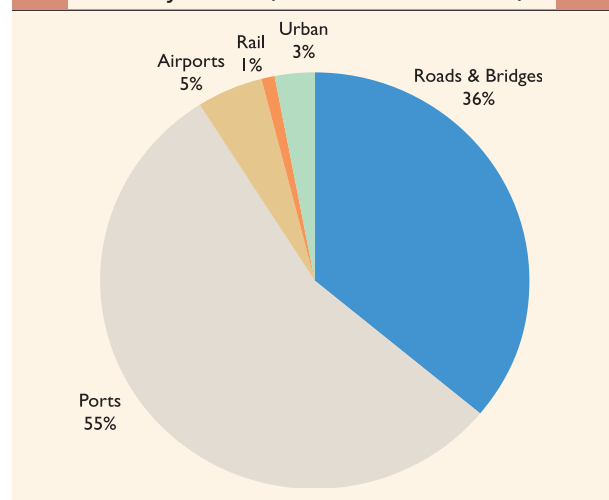
3.5 Across states and central agencies, the leading users of PPPs by number of projects have been Madhya Pradesh and Maharashtra, with 21 and 14 awarded projects respectively, all in the roads sector, and the National Highways Authority of India (NHAI), with 16 projects. The other states or central agencies that have been important users of PPPs are Gujarat (9 projects) and Tamil Nadu (7), Karnataka (4) and Ministry of Shipping, Road Transport and Highways (MOSRTH) (4). However, looking at a breakdown by estimated project size, we see that MP becomes significantly less prominent due to the large number of relatively small-sized projects in its portfolio, falling to 3 percent of total project costs. Gujarat

Figure 1: Number of awarded PPPs by sector (total = 86)



Source: PWC analysis

Figure 2: Project cost of awarded PPPs by sector (total = Rs. 339.5 bn.)



Source: PWC analysis

accounts for 48 percent of total project costs due to its four large port projects. NHAI (17%) and MOSRTH (12%) are the other significant players. Karnataka accounts for 7 percent of total project costs given that its one awarded PPP project, the Bangalore-Mysore road corridor (currently under construction) had a reported project cost of Rs 22.5 billion.

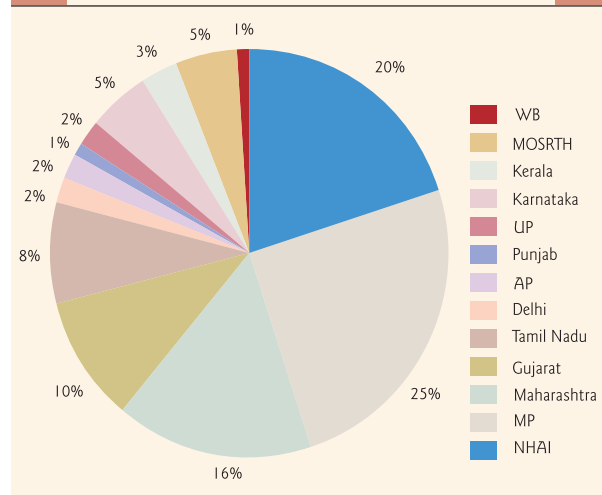
3.6 In terms of main types of PPP contracts, almost all contracts have been of the BOT/BOOT type or close variants. While it may be appropriate for central, state or municipal governments to promote PPPs that can be paid for by users if they are priorities, they may be missing out on other opportunities for more efficient private sector service delivery supported by ongoing public payments over time. Some examples of such other types of PPP contracts used to-date in India include the annuity contracts awarded by NHAI for roads, a small number of affermage-type (O&M with private investment) contracts, and a long lease in Maharashtra for the Mumbai-Pune expressway.

3.7 Anecdotal comments from the private sector suggest that a considerable number of un-

bankable and unrealistic PPP projects are brought to the market by state governments. Data from the survey presented in the Annex show that there were 15 projects that have not moved forward past the award stage either because they have been abandoned or remained dormant. Of these, several had no good offers forthcoming in response to successive requests for expressions of interest. Although this number is not obviously high compared to the number of projects underway, it nonetheless suggests that there may be significant benefits from capacity building in identification and preparation of PPPs to ensure that more bankable projects are brought to market.

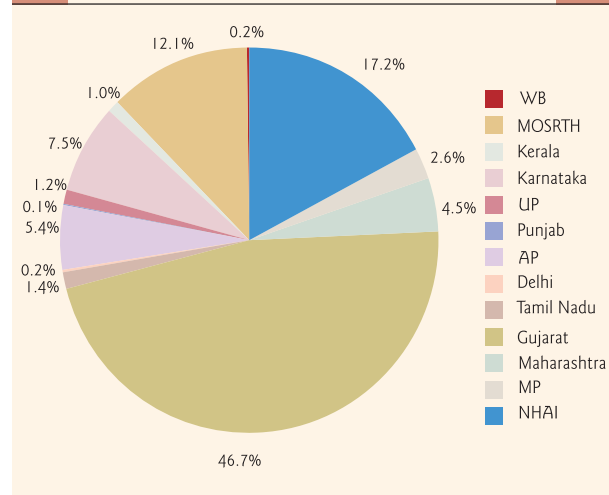
3.8 In terms of approach to provider selection, 93 percent of the projects in the sample were competitively bid (of which four-fifths used national competitive bidding), with only 7 percent procured either through Memorandums of Understanding (MOUs) or negotiated. However, it is worth noting that in value terms 42 percent of the projects were awarded on a negotiated/MoU basis.

Figure 3: Awarded PPP projects by states & central agencies (total = 86)



Source: PWC analysis

Figure 4: PPP projects by states & central agencies (total = Rs. 339.5 bn.)



Source: PWC analysis

Institutional frameworks for PPPs in India

- 3.9 A wide range of institutional structures and capacity approaches have been adopted for conceptualizing and procuring PPPs across states and central agencies, different variants of which have had some degree of success. At the state level, the three main approaches have been: combining dedicated institutions with cross-cutting legislation; establishing and using cross-sectoral PPP advisory units to help line departments in the absence of overarching legislation; and relying on line departments and sectoral agencies to build capacities. Table 2 provides a summary of state-level approaches.
- 3.10 Gujarat, AP and Punjab have developed specialized institutions and legislation. Each

of these states has constituted an agency (respectively the Gujarat Infrastructure Development Board, the AP Infrastructure Authority and the Punjab Infrastructure Development Board) and passed acts to promote private sector participation in infrastructure projects across sectors. As an illustration, the Gujarat Infrastructure Development Act, 1999, gives force of law to the provision of entering into a concession agreement with a private sector developer, provides transparent procedures for selection of the developer, and provides for levying user charges for the facilities provided by the developer.

- 3.11 A second category of states, including Karnataka, Rajasthan, Uttaranchal and West Bengal, have developed cross-sectoral

Table 2: Institutional Frameworks for PPPs in India

	Framework law enacted	Nature of PPP unit established *	Approval power over PPPs**	Intensive project-specific advice**	Resource center ***	PPP guidance material***	Funding for PPP preparation (b)***
Gujarat	✓	②	✓	✓	✓	✓	✓
Andhra Pradesh	✓	②	✓	✓	✓	✓	✓
Punjab	✓	②	✓	✓		✓	(b)
Madhya Pradesh						(a)	(b)
Maharashtra							(b)
Tamil Nadu							(b)
West Bengal		④					(b)
Karnataka		④					(b)
UP							(b)
Orissa							(b)
Delhi							(b)

Notes:

* "PPP unit" in this table means a cross-sectoral unit. Legend for this column: ① = unit is part of ministry or department; ② = autonomous or quasi-autonomous administrative unit; ③ = public authority or publicly owned company (outside civil service); ④ = public-private joint venture company.

** Refers to the dedicated PPP unit.

*** Might be provided by the dedicated PPP unit or by another department or ministry.

(a) – sector specific, (b) – limited to some sectors/agencies/projects

Source: World Bank analysis

facilitation entities, but have not passed comprehensive legislation. In Karnataka, the Infrastructure Development Corporation of Karnataka (iDeCK) is a joint venture between the state government and IDFC modeled on Partnerships UK, providing advisory services such as enabling frameworks, project development and structuring, and management of a Project Investment Fund. The Rajasthan Project Development Corporation (PDCOR) is similar in structure, a joint venture between the state government and IL&FS to facilitate private investment in infrastructure, including policy advisory services to the state government, and institutional support to structure and implement PPPs. The ICICI – West Bengal Infrastructure Development Corporation Limited (IWIN) is a joint venture between ICICI Bank Group and Government of West Bengal formed with the objective of accelerating the development of infrastructure.

- 3.12 Finally, a third category of states, including MP, Maharashtra and Tamil Nadu, have relied on sectoral and line agencies to develop and implement PPPs. In Madhya Pradesh (MP), for example, initially the MP Public Works Department (PMMWD) and then the specially-created MP Road Development Corporation (MPRDC) act as the agency for development of road projects on a BOT basis. In the process of developing projects, MPRDC has developed policy, guidance materials and skills. In Maharashtra, the State Road Development Corporation (MSRDC) and Mumbai Metropolitan Region Development Authority (MMRDA) have developed policies for infrastructure development through private sector participation, including a “Policy on implementation of Road & Bridge Projects through private sector participation”.
- 3.13 At the central level, the NHAI has developed and modified standard concession agreements,

and has developed different approaches for extending government financial support for PPPs. The capacity building measures under way at NHAI focus on improving human resources, financial systems, bid process management and include internal training, study tours and the development of a robust MIS system. However, it is understood that a number of personnel are on deputation and they leave once their tenure is over. Though this is not an unusual situation for public agencies, it does of course lead to a loss of expertise and knowledge. For the rail sector, a special purpose vehicle called Rail Vikas Nigam Limited (RVNL) has been floated to develop, mobilize resources and implement PPPs. There are no obvious structures in place at the central level to transfer expertise and knowledge built up in one agency – for example NHAI – to a second that is just embarking on PPPs.

- 3.14 There is no clear link between institutional structures and success in developing PPPs in India. It would seem clear from the experience of MP and Maharashtra in the development of PPPs for roads that it is possible to develop a PPP program in a single sector by building up capacities in line departments. However, these states are conspicuous by their absence of PPPs in other sectors, no doubt at least in part driven by the absence of platforms to transfer acquired skills to other departments. Gujarat, AP and Punjab have all developed cross-sectoral enabling legislation and dedicated agencies but have had very different track records in terms of taking PPPs successfully to the market. Some other states – such as Tamil Nadu – have also developed a few PPPs across a wide range of sectors, without explicit cross-sectoral PPP units or legislation.
- 3.15 Fundamentals such as political commitment towards the use of PPPs, sufficient trained

staff, and strong links between built-up capacity and implementation responsibility in the respective line departments are probably the most important ingredients of success.

The development of policies and standardization of contracts

- 3.16 Although some states have developed policies that advocate the use of PPPs, the underlying policy rationale is by and large one of using PPPs to substitute for capital investments by the state. PPPs have therefore been used more in situations where substantial capital investments are required, and where user fees can be accessed to defray much of the costs. To the extent that it is possible, user fees should be used to pay for projects. However, purely seeing PPPs as a substitute for public investment has drawbacks. It can be illusory, since many of these PPPs will have fiscal costs, as noted above. It can also lead to inconsistent signals to private developers, as arises when governments have reduced or scaled back PPP programs when additional funding – for example provided by multilateral agencies – has become available for public investments.
- 3.17 In some cases, PPPs are overseen by regulatory agencies, such as in the ports sector, where TAMP, the sector regulator sets tariffs for port services for the major ports. In most cases however, the PPPs are regulated through the contract between the government agency and the service provider. Here the need will not be for a regulatory authority with substantial discretion, but rather for an efficient method for settling the disputes between the contracting parties that are likely to arise in even well-designed contracts. Monitoring by consumer and stakeholder groups of the performance of PPPs has been tested in India and is one way of supplementing the capacities of the

government to oversee contractor performance.

