Use of Credit Rating Information of Domestic Credit Rating Agencies for Public–Private Partnership Projects in Infrastructure in Bangladesh

The working paper identifies the effective use of credit rating to enable financing of Public–Private Partnership (PPP) projects in infrastructure in Bangladesh and shares key aspects of the government’s policy and strategies for PPP and information on the progress made so far. It also sums up the constraints in financing PPP arrangements, its potential solutions, and presents an outline of the credit rating methodologies suitable for detailed risk assessment in both PPP project grading and project rating. This paper should enable the reader to understand the key rating factors used by Domestic Credit Rating Agencies in the final rating determination.

About the Asian Development Bank

ADB’s vision is an Asia and Pacific region free of poverty. Its mission is to help its developing member countries reduce poverty and improve the quality of life of their people. Despite the region’s many successes, it remains home to approximately two-thirds of the world’s poor: 1.6 billion people who live on less than $2 a day, with 733 million struggling on less than $1.25 a day. ADB is committed to reducing poverty through inclusive economic growth, environmentally sustainable growth, and regional integration.

Based in Manila, ADB is owned by 67 members, including 48 from the region. Its main instruments for helping its developing member countries are policy dialogue, loans, equity investments, guarantees, grants, and technical assistance.
Use of Credit Rating Information of Domestic Credit Rating Agencies for Public–Private Partnership Projects in Infrastructure in Bangladesh

Jiro Tsunoda and Mohammed Tajul Islam

No. 23 | February 2014

Jiro Tsunoda is principal portfolio management specialist, Asian Development Bank.

Mohammed Tajul Islam is vice president and head of ratings, Credit Rating Agency of Bangladesh.
The views expressed in this paper are those of the author and do not necessarily reflect the views and policies of the Asian Development Bank (ADB) or its Board of Governors or the governments they represent.

ADB does not guarantee the accuracy of the data included in this publication and accepts no responsibility for any consequence of their use.

By making any designation of or reference to a particular territory or geographic area, or by using the term "country" in this document, ADB does not intend to make any judgments as to the legal or other status of any territory or area.

Note: In this publication, "$" refers to US dollars.

The ADB South Asia Working Paper Series is a forum for ongoing and recently completed research and policy studies undertaken in ADB or on its behalf. It is meant to enhance greater understanding of current important economic and development issues in South Asia, promote policy dialogue among stakeholders, and facilitate reforms and development management.

The ADB South Asia Working Paper Series is a quick-disseminating, informal publication whose titles could subsequently be revised for publication as articles in professional journals or chapters in books. The series is maintained by the South Asia Department. The series will be made available on the ADB website and in hard copy.
CONTENTS

I. OVERVIEW OF FINANCING PUBLIC–PRIVATE PARTNERSHIP PROJECTS IN INFRASTRUCTURE IN BANGLADESH .................................................................................. 1
   A. Bangladesh Government’s Plan Perspective ......................................................... 1
   B. Institutional and Legal Framework for Public–Private Partnerships in Bangladesh 3
   C. Implementing Public–Private Partnership Projects under the New Framework ..... 6

II. INSTITUTIONAL FRAMEWORK OF FINANCING OF PUBLIC–PRIVATE PARTNERSHIP PROJECTS IN BANGLADESH .............................................................. 6
   A. Bangladesh Infrastructure Finance Fund ................................................................. 6
   B. Infrastructure Development Company ................................................................. 6
   C. Investment Promotion and Financing Facility Project .......................................... 7
   D. Infrastructure Investment Facilitation Center ..................................................... 8
   E. The Capital Market from the Infrastructure Funding Perspective ..................... 8
   F. The Bond Market from the Infrastructure Funding Perspective ......................... 9
   G. Participation by Financial Institutions (Bank and Nonbank) in Infrastructure Projects ................................................................. 9

III. EFFECTIVE USE OF CREDIT RATING TO ENABLE FINANCING OF PUBLIC–PRIVATE PARTNERSHIP PROJECTS IN INFRASTRUCTURE .................................... 10
   A. Credit Rating in Bangladesh: Background and Context ........................................ 10
   B. Project Grading at the Pre-Bid Stage .................................................................... 13

IV. THE PROJECT GRADING MODEL ............................................................................ 14
   A. Feasibility Risk ...................................................................................................... 15
   B. Project Risk ........................................................................................................... 17
   C. Contractual and Legal Environment Risk ............................................................ 19
   D. Credit Risk of the Public Body ........................................................................... 20
   E. Evaluation of the Bidding Process ........................................................................ 20
   F. Broad Financial Parameters ............................................................................... 21
   G. Market Risk ......................................................................................................... 21

V. THE PROJECT RATING MODEL ............................................................................... 22
   A. Project Risk ........................................................................................................... 22
   B. Contractual and Legal Environment Risk ............................................................ 22
   C. Market Risk ......................................................................................................... 22
   D. Financial Risk ..................................................................................................... 22
   E. Structure and Transaction Risk .......................................................................... 23
   F. Counterparty Risk ............................................................................................... 24
   G. Sponsor and Management Strength ................................................................... 25

VI. KEY CONSTRAINTS ................................................................................................. 25
   A. Policy and Institutional Constraints .................................................................... 25
   B. Financial Challenges .......................................................................................... 26
   C. Fiscal Barriers to Private Financing of Infrastructure ........................................ 31
   D. Inadequate Administrative Capacity in the Government .................................... 31
   E. Inadequate Capacity in the Private Sector ............................................................ 32
   F. Credit Information Gap (Pre-Bid Grading by Rating Agencies) ......................... 32
   G. Flaws in the Tendering Process ......................................................................... 33
   H. Poor Infrastructure Regulation .......................................................................... 33
VII. POLICY AND BUSINESS RECOMMENDATIONS .........................................................33
   A. Building Government Capacity .............................................................................33
   B. Domestic Credit Rating Agencies to Step in to Fill the Credit Information Gap ....34
   C. Strengthening the Process ....................................................................................35
   D. Streamlining the Regulatory and Policy Environment ...........................................36
   E. Devising Appropriate Project Development Cost Funding Mechanisms ...............36
   F. Addressing Financing Issues ................................................................................37
   G. Developing a Longer-Term Corporate Bond Market .............................................39
   H. Encouraging Participation by Banks and Financial Institutions in Infrastructure
      Financing ..............................................................................................................41

