5

Constraints to infrastructure PPPs and measures to alleviate them

Summarising the section

- There are a number of constraints to infrastructure PPPs in developing countries. They include the lack of political acceptability of PPPs; weak capacity of the public sector; an inappropriate enabling environment; the high costs and risks of project development; lack of private sector players; absence of long-term debt; inability of users to afford service fees; and the small size of the economy/sector.
- Governments can address these constraints in a number of ways, including improving the enabling environment and setting up dedicated PPP units, project development facilities and financing vehicles.
- Important lessons can be learned from the experience of PPP units worldwide, including the need for strong political support and for access to high calibre advisers and staff with appropriate commercial experience.

This section discusses the key issues and constraints faced by developing countries in structuring, developing, financing and operating PPPs. The constraints are described in detail, supplemented by examples of practical experience in different countries and a discussion of the implications of each constraint. Relevant mitigation strategies by the public and private sectors are also discussed.

A number of government and donor-supported initiatives have been developed to address some of these constraints. The establishment of specialist PPP units is increasingly being recognised as a useful approach to support PPPs. This section provides examples of government measures to support PPPs, including the experience of specialist PPP units in various countries. Donor initiatives to support PPPs through all stages of the project cycle are discussed separately in Section 6.

5.1. Constraints to infrastructure PPPs in developing countries

While infrastructure PPPs have been employed on a considerable scale in developed countries, they have been slow to take off in least developed countries (LDCs). This stems from a number of constraints, including:

- Lack of political acceptability of PPPs;
- Lack of a clear policy statement;

- Weak capacity of the public sector;
- An inappropriate enabling environment in terms of legal, regulatory and institutional frameworks;
- The high costs and risks of project development facing the private sector;
- Lack of private sector players;
- Absence of long-term debt;
- Inability of users to afford service fees;
- The small size of the economy/sector.

These constraints impact on the government, as well as on private sector players (developers, sponsors, investors, etc.), impeding the development of PPPs. These constraints are discussed below.

5.1.1. Lack of political acceptability of PPPs

Involving the private sector in the provision of infrastructure services remains politically sensitive in some countries. The main reasons for this include objections that private participation in infrastructure entails higher tariffs and will lead to labour retrenchment; these are issues that can become highly politicised.[1]

The implication of this is that a PPP programme may not get off the ground and that projects may be stalled, delayed or even cancelled. For example, a number of water and sanitation projects have been cancelled due to opposition from consumers and politicians to price increases and higher collection rates. The Cochabamba water concession in Bolivia is an example where increased tariffs created widespread opposition and ultimately caused the cancellation of the project in 2000.[2, 3]

In contrast, strong political support has been regarded as one of the most important factors driving the development and smooth functioning of PPPs. The experience of India is a case in point. The Government of India remains committed to the development of infrastructure PPPs and has put in place supportive initiatives for PPPs.[4] The Prime Minister chairs the Committee on Infrastructure and PPPs receive considerable support. Of course, political support does not guarantee success – there are examples where PPP units have fallen under the aegis of the Prime Minister's Office, but have not been successful, as PPPs were not viewed as a high enough priority. Notional political support is not helpful – there needs to be a high-level political champion for the promotion of PPPs in the country.

Both public and private sectors can work towards improving the political acceptability of PPPs by creating awareness of their benefits through public relations campaigns and/or organising stakeholder consultations to build consensus. It is interesting to note the strategy of the Karnataka Urban Infrastructure Development and Finance Corporation (KUIDFC) in India, whereby a management contract has been let out to facilitate uninterrupted water supply in certain districts. The KUIDFC and the private operators are now exploring a step-by-step mechanism to 'buy in' the public to pay for

water tariffs by first introducing dummy water bills to initiate consumers to the concept of paying for water and then slowly introducing proper bills.

5.1.2. Lack of a clear policy statement

The success of a PPP programme requires formal support in terms of a clear policy statement on the government's strategy for the development of infrastructure PPPs, including a definition of PPPs and objectives for their use. The lack of a clear policy statement will imply uncertainty and ambiguity, and projects may therefore never get off the ground. This is an important constraint for private investors, as their view of the risks involved in a project will be extremely high.

Governments need to develop explicit PPP policies and include the use of PPPs in their planning documents. For example, in 2009 the Government of Pakistan released a draft policy on PPPs which summarises their objectives and implementation structure, and provides guidelines on key issues such as viability gap funding, the project life cycle and unsolicited proposals.[5] Other countries have also developed detailed guidelines and useful reference handbooks and manuals on PPPs, including Australia[6] and Singapore.[7]

5.1.3. Weak public sector capacity

Lack of appropriate skills and experience in infrastructure PPPs can lead to delays, inefficiencies and sometimes the failure of infrastructure projects. Poor project development skills in the public sector can lead to the preparation of 'unbankable' projects, a issue common to many countries, where the project design and structure is unattractive to private investors. Moreover, weak capacity in the public sector reduces the government's ability to negotiate and communicate effectively with private companies.

Lack of project development capacity and resources on the government side has also led to the rise of unsolicited proposals from the private sector. While governments are not obliged to consider such proposals, their limited project development capacity may mean that this is the only route to facilitate PPPs. However, unsolicited proposals must be managed carefully to avoid corruption, as well as uncompetitive and non-transparent behaviour (see Box 5.1).

In order to strengthen public sector capacity in relation to infrastructure PPPs, some countries are now establishing PPP units to provide a centre of excellence within government. A discussion on PPP units is provided in Section 5.2. Governments can also hire external advisers to support them during the PPP project development process; for example, external legal, technical and financial advisers are usually hired by governments to support them during the transaction phase of the project development process.

Standardisation of documents can also help mitigate poor capacity; for example, some countries have adopted model concession agreements to facilitate PPPs (see Box 4.3).