- 3.18 There have been some efforts by state governments and central agencies to develop standard contracts. At the state level, as highlighted in the Table 2 above and in greater detail in the Institutional Framework table in the Annex, Gujarat and AP have developed cross-sectoral model contracts and Punjab as well to a more limited extent. Madhya Pradesh has developed some standard documents in the road sector. At the central level, NHAI has developed model contracts and standard documents for the road sector.
- 3.19 There have not been systematic attempts to develop and use methodologies to evaluate whether particular projects are best done through a PPP route or through traditional public procurement. Tools such as Public Sector Comparators (PSCs) have not been used very widely in India so far, even on a simplified basis. The lack of an adequate baseline on the actual costs of delivery by the public sector admittedly makes such comparisons more difficult, but undertaking these comparisons would help ensure that the PPP route is best for the priority project. Moreover, anecdotal evidence from other countries suggests that PSCs are useful in clarifying approaches to risk allocation, and the expected benefits of this, in the contracting agencies.

Training and other information dissemination initiatives

- 3.20 In terms of formalized individual capacity building, the number of specialized courses offered on PPPs in India has been limited. There are some training programs at central or state level, as well as those organized industry organizations such as Confederation of Indian Industry (CII). Many of the government

organizations – both at the senior levels and middle levels – take part in these programs. However, with civil servant staff in general shifting position every few years, most of the training imparted can be quickly lost.

- 3.21 Perhaps more importantly, there is relatively little information on PPPs either in the public domain, or commonly available to government officials developing PPPs. This includes examples of contracts and clauses, and assessments of the success of different approaches both in terms of contracting structures as well as institutional frameworks for PPPs.

Where are the gaps in India compared to elsewhere?

- 3.22 While some states in India have made important progress towards developing the frameworks needed for broad and robust PPP programs, others have developed policies and approaches in a single sector only, and most other states are yet to seriously commence PPP programs. As a result, there is considerable diversity in both the strength of policy and legal frameworks in place, and the level of transactions capacities and experiences.
- 3.23 Even taking this diversity into account, there are some common areas where frameworks in India need to be developed. As noted earlier, the policy rationale for PPPs is often limited to the use of PPPs as a source of investment capital when the public sector lacks funds. As a result, there is not much championing of PPPs on the grounds that they will lead to more efficient service delivery and better value for consumers and taxpayers. There is limited systematic compilation, analysis and transfer within the public sector of knowledge and experiences between PPP projects, sectors and

different governments; to the extent that there is a lack of confidence in civil servants to undertake PPPs, greater awareness of good examples and established procedures can help make it more acceptable to follow, with the best antidote to inaction being precedence. Capacities for evaluation and oversight in particular need to be built up: there is little evidence so far that there has been much progress in developing capacities to decide which projects are best done through PPPs, and ex-post evaluation of the performance of PPPs versus expectations has been limited so far.⁵ Finally, the processes for identifying and procuring PPPs are often not clearly laid out.

- 3.24 That there are gaps should not be surprising, in part because most state governments in India are at an early stage in the development of their PPP programs. Nonetheless it is important that the right frameworks and capacities are further developed in the states and agencies where PPP programs are going to be pursued.

Expanding the use of PPPs to meet basic services needs

- 3.25 The survey of state and central agencies revealed that, at present, they have 52 PPP projects at various stages of development prior to contract award. Roads, rail and ports are most prevalent, with 39 of the pipeline projects in these sectors (13, 14 and 12 PPPs, respectively). In urban infrastructure, there are 12 PPP projects in the pipeline, with 3 in water & sanitation, 6 bus terminals, one waste management, one light rail and one ferry project. Across states and central agencies, the leading developers of these pipeline projects are RVNL (12 rail), followed by Karnataka (9), Maharashtra (7), and Orissa (7).

⁵ The exception to this are reviews of the power sector, which in turn are largely focused on the Orissa distribution privatization and Dabhol.

- 3.26 PPPs have the potential to be used more widely in India for the delivery of basic infrastructure services. But a set of policy, regulatory and capacity issues will need to be addressed for this to happen.
- 3.27 As noted earlier, PPPs have been used more in situations where substantial capital investments are required, and where user fees can be accessed to defray much of the costs. This approach excludes projects where the government remains the purchaser of services but where efficiency gains can be achieved through going the PPP route relative to traditional public procurement. A clearer policy rationale, and one that does not rely largely on the “substitution” rationale and more on the role that PPPs can play in improving the efficiency and quality of service delivery will be important in broadening their usage where they lead to lower life-cycle costs.
- 3.28 Political and regulatory risks involved in PPPs are still perceived to be substantial by the private sector. These risks are likely to be perceived as lower where a state government or a particular agency has developed a track record of bringing well conceptualized PPPs to the market and honoring contractual commitments, particularly where state governments or state enterprises are not financially strong. Although there are differences within the country, these risks remain.
- 3.29 Some of these risks are manifested in slow and fragmented approval processes for infrastructure projects that successful bidders must negotiate. As well as increasing risks, the delays increase the overall cost to bidders, and hence the costs to taxpayers and consumers.
- 3.30 Finally, a broader, but successful PPP program will require the public sector to develop better capacities to identify possible PPPs, to develop bankable contracts and bid them out, and to monitor their performance and costs. Informal feedback from the private sector suggests that governments still float unrealistic PPPs, for example. Moreover, since PPPs are not a panacea and entail costs to the government, capacities must be strengthened if these programs are not, down the road, to lead to substantial costs for the governments concerned.



4. Developing and Strengthening Capacities for PPPs in India

- 4.1 While progress has been made, both by having a substantial number of PPPs now in operation, and by putting in place legislative and institutional frameworks for PPPs in some states, scaling-up the use of PPPs will require addressing the gaps identified in the previous section. Many PPPs will be for services which are state, and, in some cases municipal subjects, and capacities have to be developed at this level, where service responsibilities lie. However, there are roles the center could play in developing capacities at the sub-national level, in addition to developing capacities at the central level.
- 4.2 Both experience to date in India, and internationally, shows that there is no unique formula for developing a sound PPP framework. However, successful programs are characterized by clear policy and legal frameworks for PPPs, competent and enabled institutions that can appropriately identify, procure and monitor PPPs, and efficient oversight and dispute resolution procedures. We look at the following main steps that will be critical to scaling up the PPP program in India and assess the actions that could be taken by the center in the following areas:
- ◆ Strengthening the monitoring of their fiscal costs;
 - ◆ Policy and legislative frameworks;
 - ◆ Information dissemination;
 - ◆ The development of guidance material;
 - ◆ Setting up a PPP unit to serve as a pool of expertise;
- ◆ Project development funds for the preparation of PPPs; and
 - ◆ Funding for PPP payments made by state governments.
- 4.3 The center's role in developing capacities for sub-national PPPs needs careful consideration taking into account the size of the country, center-state fiscal and other relations and the variety of experiences so far, with some states having made considerable strides and others having made very little progress. Its role also depends on the extent to which the center wishes to proactively catalyze the increased use of PPPs by states and municipalities. Information dissemination and guidance efforts can be expected to lead to results. However, a catalytic role by the center is likely to be needed to expand the usage of PPPs, particularly in states and sectors where they have been less used so far. This would consist, in addition to information dissemination and guidance, of resources to develop PPP projects and frameworks, and to fund government commitments under PPPs. This would help address important constraints to further development of PPPs in the country – namely, weak capacities to identify realistic PPPs and bring them to the market; a lack of willingness to pay for project development; and a lack of creditworthiness on the part of states to provide their financial contribution to PPPs. However, there are considerably more risks in this catalytic role than in more limited information dissemination and guidance roles.

Strengthening oversight of the fiscal costs of PPPs

- 4.4 Regardless of whether or not the other actions listed in para. 4.2 above are taken, if there is to be an increased use of PPPs the center should work to strengthen oversight of their fiscal costs. PPPs can involve substantial contingent liabilities as well as long-term purchase obligations. Fiscal Responsibility Acts passed at the central level and by the states of Karnataka, Uttar Pradesh, Punjab and Kerala all include statements on fiscal prudence and treatment of contingent liabilities that are relevant to PPPs. State legislation typically limits total liabilities as a percentage of GDP and includes provisions related to contingent liabilities. Karnataka's Act breaks new ground by including off-budget borrowing and other debt-equivalent instruments within the annual borrowing (consolidated fiscal deficit) cap. Nonetheless, implementing this may not be straightforward.⁶ More generally, while debt guarantees are often published, the values of other kinds of guarantees are not. Nor is it clear that governments value or calculate in-kind support provided to many PPPs, for example real estate development options, which can be a further source of fiscal costs as well as an important factor in deciding whether a PPP offers value-for-money.
- 4.5 There are only emerging practices and models internationally since this is also new for most other countries. In general, reporting and disclosing PPP contracts and government guarantees and reporting the stream of future payments under existing PPP contracts would be good practice and, where a PPP program is of fiscal significance, a report on PPPs covering these areas should be included as part of the budget documentation. Some countries have started to implement enhanced

programs of disclosure. Chile, starting with the October 2003 *Report on Public Finances*, now reports the contingent liabilities arising from PPPs as well as the cash payments to and from concession firms. Monte Carlo simulations and option-pricing models are used to value minimum revenue guarantees, revenue sharing agreements, and the exchange rate guarantees.

- 4.6 The center should work to strengthen oversight of the fiscal costs of PPPs, including assisting state governments in this area and enhancing analysis of the fiscal costs of PPPs in central government monitoring of the fiscal position of the states. Capacity-building efforts should be led by the GoI Finance Ministry, with involvement from other agencies, such as the Reserve Bank of India, as necessary. This capacity building effort should go forward regardless of any other steps taken by the center.

Policy frameworks

- 4.7 Both the center and some of the states have had in place for some time policies on private participation for specific sectors: in ports, for example the center issued "Guidelines on Privatization" for the major ports in 1996 and Gujarat preceded this with a ports policy in 1995.
- 4.8 New policy initiatives would however be useful in an effort to scale up and broaden the PPP program, both at the central and state level. Importantly, this would have the government concerned set out clearly why PPPs are being pursued and the benefits sought; and indicate that they will only be pursued where these benefits can realistically be expected. As noted in Section 3, one of the gaps in PPP frameworks in India compared to many other

⁶ It is understood that the annuity scheme used to finance the expansion of the existing Bangalore-Mysore road has not been included in these consolidated calculations even though it could be regarded as a "debt-equivalent" instrument.

countries is the emphasis on PPPs as raising additional capital, rather than only being pursued where services will improve and taxpayers and consumers will get value-for-money. This could be addressed by a clear policy statement which would make clear both the rationale and also the limits to the use of PPPs. This would help to give the PPP program a clearer political mandate.

- 4.9 Broad policy initiatives would also enable governments to announce more clearly the institutional framework for PPPs. This could include the regulation, oversight and evaluation of PPPs, all areas which need strengthening, as well as the role of any new cross-sectoral units in developing and implementing PPPs. Another important area to be addressed would be procedures for the procurement of PPPs, in particular the use of competitive processes, and approaches to be adopted towards unsolicited projects.
- 4.10 While broad policies provide an important signal of political commitment, it may also be necessary to translate this into action plans and policies for individual sectors. These could provide a more precise orientation to encourage line ministries and agencies to pursue and implement PPP programs.