List of Figures

Figure
1 Institutional and Legal Framework for Promoting
   Public–Private Partnerships in Bangladesh 5

Appendix Figures
A3.1 Overview of Public–Private Partnership Institutions
   in the Context of the Project Life Cycle 47
A3.2 Project Identification/Screening 48
A3.3 Project Development Process 49
A3.4 Bidding Process 50
A3.5 Project Financing and Closure 51
A3.6 Implementation 52

APPENDIXES
1. Private Sector Infrastructure Guidelines 2004 versus Policy and Strategy
   for Public–Private Partnerships 2010 42
2. List of Public–Private Partnership Projects under the Existing Framework 46
4. Introducing Pre-Bid Project Grading 53
   Projects: Prevailing versus Ideal 54
ABSTRACT

The Government of Bangladesh has been putting strong emphasis on public–private partnership (PPP) since 2009. The overarching goal of this PPP initiative is to ensure that the PPP model continues to meet the objectives of all participants so critical infrastructure is delivered in a manner that provides value for money for the public and private sectors, whilst allocating risk appropriately and providing incentive for the private sector to provide the efficiency and innovation it is best placed to deliver. The key to this endeavor is to link investors and lenders with entities that need funding of large-scale infrastructure projects. Domestic credit rating agencies (DCRAs) play a key role in financial markets by helping to reduce the information asymmetry between lenders and investors. Trustworthy ratings of credit risk and appropriate funding structures in both the public and private spheres are essential to ensure crystallization of credit flows where needed, matching the requirements of investors and lenders for accurate information with that of project developers and enterprises for flexible borrowing at the lowest possible cost.

This report identifies in greater detail the effective use of credit rating to enable financing of PPP projects in infrastructure. With the goal to assist the Government of Bangladesh in the successful implementation of PPP, the report shares the key aspects of the government’s policy and strategies for PPP and information on the progress made so far, as well as the challenges faced in taking PPP forward in Bangladesh, and defines the role of credit rating agencies in PPP infrastructure financing. The report also sums up the constraints in financing PPP arrangements and the potential solutions, and presents an outline of the credit rating methodologies suitable for detailed risk assessment in both PPP project grading and project rating. Although the methodology is not an exhaustive treatment of every factor reflected in ratings of PPP projects, it should enable the reader to understand the key rating factors used by DCRAs in the final rating determination.
**ABBREVIATIONS**

<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Full Form</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACRAA</td>
<td>Association of Credit Rating Agencies in Asia</td>
</tr>
<tr>
<td>ACRL</td>
<td>Alpha Credit Rating</td>
</tr>
<tr>
<td>ACRSL</td>
<td>ARGUS Credit Rating Services</td>
</tr>
<tr>
<td>BIFFL</td>
<td>Bangladesh Infrastructure Finance Fund</td>
</tr>
<tr>
<td>CEO</td>
<td>chief executive officer</td>
</tr>
<tr>
<td>CRAB</td>
<td>Credit Rating Agency of Bangladesh</td>
</tr>
<tr>
<td>CRISL</td>
<td>Credit Rating Information Services Ltd.</td>
</tr>
<tr>
<td>CRR</td>
<td>cash reserve ratio</td>
</tr>
<tr>
<td>DCRA</td>
<td>domestic credit rating agency</td>
</tr>
<tr>
<td>ECAI</td>
<td>external credit assessment institution</td>
</tr>
<tr>
<td>ECRL</td>
<td>Emerging Credit Rating Limited</td>
</tr>
<tr>
<td>ERD</td>
<td>Economic Relations Division</td>
</tr>
<tr>
<td>GDP</td>
<td>gross domestic product</td>
</tr>
<tr>
<td>IDCOL</td>
<td>Infrastructure Development Company</td>
</tr>
<tr>
<td>IIFC</td>
<td>Infrastructure Investment Facilitation Center</td>
</tr>
<tr>
<td>IPFF</td>
<td>Investment Promotion and Financing Facility</td>
</tr>
<tr>
<td>MFIs</td>
<td>multilateral financial institutions</td>
</tr>
<tr>
<td>MIS</td>
<td>management information system</td>
</tr>
<tr>
<td>NBFI</td>
<td>nonbank financial institution</td>
</tr>
<tr>
<td>NCRL</td>
<td>National Credit Ratings Limited</td>
</tr>
<tr>
<td>PFI</td>
<td>participating financial institution</td>
</tr>
<tr>
<td>PMO</td>
<td>Prime Minister’s Office</td>
</tr>
<tr>
<td>PPP</td>
<td>public–private partnership</td>
</tr>
<tr>
<td>PPPO</td>
<td>PPP Office</td>
</tr>
<tr>
<td>PPPU</td>
<td>PPP Unit</td>
</tr>
<tr>
<td>PSIDP</td>
<td>Private Sector Infrastructure Development Project</td>
</tr>
<tr>
<td>PSIG</td>
<td>Private Sector Infrastructure Guidelines</td>
</tr>
<tr>
<td>RAROC</td>
<td>risk-adjusted return on capital</td>
</tr>
<tr>
<td>SCB</td>
<td>state-owned commercial bank</td>
</tr>
<tr>
<td>SECB</td>
<td>Securities and Exchange Commission</td>
</tr>
<tr>
<td>SLR</td>
<td>statutory liquidity reserve</td>
</tr>
<tr>
<td>SPV</td>
<td>special purpose vehicle</td>
</tr>
<tr>
<td>TAF</td>
<td>Technical Assistance Fund</td>
</tr>
<tr>
<td>Tk</td>
<td>taka (Bangladesh currency)</td>
</tr>
<tr>
<td>VFM</td>
<td>value for money</td>
</tr>
<tr>
<td>VGF</td>
<td>viability gap financing</td>
</tr>
</tbody>
</table>
I. OVERVIEW OF FINANCING PUBLIC–PRIVATE PARTNERSHIP PROJECTS IN INFRASTRUCTURE IN BANGLADESH

A. Bangladesh Government’s Plan Perspective

1. In its pursuit of economic growth that is both fast paced as well as inclusive, sustainable, and far reaching in its impact, the Government of Bangladesh has chalked out a long-term perspective plan which, in conjunction with its medium-term strategic plan, is expected to take the country closer to the goals laid out in its Vision 2021. The present government plans to raise the growth rate of its gross domestic product (GDP) to 8% by the end of its tenure 24 January 2014 and by 2021 reach and maintain two-digit growth. To achieve a GDP growth rate of 8%, the share of investment in GDP needs to be raised to 35%–40% from its present level of 24%–25% which is lower than the national savings rate.