Box 5.1. Unsolicited infrastructure proposals and their management

Public authorities may receive 'unsolicited proposals', or proposals from private sector consortia, made without the issue of any formal tender request. The government has no obligation to accept or even look at these proposals. However, a lack of project development capacity or finance, or political pressure may lead them to look at these proposals closely. The private sector may generate innovative plans for feasible projects that fit into the country's strategic infrastructure plan and the government may wish to take them forward.

Approved unsolicited proposals can harness the benefits of private sector creativity. However, if the consortia putting forward the proposals have too strong an advantage in being awarded the contract to implement their plans, the result can be a non-transparent, potentially corrupt or uncompetitive tender process that generates projects that are poor value for money.

Options for managing unsolicited proposals

Authorities need a clear framework in place to deal with the ad hoc nature of unsolicited proposals. There is no one-size-fits-all policy and each authority must find its own balance of incentives to develop projects and mechanisms to ensure a transparent and competitive process for the award of the final contract.

Total ban

In circumstances where it is unlikely that there will be a transparent and competitive bidding process – for example when the government is particularly close to business – the best policy may be to ban unsolicited proposals outright. If they are likely to result in poor projects, it may be best not to encourage or consider them at all. In India, for example, government capacity to develop projects is relatively strong and is backed by private sector consultants, with the result that the government does not consider unsolicited proposals.

Proposal cost reimbursement

If governments wish to consider unsolicited proposals, they must accept that developing them is a costly and time-consuming activity that the proposers will expect to be paid for one way or another. One way of doing this is to award them the contract, but this will not always be efficient. Another is to purchase the proposal or concept from the proposer and then tender it out competitively, ensuring equality among bidders. This guarantees some payment for the effort made, and the company that has made the proposal does not lose out completely if a competitor is awarded the contract. This strategy encourages bids from small companies, as well as from large ones that can afford to play the odds. However, it is difficult to set the level of reimbursement for each project, and to achieve a balance between the risk of having to pay for numerous poor proposals and ensuring the generation of high quality projects.

Advantages of an open bidding process

Rather than paying the proposer at the concept stage, it may be sensible to give them an advantage at the competitive bidding stage. There are three main ways in which this has been done:

- *Bonus system (used in Chile and South Korea)*

  The original proposer may be awarded a defined advantage in the bidding process. This can take various forms, including bonus technical or financial proposal points or a financial advantage (for example, the proposer will win an auction so long as their bid is not more than x per cent or $x higher than other bids). The key disadvantage of this system is that the bonus may scare away other bidders from the auction, leading to fewer competitive bids.

- *Modified Swiss challenge (used in the Philippines, Italy, Taiwan, Guam and India)*

  Other parties may be given the opportunity to make better offers than the original, with no allowance for bonuses. The original firm then has the opportunity to counter the new offers. The main disadvantage of this system is that the window for counter offers is often necessarily short, giving very little time to generate a counter-proposal. This discourages firms from competing if they consider they will have insufficient time to fully prepare. In addition, this approach encourages overly aggressive bidding to deter the original proponent and an expectation of renegotiation. Further problems arise when competing offers have different specifications.

- *Best and final offer system (used in South Africa and Argentina)*

  This system is a hybrid of the previous two, developed in response to each of their failings, and involves multiple rounds of tendering. Unless the proposer has already won the contract, it is always given access to a final bidding round (even if it has not submitted the most competitive bid up to that point), and all bids are then assessed on equal terms without bonuses or predetermined advantages.

Key references

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5.1.4. Inappropriate enabling environment

Private sector participation in infrastructure requires an enabling legal, regulatory and institutional framework that will guide and support transactions. Section 4.1 describes the various elements of a country framework necessary to support PPPs. Box 4.1 also elaborates on some of the initiatives and institutional structures developed by India to support the growth of PPPs.

However, many countries do not have legislation to regulate infrastructure PPPs or a regulator that monitors performance and ensures compliance. For example, one of the reasons cited for the problems with the Kenya-Uganda rail concession is the absence of a suitable regulator in Uganda (see Annex 5 for a detailed case study). The concession of Metro Manila's Metropolitan Waterworks and Sewerage System (MWSS) also took place in the absence of a regulatory body, with implications for the efficiency of the transaction (see Annex 5).

In a number of cases, the absence of legislation or regulation for an infrastructure PPP transaction has required that parts of the enabling framework are built into the specific project contract – an important option, but one which can introduce additional difficulties, costs and delays. This was the case in the Manila water concession, where it was decided that a regulatory office would be established within MWSS as part of the concession agreement; this also raised questions about the independence of the regulatory office.

An inappropriate enabling environment is likely to reduce confidence among private investors. For example, in the absence of suitable dispute resolution mechanisms or enforceable property and intellectual property laws, private investors are likely to be deterred from investing.[8] While this can be overcome through the inclusion of international dispute resolution and other measures, it may create political problems, as national governments have to comply with international rulings on domestic matters.

5.1.5. High costs and risks of project development for the private sector

Early stage project development involves a significant investment of resources (in developing feasibility studies, negotiating licence agreements with government, securing land rights, etc.) that are only recoverable if the project is ultimately successful. In many cases, the assessment by commercial developers, especially for smaller projects or those in more difficult sectors (e.g. water and sanitation), is that the attractiveness of the opportunity and its likelihood of success are insufficient to justify the upfront investment. In addition, in many developing countries, the private sector is at an early stage of development and lacks the knowledge to develop, prepare and structure projects. As a result, infrastructure projects are not fully defined or, if they are, they may be developed to such a low standard that competent private sponsors or investors will not be interested.

In response to this constraint, some countries are attempting to develop their project development capabilities by setting up dedicated project development funds. As described in Box 4.1, India has set up the India Infrastructure Project Development Fund, with the objective of structuring and developing bankable projects that can then be offered to the private sector on a PPP basis. The IIPDF funds the PPP project development expenses, including the costs of engaging consultants and transaction advisers. Pakistan is also currently considering developing a Project Development Fund (PDF) to support the development of infrastructure PPPs.