Legislative frameworks for PPPs

- 4.11 Cross-cutting PPP laws are not needed in India to permit central or state governments to enter into PPPs. Both the center and many states have done so without such laws. Sector specific legislation has of course been used to restructure industries, introduce competitive markets and set up new institutions, such as sector regulators.
- 4.12 In Section 2 it was argued that one of the benefits of cross-cutting PPP legislation is that it allows the consolidation of relevant legal

provisions into one law, and also allows the government to legislate the use of certain processes for the development, procurement and regulation of PPP projects. While not strictly necessary, the use of new processes might be better enforced if given the force of law. This might be more important at the state level, where checks and balances and oversight are not as strong as at the center.

- 4.13 Particularly at the state level, therefore, consideration should be given to the development of cross-cutting PPP legislation. The legislation already passed by Gujarat, Andhra Pradesh and Punjab provides possible models for other states. One important aspect that could be addressed by such legislation is mechanisms for dispute resolution. The national legislation in telecommunications provides one model of how such a process and institution can be created that leads to a quicker and more efficient process of settling disputes. Legislation could also establish alternative dispute resolution procedures that could be used to efficiently settle differences between the parties.
- 4.14 The development and passage of legislation also allows for consultation and open debate about the government's policy for pursuing PPPs, including the expected benefits and rationale. This could be an important mechanism to help increase the public legitimacy of PPPs.

Information dissemination

- 4.15 Despite the fact that there are nearly 90 PPPs in India under construction and operation, there is no publicly accessible database providing even the most straightforward information on them. The database presented in Section 3 could however provide the nucleus for this. There is no organized forum for state level PPPs, or even central agencies, to share experiences, and it is difficult to compare contracts for similar services since

these are not in the public domain. Improving the flow of information would help government officials planning and developing PPPs, the private sector interested in participating in PPPs, and stakeholders interested or concerned about PPPs.

- 4.16 One main component of an information dissemination program would be a web-based portal that would feature: a publicly-accessible national database that would contain on a project level basis information on its basic structure including sector, expected/actual contract award date, capital cost, executing government agency and private developer, and method of tender; links to websites of both Indian and foreign PPP agencies and contact information for agencies in India developing PPPs; and PPP pipelines for different states and municipalities. Sufficient resources for ongoing maintenance of the database must be provided to ensure continued relevance.
- 4.17 A second major component would be the development of training materials. The main target group would be project teams in contracting authorities, but training could also be targeted at more senior government officials, as well as those in other ministries, such as Finance, that interact with the contracting authorities and have an oversight role. The private sector may also benefit from such training. Substantive evaluation efforts, for example analysis of successes and failures of individual projects, and case studies would assist in the development of training materials and help both in designing new PPPs and managing existing ones. Over time this could be broadened into the provision of data on the performance of PPPs to improve decision making on the use of PPPs versus traditional public procurement.
- 4.18 Finally, efforts could also be made through workshops and other information dissemination mechanisms to reach politicians, consumers and other stakeholders, so that they are better informed about the nature and structure of PPPs. This would also be helped by greater transparency including placing PPP contracts in the public domain (see Box 6). There may be concerns over disclosure. However, there is relatively little that is genuinely commercially confidential in PPP arrangements, and though these are complex documents, this does not seem to be a valid reason not to allow citizens to access them.
- 4.19 The public good nature of information dissemination means that it would make sense for this to be led by a unit located within a single central ministry with cross-sectoral responsibilities, such as Finance. Most of the work would be contracted out and delivered by others, including the development and maintenance of the portal and database on PPPs, and training material and case studies could be developed by a national training

Box 6: Encouraging transparency in PPPs

Public disclosure of PPPs promotes consumer rights, helps enforcement of obligations, and reduces incentives for corruption and special treatment of certain private providers. A number of countries have taken the initiative to place contracts for public services in the public domain. In some situations, more general policies and legislation on access to information motivate this. In the UK, the Freedom of Information Act, now in force since January 2005, will allow people to access information on PFI and other PPP contracts, including provisions relating to payment terms, incentive mechanisms, performance standards, dispute resolutions, and other procedures. It will also be possible to obtain information on evaluations and compliance reports under PFI projects. To help promote the practice of routine disclosure, the World Bank maintains an Infrastructure Contracts & Licenses Database that provides links to government and regulatory agency web sites that contain the main instruments – contracts and licenses – used to regulate public and private provision of infrastructure services. This can be found at <http://ppi.worldbank.org/icl/>

institute and/or think tanks, with delivery supported by a number of regional centers for PPP training. These could also undertake outreach efforts outside of the government.

The development of guidance material for PPPs

- 4.20 Guidance material can offer a number of benefits, including more rapidly diffusing good practices and lowering transactions costs. The standardization of contract clauses can help reduce both the complexity of PPP arrangements and project preparation costs. A number of practitioners in India have also argued that the lack of standard contracts or standard clauses that are approved by the center makes bureaucrats more reluctant to sign off on PPP deals.
- 4.21 Another possible role for the center would therefore be to develop guidance materials to support the development and implementation of PPPs. This could cover issues related to contract design, procedures for identifying, procuring and managing PPPs, and even model PPP legislation.⁷ It could also cover short guidance notes on focused topics of interest. Such notes could be a helpful complement to case studies, allowing for the discussion of nuances and recommendations for differing local contexts.⁸
- 4.22 Model contract clauses, template contracts, guidelines and process-related tools have

however already been developed to varying degrees by some states and central entities. One option would be to rely on a more natural diffusion of these approaches with states copying other approaches held to be successful. Although there are examples from international practice of detailed guidance being provided by the national government – such as in South Africa, for example – in a number of other countries (for example Canada and Australia), the center provides no guidance to sub-national governments. There are also risks that centrally sponsored model contracts can reduce the needed room for flexibility and innovation even where these models are advisory and not mandatory.

- 4.23 Despite these concerns, a central effort to produce guidance material clauses could lead to the more rapid adoption of good practice approaches by states, reducing learning and transactions costs for private companies and their advisors. This is probably true in most countries, but will likely be as applicable, if not more so, in India where the mechanisms for sharing information and experiences are still limited. Some of the risks associated with guidance being seen as mandatory could be addressed by having guidance indicate a range of options wherever appropriate – for example different options for using particular formulations for contractual clauses, or processes or methodologies for estimating affordability to the government or value-for-money of a PPP.

⁷ Model contract clauses —for instance for force majeure, refinancing, termination and dispute resolution— can help inject international or national best practice, and avoid each contract re-inventing the wheel. Process-related guidance could concern step-by-step directions on how to undertake a variety of the tasks required for project preparation, provider selection and contract management, such as how to appoint and manage transaction advisers to the contracting authority, how to prepare an initial business case (demonstrating affordability & market appetite, and the tradeoffs in choosing between traditional procurement and the variety of PPP options), how to construct a public sector comparator (a benchmark on which to judge the value for money of bids), how to prepare a value for money report (and clarifying the extent of risk transfer), how to undertake stakeholder consultations, and how to conduct independent auditing of projects.

⁸ Some of the possible topics that have been suggested as being relevant in India are: how to reduce time from pre-feasibility to contract award; benefits of concurrent project review by government entities; why it may be better to award part-success fee to advisers at financial close; how to design an effective first-step pre-arbitration dispute resolution; and why a state may benefit from a dedicated PPP unit and how to set one up.

4.24 This relatively limited role could be led by a single central agency, though would benefit from input and oversight from a public-private advisory group to guide where this central effort could add most value, and what types of materials are most needed. On the public sector side, this should contain representatives from state governments as well as the center. Much of the actual preparation of material should be contracted out to consultants experienced in the field.

PPP units to provide a pool of expertise

4.25 As noted in Section 2, most countries engaged in a broad-based PPP program have felt the need to develop a cross-sectoral PPP unit although the role that this unit plays is sometimes restricted to information dissemination and the preparation of guidance material. The design response to two key issues – the role of a cross-sectoral unit vis-à-vis line ministries and the role of a national unit in sub-national PPPs – will be driven by the business practices within governments and the fiscal, and other, relations between the center and the states. This means that some models which are more centralized, such as those in the UK and South Africa where national level units have a prominent role in sub-national PPPs, will not be workable approaches in India.

4.26 At the **state** level, a dedicated PPP unit can both broaden the PPP program by transferring lessons and experiences across sectors, as well as improve the quality of PPPs by bringing to bear better transactions skills. Particularly where there is not a track record of PPPs, skills are probably best brought in from the private sector to supplement available capacities in the state government. A number of states have done this through a public-private company, for example

Rajasthan and Karnataka. While this may be a straightforward route for bringing in expertise, the possible conflicts of interest (see Section 2) have to be addressed and dealt with.

4.27 A **national** PPP unit could undertake the information dissemination and guidance roles described above. It could also usefully play an active role in identifying areas where PPPs could be undertaken by central agencies and ministries, and working with these agencies to conceptualize and bring to the market individual PPPs. To do this, it would need the right transactions skills, most likely brought in from the private sector. There might also be concerns that the line agency would, for turf reasons, not work or cooperate with this unit in the development of its PPPs. These concerns would be reduced both if the unit was seen to be highly skilled and its contribution valued, as well as if there were requirement for the vetting of central agency PPP proposals by this unit, prior to their clearance.

4.28 It is not so clear that this unit should have an active transactions advisory role with respect to state and municipal PPPs, in the manner, for example, that Partnerships UK does. This would directly substitute for the development of state-level capacity. It may also be challenging to do this for a large number of deals, and there might need to be some form of prioritization most likely for sectors that have seen fewer PPP deals in India to date - given the number of PPP road projects done to date, this might not be a major focus of the advice being provided by this unit. This unit would however build up state level capacities through information dissemination and guidance, and also by furthering the national level PPP program.

4.29 However, if the center were to provide additional funding for PPPs (see below) then this unit could

review these PPPs to assess whether the contractual structure proposed is robust, that risks are efficiently allocated and that projects to be supported by the center are sound. This oversight role may eventually develop into a prescriptive role, with states interested in accessing the central fund having an incentive to use the national unit's approaches and recommendations to increase the likelihood of acceptance of their project. It would be important therefore that if this clearance and oversight is done that the national unit make clear its guidance and approaches on contract design, risk allocation, affordability and value-for-money assessment, and provider selection.

- 4.30 The two main options for constituting the national unit are either as a cell or group within an existing ministry or agency, or as a company, either owned solely by the government or a joint public-private company. The right choice depends in part upon what role the unit is to fill. The first option is likely to be the best approach if it is to play primarily an information dissemination and guidance role. Within this set-up, whatever transactions skills may be needed could be secured through hiring consultants on long-term contracts. The second option would be preferable were the unit mainly to focus on transactions and undertake a bigger volume of deals, as setting it up as a company will facilitate paying salaries to attract staff with financial and legal skills, and make it easier to provide monetary incentives for closing deals. However, it is likely to take more time to implement and establish compared to creating a unit within an existing agency. There is a third possibility, a separate agency or authority but this would perhaps not offer the benefits of speed of establishment and integration with existing budgeting and approval processes that a unit within an existing ministry would have, nor the flexibility that a company would have in terms of pay scales and incentives.

- 4.31 The need for such a unit, and the roles it will play over the life cycle of PPPs, should be agreed and accepted by both line ministries and Finance and Planning. Up-front agreement would help ensure that it serves a well-defined purpose and at its inception neither is perceived as a threat nor suffers from unrealistic expectations.