2. Moody’s credit report on Bangladesh published in April 2013 highlighted that while GDP per capita of Bangladesh significantly lags behind its peers, year-on-year growth of GDP has been stable over the last 10 years. Growth has been driven by private consumption (80% of GDP), spurred by workers’ remittances. Investment, at 25% of GDP, has been supported by a domestic savings rate that has stabilized around 19%–20% of GDP since FY2004. However, in order to raise growth by a couple of percentage points and spur job creation, Bangladesh would need to raise its investment rate by at least 5 percentage points. Despite natural disasters, political transitions, and a global slowdown, economic growth has been remarkably strong and stable. Over the last decade, growth has averaged 6%, which is substantially higher than the average real GDP growth rate of 3.6% for Ba-median and 5.1% for B-median countries. However, constraints to stronger growth come from Bangladesh’s poor infrastructure and business climate. The same report cites specific weaknesses in infrastructure, institutional quality, and human capital. Similarly, the World Bank ranks Bangladesh 129th among 185 countries in its Doing Business in Bangladesh 2013 report, citing relative difficulties in contract enforcement and getting reliable power supply.

3. Preliminary estimates suggest that in addition to the existing public and private investment programs, an investment of $28 billion (Tk2.18 trillion) would be required within FY2014 to achieve the projected growth of the Bangladesh economy. The government is not in a position to mobilize these additional resources internally. Moreover, the current global economic downturn has diminished the possibility of receiving additional foreign financial assistance.

4. Macroeconomic stability would be impossible to maintain if the government was to finance investment at these scales by borrowing from domestic sources. Experience also suggests that economic use of public resources and quality of service delivery, operation, and maintenance cannot always be ensured in public provisioning of infrastructure services that are not an outcome of a competitive market process. Further, direct involvement of the government in the project execution process takes away the focus from its basic obligation to provide social services and maintaining law and order. Since the implementation and funding of any infrastructure project is a long, draw-out process, investment is risky and often loaded with poor commercial viability. It is therefore difficult to attract private investment into infrastructure.

---

2 http://www.doingbusiness.org/data/exploreeconomies/bangladesh
5. The government has therefore adopted a series of measures to attract private sector participation to help reduce the investment deficit. In this context, a special initiative has been taken to involve the private sector in infrastructure development and maintenance, along with government investment. It is expected that successful public–private partnership (PPP) projects would open doors for increased flow of investment from both local and foreign investors and also usher in efficiency gains of private participation into infrastructure.

6. The government recognizes that strong PPP can play a catalytic role in mobilizing additional resources as well as augmenting capacity to implement large public programs. The Public–Private Partnership Policy and Strategy of the Bangladesh Government was announced in the FY2010 budget to further the vision of an economy that is on a steep and fast climb along an inclusive growth trajectory, transforming Bangladesh to a middle-income country by 2021.

7. Budget allocations to PPP have been made under the following categories:

   (i) **Technical Assistance Fund.** The Technical Assistance Fund (TAF) is a revolving fund amounting to Tk1 billion, which is now being transferred to the PPP office (PPPO). Once a PPP project is identified and approved, a transaction advisor is appointed on behalf of the implementing agency. At this point the TAF is expected to be utilized to foot the advisor fee. This fee, treated as part of the project cost, is supposed to be recovered later from the concessionaire once the project has been implemented. The PPPO has been dipping into this fund since 2012–2013 only after the first lot of PPP projects reached maturity wherein a transaction advisor would need to be appointed. At present transaction advisors are involved in 14 PPP projects across Bangladesh.

   (ii) **Viability Gap Financing.** The Viability Gap Financing (VGF) Fund has a corpus of Tk4 billion. For projects with high economic returns for the country but inadequate financial returns for a profit-seeking investor, the fund has been created so that the government can pitch in and meet a portion of the cost, making the project viable for the private investor. The PPP Unit (PPPU) of the Ministry of Finance of the Bangladesh government has issued guidelines for the use of VGF in 2013. The concessionaire is expected to submit its tender claiming VGF, which may be used to meet up to 30% of the total project cost. However, VGF is not to be treated as a general incentive for PPP projects but an option to be exercised only in special cases. Even in these cases, it is not be disbursed upfront but released only after a portion of the construction has been completed. If no money is spent from this fund, it implies that the PPP initiatives are all yielding adequate financial returns and being executed successfully. No PPP project in Bangladesh has yet been identified as a potential candidate for VGF.

   (iii) **Debt and Equity.** Since FY2010, the Bangladesh government has been allocating Tk25 billion annually for providing debt and equity support to PPP projects. In addition to the Infrastructure Development Company (IDCOL), the Bangladesh Infrastructure Finance Fund (BIFFL), a nonbank financial institution (NBFI), has

---

4 In line with the gazette notification on 2 August 2010 of the Government of Bangladesh, the PPP Office, under the jurisdiction of the Prime Minister’s Office (PMO), independently implements PPP projects within the rules and regulations set down to govern them. The PPP Office is expected to ensure clarity on institutional responsibilities with regard to the identification, preparation, tendering, financing, and implementation of PPP projects. The office has been fully operational since January 2012 when its chief executive officer was appointed with a direct reporting line to the Prime Minister of Bangladesh.
been set up with initial paid-up capital of Tk16 billion for this purpose (with the provision for allocating the entire Tk25 billion should it be necessary). The fund is to be managed by a fund manager of global standards who will analyze and evaluate the PPP projects and carry out the due diligence. Financing arranged through BIFFL is not structured as a government grant or dole for the PPP project but an investment into the value proposition it brings. The fund has been created as part of the government’s effort to facilitate easy financing options for the private PPP partner wherein the BIFFL is a special purpose vehicle that is expected to function entirely like a private equity investor.

