Indian Infrastructure: Re-calibrating the PPP strategy

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About the Author

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Introduction

India's infrastructure, both physical and social, remains its biggest bottleneck. The ambitious targets over the last five years, and the next ten, envisage much of the new infrastructure coming up through PPPs (public private partnerships). This article argues that early-stage construction risk is best borne by the government. PPPs work much better with existing assets, or the new assets being created by government. The lower risk in existing assets makes both financing and implementation easier for PPPs in renovation, operation and maintenance, under long term contracts. China realized this in the early nineties, and embarked upon new assets being created by the State. India is losing out on quickly creating infrastructure by not laying sufficient emphasis on publicly created infrastructure.

In a single phrase, **give out existing public assets over to private O&M, and take on new 'build' by Government** is my thrust. The three main points are as follows; sector specific suggestions are in separate annexure to this.

1. **Creation of new infrastructure, entailing substantial early stage risk, is best done by professional entities in the public sector, who could work through SPVs (special purpose vehicles) under a special ten year mission mode approach. Once commercial operations start, these new assets can be given out on PPP under the 'reverse BOT' mechanism, and the SPV management teams can take up fresh projects.**

2. **Such public sector SPVs embarking on far-reaching infrastructure delivery need substantially changed incentive structures as well as the best possible management team, with autonomy and accountability.**

3. **PPPs (Public private partnerships) should be certainly encouraged, but in 'existing' infrastructure assets, whether physical infrastructure, such as existing highways, power plants and urban infrastructure, as well as social infrastructure such as health and education. Indeed, for existing assets, whatever can be given out on PPP structures should be contracted out under PPPs. Both from execution and financing perspectives, private sector upgradation and better operations & maintenance (O&M) are far easier in a lower risk environment.**

Specifically, Government of India may choose 25 to 50 early stage physical infrastructure projects of national importance, and carefully select the CEO of each project, who could be from any service and seniority of the government or public sector, or even the private sector. Such CEOs should be fully empowered and given a clear mandate to deliver these projects within a specific time limit. These projects may be implemented on the Konkan Railway/ Delhi Metro model, and do not need to be under PPP. The CEO and her/his team should be especially incentivized for the success of their individual project, which may be housed in an SPV. Some proposed projects under this approach have been described in Annex 2. Once again, these projects would have the 'build' from the public sector, and upon attaining satisfactory commercial break even, would have 'transfer to operate' to the private sector, hence the term 'reverse BOT.'

For rapid rollout of infrastructure, neither finance nor physical construction is a critical issue today. Clearances, dilatory procedures and troubleshooting with diverse stakeholders for infrastructure projects are the biggest bottlenecks, but there are ways to reduce such delays, as the National Facilitation Council for Delhi Airport's T3 Terminal, led by Cabinet Secretary has shown us.

Enclosed:

Annex 1 - PPPs - change of focus and scope

Annex 2 - Financing

Annex 3 - Suggested projects under public sector delivery ; and for PPPs

Annex 4 - Power

Annex 5 - Urban infrastructure

Annex 6 - Social infrastructure

The Transport sectors – Railways, highways, seaports, airports are not discussed, but the same principle needs to be applied here – 'new build by Government; existing assets transfer for O&M to private sector'

Annex 1

PPPs – Change of focus and scope

- PPPs are far better for upgrading existing 'brownfield' infrastructure rather than early stage, high risk 'greenfield' infrastructure.

- The risks at the early stage development and construction stage are significant in our country. A distressingly large number of issues usually ensure delays in timely completion of any project. Such early stage, high risk is always mitigated by the private sector by exorbitant pricing or asking/renegotiating for too many 'sweeteners' in the documentation. **This is also why the international financing community does not invest in early stage infrastructure in India – they would much rather come in after commercial operations begin, and take a long-term, lower return on their investment.**

- Government/PSUs have the best capacity to handle early stage risk, provided these projects are corporatized in SPVs, with suitably incentivized and empowered management teams who will ensure expeditious decision making. We have seen examples in the Delhi Metro, the Mumbai Pune expressway, Konkan Railways etc. All of these had an empowered CEO and management team, delivering quality on time and within cost. Almost all of NHDP 1 and NHDP II was built under this approach by passionate and committed management teams in NHAI.