Project development funds

- 4.32 A number of PPP units manage funds which defray some of the costs of developing PPPs (see Table 1 in Section 2). There are two arguments for the use of these funds. The first is that many governments new to PPPs do not appreciate the need to spend more on preparation of PPP projects than was spent on the procurement documents for civil works projects in the same sector. The second is that since PPPs are relatively new, the costs of preparing initial projects may be higher and that with learning some of these will come down.
- 4.33 One important issue is the terms on which this fund would be accessed. A purely grant-based fund would maximize chances of uptake, but would bring with it risks that it was not being used for priorities. This could be mitigated to some extent by having clear eligibility criteria for accessing these development funds – for example in particular pre-specified sectors, or sectors where the state concerned had done no previous PPPs, or projects serving mainly the poor. Having states borrow these funds would reduce the need for this but may negate the rationale for the funds, as given above. An alternative may be to have some form of matching grant scheme, with the states providing some financing to complement what comes from the project development fund. A national PPP unit could oversee the project development fund.

Funding of PPPs

- 4.34 The use of PPPs for the delivery of basic services by state and municipal governments would be stimulated by the provision of central funds to support their payments under PPPs. Any additional funding of PPPs should be complemented by a more rapid development of capacities to monitor the fiscal costs of PPPs.
- 4.35 The detailed design of such a PPP fund, including the type of support, project eligibility criteria, selection mechanism and how the quantum of support for a project is determined is beyond the scope of this report. A significant effort would have to go into this to ensure that it is well targeted and efficiently used. There is considerable experience internationally with the use of subsidy funds for the expansion of infrastructure services such as telecommunications and power, where government funds complement user fees. These are relatively straightforward, with a competition for funds typically being done on a minimum subsidy basis, for example per new connection to be made. A fund that spans different sectors and also allows for different structures (for example where governments are the sole purchasers of PPPs under contracts rather than government funds being used to supplement user fees) would be more challenging to implement. Consultation with lenders, sponsors and state governments will be an important step in improving the design whilst at the same time ensuring that key central government concerns are met.
- 4.36 It will be important to ensure that projects supported by the fund are priorities for the contracting governments. A substantial matching contribution from the state/municipal government contracting for the PPP would be important to provide commitment to the project and indicate that the project was a priority. It would however be important to clarify what, out of different possible forms of government support (e.g. land grants, tax breaks, risk-bearing, cash subsidies), would represent a matching contribution.
- 4.37 It will be equally important to ensure that competition is used to reduce the demands for public funds. It would be far more difficult to size subsidies – and also less transparent – were projects first awarded by state governments on the basis of particular criteria and then subsequently developers approached the fund for support. Otherwise a promoter could “low-ball” on the tariffs for a project to succeed in getting a project awarded, and then access monies from the PPP fund to make up the difference.
- 4.38 Project design, risk allocation, affordability and value-for-money should also be assessed for these projects to ensure that the center is supporting well-designed PPPs, as noted above. This could be done by the central PPP unit – though there might be conflict of interest concerns if this unit received a success fee from working on transactions, in which case the involvement of others would be necessary in clearances.

Recommendations: a role for the center in developing India's PPP program

- 4.39 There are a number of steps the center can take to expand the role that PPPs play in basic service delivery at both the national, state and municipal levels. The main components of a strategy to catalyze the broader use of PPPs would be:
- ◆ A clearly articulated policy statement on the use of PPPs at the national level, including their rationales and the benefits expected, backed up by concrete plans

and targets for increasing the use of PPPs in national programs

- ◆ The creation of a national level PPP unit that would undertake information dissemination and guidance functions as discussed above, and provide advisory support to the central PPP program;
- ◆ A project development fund to reduce the transactions costs to state and local governments of preparing and bidding out PPPs; and
- ◆ A fund to partly cover the cost of state and local government commitments under PPP contracts.

4.40 The primary responsibility for developing state and municipal level PPPs lies at those levels of government. The actions outlined above can encourage the development of capacities and PPP programs at sub-national levels, but should not substitute for needed actions by the governments contracting for these PPPs. Perhaps most importantly, the scale and quality of the national PPP program provides a model for state and local governments. This includes not just the transactions themselves, but also commitments to disclosure of agreements and transparency and also the regular ex-post review of PPPs to assess

whether the hoped-for benefits had been realized in practice.

4.41 The activities outlined above will need some form of coordinated effort. A PPP unit set up within a single ministry or agency with cross-cutting responsibilities, for example Finance or Planning, could readily undertake information dissemination and guidance roles, given budget, staff and oversight. It could also provide transactions expertise to a limited set of projects by buying-in expertise from the private sector on long-term consulting contracts. However, a broader transactions role across a range of central agencies and ministries and in particular developing sub-national PPPs will require more human resources. Were these activities to be pursued on a larger scale than this might better be done through a separate authority or company than a unit within an existing ministry or agency.

4.42 Regardless of whether or not the steps outlined in para. 4.39 are undertaken, the center should work through existing approaches to improve the monitoring of the fiscal costs of PPPs entered into by central agencies and state governments.

Annexes

AWARDED PROJECTS BY STATES & CENTRAL AGENCIES

Project Name	Agency	Sector	Cost (Rs. Mn)	Structure	Tender	Private contractor/developer
Andhra Pradesh Visakhapatnam Industrial Water Supply Project	APIIC	Urban Infrastructure	4500	BOT	ICB	Larsen and Toubro
Hyderabad International Airport at Shamshabad	APTR&B	Airport	14000	BOO	ICB	GMR and Malaysian Airport Holding Berhad
Delhi						
Collection and transportation of Municipal Solid Waste	Municipal Corporation of Delhi	Urban Infrastructure	590	Affermage	ICB	Subhash Projects and Marketing Limited for Central, City and South Zone, City Life Line consultants for west zone and Anthony waste management for Karol bagh and Sadar pahar Ganj Zone.
Compost Plant	Municipal Corporation of Delhi	Urban Infrastructure	7	BOT	ICB	Exel Industries Pvt. Ltd.
Gujarat						
Pipavav Port	GMB	Ports	23418	BOT	Negotiated	Gujarat Pipavav Port Ltd
Mundra Port	GMB	Ports	55478	BOT	Negotiated	Gujarat Adani Port Limited
Hazira LNG Terminal	GMB	Ports	34415	BOT	ICB	SHELL-ESSAR Consortium; Bid on Land premium and concession period
Dahej LNG Terminal	GMB	Ports	34000	BOT	Negotiated	Petronet LNG Ltd.
Surenranagar Mahuva Gauge Conversion (Pipavav Railway Corporation Ltd PRCL)	Ministry of Railway	Railways	3730	BOT	Not Available	Gujarat Pipavav Ports Ltd.(GPPL) and Ministry of Railways
Vadodara - Halol Road	R&B Dept	Roads	3300	BOT	Negotiated	JV of Punj Lloyd Ltd. & IRCON Intl., IL&FS
Ahmedabad - Mehsana Road	R&B Dept	Roads	3780	BOT	Negotiated	L&T Ltd.-ECCIL&FS
Deesa-Panthwada-Gundri Road	GSRDC	Roads	273	BOT	Domestic	JMC-Bright-Bharat JV

Project Name	Agency	Sector	Cost (Rs. Mn.)	Structure	Tender	Private contractor/developer
ROB - Chhayyapuri Rail	GSRDC	Railways	270.6	BOT	Domestic	Ranjit Projects Pvt. Ltd. Mehsana [7 bidders were pre-qualified. 7 purchased RFP documents. 2 submitted the bids]
Karnataka						
Bangalore-Mysore Infrastructure Corridor	KRDCL /PWD	Roads	22500	BOT	Negotiated	Consortium - NICE (Nandi Infrastructure Corridor Enterprises Ltd) - The Kalyani group leading with 51 %, its international partners SAB International and VHB International 23 % and Fls led by the ICICI Bank - 26%
Development of Integrated Waste Processing and Engineered Sanitary Landfills in Bangalore	Bangalore Mahanagara Palike (BMP) with assistance from Infrastructure Secretary, Government of Karnataka	Urban Infrastructure	300	BOT	ICB	Ramky Infrastructure Ltd., Hyderabad
Four laning of Bangalore-Maddur State Highway SH- 17 under Annuity Scheme	Karnataka Road Development Corporation Ltd.	Roads	2300	BOT	Domestic	Nagarjuna Construction Company Ltd., Hyderabad, RMC Constructions Ltd. & Maytas Ltd.
Development of Bypass Roads for Sandur Town, Bellary District under direct tolling scheme	Infrastructure Development Department, Govt. of Karnataka	Roads	200	BOT	Domestic	DS Constructions
Kerala						
Cochin International Airport	Govt of Kerala	Airport	3030	BOO	Not Applicable	10,000 private shareholders, mostly NRIs of Keralite origin incl: (1) Geo Electricals Contracting and Trading Co Sharjah, (2) Emke Group, Abu Dhabi, (3) Gulfar Group, Oman, (4) Majeed Bukatara Trading Dubai
Development of Engineered Sanitary Landfill in Villapilsala in Thiruvananthapuram	Thiruvananthapuram Municipal Corporation	Urban Infrastructure	35	BOT	Domestic	Ramky Infrastructure Ltd., Hyderabad
Development of New Mattancherry Bridge Build – Operate – Transfer project in Cochin	Public Works Department, Government of Kerala / Greater Cochin Development Authority	Roads	256	BOT	Domestic	Cochin Bridge Infrastructure Company Ltd./ Gammon India Ltd.

Project Name	Agency	Sector	Cost (Rs. Mn.)	Structure	Tender	Private contractor/developer
Madhya Pradesh						
Bridge on Indore Khandwa stretch	PWD	Roads	4.8	BOT	Domestic	Ayushyaraj constructions
5 Bridges on Indore Dhar Road	PWD	Roads	15.2	BOT	Domestic	Vinod Kumar Shukla Constructions
Bridge on Benaras Nagpur Road	PWD	Roads	28	BOT	Domestic	Vinod Kumar Shukla Constructions
Bridge on Chindwada Mutkuli Road	PWD	Roads	4.3	BOT	Domestic	Vinod Kumar Shukla Constructions
Bridge of Satna Nagrod Bela Road	PWD	Roads	15.1	BOT	Domestic	Vinod Kumar Shukla Constructions
Bridge on Chindwara Nagpur Road	PWD	Roads	13.6	BOT	Domestic	Narmada Constructions
Bridge on Bilaspur Mandla Road	PWD	Roads	9.6	BOT	Domestic	PD Agrawal Constructions
Bridge on Balaghat Siwani Road	PWD	Roads	18.1	BOT	Domestic	PD Agrawal Constructions
Bridge on Chindwada Narsingpur Road	PWD	Roads	13.5	BOT	Domestic	Not Available
Indore-Sanawad-Burhanpur-Edlabaad Road	PWD	Roads	1230	BOT	Domestic	M/s VIVA Highways Pvt. Ltd. Nasik
Ujjain-Agar-Susner-Jhalawad Road	PWD	Roads	651.9	BOT	Domestic	NVS Agroh Infrastructure developers pvt. Ltd.
Hoshangabad-Harda-Khandwa Road	PWD	Roads	810	BOT	Domestic	MSK infrastructure and toll bridge ltd.
Rewa-Jaisinghnagar-shahdol-Amarkantak Road	PWD	Roads	1100	BOT	Domestic	Rewa Tollways
Satna-Maihar-Tala-Umaria Road	PWD	Roads	542.2	BOT	Domestic	Rewa Tollways
Sagar-Damoh-Jabalpur Road	PWD	Roads	897	BOT	Domestic	MA Jabalpur Corridor India Pvt.
Jabalpur-Narsinghpur-Pipana Road	PWD	Roads	741.6	BOT	Domestic	Tapti Prestressed products pvt ltd
Bina-Siranj-Guna Road	PWD	Roads	410	BOT	Domestic	Bina Sinronj Toll Road Ltd.
Raisen-Rahatgarh Road	PWD	Roads	577.2	BOT	Domestic	MSK
Scm-Balaghat-Gondia Road	PWD	Roads	598	BOT	Domestic	AAP Infrastructure