8. While generous allocations have been made under the three heads to demonstrate the government’s firm commitment to PPP, under normal circumstances it is expected that only financing from TAF will be tapped for project development, and which will be recovered subsequently from the concessionaire. If the PPP project is identified carefully, VGF may not be required at all for most of the projects. Since debt and equity support is structured, not as a state grant but as an investment the government is making into the project, ultimately, a proliferation of PPP projects is not expected to be a strain on the budget. On the contrary, well-executed PPP projects should actually generate good returns on investment.

B. Institutional and Legal Framework for Public–Private Partnerships in Bangladesh

9. The Bangladesh government is taking the PPP route to meet two critical objectives—to infuse funds into new and expanded infrastructure projects and to ensure innovation and sustainability in public service delivery. In 2004, the Bangladesh Private Sector Infrastructure Guidelines (PSIG) were issued in order to boost private investment in infrastructure. However, the institutional framework under PSIG 2004 was neither conducive nor efficient in project handling and optimal balancing of public and private interests. The lack of private sector participation in PPP projects was directly owed to poorly understood procurement processes and the absence of consistent procedures to identify, formulate, appraise, and approve PPP projects.

10. In its endeavor to set up a forward-looking strategy and a framework for the operationalization of PPPs as well as to create clear-cut procedural guidelines to ensure transparency and build private sector confidence, the government introduced the Policy and Strategy for Public–Private Partnership, 2010 (through gazettes on 1 August 2010). The policy document includes three sets of guidelines:

- Guidelines for Formulation, Appraisal and Approval of Large Projects, 2010;
- Guidelines for Formulation, Appraisal and Approval of Medium Projects, 2010; and

11. The new policy lays down the principles of partnership both for infrastructure projects as well as public service delivery. It defines an institutional framework which can handle such projects efficiently, simultaneously ensuring the right risk–reward balance for both the public and the private partners in a way that protects public interest without undermining its attractiveness for the private player. A comprehensive comparative analysis of PSIG 2004 with Policy and Strategy for PPP 2010 is laid down in Appendix 1.

---

5 For more details, please refer to Section II.A.
12. In order to create the right environment for promoting PPP on a sustainable basis, the Bangladesh government has adopted a series of measures:

- Operational policy of PPP entitled *Policy and Strategy for Public–Private Partnership (PPP) 2010*, with greater clarity and dedicated institutional and legal capacity, has been issued.
- The PPPO has been established under the Prime Minister’s Office (PMO) as an autonomous entity to function as a nodal office for PPP. The chief executive officer (CEO) appointed has extensive international experience in PPPs and earlier worked for the UK Treasury.
- The PPPU has been set up within the Ministry of Finance to extend financing and other support to PPP projects.
- The Finance Division of the ministry has issued necessary regulations to create and administer the PPP Technical Assistance Fund for PPP project development.
- The PPP TAF has been created for providing upfront project development support to potential PPP projects.
- The PPP VGF Guidelines have also been issued to ensure financial viability of projects that bring significant economic returns.
- The PPPO (under the PMO) and PPPU (under the Ministry of Finance) are working jointly to prepare all the relevant documents required to process PPP projects within the present regulatory framework. 6
- To establish a strong and stable legal platform for PPPs in Bangladesh, the PPP Law is also on its way to enactment. The law is expected to go a long way in creating a reliable and secure environment in the country for long-term private investment in infrastructure.
- At the same time, the BIFFL has been set up to offer debt and equity support to PPP projects.
- A PPP Global Investor Forum was successfully launched by the PPPO and the Board of Investment in December 2012 with participation of around 700 people from over 10 countries to promote the enabling environment for PPPs in infrastructure in Bangladesh.

13. The PPPO’s main tasks are:

- screening candidate projects promoted by line ministries for PPP eligibility;
- undertaking preliminary development of qualifying PPP projects to prepare them for international competitive bidding;
- developing, implementing, and managing the bidding and procurement process through tendering, evaluation, and selection;
- supporting negotiations with successful bidders on behalf of line ministries and supporting projects in achieving financial close; and
- providing guidance on project implementation, monitoring, and oversight through the design stage of construction into the execution stage to ensure compliance with the agreed concession arrangements.

---

6 With technical assistance from the Asian Development Bank, the Bangladesh government’s PPP initiative has grown substantially. The objective of the technical assistance was to operationalize the Policy and Strategy for PPP 2010 through the PPO (under the PMO) and the PPP Unit (under the Ministry of Finance). Technical assistance to the PPPO has ensured professionally qualified staff that is capable of providing adequate life cycle support to PPP infrastructure projects.
14. The PPPU is a PPP fiscal oversight office within the Ministry of Finance charged with:
- assessing the financial viability of PPP projects proposed by the PPPO;
- approving access to the government-sponsored PPPTAF and VGF; and
- quantifying, forecasting, and managing risk exposure incurred by the Government of Bangladesh.

15. With technical assistance from the Asian Development Bank (ADB), the government has developed web-enabled processing and communication tools as well as a management information system (MIS) linking PPP development activities with the PPPU.

16. Technical assistance has also been extended to the drafting of the PPP Bill 2013, which was tabled in the Bangladesh Parliament after cabinet approval on 28 October 2013. There are seven chapters and 68 sections in the proposed PPP law. The proposed law defines the terms and conditions for determining private partners, cancellation and extension of the agreements and negotiation, dispute resolution, and scope for accepting unsolicited proposals. Once the law is enacted, the Policy and Strategy for PPP 2010 will be rendered redundant. If the draft is accepted in its entirety the PPPO may be able to sidestep the approvals process of the Cabinet Committee on Economic Affairs to sign deals with private partners on PPP projects of primacy.