A number of donor-funded project preparation facilities, discussed in Section 6 below, provide a range of different types of support, including financial support for the public and private sectors for project development, and advisory and capacity building support.

5.1.6. Lack of private sector players

Lack of private sector players implies non-competitive bidding, as well as poor performance during the project due to insufficient experience and skills. The experience among Commonwealth countries has differed in this regard. In some countries, such as India, the government is able to develop projects to the extent that at the bidding stage there are generally enough bidders to facilitate competition; in many African countries (with the possible exception of South Africa), there may be few, and sometimes no, private bidders.[9] For example, City Water was the sole bidder for the Tanzanian water distribution contract, having qualified for the final proposal stage

together with two other bidders. However, these bidders did not submit final proposals and hence the Tanzanian government awarded the contract to City Water.

The international private sector may not be interested in bidding for projects in smaller developing countries, especially when the size of the project is below the minimum efficient size (discussed in detail in Section 5.1.9 below); the risks may be too high for the project to be attractive.

International bidders can be encouraged to participate by structuring a consortium to include both international and domestic sponsors, with a minimum equity contribution from the international sponsor. This consortium structure has been employed in a number of water sector PPPs, in particular, where the service/management contract is with the international sponsor and the domestic sponsors provide most of the equity.

Suitable contract design, for example structuring a larger contract instead of many smaller contracts, can also attract international private sector participation.

5.1.7. Absence of long-term debt

A 20-year life cycle (sometimes longer) for an infrastructure project implies a considerable time lag between the raising of finance and the ability to pay back through project-generated revenues, especially when utilisation of the service is expected to grow over the life of the asset. Thus infrastructure development requires debt that can be of sufficiently long tenor to match cash flows. In most developing countries, it is not possible to raise finance of sufficiently long tenor for infrastructure development. This not only constrains the development of infrastructure due to increased uncertainty, but also makes the infrastructure services more expensive in the short term because of the front-end loaded prices and other factors.

Long-term debt for infrastructure projects can be denominated either in foreign or local currency. Foreign currency denominated debt is useful when the project involves considerable imports for the construction of the infrastructure (and involves foreign exchange rate risk). Local currency debt is useful as the debt is in the same currency as the revenues that will be received through consumption of the infrastructure services, and hence does not involve exchange rate risk. But local currency finance is often unavailable because of a lack of liquidity and/or the underdevelopment of local capital markets.

In response to this constraint, some governments have set up project financing facilities.[10, 11] The aim of most of these facilities is to help crowd-in private sector finance by taking up greater risks in the project, for example the facility may provide subordinated debt as a means of attracting senior debt from the private sector. The Government of India has established the India Infrastructure Finance Company Ltd., a dedicated institution for infrastructure financing.[12] The Government of Bangladesh has set up the Infrastructure Development Company Limited (IDCOL) (see Box 5.2). Some

countries have also set up sector-specific funds, such as the Long Term Credit Fund (LTCF) in Pakistan, which focuses on the energy sector; while the fund is now essentially non-operational, there are important lessons to be learned from its experience (see Box 5.3).

Box 5.2. Infrastructure Development Company Limited, Bangladesh

IDCOL was established in 1997 by the Government of Bangladesh to promote private sector participation in infrastructure. It has had a significant impact in supporting commercially viable mid- to large-scale infrastructure and smaller-scale renewable energy projects throughout the country. Its most high profile project to date has been the US$80 million financing of the 450MW Meghnaghat Power project (see Annex 5 for a detailed case study).

IDCOL is a government-owned non-bank financial institution. It administers World Bank funds from the International Development Agency (IDA) Private Sector Infrastructure Development Project on behalf of the government. It has access to resources from a number of donors to support projects by providing competitive long-term senior and subordinated loans. IDCOL funding acts as a catalyst for mobilising additional external support and is provided alongside commercial sources of finance. It only supports viable private projects in a limited number of core infrastructure sectors. However, it also provides grants and concessional loans for rural energy and infrastructure projects.

IDCOL employs a number of specialist technical experts covering economics, law, finance and engineering. This enables it to perform various functions in addition to financing, including technical assistance and skills development roles. Its independent board of directors includes representatives from both the public and private sectors.

Box 5.3. Long Term Credit Fund, Pakistan

The LTCF (originally the Private Sector Energy Development Fund) was established by the Government of Pakistan in 1985 in partnership with the World Bank and USAID as part of the Private Energy Division of the National Development Finance Corporation. The Fund was designed to overcome the barrier of the country's poor credit rating and to mobilise investment in the industry by taking a catalytic lead investment role and setting up an institutional framework.

By 1994, the LTCF had total commitments close to US$1 billion, including US$400 million from both the World Bank and the Export-Import Bank of Japan (JEXIM). Between 1989 and 1994, it provided subordinated loans to energy projects with nominal interest rates below market levels, eight-year grace periods and generous exchange rate insurance, covering up to 30 per cent of project costs. Modifications in 1994 included the introduction of fixed rate instruments.

Over its active life, the LTCF provided US$840 million to five projects in loans with a total value of US$2.9 billion. The largest two projects (the US$1.5 billion HUB power project and the US$600 million Uch power project) consumed nearly two-thirds of the Fund's resources.

The LTCF is now essentially non-operational and faces an uncertain future. Following bankruptcy in 2002, it was transferred to a commercial institution, the National Bank of Pakistan. The Fund was meant to be a temporary support that would kick-start investor interest. However, it was never able to replenish its capital through loan repayments and thus establish a sustainable footing.