Project Name	Agency	Sector	Cost (Rs. Mn.)	Structure	Tender	Private contractor/developer
Dewas-Ujjain-Badnagar-Badnawar Road	PWD	Roads	493	BOT	Domestic	RV Infrastructure engineers
Hoshangabad-Piparia-Pachmarhi Road	PWD	Roads	598.8	BOT	Domestic	NVs Chetak Enterprises
Maharashtra						
Mauji Bridge + Karmala Norma bridge	PWD	Roads	67.5	BOT	Domestic	Nirman, Nashik
Kharpada Bridge	PWD	Roads	330	BOT	Domestic	Ideal Road Builders
Major bridge - Dharamtar Creek	PWD	Roads	150	BOT	Domestic	Patvardhan Infrastructure Pvt Ltd
Bridge across Waiganga river	PWD	Roads	325.7	BOT	Domestic	Ashoka Buildcom
Mumbai - Pune Expressway	MSRDC	Roads	12180	Lease	Domestic	Ideal Road Builders
Pune Ahmednagar road	PWD	Roads	1050	BOT	Domestic	Ashoka Buildcom
Khambatki Tunnel N.H.-4	PWD	Roads	37.8	BOT	Domestic	Ideal Road Builders
Ahemadnagar Karmala Tembhorni road	PWD	Roads	230	BOT	Domestic	Ideal Road Builders
Bhiwandi Ambadi Road	PWD	Roads	360	BOT	Domestic	Ideal Road Builders
Nashik - Niphad - Aurangabad Road	PWD	Roads	146.5	BOT	Domestic	I.S. Infrastructure & Building Construction (P) Ltd, Nashik
ROB near village Nardana & strengthening existing 2-lane pavement from Tapi Bridge	PWD	Roads	342.1	BOT	Domestic	Ayushajay Construction Limited
Ambadi - Wada Road	PWD	Roads	76.7	BOT	Domestic	Ideal Road Builders
Chinchoti naka Kaman Paygaon Bhiwandi road	PWD	Roads	113.2	BOT	Domestic	Ideal Road Builders
Vadgaon - Chakan - Shikrapur Road	PWD	Roads	2.2	BOT	Domestic	VCR Toll Services Pvt Ltd
Punjab						
Up-gradation, operation and maintenance of Amritsar bus terminal	Punjab Infrastructure Development Board with Punjab Public Works Department	Urban Infrastructure	180	BOT	ICB	Local Contractor (Rohan and Rajdeep Builders Limited)

Project Name	Agency	Sector	Cost (Rs. Mn.)	Structure	Tender	Private contractor/developer
Tamil Nadu						
East Coast Road	TNRDC	Roads	600	BOT	Domestic	TNRDC awarded the contract through competitive bidding to Ashoka Buildcon Ltd for construction & maintenance. The project engineers for supervision and monitoring were awarded on competitive tendering basis to Sheladia Associates & Consultants.
Karur Toll Bridge	Karur Municipality (KM) & Tamil Nadu Urban Development Project (TNUIFSL)	Roads	154.5	BOT	Domestic	East Coast Constructions and Industries Private Limited (ECCI)
Madurai Inner Ring Road	Corporation of Madurai (COM) & TNUIFSL.	Roads	430	BOT	Not Applicable	Not Decided
Coimbatore Bypass Road on NH47	Ministry of Surface Transport (MoST) & GoTN	Roads	900	BOT	Domestic	L&T Transportation Infrastructure Ltd (LTTIL)
Solid waste management in Chennai	Corporation of Chennai (CoM) & TIDCO.	Urban Infrastructure	400	Affermage	ICB	C.G.E.A. Asia Holdings, Singapore was selected through ICB to implement the project.
Tirupur Water Supply Scheme	NTADCL. SPV formed by Tamil Nadu Water Investment Limited - ((TWIL), Infrastructure Leasing & Financial Services Limited (ILFS) and Tirupur Exporters Association (TEA).	Urban Infrastructure	1850	BOT	ICB	Consortium - Mahindra, UUI, WSA (USA), Design - Bechtel, HCC, L&T; Procurement-HCC, L&T - Construction - HCC, L&T; Supervision- GWK(Germany)/CES; Project Management - WSA (USA); O&M - United Utilities (UK); Independent Engineer-Pell Frischmann (UK/India)
Alandur (AM)Sewerage Project	Alandur Municipality & Tamil Nadu Urban Development Project (TNUIFSL).	Urban Infrastructure	400	BOT	ICB	First STP Pvt Ltd, the company floated for the project by VA Tech Wabag Limited (erstwhile, Balcko Duo and Wabag Technologies Ltd., - BDWT) and IVRCL Infrastructures and Projects
Uttar Pradesh						
Delhi - Noida Toll Bridge	New Okhla Industrial Development Authority (NOIDA), Delhi Government, Government of UP, Government of India.	Roads	3900	BOT	ICB	Mitsui, Marubeni, Kampsax International (Denmark), Intetroll (SA)

Project Name	Agency	Sector	Cost (Rs. Mn.)	Structure	Tender	Private contractor/developer
Solid Waste Management Initiatives	Greater New Okhla Industrial Development Authority(GNOIDA)	Urban Infrastructure	13.5	Affermage	ICB	Antony Waste Handling Cell is the solid waste management division of Antony Motors Private Limited
West Bengal						
Solid Waste Management	Haldia Development Authority (HAD).	Urban Infrastructure	540	BOO	Domestic	Ramky Enviro Engineers Limited (REEL)
NHAI						
Maharashtra Border - Belgaum Road	NHAI	Roads	3320	Annuity	Domestic	North Karnataka Expressway Private Limited (IL and FS and Punj Loyd)
Nellore By-Pass	NHAI	Roads	1432	Annuity	Domestic	Soma enterprises and Navayug Eng co Ltd
Nellore- TADA Road	NHAI	Roads	6213.5	BOT	Domestic	CIDB (Malaysia)
Tumkur-Neelmangala Road	NHAI	Roads	1550	BOT	Domestic	Jas Toll Road co Ltd (Consortium of Jayaswals and - Ashoka Buildcon SERI International
Nandigama - Vijaywada Road	NHAI	Roads	1386.5	BOT	Domestic	CIDB (Malaysia)
Mahapura - Kishangarh, 6 lane	NHAI	Roads	6440	BOT	Domestic	GVK International-BSCPL
Satara - Kagal Road	NHAI	Roads	6000	BOT	Domestic	MSRDC Ltd
Ankapalli- Tuni Road	NHAI	Roads	2832	Annuity	Domestic	GMR - Tuni - Ankapalli Express Ltd
Tuni- Dharamavaram Road	NHAI	Roads	2319	Annuity	Domestic	Andhra Expressway Ltd
Dharmavaram - Rajahmundry Road	NHAI	Roads	2060	Annuity	Domestic	Rajamundry Expressway Ltd - Gammon (JV)
Panahgarh Palsit Road	NHAI	Roads	3500	Annuity	Domestic	Gamuda Malaysia - WCT (Malaysia)
Palsit-Dankuni Road	NHAI	Roads	4324	Annuity	Domestic	Gamuda and WCT (Malaysia)
Vivekananda Bridge	NHAI	Roads	6410	BOT	Domestic	SVBTG Consortium of AIDC group (USA), STRADC (Phillipines)
Delhi - Gurgaon Road	NHAI	Roads	5550	BOT	Domestic	Jaiprakash Industries Limited - DS Constt Ltd
Tambaram - Tindivanam Road	NHAI	Roads	3750	Annuity	Domestic	Tambaram - Tindivanam Expressway Pvt Ltd (consortium of GMR and UE Malaysia)

Project Name	Agency	Sector	Cost (Rs. Mn.)	Structure	Tender	Private contractor/developer
Pune - Khed Road	NHAI	Roads	1276	BOT	Domestic	ATR Infrastructure Pvt Ltd
MOSRTH						
International Container Transshipment Terminal, Vallarpadam	Cochin Port Trust	Ports	21180	BOT	ICB	Dubai Ports International
JNPT - 2nd container terminal	JNPT	Ports	7000	BOT	ICB	P&O Ports
JNPT - 3rd container terminal	JNPT	Ports	9000	BOT	ICB	Maersk and Concor JV
Chennai Container Terminal	Chennai Port Trust (CPT)	Ports	4000	BOT	Limited Tender	CCTL is a special purpose vehicle created by P&O to run the Chennai Container Terminal (CCT) for 30 years.

AWARDED PROJECTS BY SECTOR

Project Name	Agency	Sector	Cost (Rs. Mn.)	Structure	Tender	Private contractor/developer
Airports						
Hyderabad International Airport at Shamshabad	APTR&B	Airport	14000	BOO	ICB	GMR and Malaysian Airport Holding Berhad
Cochin International Airport	Govt of Kerala	Airport	3030	BOO	Not Applicable	10,000 private shareholders, mostly NRIs of Keralite origin incl: (1) Geo Electricals Contracting and Trading Co Sharjah, (2) Emke Group, Abu Dhabi, (3) Gulfar Group, Oman, (4) Majeed Bukatara Trading Dubai
Ports						
Pipavav Port	GMB	Ports	23418	BOT	Negotiated	Gujarat Pipavav Port Ltd
Mundra Port	GMB	Ports	55478	BOT	Negotiated	Gujarat Adani Port Limited
Hazira LNG Terminal	GMB	Ports	34415	BOT	ICB	SHELL-ESSAR Consortium; Bid on Land premium and concession period
Dahej LNG Terminal	GMB	Ports	34000	BOT	Negotiated	Petronet LNG Ltd.
International Container Transshipment Terminal, Vallarpadam	Cochin Port Trust	Ports	21180	BOT	ICB	Dubai Ports International
JNPT - 2nd container terminal	JNPT	Ports	7000	BOT	ICB	P&O Ports
JNPT - 3rd container terminal	JNPT	Ports	9000	BOT	ICB	Maersk and Concor JV
Chennai Container Terminal	Chennai Port Trust (CPT)	Ports	4000	BOT	Limited Tender	CCTL is a special purpose vehicle created by P&O to run the Chennai Container Terminal (CCT) for 30 years.
Railways						
Surenranagar Mahuva Gauge Conversion (Pipavav Railway Corporation Ltd PRCL)	Ministry of Railway	Railways	3730	BOT	Not Available	Gujarat Pipavav Ports Ltd.(GPPL) and Ministry of Railways
ROB - Chhayyapuri Rail	GSRDC	Railways	270.6	BOT	Domestic	Ranjit Projects Pvt. Ltd. Mehsana [7 bidders pre-qualified, 7 purchased RFP documents, 2 submitted bids]