17. The proposed PPP law also outlines functions of the PPPO under Section 57 (1). Under the law, the PPPO would remain under the PMO but would enjoy administrative as well as financial independence.

18. Figure 1 presents the three pillars—legal, institutional, and financial—on which the government’s PPP strategy stands.

---

**Figure 1: Institutional and Legal Framework for Promoting PPP**

PPP Framework

- **Pillar 1: Legal Pillar**
  - PPP Law 2013 (Draft)
  - Policy & Strategy 2010
  - Guidelines for PPPTAF 2012
  - Scheme for PPPTAF 2012
  - Guidelines for VGF 2012
  - Public Procurement Act & Rules

- **Pillar 2: Institutional Pillar**
  - PPP Advisory Council
  - PPP Office, PM Office
  - PPP Unit, MOF
  - LM / IA

- **Pillar 3: Financial Pillar**
  - PPPTAF
  - VGF
  - BIFFL

Increase Private Sector Investment, Innovation & Successful Implementation of PPP Project

C. Implementing Public–Private Partnership Projects under the New Framework

19. With technical assistance from ADB, the government has succeeded in the establishment of a legal, institutional, and financing framework, as well as preparation of policy documents such as the Policy and Strategy for PPP 2010, the VGF Guidelines, the PPPTAF Guidelines, the PPP Screening Manual, the Project Development Manual, and the Social and Environmental Safety Guideline. Other important documents that have been drawn up include the model document for request for quotation (RFQ) and the request for proposal (RFP), the model concession contract, the guidelines for completing the PPP Project Proposal Form, the PPP Project Proposal Form, and the PPPTAF Application Form.

20. There are at least four stages in the process of developing a PPP project—identification, development, procurement, and implementation. The stages are sequential. It should be underscored that the creation of an effective regulatory, institutional, and financing framework for a robust PPP program is a tough job. Where the entire government machinery is geared towards public procurement using public money, reengineering processes towards PPP procurement is not easy—it demands time, training, and commitment. Bangladesh now has completed the key preparatory steps towards PPP project implementation. The PPPO along with the line ministries and executing agency have developed a pipeline of around 34 projects from different ministries which are at different stages of preparation. The first few projects should flag off in 2014.

II. INSTITUTIONAL FRAMEWORK OF FINANCING OF PUBLIC–PRIVATE PARTNERSHIP PROJECTS IN BANGLADESH

A. Bangladesh Infrastructure Finance Fund

21. Bangladesh Infrastructure Finance Fund Limited (BIFFL) was incorporated on 21 March 2011 as a public limited company with paid-up capital of Tk16.00 billion. The fund has also been licensed by Bangladesh Bank on 16 October 2011 to operate as an NBFI under the Financial Institutions Act, 1993. The main objective of BIFFL is to provide predominantly long-term financing for PPP projects through the issuance of bonds, debt instruments, and equity offerings. The government will hold 100% ownership of the company at the beginning. After the private sector invests in equity they will also get part ownership of the company. As of June 2013, no project is yet funded by BIFFL.  

B. Infrastructure Development Company

22. Infrastructure Development Company (IDCOL) was established on 14 May 1997 by the Government of Bangladesh in fulfillment of the conditionalities of the Private Sector Infrastructure Development Project (PSIDP) loan of the World Bank. The mission of IDCOL is to promote economic development in Bangladesh by encouraging private sector investment in energy and infrastructure projects.

23. Wholly owned by the Bangladesh government, IDCOL is under the operational purview of the Economic Relations Division of its Ministry of Finance. It has been mandated to provide long-term senior and subordinated debt financing to viable infrastructure projects in the private sector for power generation, gas and gas-related infrastructure, toll roads and bridges, water

---

7 BIFFL website, www.biffl.org.bd
supply, urban environmental services, ports, telecommunications, renewable energy, and other similar projects. It provides soft loans as well as modest grants for the development of rural infrastructure. Advisory, project structuring, and syndication services are also provided.

24. The company started with a milestone financing of $80 million in the 450 MW Meghnaghat Power Project.8

25. Thus far, IDCOL has provided financing to around 25 private infrastructure projects in power, telecommunications, satellite earth station, land port, effluent treatment plant, Worldwide Interoperability for Microwave Access (WIMAX), and Nationwide Telecommunications Transmission Network (NTTN) projects.

26. As a multi-donor funded financing institution, IDCOL has Tk870 million as equity and currently manages

- reflows from the $80 million loan extended to the 450 MW Meghnaghat Power Ltd. project;
- $161 million received from the International Development Association (IDA) and Global Environment Facility (GEF) to provide grants and refinancing for the promotion of renewable energy under the Rural Electrification and Renewable Energy Development Project (REREDP);
- €24.50 million from KfW, German Financial Cooperation and GTZ, German Technical Cooperation for financing renewable energy projects;
- €14.9 million from SNV, KfW, and other donors for implementing a nationwide domestic biogas and manure program;
- $165 million from ADB for financing infrastructure and renewable energy projects;
- $18 million from Islamic Development Bank for financing renewable energy projects;
- $8.3 million from Global Partnership on Output-Based Aid (GPOBA) for financing renewable energy projects.

C. Investment Promotion and Financing Facility Project

27. The Government of Bangladesh, with support from the World Bank, developed the Investment Promotion and Financing Facility (IPFF) project in 2006, mainly for lending to infrastructure projects in the private sector. The IPFF has made available partial debt financing through private financial intermediaries for eligible, government-endorsed infrastructure projects to be developed by the private sector.

28. The IPFF provides funds for financing PPP ventures in a wide range of infrastructure projects. In the first phase, IPFF provided $61.26 million (Tk4.76 trillion) to increase the total power capacity in Bangladesh, adding 178 MW of electricity to the national grid.9 Under the second phase of the IPFF, $296.4 million (Tk23.02 trillion) has been allocated for onlending, extending the project tenure up to 31 December 2015, out of which $3.79 million (Tk294.37 million) has been disbursed to different projects including a water treatment plant.10 Furthermore, in the second phase of the IPFF, World Bank technical assistance is being utilized to support capacity building activities for the PPPO, the PPPU, and the IPFF Project Cell of Bangladesh Bank.