- Apart from a handful of very large private developers, private sector risk-appetite is much better for existing infrastructure assets, where additional investments can yield much better efficiencies. PPPs are good for O&M as also for additional investment in upgradation of productivity of infrastructure. Electricity distribution systems, all the PPP highways in the country and Delhi and Mumbai airport are good examples. PPPs are also very appropriate in urban and social infrastructure, where existing assets of government, inefficiently managed, could be given over on PPP structures to improve citizen satisfaction. Here, we could learn from the UK model, described later.

- Government should get out of O&M for such infrastructure assets, and should focus on creating and building new assets. Private sector would be able to absorb almost all operating infrastructure assets where there is a revenue model. This would release enormous funding for the public sector to go and make fresh infrastructure assets.

- A large area for PPPs is O&M and upgradation in social infrastructure, including health and education. But careful structuring, standard documentation and model concession agreements would have to be developed at the earliest.

Annex 2

Financing

- The nature and providers of infrastructure financing change completely from the stage of the infrastructure project, from construction to operations and maintenance.

- **There is considerable interest among international lenders and equity investors to participate in large infrastructure projects ONLY after the construction phase is over and revenues or tolls start flowing in after commercial operations date (COD).**

- This is especially relevant for long term investors like pension funds, insurance funds and the like, who like a relatively risk free, lower return over a long period of 10 to 20 years. I have personally interacted with many international pension funds, insurance funds and sovereign wealth funds. They are quite keen to come into post-COD projects; NOT while the construction phase is on.

- Indian pension funds and insurance companies are also averse to investing into a project before commercial operations date, but would be happy to be long term investors after tolling starts.

- Almost all debt finance for Indian infrastructure is from Indian lenders; there is very little international debt money. Even equity flows are largely domestic, with international equity money coming into only established business groups or commercially operating projects

- **All the more reason for the Government to build the infrastructure, raising loans from the market, and after revenues/tolling starts, give it out for O&M under PPP structures. The revenues generated would be more than adequate to repay all loans.** The MSRDC experience with the Mumbai Pune expressway is very relevant in this context.

- The World Bank calls this 'reverse BOT' and is encouraging such reverse BOTs.

- Such 'reverse BOT's will capture the externalities from infrastructure projects, unlocking land values to finance even more infrastructure. These additional revenues are presently going to private developers and not benefiting further infrastructure creation.

- Special 'Build India Bonds' may be issued by specific SPVs or government entities to finance such reverse BOTs.

- For existing infrastructure assets given out under PPP to the private sector, financing is going to be much easier. Indeed, the private sector already does it under the name 'securitisation.' A completed project such as the Delhi Gurgaon Expressway would not have attracted international investing interest in 2003, when it started construction. But in 2008, when tolling started, every long term investor would like to get in, at a lower risk free return.

Annex 3

Suggested projects under public sector delivery (and SPV promoter)

Power

- new thermal generation projects (NTPC, State Generation Cos)
- New transmission projects (PGCIL)
- New hydel projects above 50MW (NHPC, State Gencos)

Transport

- Individual projects under the Dedicated Freight Corridor, both western and eastern nodes (DFCCIL, Railways, RVNL, State Govt entities)
- Individual projects under the Delhi Mumbai Industrial Corridor (DMICDC, State Govt entities)
- Expressways and new alignments to be built (NHAI, State PWDs or Road Development Corporations)- MSRDC Mumbai Pune expressway model is an excellent model
- New Mumbai airport (AAI)

Urban infrastructure

- New mass rapid transport systems (UMTC or City/State Governments)
- New drinking water projects (City/State Governments)
- New urban areas and cities (State Governments, City Governments, special Authorities e.g. NOIDA)