Project Name	Agency	Sector	Cost (Rs. Mn.)	Structure	Tender	Private contractor/developer
Roads						
Vadodara - Halol Road	R&B Dept	Roads	3300	BOT	Negotiated	JV of Punj Lloyd Ltd. & IRCON Intl., IL&FS
Ahmedabad - Mehsana Road	R&B Dept	Roads	3780	BOT	Negotiated	L&T Ltd. -ECCIL&FS
Deesa-Panthwada-Gundri Road	GSRDC	Roads	273	BOT	Domestic	JMC-Bright-Bharat JV
Bangalore-Mysore Infrastructure Corridor	KRDCL /PWD	Roads	22500	BOT	Negotiated	Consortium - NICE (Nandi Infrastructure Corridor Enterprises Ltd) - The Kalyani group leading with 51%, its international partners SAB Intl and VHB Intl 23% and Fls led by the ICICI Bank – 26%
Maujhi Bridge + Karmala Norma bridge	PWD	Roads	67.5	BOT	Domestic	Nirman, Nashik
Kharpada Bridge	PWD	Roads	330	BOT	Domestic	Ideal Road Builders
Major bridge - Dharamtar Creek	PWD	Roads	150	BOT	Domestic	Patvardhan Infrastructure Pvt Ltd
Bridge across Waiganga river	PWD	Roads	325.7	BOT	Domestic	Ashoka Buildcom
Mumbai - Pune Expressway	MSRDC	Roads	12180	Lease	Domestic	Ideal Road Builders
Pune Ahmednagar road	PWD	Roads	1050	BOT	Domestic	Ashoka Buildcom
Khambatki Tunnel N.H.-4	PWD	Roads	37.8	BOT	Domestic	Ideal Road Builders
Ahemadnagar Karmala Tembhorni road	PWD	Roads	230	BOT	Domestic	Ideal Road Builders
Bhiwandi Ambadi Road	PWD	Roads	360	BOT	Domestic	Ideal Road Builders
Nashik - Niphad - Aurangabad Road	PWD	Roads	146.5	BOT	Domestic	I.S. Infrastructure & Building Construction (P) Ltd, Nashik
ROB near village Nardana & strengthening existing 2-lane pavement from Tapi Bridge	PWD	Roads	342.1	BOT	Domestic	Ayushajay Construction Limited
Ambadi - Wada Road	PWD	Roads	76.7	BOT	Domestic	Ideal Road Builders

Project Name	Agency	Sector	Cost (Rs. Mn.)	Structure	Tender	Private contractor/developer
Chinchoti naka Kaman Paygaon Bhiwandi road	PWD	Roads	113.2	BOT	Domestic	Ideal Road Builders
Vadgaon - Chakan - Shikrapur Road	PWD	Roads	2.2	BOT	Domestic	VCR Toll Services Pvt Ltd
Bridge on Indore Khandwa stretch	PWD	Roads	4.8	BOT	Domestic	Ayushyaraj constructions
5 Bridges on Indore Dhar Road	PWD	Roads	15.2	BOT	Domestic	Vinod Kumar Shukla Constructions
Bridge on Benaras Nagpur Road	PWD	Roads	28	BOT	Domestic	Vinod Kumar Shukla Constructions
Bridge on Chindwada Mutkuli Road	PWD	Roads	4.3	BOT	Domestic	Vinod Kumar Shukla Constructions
Bridge of Satna Nagrod Bela Road	PWD	Roads	15.1	BOT	Domestic	Vinod Kumar Shukla Constructions
Bridge on Chindwara Nagpur Road	PWD	Roads	13.6	BOT	Domestic	Narmada Constructions
Bridge on Bilaspur Mandla Road	PWD	Roads	9.6	BOT	Domestic	PD Agrawal Constructions
Bridge on Balaghat Siwani Road	PWD	Roads	18.1	BOT	Domestic	PD Agrawal Constructions
Bridge on Chindwada Narsingpur Road	PWD	Roads	13.5	BOT	Domestic	Not Available
Indore-Sanawad-Burhanpur-Edlabaad Road	PWD	Roads	1230	BOT	Domestic	M/s VIVA Highways Pvt. Ltd. Nasik
Ujjain-Agar-Susner-Jhalawad Road	PWD	Roads	651.9	BOT	Domestic	NVS Agroh Infrastructure developers pvt. Ltd.
Hoshangabad-Harda-Khandwa Road	PWD	Roads	810	BOT	Domestic	MSK infrastructure and toll bridge ltd.
Rewa-Jaisinghnagar-shahdol-Amarkantak Road	PWD	Roads	1100	BOT	Domestic	Rewa Tollways
Satna-Maihar-Tala-Umaria Road	PWD	Roads	542.2	BOT	Domestic	Rewa Tollways
Sagar-Damoh-Jabalpur Road	PWD	Roads	897	BOT	Domestic	MA Jabalpur Corridor India Pvt. Ltd.
Jabalpur-Narsinghpur-Pipana Road	PWD	Roads	741.6	BOT	Domestic	Tapti Prestressed products pvt ltd

Project Name	Agency	Sector	Cost (Rs. Mn.)	Structure	Tender	Private contractor/developer
Bina-Siranj-Guna Road	PWD	Roads	410	BOT	Domestic	Bina Sinronj Toll Road Ltd.
Raisen-Rahatgarh Road	PWD	Roads	577.2	BOT	Domestic	MSK
Scom-Balaghat-Gondia Road	PWD	Roads	598	BOT	Domestic	AAP Infrastructure
Dewas-Ujjain-Badnagar-Badnawar Road	PWD	Roads	493	BOT	Domestic	RV Infrastructure engineers
Hoshangabad-Piparia-Pachmarhi Road	PWD	Roads	598.8	BOT	Domestic	NVs Chetak Enterprises
Maharashtra Border - Belgaum Road	NHAI	Roads	3320	Annuity	Domestic	North Karnataka Expressway Private Limited (IL and FS and Punj Loyd)
Nellore By-Pass	NHAI	Roads	1432	Annuity	Domestic	Soma enterprises and Navayug Eng co Ltd
Nellore- TADA Road	NHAI	Roads	6213.5	BOT	Domestic	CIDB (Malaysia)
Tumkur-Neelmangala Road	NHAI	Roads	1550	BOT	Domestic	Jas Toll Road co Ltd (Consortium of Jayaswals and - Ashoka Buildcon SERI Intl
Nandigama - Vijaywada Road	NHAI	Roads	1386.5	BOT	Domestic	CIDB (Malaysia)
Mahapura - Kishangarh, 6 lane	NHAI	Roads	6440	BOT	Domestic	GVK International-BSCPL
Satara - Kagal Road	NHAI	Roads	6000	BOT	Domestic	MSRDC Ltd
Ankapalli- Tuni Road	NHAI	Roads	2832	Annuity	Domestic	GMR - Tuni – Ankapalli Express Ltd
Tuni- Dharamavaram Road	NHAI	Roads	2319	Annuity	Domestic	Andhra Expressway Ltd
Dharmavaram - Rajahmundry Road	NHAI	Roads	2060	Annuity	Domestic	Rajamundry Expressway Ltd - Gammon (JV)
Panahgarh Palsit Road	NHAI	Roads	3500	Annuity	Domestic	Gamuda Malaysia - WCT (Malaysia)
Palsit-Dankuni Road	NHAI	Roads	4324	Annuity	Domestic	Gamuda and WCT (Malaysia)
Vivekananda Bridge	NHAI	Roads	6410	BOT	Domestic	SVBTG Consortium of AIDC group (USA), STRADC (Phillipines)
Delhi - Gurgaon Road	NHAI	Roads	5550	BOT	Domestic	Jaiprakash Industries Limited - DS Constt Ltd

Project Name	Agency	Sector	Cost (Rs. Mn.)	Structure	Tender	Private contractor/developer
Tambaram - Tindivanam Road	NHAI	Roads	3750	Annuity	Domestic	Tambaram - Tindivanam Expressway Pvt Ltd (consortium of GMR and UE Malaysia)
Pune - Khed Road	NHAI	Roads	1276	BOT	Domestic	ATR Infrastructure Pvt Ltd
East Coast Road	TNRDC	Roads	600	BOT	Domestic	TNRDC awarded the contract through competitive bidding to Ashoka Buildcon Ltd for construction & maintenance. The project engineers for superv. & monitoring were awarded on competitive tendering basis to Sheladia Associates & Consultants
Karur Toll Bridge	Karur Municipality (KM) & Tamil Nadu Urban Development Project (TNUIFSL)	Roads	154.5	BOT	Domestic	East Coast Constructions and Industries Private Limited (ECCI)
Madurai Inner Ring Road	Corporation of Madurai (COM) & TNUIFSL.	Roads	430	BOT	Not Applicable	Not Decided
Coimbatore Bypass Road on NH47	Ministry of Surface Transport (MoST) & GoTN	Roads	900	BOT	Domestic	L&T Transportation Infrastructure Ltd (LTTIL)
Delhi - Noida Toll Bridge	New Okhla Industrial Development Authority (NOIDA), Delhi Government, Government of UP, Government of India.	Roads	3900	BOT	ICB	Mitsui, Marubeni, Kampsax International (Denmark), Intetroll (SA)
Development of New Mattancherry Bridge Build – Operate – Transfer project in Cochin	Public Works Department, Government of Kerala / Greater Cochin Development Authority	Roads	256	BOT	Domestic	Cochin Bridge Infrastructure Company Ltd./ Gammon India Ltd.
Four laning of Bangalore-Maddur State Highway SH- 17 under Annuity Scheme	Karnataka Road Development Corporation Ltd.	Roads	2300	BOT	Domestic	Nagarjuna Construction Company Ltd., Hyderabad, RMC Constructions Ltd. & Maytas Ltd.
Development of Bypass Roads for Sandur Town, Bellary District under direct tolling scheme	Infrastructure Development Department, Govt. of Karnataka	Roads	200	BOT	Domestic	DS Constructions
Urban Infrastructure						
Visakhapatnam Industrial Water Supply Project	APIIC	Urban Infrastructure	4500	BOT	ICB	Larsen and Toubro

Project Name	Agency	Sector	Cost (Rs. Mn.)	Structure	Tender	Private contractor/developer
Collection and transportation of Municipal Solid Waste	Municipal Corporation of Delhi	Urban Infrastructure	590	Affermage	ICB	Subhash Projects and Marketing Ltd for Central, City and South Zone, City Life Line consultants for west zone and Anthony waste management for Karol bagh and Sadar pahar Ganj Zone.
Compost Plant	Municipal Corporation of Delhi	Urban Infrastructure	7	BOT	ICB	Exel Industries Pvt. Ltd.
Up-gradation, operation and maintenance of Amritsar bus terminal	Punjab Infrastructure Development Board with Punjab Public Works Department	Urban Infrastructure	180	BOT	ICB	Local Contractor (Rohan and Rajdeep Builders Limited)
Solid waste management in Chennai	Corporation of Chennai (CoM) & TIDCO.	Urban Infrastructure	400	Affermage	ICB	C.G.E.A. Asia Holdings, Singapore was selected through ICB to implement the project.
Tirupur Water Supply Scheme	NTADCL. SPV formed by Tamil Nadu Water Investment Limited - (TWIL), Infrastructure Leasing & Financial Services Limited (ILFS) and Tirupur Exporters Association (TEA).	Urban Infrastructure	1850	BOT	ICB	Consortium - Mahindra, UUI, WSA (USA), Design - Bechtel, HCC, L&T; Procurement-HCC, L&T – Construction - HCC, L&T; Supervision- GWK(Germany)/CES; Project Management - WSA (USA); O&M - United Utilities (UK); Independent Engineer-Pell Frischmann (UK/ India
Alandur (AM)Sewerage Project	Alandur Municipality & Tamil Nadu Urban Development Project (TNUIDFL).	Urban Infrastructure	400	BOT	ICB	First STP Pvt Ltd, the company floated for the project by VA Tech Wabag Limited (erstwhile, Balcco Duo and Wabag Technologies Ltd., - BDWT) and IVRCL Infrastructures and Projects
Solid Waste Management Initiatives	Greater New Okhla Industrial Development Authority(GNOIDA)	Urban Infrastructure	13.5	Affermage	ICB	Antony Waste Handling Cell is the solid waste management division of Antony Motors Private Limited
Solid Waste Management	Haldia Development Authority (HAD).	Urban Infrastructure	540	BOO	Domestic	Ramky Enviro Engineers Limited (REEL)
Development of Engineered Sanitary Landfill in Villapilsala in Thiruvananthapuram	Thiruvananthapuram Municipal Corporation	Urban Infrastructure	35	BOT	Domestic	Ramky Infrastructure Ltd., Hyderabad
Development of integrated Waste Processing and Engineered Sanitary Landfills in Bangalore	Bangalore Mahanagara Palike (BMP) with assistance from Infrastructure Secretary, Government of Karnataka	Urban Infrastructure	300	BOT	ICB	Ramky Infrastructure Ltd., Hyderabad