---

8 Project was financed by ADB Private Sector Operations Department in 2000.
9 $1 = Tk77.67 as on 11 December 2013.
10 Footnote 9.
29. As of 30 June 2012, one water treatment plant and seven power plants have been funded by the IPFF through seven participating financial institutions (PFIs). The seven power projects are adding 178 MW of electricity to the national grid. The total cost of the water treatment plant and the power plants put together is Tk8.89 trillion, of which 50.72% has been financed by the IPFF. At present 12 commercial banks and 7 NBFI s are enlisted to the IPFF as PFIs.

D. Infrastructure Investment Facilitation Center

30. The Infrastructure Investment Facilitation Center (IIFC) was created in 1999 as a company limited by guarantee under the Companies Act, 1994, under the Economic Relations Division of the Ministry of Finance, to facilitate private sector investment in the infrastructure of Bangladesh. It is an initiative of the PSIDP of the World Bank.

31. The company is responsible for providing expert assistance to relevant ministries, divisions, or agencies regarding project development; project formulation; project design; and technical, engineering, implementation, and monitoring related issues for projects sanctioned by the PPP initiative. Till now, IIFC has been under contract to design 30, provide technical support to 8, and provide consultancy support to 16 PPP projects. Almost all the projects implemented under PPP have taken IIFC support.

E. The Capital Market from the Infrastructure Funding Perspective

32. Over the years, the securities market in Bangladesh has developed significantly with 290 securities (including debentures but excluding government bond) listed with the Dhaka Stock Exchange (DSE) with a market capitalization of Tk1933.5 billion (21.13% of GDP in FY2012). The annual average growth in market capitalization has been 23.1% between 2004 and 2012. The transaction volume also increased significantly with an annual average growth rate of 41.8% during the same period.

33. As of FY2012, banking and financial institutions contribute around 36.32% of the market capitalization followed by telecom (14.95%) and fuel and power (that is, infrastructure) at 12.83%.\footnote{Dhaka Stock Exchange website, www.dse.org}

34. The regulatory authorities frequently intervene to stabilize the market. However, supply of quality shares is necessary to achieve market stability. Enlistment of infrastructure projects could fill the supply side constraints. Beside regular intervention, the authorities need to reduce the cost of listing and redress the inefficient pricing mechanism to encourage greater trading activity, which would help improve stability. However, the depth of the capital market is still very low compared with banking assets, where equity and debt as a percentage of total invested capital was only 18.2% in FY2012.\footnote{Bangladesh Bank Quarterly Report.}

35. Capital markets are essentially about matching supply of capital brought in by investors with the demand for capital in an economy. Bangladesh has no shortage of either. It has a young and dynamic population that is increasingly inclined to and capable of saving for lifetime events, children’s education, ill health, and old age and retirement. Simultaneously, Bangladesh has hunger for investable resources to build more power stations, bridges, ports, and gas pipelines. Capital markets are an extremely effective mechanism for matching the long-term...
needs of savers with those of entrepreneurs. Term capital is a precious commodity and it is frustrating to see how the proceeds from long-term savings, such as provident funds and life insurance contracts, are being invested in short-term instruments such as bank deposits in Bangladesh. This is a process we call "reverse term transformation," but we could equally call it "reverse alchemy" in which the gold of term capital is being turned into the lead of short-term liabilities.

F. The Bond Market from the Infrastructure Funding Perspective

36. The debt market in the country is based on primary auctions. All activities related to the issuance of government debt are done through primary auctions conducted by Bangladesh Bank. There hardly exists a corporate bond market in the country; it has a debenture market with only a small number of well-known issuers.

G. Participation by Financial Institutions (Bank and Nonbank) in Infrastructure Projects

37. Commercial banks, especially the state-owned ones, dominate the financial sector of Bangladesh. State-owned commercial banks (SCBs) receive most of their funds in the form of deposits, which are channeled into lending. As of December 2012, 48 commercial banks and 28 NBFIs are active in the financial sector. As of FY2012, total outstanding term lending of banks and NBFIs stood at Tk802.4 billion (banks: 87%; NBFIs: 13%). Lending to infrastructure projects by banks and NBFIs is not significant.

38. Within infrastructure, banks and NBFIs have a much higher appetite for lending to power projects. Acute power shortage in the country has made power projects very attractive investment propositions. Electricity generated through these projects is wholly sold under contract to a creditworthy counter party (a government-owned company), which assumes the entire risk of fluctuations in the market prices of fuel and other inputs. This brings power projects under the lowest business risk category within infrastructure.

39. Recently a few banks and NBFIs have lent to telecommunications initiatives (ICX, IGW, IIIG, WIMAX, and Optical Fibre) and to a land port. Commercial banks and NBFIs have only been marginal players in terms of share in infrastructure financing in the recent past.

40. Unavailability of bankable PPP infrastructure projects is one of the central reasons behind the poor participation of banks and NBFIs in infrastructure financing. Infrastructure financing requires longer-term participation, and asset–liability mismatch does not allow banks to invest in them. Regulatory uncertainty has increased the risk profile of infrastructure projects. Even in cases where projects are being “regulated through contracts,” the inability to enforce contract conditions poses significant risk to lenders. Most of the private infrastructure projects are awarded through a competitive bidding process. Lenders are unaware of the transparency of the bidding process and in most of the cases lenders get involved with project after the bidding has been finalized and the terms and conditions of the contract set. The late entry of banks and NBFIs into projects results in delays or failure in achieving financial closure. Regulatory restrictions, such as the limit on single-borrower exposure, coupled with lack of sufficient appraisal skills for infrastructure financing also create disincentives.

41. Hence, faced with the uncertain regulatory environment, asset–liability mismatch, the lack of sufficient appraisal skills, and the lack of risk assessment tools (credit rating provision) on one hand and more attractive yields from other business segments (corporate, consumer,
retail, small and medium enterprises) on the other, on a risk-adjusted basis, the banks have chosen to limit their exposure in the infrastructure sector.