Klingebiel and Ruster (2000) draw several lessons from this experience:

- An adequate policy framework is crucial to attract private financing, as well as a good credit rating;
- Direct funding increased commercial risk exposure for the government without adequate control or recompense, leading to damaging renegotiation;
- The ability of subsidised funds to attract investments discouraged the government from pursuing the more sustainable solution of regulatory reform; and
- Although the fund was established to tackle the lack of long-term finance for the power sector, it is not clear that this was the main obstacle.

Key references

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5.1.8. Affordability issues

Lack of willingness and ability to pay for infrastructure services is another important constraint in developing countries. It is often believed that large numbers of people on lower incomes will be unable to afford full cost-recovery tariffs for electricity or water, especially if the tariff level reflects the high costs of building greenfield infrastructure. In addition, many people may be perceived as being unwilling to pay for essential infrastructure services for political or social reasons. There is also the issue of 'willingness to charge', a problem caused, for example, by politicians being unwilling to impose tariffs in order to remain popular with voters.[13] Affordability is a particularly important constraint in developing rural infrastructure, where income levels are typically much lower than in urban areas, and where there are fewer opportunities to share costs with corporate customers.

The inability of users to afford infrastructure services is relevant at two levels: first, in terms of the cost of the infrastructure for the project (for example, the laying of water pipes); and second, in terms of the consumption of the infrastructure service. In a PPP structure, tariffs may need to reflect both capital and operating costs. However, there may be cases where tariffs need to reflect consumption only, such as that of the PPP contract in the Chilean water sector, as there was almost universal coverage.[14]

Where user charges cannot be levied to cover costs, there is a need for subsidies to be employed by the government. Government or donor subsidies can take many forms, such as an outright subsidy included in the financial structure of the project or some form of shadow tolls, revenue guarantees or grants rolled into the project contract. Given that consumers can often afford ongoing costs, and in fact often pay much more for informal provision of services, but lack access to funds to meet up-front capital costs, a strong focus on connection/capital subsidies may be appropriate, although there are also cases where consumption subsidies have been provided. For example, in the Chilean case mentioned above, a consumption subsidy targeted at individual customers was provided, based on the actual amount of water consumed by each beneficiary. The subsidy scheme was funded entirely from the central government's budget, expressed as a percentage of the household's bill. In Guinea, a lease contract for water services in the major towns and cities was structured in 1989, and while the government was committed to recovering the cost of the services, it did not want a major tariff shock at the beginning of the contract. For the first six years of the contract, therefore, an IDA credit was used to subsidise a declining share of the private operator's costs, while the water tariff was raised until it covered costs.[15] Further donor support for subsidy provision is discussed in Section 6.

In some cases, cross-subsidies can be structured into the project, so that affordability constraints are taken into account and the project is still bankable. Water sector PPPs where industrial users pay a higher tariff than domestic users are a useful example. In such a structure, industrial users are essentially subsidising domestic consumption.

Another example is that of private finance initiatives in the UK. These are most commonly used for social infrastructure projects, i.e. projects that provide a public service. Under a PFI, the public sector does not own the asset, for example a hospital or a

school, but pays the PFI contractor a stream of committed revenue payments for the use of the facilities over the contract period. Thus the charges for the use of the infrastructure service are paid by the government/taxpayers and not by the direct users. This approach may have limited applicability to developing countries, where governments may not have the resources to commit to the revenue payments.

Some governments have set up dedicated 'viability gap schemes', or initiatives that meet the funding gap required to make an economically essential project commercially viable. For example, in 2006 the Government of India instituted a Viability Gap Fund (VGF) and the Government of Pakistan is currently in the process of establishing a similar initiative. Box 5.4 provides a case study of the Indian VGF.

Box 5.4. Lessons from India's Viability Gap Fund[16]

The Government of India has set up a Viability Gap Fund, which aims to ensure enhanced access to PPP infrastructure by subsidising the capital cost of access. The VGF's objective is thus to meet the funding gap required to make economically essential projects commercially viable. The VGF has been fully operational since January 2006.

To date, 15 projects have obtained VGF approval and have completed the bidding process. The total support approved amounts to Rs32.29 billion (US$646 million), but only Rs610 million (US$12.2 million) has been disbursed. Thirty-one further projects have obtained 'in principle' approval for VGF support of Rs34.22 billion (US$684 million). The government can commit up to 20 per cent of project capital costs as a capital grant. Sponsoring government authorities may commit a further 20 per cent from their own budgets.

A number of key lessons emerge from the VGF's experience to date:

- Annual outlay has been unexpectedly small. This is due to the long time taken to reach technical and financial close, and the lagged disbursement of support in line with debt disbursements.
- All approved VGF proposals have been in the highway/road sector or urban rapid transit projects. Other infrastructure projects have been unviable, poorly structured or did not involve a concession contract.
- It is critical for projects to be bid out in a competitive and transparent manner, so as to determine the smallest capital subsidy requirement.
- The selected private sector sponsor should first invest their equity, as well as identify the debt financiers/lead financial institution, before they become eligible for VGF support.
- The practice of structuring payments so that they are in proportion to debt disbursements is working well. The VGF benefits from the lead financial institution's due diligence and monitoring.
- Support is provided as a capital grant, as it is thought that any element of repayment would increase the financial bid submitted by the concessionaires.
- Sponsoring authorities are accountable for the progress of projects. They must therefore have sufficient capacity to carry out or supervise feasibility studies and submit documentation.
- Despite the fact that the VGF is housed within the Ministry of Finance, 'political capture' has been avoided by having two levels of institutional approval staffed by senior government officials from across departments.

5.1.9. Size of the economy or sector

The size of the economy or infrastructure sector is also an important constraining factor limiting the development of PPPs for the delivery of infrastructure services. Small size implies lack of economies of scale in project development, as well as a project size which is below the minimum that is efficient. While size is a constraint for public provision of infrastructure services as well, this is particularly so for PPPs, as a small-scale project may be 'unbankable'.