PROJECT PIPELINE BY STATES & CENTRAL AGENCIES

Project Name	Agency	Sector	Cost (Rs. Mn.)	Structure	Tender	Likely Private contractor/ developer
Andhra Pradesh						
Gangavaram Port	APIIC	Ports	16000	BOT	ICB	Selection of Bidder on ICB basis : DVS Raju, Dubai Port International
Krishnapatnam Port	APTR&B	Ports	10000	BOT	ICB	NATCO Pharma
Development of Hyderabad International Airport Rail link	Government of Andhra Pradesh, Ministry of Railways	Roads	To be finalised	To be finalised	To be finalised	
Gujarat						
Positra Port	GMB	Ports	38880	BOT	ICB	GPPL
Mundra-Port Gandhidham Missing Link (Adipur Mundra Port Railway Link AMPL)	Ministry of Railway	Railways	1600	BOT	Not Applicable	Gujarat Adani Ports Limited (GAPL)
Himmatnagar Bypass	GSRDC	Roads	83.5	BOT	Domestic	Not Decided
Kim-Mandvi Road	GSRDC	Roads	270	BOT	Domestic	Not Applicable
Karnataka						
Bangalore International Airport	KSIIDC	Airport	16000	BOO	ICB	Siemens Project Ventures, Germany 40%, Unique Airport, Zurich 17%, L&T 17%, KSIIDC 13% and AAI 13%
Development of Airport Rail Link to new Bangalore airport	Government of Karnataka, Ministry of Railways	Railways	5300	BOT	To be finalised	To be finalized
Development of Toranagallu Roads	Infrastructure Development Department, Govt. of Karnataka	Roads	100	BOT	Domestic	Technical Studies underway
Rehabilitation, Operation and Management of Water Supply in Selected Demonstration Zones in Belgaum, Gulbarga and Hubli – Dharwad Municipal Corporations under World Bank assisted KUWASIP	Government of Karnataka KUIDFC / World Bank	Urban Infrastructure	620	Affermage	ICB	Compagnie Generale Des Eaux, France
Development of Modern Private Bus Terminal at Kalasipalyam, Bangalore	Bangalore Mahanagara Palike	Urban Infrastructure	300	BOT	Domestic	Ramky Infrastructure Ltd.

Project Name	Agency	Sector	Cost (Rs. Mn.)	Structure	Tender	Likely Private contractor/ developer
Development of Inertisation and Landfill facilities in Urban Local Bodies in 8 towns	DMA / Respective Urban Local Bodies	Urban Infrastructure	200	BOT	Domestic	Bidding in progress
Development of Modern Private Bus Terminal at Channapatna	KUIDFC	Urban Infrastructure	23	BOT	Domestic	Bid process to commence
Development of an Integrated Bus Terminal at Shimoga	DMA, Shimoga City Municipality, KSRTC	Urban Infrastructure	100	BOT	Domestic	Documentation for bid process underway
Development of Truck Terminal at Toranagallu, Bellary	Infrastructure Development Department, Govt. of Karnataka	Urban Infrastructure	To be finalised	BOT	Domestic	Technical Studies underway
Kerala						
Vizhinjam Port International	Ministry of Ports, GoK	Ports	40000	BOT	ICB	7 private players in the fray: Hili (Malta), Beckett Rankine (UK), Port Cons International (S Africa), Afcons(Mumbai), L&T Chennai, Adani Ports (Ahmedabad) and Gammon India (Mumbai).
Capacity Augmentation of Kottayam-Nedumbassery Road	PWD, Kerala	Roads	800	BOT	Domestic	To be finalised
Madhya Pradesh						
Dewas Industrial water supply project	Madhya Pradesh State Industrial Development Corporation Ltd.	Urban Infrastructure	Not Available	BOT	Domestic	Not Decided
Maharashtra						
Multi-Purpose Terminal	MMB	Ports	250	BOT	Not Applicable	Great White Marine Services, Mumbai
Rewas Greenfield Port	MMB	Ports	43230	BOT	Negotiated	Amma Lines
Dighi Port	MMB	Ports	6070	BOT	Negotiated	Balaji Leasing & Financial Ltd
MTHL Road	MSRDC	Roads	39999	BOT	ICB	Currently at RFQ stage
Thane - Ghodbunder road	MSRDC	Roads	50	BOT	Domestic	Not Decided
Andheri - Ghatkopar ELRT	MMRDA	Urban Infrastructure	12000	BOT	ICB	Not Decided

Project Name	Agency	Sector	Cost (Rs. Mn.)	Structure	Tender	Likely Private contractor/ developer
Water Transport Services - Mumbai	MSRDC	Urban Infrastructure	6000	BOT	Domestic	Satyagiri Shipping
Orissa						
Dhamra Port	Department of Commerce and Transport, GoO	Ports	17000	BOT	Negotiated	L&T had floated an SPV (ISPL) along with 2 foreign promoters. However, due to delays both Precious Shipping of Thailand and SSA of the USA have walked out and now Tata Steel is joining hands with L&T to develop the project.
Gopalpur Port	Department of Commerce and Transport, GoO	Ports	12000	BOT	ICB	Not Decided
Paradip port iron ore berth	Paradip Port Trust	Ports	4499	BOT	ICB	Not Decided
Palaspanga-Bamberi Road	Works Deptment, GoO	Roads	223	BOT	ICB	Not Decided
Joda-Bamberi Road(Expressway-II)	Works Deptment, GoO	Roads	241	BOT	ICB	Not Decided
Narangpur-Pandapara-Harichandanpur Road(MDR- 12A & ODR)	Works Deptment, GoO	Roads	152	BOT	ICB	Not Decided
Tomka-Mangalpur Road	Works Deptment, GoO	Roads	271	BOT	ICB	Not Decided
Punjab						
Road projects on BOT basis in the state of Punjab	Punjab Infrastructure Development Board with Punjab Health System Corporation	Roads	Not available	BOT	ICB	Not applicable
Up-gradation, operation and maintenance of Ludhiana bus terminal	Punjab Infrastructure Development Board with Punjab Public Works Department	Urban Infrastructure	Not available	BOT	ICB	Not applicable
Tamil Nadu						
Sea Water Desalination Plant	Chennai Metropolitan Water Supply & Sewerage Board (CMWSSB)	Urban Infrastructure	Not Applicable	BOT	ICB	Not Decided

Project Name	Agency	Sector	Cost (Rs. Mn.)	Structure	Tender	Likely Private contractor/ developer
Uttar Pradesh						
Taj Expressway highway	Greater New Okhla Industrial Development Authority (GNOIDA)	Roads	16500	BOT	ICB	The Jaypee Group (earlier known as Jaiprakash Associates).
West Bengal						
Kulpi Port	Bengal Port Limited (BPL)	Ports	17000	BOT	Negotiated	P&O Ports is the world leader in cargo handling and port management services throughout the world.
Logistics Hub	Kolkata Metropolitan Development Authority (KMDA)	Urban Infrastructure	Not Applicable	BOT	Domestic	Not Decided
MOSRTH						
Ennore terminal	Ennore Port Trust (EPT)	Ports	3500	BOT	ICB	Project is yet to awarded
RVNL						
Delhi - Rewari Rail	RVNL	Railways	1400	Not Decided	ICB	Not Applicable
Ajmer-Phulera-Ringus-Rewari Rail	RVNL	Railways	3520	Not Decided	ICB	Not Applicable
Vallarpadam - Idapally Rail	RVNL	Railways	1030	Not Decided	ICB	Not Applicable
Hastavaram-Krishnapatnam Rail	RVNL	Railways	3900	Not Decided	ICB	Not Applicable
Surat- Hajira Rail	RVNL	Railways	800	Not Decided	ICB	Not Applicable
Bharuch – Samni - Dahej Rail	RVNL	Railways	1300	Not Decided	ICB	Not Applicable
Cuddalore–Salem via Vridhachalam Rail	RVNL	Railways	1990	Not Decided	ICB	Not Applicable
Tuglakabad – Dadri ICD	RVNL	Railways	5720	Not Decided	ICB	Not Applicable
Thanjavur - Villupuram Rail	RVNL	Railways	2310	Not Decided	ICB	Not Applicable
Jn. Cabin-Palwal Rail	RVNL	Railways	2100	Not Decided	ICB	Not Applicable
Haridaspur-Paradeep Rail	RVNL	Railways	3450	Not Decided	ICB	Not Applicable
Hospet-Guntakal Rail	RVNL	Railways	1540	Not Decided	ICB	Not Applicable

PROJECT PIPELINE BY SECTOR

Project Name	Agency	Sector	Cost (Rs. Mn.)	Structure	Tender	Likely Private contractor/ developer
Airports						
Bangalore International Airport	KSIIDC	Airport	16000	BOO	ICB	Siemens Project Ventures, Germany 40%, Unique Airport, Zurich 17%, L&T 17%, KSIIDC 13% and AAI 13%
Ports						
Gangavaram Port	APIIC	Ports	16000	BOT	ICB	Selection of Bidder on ICB basis : DVS Raju, Dubai Port International
Krishnapatnam Port	APTR&B	Ports	10000	BOT	ICB	NATCO Pharma
Positra Port	GMB	Ports	38880	BOT	ICB	GPPL
Vizhinjam Port International	Ministry of Ports, GoK	Ports	40000	BOT	ICB	7 private palyers in the fray: Hili (Malta), Beckett Rankine (UK), Port Cons International (S Africa), Afcons(Mumbai), L&T Chennai, Adani Ports (Ahmedabad) and Gammon India (Mumbai).
Multi-Purpose Terminal	MMB	Ports	250	BOT	Not Applicable	Great White Marine Services, Mumbai
Rewas Greenfield Port	MMB	Ports	43230	BOT	Negotiated	Amma Lines
Dighi Port	MMB	Ports	6070	BOT	Negotiated	Balaji Leasing & Financial Ltd
Dhamra Port	Department of Commerce and Transport, GoO	Ports	17000	BOT	Negotiated	L&T had floted an SPV (ISPL) alongwith Precious Shipping of Thailand and SSA of USA to take up the development of the project. Howvere, due to delays both the foreign promoters have walked out and now Tata Steel is joining hands with L&T to develop the pr
Gopalpur Port	Department of Commerce and Transport, GoO	Ports	12000	BOT	ICB	Not Decided
Paradip port iron ore berth	Paradip Port Trust	Ports	4499	BOT	ICB	Not Decided
Kulpi Port	Bengal Port Limited (BPL)	Ports	17000	BOT	Negotiated	P&O Ports is the world leader in cargo handling and port management services throughout Europe and United States, South America, Asia,