42. The list of PPP projects under the existing framework is placed as Appendix 2.

43. The PPP life cycle process flow within the existing framework is placed as Appendix 3.

III. EFFECTIVE USE OF CREDIT RATING TO ENABLE FINANCING OF PUBLIC–PRIVATE PARTNERSHIP PROJECTS IN INFRASTRUCTURE

44. Since the lack of suitable risk assessment tools is a serious impediment to the participation of banks and NBFIs in the infrastructure sector, the role of rating agencies assumes significance.

45. Infrastructure projects are highly capital-intensive in nature, characterized by long gestation periods, which makes appropriate project structuring an issue of critical importance. An informed, accurate, and objective assessment not only facilitates decisions, but also prevents avoidable expenditures. Moreover, grading/rating, by its very nature, creates an incentive for the project implementing agency to conform to fair trade practices and legal requirements.

46. Although the responsibility for arranging project financing reposes with the private sector participant(s), all stakeholders must understand the process when evaluating the value for money on PPP projects. The objective of using project financing to raise capital is to create a structure that is bankable (of interest to investors) and to limit the stakeholders’ risk by diverting some risks to parties that can better manage them. Investors come into the process at the time of bidding. Line ministries are responsible for project identification and initial modeling. Often, line ministries are not familiar with investors’ concerns when developing, promoting, and negotiating the project with selected private bidders. Project grading at the pre-bid stage could to some extent fill this information gap.

47. Gradings and ratings by rating agencies are independent opinions on the relative expected performance of a specific project and could be designed to serve as a tool for identifying and managing risks associated with projects. Besides benefitting sector participants and end users (investors and customers), the gradings and ratings provide objective opinions that can serve as inputs in the pricing and credit decisions of banks and financial intermediaries. Grading and rating services would enhance the confidence of market participants and simultaneously aim at stepping up the involvement of banks and financial institutions in infrastructure projects.

A. Credit Rating in Bangladesh: Background and Context

1. The Rating Agencies

48. The Securities and Exchange Commission of Bangladesh (SECB) initially issued rating licenses to the Credit Rating Agency of Bangladesh Limited (CRAB) and Credit Rating Information Services Limited (CRISL). Recently the SECB issued licenses of five other rating agencies: National Credit Ratings Limited (NCRL), Emerging Credit Rating Limited (ECRL), ARGUS Credit Rating Services Limited (ACRSL), Alpha Credit Rating Limited (ACRL), and WASO Credit Rating Company (BD) Limited. Although all seven rating agencies have been recognized by Bangladesh Bank as external credit assessment institutions (ECAIs), only four,
CRISL, CRAB, NCRL, and ECRL are members of the Association of Credit Rating Agencies in Asia (ACRAA).

49. All the rating agencies in Bangladesh follow the “issuer pays” model and have “list prices” for the requested ratings while offering negotiated rates for frequent issuers and group companies.

2. The Rating Rules

50. The SECB promulgated the Credit Rating Company Rules 1996 to facilitate credit risk rating services for the financial sector. Under the rules and subsequent regulations passed, such as the Securities and Exchange (Right Issue) Rules 2006 and the SEC Rules 2004 (Asset Backed Security Issue), ratings became mandatory for public offering of all debt instruments.

51. The Credit Rating Company Rules 1996 requires that the following instruments be rated prior to issuance and that the information on rating be incorporated in the prospectus of offer documents:

- public offering of all debt instruments: bonds, debentures, commercial papers, structured finance (asset/mortgage backed securities), and preference shares; and
- public issue of shares at a premium.

52. The Securities and Exchange (Rights Issue) Rules, 2006 requires rating of all rights issue at premium.

53. The SEC Rules 2004 (asset backed security issue) requires the credit rating of asset pools to be securitized with optional requirements of credit rating of the originator.

54. Bangladesh Bank requires mandatory credit rating for

- all scheduled banks on an annual basis, and
- all financial institutions in case of initial public offering (IPO).

55. The Chief Controller of Insurance (now the Insurance Development Regulatory Authority [IDRA]) requires mandatory credit rating for

- all general insurance companies on an annual basis, and
- all life insurance companies on biennial basis.

3. Ratings in the Context of the Basel II Framework

56. Adoption of the Basel II Framework from January 2010 has made it mandatory for banks to get their borrowers rated in order for them to meet capital adequacy norms.

57. In the implementation of the Basel II norms in the banking system, Bangladesh Bank is in favor of gradual convergence with the new standards and best practices. The aim is to reach the global best standards in a phased manner, taking a consultative approach rather than a directive one. Bangladesh Bank has recommended that each bank form a committee comprising top management to develop the plans and procedures for implementing Basel II guidelines within the bank. Bangladesh Bank has also set up a steering committee to suggest
migration methodology to Basel II. Based on the suggestion of the steering committee, Bangladesh Bank has adopted the Standardized Approach of Basel II for calculating capital adequacy of banks. The credit risk exposure of a bank is measured on the basis of the risk ratings assigned by DCRAs to its borrowers under the approach.

58. Compulsory credit rating of borrowers in the assessment of capital adequacy of banks has heightened the interest of bankers and borrowers alike in the credit rating industry. Coverage is expanding at a good pace with the adoption of the Basel II Framework. Credit rating in Bangladesh has gained wide acceptance with over 4,000 corporate firms seeking ratings from the seven accredited DCRAs in the country.

59. When clients are rated, it becomes easier for banks to calculate economic profit. Previously, as long as the interest rate on the asset exceeded that of the funding, asset creation was considered profitable. Now to price the risk therein, many banks employ the concept of economic profit, which captures, to an extent, the true cost of credit risk via the loan’s pricing. Basel II and Basel III lead to the extensive application of the concept of economic profits and its main constituent, the risk-adjusted return on capital (RAROC). The introduction of RAROC is a decisive step towards value-based management, which marries a bank’s internal business objectives at all levels of decision making with the expectations of its shareholders. Economic capital is central to capital adequacy assessment, external reporting, strategic planning, capital budgeting, risk and performance measurement, limit setting, risk-based pricing, customer profitability analysis, strategic scenario analysis, capital allocation among business lines, business line growth and performance targets, and acquisition/divestiture analysis.