The public and private sectors can help mitigate this constraint through suitable project design and structuring. Regional initiatives can also help improve economies of scale. Box 5.5 elaborates on this constraint in the context of the experience of small island states, particularly the Commonwealth island countries in the LAC region.

Box 5.5. Constraints on PPPs faced by small island states

Small island states face a number of additional challenges in developing infrastructure PPPs, given their small size. These include:

- **Lack of economies of scale in infrastructure development and delivery**: The small physical size of the islands, and their concomitantly low population levels, implies that the total level of infrastructure required may be below the minimum efficient size. High fixed costs for infrastructure may mean that investors do not break even (i.e. the project is not bankable), given low consumption levels. For example, Figure 5.1 illustrates the direct relationship between levels of electricity generation and end-user prices across small island states.[17]

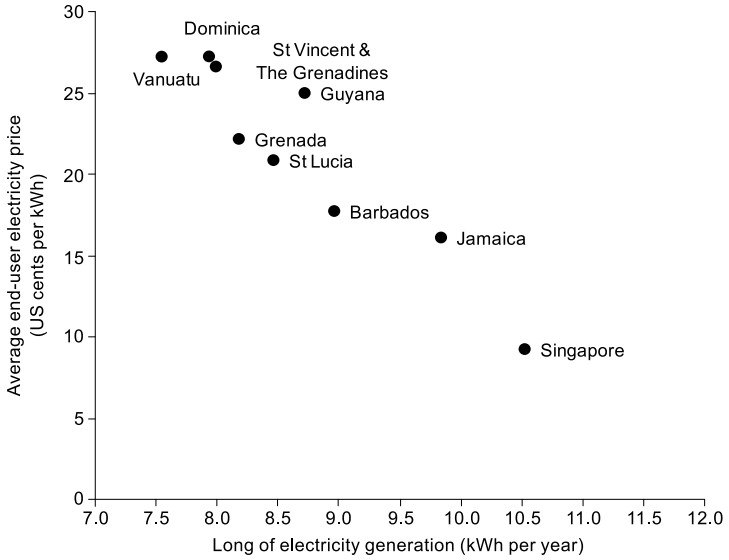

Figure 5.1 Economies of scale in electricity

The lack of economies of scale is relevant at two levels: (i) in terms of the minimum efficient technical size of the infrastructure asset; and (ii) the high transaction costs of providing the infrastructure service to a limited number of consumers. Difficult island topology and small and sometimes scattered populations further exacerbate this, requiring non-standard solutions that are costlier to develop and maintain than elsewhere. The development of larger regional projects or alternative technologies may provide solutions.

- **Limited number of private sector players:** The greater cost and risk of projects in small islands results in fewer attractive projects for international developers. Consequently, such economies are likely to require greater state support to ensure their success. Solutions that may be considered include offering regional projects to generate greater investor interest among large developers; encouraging the creation of medium-size developers that are appropriate for the scale of the projects; or investigating unconventional technological methods. Other facilitating solutions include defining more relevant procurement criteria; for example, under World Bank procurement guidelines for water and sanitation projects, the private sector bidder needs to have experience of operating local systems for a population of a minimum size that is often larger than the small economy in question. Given the small populations of small island economies, these and other pertinent criteria may be appropriately revised.

- **Difficulty in implementing effective regulation:** The higher cost of infrastructure in small island states makes it especially important to keep price levels competitive. However, conventional regulation is more difficult in small countries for a number of reasons, including: (i) regulatory models cannot be directly copied from elsewhere due to local technical idiosyncrasies; (ii) regulators have high overhead costs that may not be affordable given their small remit; (iii) limited availability of specialist professionals; and (iv) it can be hard to maintain independence in small countries with close links between government and business. However, there are a number of mechanisms that countries can consider in order to make regulators or other infrastructure-related facilities feasible in small island states, including:
  - *Low discretion regulation*: Authorities may create well-defined rules that provide little room for discretion. This is an inexpensive method that requires little skill or independence on the part of the regulator. However, this is likely to be damagingly unresponsive to changes and unanticipated outcomes.
  - *Light regulation*: Operate a small regulator with few staff, supplemented by outside consultants for technical requirements. Multi-sector regulators may also pool fixed costs and are most suitable in countries with constrained technical capacities. For example, Vanuatu has a multi-utility regulator that monitors concession contracts. It employs only four full-time staff, but brings in consultants for quality assurance, training and tariff reviews.
  - *Regional regulatory bodies*: Problems can be tackled at a regional level through:
    - regional forums such as the Organisation of Caribbean Utility Regulators or the East Asia and Pacific Infrastructure Regulatory Forum, that can share common experiences and problems;
    - regional advisory bodies, such as the Eastern Caribbean Telecommunications Regulatory Authority which generate economies of scale by avoiding common tasks, but whose recommendations are non-binding; or
    - binding regional regulators to whom regulation is delegated for the region. It is unlikely, however, that authorities will agree to cede power to this extent.
- **More volatile economies:** Small island economies tend to have per capita GDP and growth rates similar to those of comparable low-income countries. However, their incomes are more volatile than larger ones. They are particularly prone to common shocks through economic diversification and risk of natural disasters. This increases the risk for PPP projects.

However, despite these additional challenges, many Commonwealth small island states have comparatively good infrastructure services, with some examples of PPPs. For example, there are a number of PPPs in island states, including a water concession in Vanuatu, a BOT water project in Barbados and a BOO desalination scheme in Trinidad and Tobago. Private provision of electricity in Caribbean countries has provided higher coverage than in comparable Pacific states.[18]

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5.1.10. Summary of key constraints to infrastructure PPPs and mitigation strategies

Figure 5.2 summarises the discussion on the key constraints to infrastructure PPPs and the implications that deter their development.

Table 5.1 summarises relevant mitigation strategies by both the public and private sectors.