Project Name	Agency	Sector	Cost (Rs. Mn.)	Structure	Tender	Likely Private contractor/ developer
						Africa and Australia. They are headquartered in London with 27 container terminals and logistic operations in over 100 p
Ennore terminal	Ennore Port Trust (EPT)	Ports	3500	BOT	ICB	Project is yet to awarded
Railways						
Mundra-Port Gandhidham Missing Link (Adipur Mundra Port Railway Link AMPL)	Ministry of Railway	Railways	1600	BOT	Not Applicable	Gujarat Adani Ports Limited (GAPL)
Delhi - Rewari Rail	RVNL	Railways	1400	Not Decided	ICB	Not Applicable
Ajmer-Phulera-Ringus-Rewari Rail	RVNL	Railways	3520	Not Decided	ICB	Not Applicable
Vallarpadam – Idapally Rail	RVNL	Railways	1030	Not Decided	ICB	Not Applicable
Hastavaram-Krishnapatnam Rail	RVNL	Railways	3900	Not Decided	ICB	Not Applicable
Surat- Hajira Rail	RVNL	Railways	800	Not Decided	ICB	Not Applicable
Bharuch – Samni - Dahej Rail	RVNL	Railways	1300	Not Decided	ICB	Not Applicable
Cuddalore–Salem via Vridhachalam Rail	RVNL	Railways	1990	Not Decided	ICB	Not Applicable
Tuglakabad – Dadri ICD	RVNL	Railways	5720	Not Decided	ICB	Not Applicable
Thanjavur - Villupuram Rail	RVNL	Railways	2310	Not Decided	ICB	Not Applicable
Jn. Cabin-Palwal Rail	RVNL	Railways	2100	Not Decided	ICB	Not Applicable
Haridaspur-Paradeep Rail	RVNL	Railways	3450	Not Decided	ICB	Not Applicable
Hospet-Guntakal Rail	RVNL	Railways	1540	Not Decided	ICB	Not Applicable
Development of Airport Rail Link to new Bangalore airport	Government of Karnataka, Ministry of Railways	Railways	5300	BOT	To be finalised	To be finalized
Roads						
Himmatnagar Bypass	GSRDC	Roads	83.5	BOT	Domestic	Not Decided

Project Name	Agency	Sector	Cost (Rs. Mn.)	Structure	Tender	Likely Private contractor/ developer
Kim-Mandvi Road	GSRDC	Roads	270	BOT	Domestic	Not Applicable
MTHL Road	MSRDC	Roads	39999	BOT	ICB	Currently at RFQ stage
Thane - Ghodbunder road	MSRDC	Roads	50	BOT	Domestic	Not Decided
Palaspanga-Bamberi Road	Works Deptment, GoO	Roads	223	BOT	ICB	Not Decided
Joda-Bamberi Road(Expressway-II)	Works Deptment, GoO	Roads	241	BOT	ICB	Not Decided
Narangpur-Pandapara-Harichandanpur Road(MDR- 12A & ODR)	Works Deptment, GoO	Roads	152	BOT	ICB	Not Decided
Tomka-Mangalpur Road	Works Deptment, GoO	Roads	271	BOT	ICB	Not Decided
Road projects on BOT basis in the state of Punjab	Punjab Infrastructure Development Board with Punjab Health System Corporation	Roads	Not available	BOT	ICB	Not applicable
Taj Expressway highway	Greater New Okhla Industrial Development Auth.(GNOIDA)	Roads	16500	BOT	ICB	The Jaypee Group (earlier known as Jaiprakash Associates).
Capacity Augmentation of Kottayam-Nedumbassery Road	PWD, Kerala	Roads	800	BOT	Domestic	To be finalized
Development of Toranagallu Roads	Infrastructure Development Department, Govt. of Karnataka	Roads	100	BOT	Domestic	Technical Studies underway
Development of Hyderabad International Airport Rail link	Government of Andhra Pradesh, Ministry of Railways	Roads	To be finalised	To be finalised	To be finalised	
Urban Infrastructure						
Andheri - Ghatkopar ELRT	MMRDA	Urban Infrastructure	12000	BOT	ICB	Not Decided
Water Transport Services - Mumbai	MSRDC	Urban Infrastructure	6000	BOT	Domestic	Satyagiri Shipping
Dewas Industrial water supply project	Madhya Pradesh State Industrial Development Corporation Ltd.	Urban Infrastructure	Not Available	BOT	Domestic	Not Decided

Project Name	Agency	Sector	Cost (Rs. Mn.)	Structure	Tender	Likely Private contractor/ developer
Up-gradation, operation and maintenance of Ludhiana bus terminal	Punjab Infrastructure Development Board with Punjab Public Works Department	Urban Infrastructure	Not available	BOT	ICB	Not applicable
Sea Water Desalination Plant	Chennai Metropolitan Water Supply & Sewerage Board (CMWSSB)	Urban Infrastructure	Not Applicable	BOT	ICB	Not Decided
Logistics Hub	Kolkata Metropolitan Development Authority (KMDA)	Urban Infrastructure	Not Applicable	BOT	Domestic	Not Decided
Rehabilitation, Operation and Management of Water Supply in Selected Demonstration Zones in Belgaum, Gulbarga and Hubli – Dharwad Municipal Corporations under World Bank assisted KUWASIP	Government of Karnataka KUIDFC / World Bank	Urban Infrastructure	620	Affermage	ICB	Compagnie Generale Des Eaux, France
Development of Modern Private Bus Terminal at Kalasipalyam, Bangalore	Bangalore Mahanagara Palike	Urban Infrastructure	300	BOT	Domestic	Ramky Infrastructure Ltd.
Development of Inertisation and Landfill facilities in Urban Local Bodies in 8 towns	DMA / Respective Urban Local Bodies	Urban Infrastructure	200	BOT	Domestic	Bidding in progress
Development of Modern Private Bus Terminal at Channapatna	KUIDFC	Urban Infrastructure	23	BOT	Domestic	Bid process to commence
Development of an Integrated Bus Terminal at Shimoga	DMA, Shimoga City Municipality, KSRTC	Urban Infrastructure	100	BOT	Domestic	Documentation for bid process underway
Development of Truck Terminal at Toranagallu, Bellary	Infrastructure Development Department, Govt. of Karnataka	Urban Infrastructure	To be finalised	BOT	Domestic	Technical Studies underway

ABANDONED PROJECTS

Project Name	Agency	Sector	Cost (Rs. Mn.)	Structure	Tender	Reason for abandonment
Andhra Pradesh						
Development of Special Transport Corridor	APIIC	Roads	Not available	BOT	Not Applicable	The project is connected with SEZ development and will take off only after SEZ development
Sewage , Urban Road Management, Water Supply Management	Visakhapatnam Municipal Corporation	Urban Infrastructure	Not available	BOT	Not Applicable	Change in the Commissioner (the lead implementing position)
Krishna Water Supply Project	HMWSSB	Urban Infrastructure	8,200	Not Applicable	Domestic	Private operator offered much higher price (Rs42/k. litre) while the price of HMWSSB was about Rs. 3/ k. litre domestic and about Rs. 10/ k.litre for industrial customer at that time
Gujarat						
Maroli Port	GMB	Ports	10378	BOOT	ICB	LOI has been forfeited. The port has been put up for rebidding and EOI has been invited. Local agitations be fishermen created problems for the project
Dholera Port	GMB	Ports	7500	BOOT	Not Applicable	No good offers received in 2004
Simar	GMB	Ports	20720	BOOT	ICB	No good offers received in 2004
Mithivirdi	GMB	Ports	5034	BOOT	ICB	No good offers received in 2004
Vansiborsi	GMB	Ports	2749	BOOT	ICB	No good offers received in 2004
Bedi	GMB	Ports	29050	BOOT	ICB	No good offers received in 2004
Jamnagar - Vadinar Road	GSRDC	Roads	2200	BOOT	Domestic	None submitted bid. Due to RPPL deciding to transport using pipelines, the liquid cargo traffic was gone. Along with economic recession, this proved disadvantageous to the project.
Bharuch - Dahej Road	GSRDC	Roads	2400	BOT	Domestic	Private developers found it non profitable
Savli ROB	GSRDC	Roads	130	BOT	Domestic	Concession period quoted in the range of 21.5 years to 23 years, which was found to be too high. Therefore, bidding cancelled and project development to be explored again when traffic level goes up.

Project Name	Agency	Sector	Cost (Rs. Mn.)	Structure	Tender	Reason for abandonment
Karnataka						
Elevated Light Rail Transit System	BMRTL	Urban Infrastructure	25,000	BOOT	ICB	Project not functional - UB Transit Systems Team has been asked to opt for VRA
Punjab						
Privatisation of Superspeciality facilities in Amritsar and Bhatinda	Executing Government Agency	Health	Not available	BOT	ICB	Lack of political support and agitation from the public led to withdrawal of two bidders.
West Bengal						
Vivekanand Flyover Project	Department of Transport, Govt. of West Bengal	Roads	650	BOT	Domestic	Problem in evacuating the land below the flyover which in the concession agreement was to be given to the operator for development

INSTITUTIONAL FRAMEWORK : SELECTED STATES & CENTRAL AGENCIES

State/ agency	Legal Framework	Decision Making Responsibility	Project Development Responsibility	State Support Funding	Conflict Resolution within Govt	Guidance Materials			Established Regulatory Agency	Dispute Resolution
						Standard Document	Model Contracts	Project Preparation Guidelines		
Gujarat	Gujarat Infrastructure Development Act, 1999	GIDB & Departments	GIDB	Departments; case to case basis	GIDB	✓	✓	✓	X	GIDB Support; Case to case basis
Andhra Pradesh	AP – Infrastructure Development Enabling Act 2001	Infrastructure Authority	APIIC (as a nodal agency)	Departments; case to case basis; APIIC/IA is involved.	Infrastructure Authority	✓	✓	✓	✓	Conciliation board
Madhya Pradesh	For select sectors, eg- M.P. Highway Bill 2001;	Departments	Departments and agencies such as MPRDC and MPPWD	Departments; case to case basis.	X	X	X	X	X	Contractual
Maharashtra	Government Orders for Road and Port Sectors, MIDAS Act awaiting Cabinet Approval	Departments	Departments and agencies such as MSRDC	Departments; case to case basis.	X	X	X	X	X	Contractual
Tamil Nadu	X	Departments	Departments and agencies such as TIDCO, TNRDC, TWIC	Departments; case to case basis.	X	X	X	X	X	Contractual
West Bengal	X	Departments	Departments and agencies such as KMDA	Departments; case to case basis.	X	X	X	X	X	Contractual

State/ agency	Legal Framework	Decision Making Responsibility	Project Development Responsibility	State Support Funding	Conflict Resolution within Govt	Guidance Materials			Established Regulatory Agency	Dispute Resolution
						Standard Document	Model Contracts	Project Preparation Guidelines		
Punjab	Punjab Infrastructure Development Act 1998	Punjab Infrastructure Development Board (also other agencies such as PUDA)	Punjab Infrastructure Development Board	Punjab Infrastructure Incentive Fund (PIIF)	Executive Committee of PIDB	✓	✓	✓	X	Contractual
Karnataka	X	iDeCK	Departments and government agencies	Departments; case to case basis.	X	X	X	X	X	Contractual
UP	X	Departments	Departments and government agencies	Departments; case to case basis.	X	X	X	X	X	Contractual
Orissa	X	State Agencies such as IDCO	Departments and government agencies such as Orissa Industrial Infrastructure Development Corporation (IDCO)	Departments; case to case basis.	X	X	X	X	X	Contractual
Delhi	X	Departments and government agencies	Departments and government agencies such as DSIDC, DTTDC	Departments; case to case basis.	X	X	X	X	X	Contractual
National Highway Authority of India	National Highways Authority of India Act, 1988	National Highways Authority of India	National Highways Authority of India and Ministry of Road Transport and Highways	Central Road Fund and Aid from Donor Agencies	MoRTH	✓	✓	✓	MoRTH	Contractual
Rail Vikas Nigam Limited	Created under National Rail Vikas Yojana (NRVY)	RVNL	Ministry of Railways, RVNL	Ministry of Railways	Ministry of Railways	X	X	X	X	X



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