Suggested projects for PPPs – hand over to private sector for O&M

(Where commercially viable or where can be made viable by efficient O&M)

Some examples:

All existing power generation plants (NTPC, NHPC, all State Gencos)

All existing power transmission utilities (PGCIL and others)

All existing power distribution companies (State Discoms)

All existing four lane highways (NHAI, State PWDs)

All existing airports that are capable of breaking even (AAI)

All existing city infrastructure projects such as existing Bus services, Bus Terminals, waste disposal systems, drinking water management systems

Annex 4

Power

- Perhaps the single biggest area of underachievement and misplaced priorities

- We haven't learnt from the early 90s regime of IPPs and PPAs, while China learnt from their experiences in the late 80s and early 90s.

- There should be a much greater thrust on creating fresh generation capacities in the public sector, and divesting existing generation capacities of both central and state utilities under PPP mechanisms

- While there would be not more than 10 to 15 large Indian corporate houses that would put up additional generating capacity, there would not be other significant private sector generators. This is largely to do with financing, since there is insignificant promoter contribution into the project.

- Such 10-15 large corporates are sourcing all their manpower from the excellent human resources in NTPC, NHPC, State Generation companies etc.

- NTPC and leading state gencos should be given a ultra-fast track program target of creating fresh generation capacity of 50000 MW per year through specific SPVs, backed up with adequate autonomy and finances. These may be similar to the Ultra Mega Power Plants, except in smaller sizes, and with specially chosen CEOs to deliver in the public sector. Once these plants are operational and producing electricity, they should immediately be given out under PPP, and the CEOs with their teams should move to fresh generation sites.

- A similar approach needs to be followed with NHPC for hydel power generation.

- As a necessary concomitant, all existing power generation capacities of NTPC and NHPC should be given out under PPP. This would raise substantial resources to be deployed into creation of fresh generation capacities. A similar approach could be followed by state level generation companies.

- Power demand is going to grow exponentially, and a business-as-usual approach in this sector is jeopardizing India's development.

Annex 5

City infrastructure

- After the power sector, the second biggest infrastructure underachievement of India.

- We need to radically change governance structures in the fifty largest cities in India. Most urban population growth is going to happen in these cities.

- Existing urban infrastructure projects, wherever possible, should be immediately given out on PPPs.

- As an example, the new buses being provided under the otherwise excellent JNNURM should not be run in the public sector. Such buses are far better run under PPP structures. Similarly, all major bus terminals can be given out under PPP mechanisms.

- While individual infrastructure projects will be city specific, and every city will have a mixture of revenue-generating and non-revenue generating opportunities, there could be more standardization of documentation and procurement processes so that a large number of projects can be bid out. This should be a key priority.

- China has excelled in empowering the City Government. Such city governments capture all the externalities from urban infrastructure development and reinvest such extra revenues back into the city's infrastructure. Indian cities see such externalities captured by the private sector instead. This is an area needing immediate change.

Annex 6

Social infrastructure

- This is an area where Public Private Partnerships can be implemented within a brief period, with great improvement to citizen services.

- In the UK, for instance, held up as a great model for PPPs, 68% out of the 920 PPPs listed on their project database are in social infrastructure. These include 279 in health, 230 in education, and 116 projects for upgradation of government buildings such as hospitals and police stations. Source: http://www.partnershipsuk.org.uk/PUK-Projects-Database.aspx

- To begin with, all significant assets in social infrastructure in large metro cities should be considered for an early PPP handover for O&M.

- Some discussions have taken place, but these specific areas for PPP can be accorded much greater urgency. Standardisation of processes and documents, including model concession agreements, may be done at the earliest.

- India's demographic dividend could become a demographic disaster, if the quality of education and health is not rapidly transformed. Such transformation in existing social infrastructure would be best achieved by switching to the PPP model, wherever possible.