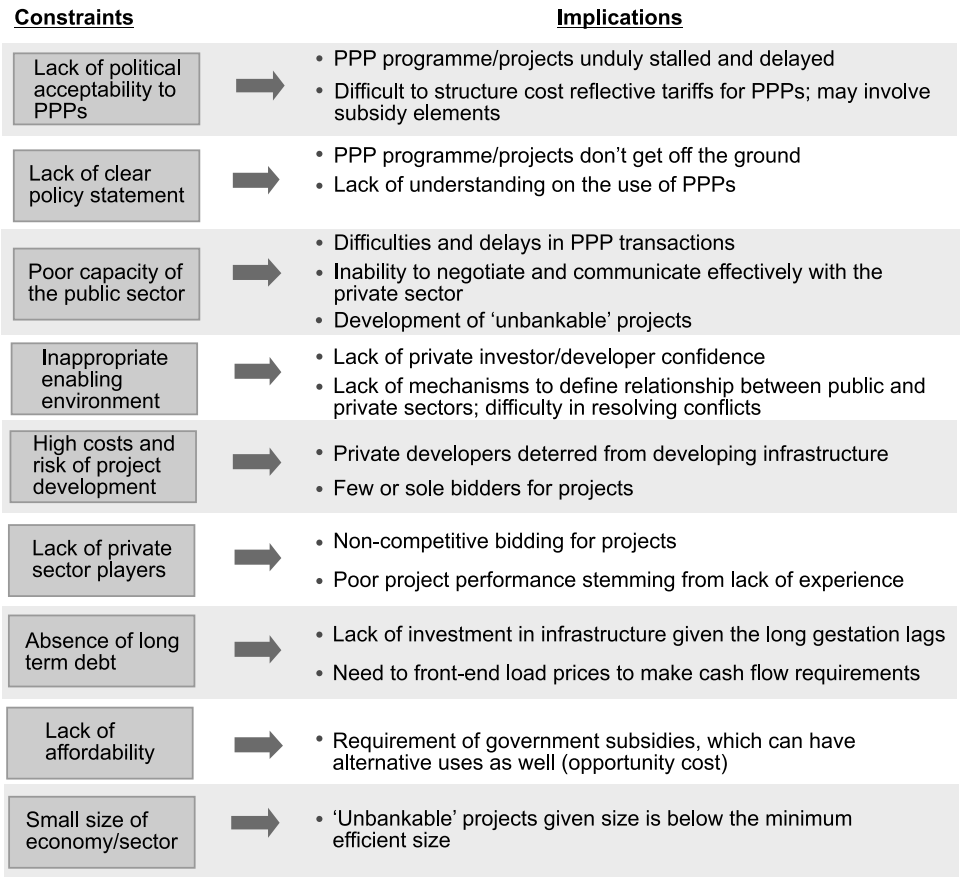

Figure 5.2. Constraints to infrastructure PPPs and their implications

Table 5.1. Potential public and private sector mitigation strategies for constraints to infrastructure PPPs

Constraint	*Public sector*	*Private sector*
Lack of political acceptability of PPPs	• Create awareness on the benefits of PPPs • Show commitment to PPPs through supportive policy and enabling framework • Organise stakeholder consultations for consensus building	• Work with the public sector to build consensus and support for the PPP project • Organise stakeholder consultations for consensus building
Lack of a clear policy statement	• Develop policy statements and appropriate guidelines	• Business groups to lobby government
Weak capacity of the public sector	• Centre of excellence within the public sector in the form of a PPP unit • Staff training • Hiring external advisers • Use of MCAs where appropriate	
Inappropriate enabling environment in terms of legal, regulatory and institutional framework	• Develop supportive enabling environment • Regional frameworks • International institutions • Work on relevant supportive legislation, regulation and institutional requirements in contract design and structure	• Work on relevant supportive legislation, regulation and institutional requirements in contract design and structure
High costs and risks of project development facing the private sector	• Development of project development vehicles • Encourage local developers • Develop supportive enabling environment to reduce risks	• Access donor-funded project development facilities
Lack of private sector players	• Development of bankable projects and effective marketing • Due diligence where there is a limited number of bidders	
Absence of long-term debt	• Development of project financing vehicles • Overall macro policies to support capital and credit market development • Sovereign guarantees	• Access credit guarantees/DFI finance
Inability of users to afford service fees	• Viability gap funding schemes • Provision of shadow tolls/revenue guarantees • Overall macro policies to support economic growth	• Contract design • Efficient development of infrastructure to minimise costs • Access OBA
Size of the economy/ sector	• Suitable project design and structuring • Regional initiatives • Encourage local bidders	• Suitable project design and structuring • Regional initiatives

5.2. PPP units

PPP units are specialist agencies or cells/departments that aim to build government capacity in PPPs. They can perform a range of different functions, providing support across the stages of the project cycle. More recently, beyond this 'classic' approach to a PPP unit, its role has been interpreted more broadly as a means of addressing any number of PPP process support requirements.

Typical priorities for PPP unit support are:

- The development of appropriate PPP policies, their promotion and, sometimes, their enforcement;
- Centralised project development and transaction support – the packaging of opportunities and their marketing; and
- The development of appropriate direct and contingent financial support for projects, including ensuring that government obligations are appropriately accounted for.

Over the past decade, PPP units have become an important part of the infrastructure development agenda in OECD countries. Many governments across the developing world have also introduced units, and several countries, including Kenya and Tanzania, are now in the process of establishing them.

A number of lessons can be drawn from the PPP units that exist. However, their core functions, institutional fit, design and structure are not directly replicable in different countries. PPP units need to be carefully designed to reflect the key constraints and issues for infrastructure PPPs in a particular country. In addition, while they have considerable merits, PPP units should not be viewed as a solution to all the constraints that face infrastructure PPPs. There may be other institutional solutions for particular problems that cannot be covered in this way.

Box 5.6 provides some broad lessons from global experience of PPP units.

Box 5.6. Lessons learned from global experience of PPP units

International experience of PPP units in both developed and developing countries shows that they are neither necessary nor sufficient to create successful infrastructure PPPs. However, if they are carefully designed and structured, PPP units can provide considerable support to progress a country's infrastructure PPP plan. The variety of units to date provides useful lessons for the future and highlights fundamental issues that must be considered before a unit is established, as presented below.

Need for political support

A high level of political support is crucial to ensure the success of a PPP unit. During its initial design and implementation stages, it is extremely important that the unit has a 'champion' who can promote its establishment within the overall government structure. Once established, the unit needs to have strong political commitment to ensure that it can discharge its roles and responsibilities effectively.

The World Bank and PPIAF (2007) provide an insightful review of eight PPP units; they found that units in the UK, South Africa, Portugal and Victoria, Australia have thrived with strong government support, whereas PPP units in the Philippines, Bangladesh and Jamaica have been much less successful, due to lack of political commitment.

A functional and institutional structure that takes into account potential conflicts of interest

PPP units can perform a range of different functions; however, some of their roles involve potential conflicts of interest. For example:

- *Developing policy versus implementation (for instance, through a transaction capability):* These are typically best kept separate, as the former involves 'setting the stage', while the latter involves a high degree of sponsorship of individual projects.
- *Transacting and then monitoring or ensuring contract compliance* do not go well together, as they can involve the monitoring of own design; and
- *Project design and development versus public funding/financing:* As project development involves promotion by the sponsor of the project, there may be considerable pressure to fund an activity even if it is not bankable.

If conflicts of interest are evident, confidence in the whole PPP approach will be undermined. Thus, if these activities are housed together, they must be appropriately ring-fenced. In more mature PPP regimes with sufficient scale, roles can be separated into different institutions, as they are, for example, in the UK, with functions split between the Treasury Task Force for PPP and Partnerships UK. Any conflicts between the unit and existing line ministries or departments must also be minimised.

Institutional location of the unit

The institutional location of the unit has considerable implications for its effectiveness. This not only links up with the conflicts of interest issue highlighted above. On the one hand, it is important that any unit has the right level of sponsorship and on the other hand, it must not become overly politicised or part of an individual's or group's power base. The location of a unit must fit as seamlessly as possible with other institutions. They must avoid replication, conflict or creating another level of red-tape.

As a PPP unit works across infrastructure sectors, it is usually located in a cross-sectoral ministry such as finance or planning. In certain cases, the unit may be well placed as a

free-standing institution. However, free-standing units do not benefit from the associated authority and cachet provided by host institutions. In Portugal, Parpública is successful as a separate body, but most of its staff are hired from the Ministry of Finance.

PPP units may be set up at central or state government level, as appropriate. In India, for example, given the relatively large number of PPP transactions, the government has decided to set up PPP cells at both central and state level.

Development and retention of relevant infrastructure PPP skills

To function effectively, PPP units must be able to assess, structure and review PPP infrastructure projects, and require a clear understanding and experience of issues such as risk allocation and financial structuring.

The skills required for this, and those that are acquired through transaction experience, are highly valued by the private sector, making it difficult to retain them in-house or procure them externally. Where PPP units have been constrained in this manner, they have used a number of creative solutions, including:

- Use of consultants for short-term (South Africa, Bangladesh) or long-term (the Philippines BOT centre, Pakistan) contracts;
- Consultants hired as advisers for specific tasks (Partnerships Victoria, Parpública, Portugal);
- Internal negotiation based upon 'special skills';
- Performance-based contracts or bonuses; and
- Secondments from the private sector (UK Treasury PPP Task Force).

The dangers of relying on learning-as-doing and leakage of internally developed skills mean that there is an emphasis on the use of external skills. For example, the first head of the South African PPP Unit was brought in from the World Bank, and others came on secondment from Partnerships UK. However, these are expensive solutions and incentives must be aligned to motivate staff to take the right risks while still providing good value for money.

Notes

1. In addition, in some countries public sector officials are wary of PPPs, viewing the involvement of the private sector as a loss of control for themselves.
2. Harris, C, Hodges, C, Schur M and Shukla, P, 'Infrastructure Projects: A Review of Cancelled Projects', Public Policy for the Private Sector, Note No. 252, World Bank (January 2003).
3. This took place in the wider context of political opposition to irrigation reforms and the government's coca eradication policy.
4. Including the India Infrastructure Finance Company Ltd, which provides long-term finance for infrastructure projects, and the Viability Gap Funding Scheme, which supports the financial viability of projects.
5. Government of Pakistan, *Pakistan Policy on Public Private Partnerships: Private Participation in Infrastructure for Better Public Services*, April 2009.
6. http://www.infrastructureaustralia.gov.au/files/National_PPP_Guidelines_Overview_Dec_08.pdf

7. http://app.mof.gov.sg/data/cmsresource/PPP/Public%20Private%20Partnership%20Handbook%20.pdf
8. In some cases this has been overcome through the use of international bilateral trade agreements.
9. There are a number of other reasons why there may be few or no bidders, such as weak government capacity, lack of affordability and high risk.
10. Section 6 discusses donor facilities for infrastructure finance, including debt financing and guarantee facilities.
11. The trend towards establishing dedicated infrastructure financing facilities is more recent. Governments have, of course, been providing guarantees to improve access to, and reduce the cost of, debt financing. Annex 5 provides examples where sovereign guarantees have enhanced the financing structure of projects. However, these guarantees have implications for government budget management.
12. As of September 2008, 71 projects across all sectors, mostly in road and power, reached financial close. The IIFCL allocated Rs11.8 billion (US$262 million) to these projects, the total cost of which exceeded Rs1,097 billion (US$24 billion). Source: IIFCL Newsletter, October 2008.
13. This can, however, be averted by conducting surveys to establish that the population is willing and able to pay for the infrastructure service.
14. Brook, PJ and Smith, SM (eds), 'Contracting for Public Services – Output-based Aid and its Applications', World Bank and IFC (August 2001).
15. Ibid.
16. For further details of the Government of India VGF, see Indian Department of Economic Affairs, 'Scheme and Guidelines for Financial Support to Public Private Partnerships in Infrastructure' (2008). http://www.pppinindia.com/pdf/scheme_Guidelines_Financial_Support_PPP_Infrastructure-english.pdf
17. Ibid.
18. Ehrhardt D and Oliver C (May 2007).

Key references

PPP units

World Bank and PPIAF, 'Public–private Partnership Units: Lessons for their Design and Use in Infrastructure', PPIAF and EASSD/World Bank (2007). http://www.ppiaf.org/documents/other_publications/PPP_units_paper.pdf

Sanghi *et al.*, 'Designing and Using Public–private Partnership Units in Infrastructure: Lessons from Case Studies Around the World', Gridlines Note No. 27, PPIAF (2007). http://www.ppiaf.org/documents/gridlines/27PPP.pdf

Dutz *et al.*, 'Public–private Partnership Units: What Are They and What Do They Do?', Public Policy for the Private Sector, Note No. 311, The World Bank Group, Financial and Private Sector Development Vice Presidency (2006). http://rru.worldbank.org/documents/publicpolicyjournal/311Dutz_Harris_Dhingra_Shugart.pdf

Links to selected Commonwealth PPP units

Partnerships Victoria (Australia): http://www.partnerships.vic.gov.au/

PPP Unit, South Africa: http://www.ppp.gov.za/

Partnerships UK: http://www.partnershipsuk.org.uk/

HM Treasury PPP Policy Team: http://www.hm-treasury.gov.uk/ppp_policy_team.htm

Malta PPP Unit: http://finance.gov.mt/page.aspx?site=MFIN&page=ppp

IIFC (Bangladesh): http://www.iifc.net/

Indian Department of Economic Affairs PPP Cell: http://finmin.nic.in/the_ministry/dept_eco_affairs/ppp/ppp_index.html

Philippines BOT Center: http://www.botcenter.gov.ph/

PPP Initiative, Ministry of Finance, Singapore: http://app.mof.gov.sg/ppp.aspx

Infrastructure Australia: http://www.infrastructureaustralia.gov.au/

Partnerships British Columbia: http://www.partnershipsbc.ca/

UNESCAP and FDI.net maintain more comprehensive directories of PPP units and related organisations: http://www.unescap.org/ttdw/ppp/PPPUnits.html and http://www.fdi.net/spotlight/spotlight_detail.cfm?spid=42&cid=12304

PPP standardised contracts

Indian Model Concession Agreements: http://infrastructure.gov.in/mca.htm

HM Treasury, UK Standardised PPP Contracts: http://www.hm-treasury.gov.uk/ppp_standardised_contracts.htm

Financing for infrastructure projects

Klingebiel, D and Ruster, J, 'Why Infrastructure Financing Facilities Often Fall Short of Their Objectives', World Bank Policy Research Working Paper 2358 (2000). http://www-wds.worldbank.org/external/default/WDSContentServer/IW3P/IB/2000/07/07/000094946_00062305373440/Rendered/PDF/multi_page.pdf

Detailed case studies of infrastructure financing facilities

Alam, M (ed.), *Municipal Infrastructure Financing: Innovative Practices from Developing Countries*, Commonwealth Secretariat (2010). ISBN: 9781849290036 http://publications.thecommonwealth.org/municipal-infrastructure-financing-686-p.aspx

Overview of private sector involvement in the delivery of municipal services, focusing on four case studies from the Commonwealth.

Peterson GE, 'Unlocking Land Values to Finance Urban Infrastructure', Trends and Policy Options No. 7, World Bank/PPIAF. http://www.ppiaf.org/content/view/479/485/

A practical guide that looks at case studies and lessons learned from experience in land-based finance and its role in urban capital budgets.

Unsolicited proposals

Hodges, J, 'Unsolicited Proposals – Competitive Solutions for Private Infrastructure', Public Policy for the Private Sector, Note No. 258, World Bank (2003). http://rru.worldbank.org/documents/publicpolicyjournal/258Hodge-031103.pdf

Explores methods used by governments to harness unsolicited proposals, while retaining competitive pressures.

Hodges, J and Dellacha, G, 'Unsolicited Infrastructure Proposals: How Some Countries Introduce Competition and Transparency', Gridlines Note No. 19, PPIAF (2007). http://www.ppiaf.org/documents/gridlines/19Unsolisitedproposals.pdf

An updated review of strategies for dealing with unsolicited proposals.

Affordability/output-based aid

Halpern, J and Mumssen, Y, 'Lessons Learned in Infrastructure Services Provision: Reaching the Poor', GPOBA (2006). http://www.gpoba.org/gpoba/node/126

A discussion of lessons learned in providing infrastructure services for poor households.

Brook, PJ and Smith, SM (eds), *Contracting for Public Services – Output-based Aid and its Applications*, World Bank and IFC (2001). http://rru.worldbank.org/Features/OBABook.aspx

Gerner, F and Sinclair, S, 'Connecting Residential Households to Natural Gas: An Economic and Financial Analysis', GPOBA (2006). http://www.gpoba.org/gpoba/node/127

Analysis of costs and benefits of switching residential households to natural gas and options for increasing domestic connections.

Navarro, M and Tavares, L, 'Output-based Aid in Cambodia: Getting Private Operators and Local Communities to Help Deliver Water to the Poor – The Experience to Date', GPOBA (2008). http://www.gpoba.org/gpoba/node/129

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