4. Ratings in the Context of the Immaturities in the Financial Sector

60. Credit rating in Bangladesh is “regulation driven,” implying that ratings are sought only to meet regulatory requirements. Penetration of both CRAB and CRISL was limited in the initial phase; there were few public offering debt instruments and public issuances of shares at a premium during the initial period 2004–2006. However, some NBFIs and nonfinancial companies also opted for rating to enter the capital market and raise loans from financial institutions. In 2007, both Bangladesh Bank and the Chief Controller of Insurance made rating compulsory for banks and insurance companies on a regular basis. There are 48 commercial banks and 42 general insurance companies who are rated annually and 18 life insurance companies rated bi-annually on a statutory basis.

61. Barring banks and insurance companies, most entities undergo one-time rating and then fall off the map. In the absence of a surveillance contract, neither rating agency has been able to construct the transition matrices for rated entities. However, a recent amendment (November 2009) in the Credit Rating Companies (CRC) Rules 1996 stipulates that if a rating agreement is executed with a domestic credit rating agency (DCRA), the DCRA is mandated to perform surveillance rating for at least 3 years after the initial rating. In case of an issue or instrument rating, the DCRA must perform continuous surveillance rating for the lifetime of the instrument. These new stipulations will enable rating agencies to monitor and validate their ratings and methodology. In due course of time, it is expected that the necessity of ratings to ensure discipline in the financial market will become evident to all stakeholders.

---

13 A change in a company’s rating reflects the credit quality of that company, which may have either improved (upgrade) or deteriorated (downgrade) over time. Analysis of the rating transition, including default, is useful in the credit risk model to measure future credit loss. Thus, the matrix containing rating transition probability (transition matrix) plays an important role in credit risk modeling.
62. Absence of benchmark yield curves, market distortion caused by the national savings scheme, high transaction costs of bond issuance, default of debentures in the past, general preference of investors to invest in the equities rather than in bonds, unwillingness of many companies to meet the disclosure requirements, and absence of market infrastructure have led to an underdeveloped bond market in Bangladesh. Accordingly, credit rating in the bond market has not been active. However, there is a need to develop the debt market to cater to the increasing demand for funds, inter alia from banks, infrastructure projects, and long-term industrial projects. The government has been working on developing the debt markets. It has issued benchmark treasury bonds with maturities of 5, 10, 15, and 25 years. Besides, the Bangladesh government also seeks capital markets as an avenue for financing large infrastructure projects and offloading public sector entities. Therefore, the outlook for expanding the local debt market and credit rating activities is promising. The credit rating initiative is envisaged to contribute towards improved financial management and the financing of infrastructure projects.

B. Project Grading at the Pre-Bid Stage

63. The role of rating agencies could be defined in two stages—at the pre-bid stage (grading the project) and rating at funding stage (credit risk rating). The required framework for credit rating at the funding stage is already in place and the project sponsor and/or the concessionaire can engage a credit rating agency for the purpose. However, an appropriate framework to enable project grading at the pre-bid stage is still missing.

64. Risk assessment at the pre-bid stage can provide the prospective investors with an advance overview of the risks associated with the project due to characteristics inherent in the structuring of the project, the contractual features, existing market conditions associated with demand and supply of the product or services offered, raw materials and equipments, etc. A project with high grading would be very attractive to the prospective investor while a project with low grading would be approached with a great deal of caution.

65. More importantly, a system of project grading at the pre-bid stage would help government modify the project to mitigate the risk associated with particular variables and improve its grading, thereby making it more attractive to prospective investors and enhancing the possibility of successful tendering. A trusted project grading could also help attract global investors.

66. Provisions for inclusion of grading of projects at the pre-bid stage into the institutional framework and PPP process may

- improve transparency levels associated with PPP projects,
- provide comfort to investors and lenders through the opinion of recognized third parties, and
- help sponsoring agencies adjust risk-sharing arrangements where necessary.

---

To properly guide decisions to borrow and invest in an economy, capital markets should incorporate all available information about the future prospects of borrowers and the willingness of investors to postpone consumption and take risks. The process by which prices in fixed income markets adjust to new information and move towards their equilibrium value is more efficient when market participants agree on certain instruments that can serve as references or benchmarks for pricing other securities. In recent decades, market participants globally have relied on government yield curves to assess the cost of funds at different borrowing horizons. But private sector debt instruments, in particular collateralized obligations and interest rate swaps, also have the potential to serve as benchmark yield curves, and indeed are increasingly being used as such worldwide.
67. How project grading may be introduced into the PPP process is illustrated in Appendix 4.

68. Prevailing rules, regulations, and the environment related to PPP project grading at the pre-bid stage and rating at the funding stage have been compared with the ideal set of rules, regulations, and overall environment in Appendix 5.

IV. THE PROJECT GRADING MODEL

69. Public–private partnership structures are designed to shift certain financing, construction, and operating risks of public infrastructure projects to the private sector. Private sector consortia are engaged through a bidding process to design, build, and operate public infrastructure projects under long-term project agreements from a sponsoring government or one of its agencies (the project offtaker). The term PPP refers to a long-term, contractual partnership between public and private sector agencies specifically targeted to finance, design, implement, and operate traditionally public sector infrastructure facilities and services. For a DCRA to assess a PPP infrastructure project and the credit risk associated with financing it requires a deep understanding of the unique characteristics of PPP projects across roads, power, ports, urban infrastructure, telecommunications, and railways. These characteristics need to be assessed within the regulatory framework and policy environment to determine how risk and reward are best shared between the implementing public body and the private entity in the PPP structure. Additional structuring elements that can enhance the credit quality of the PPP infrastructure project also need to be evaluated.

70. The PPPO or the Economic Relations Division (ERD) of the Ministry of Finance of the Bangladesh government may introduce the grading of PPP projects at the pre-bid stage. “Project Grading” is a new product to be developed by CRAB and CRISL in consultation with ERD. A common framework for pre-bid grading needs to be developed. The rating agencies have independent methodologies and criteria for evaluating project-related risks. While these agencies will adopt their own proprietary methodologies for evaluation, the proposed broad analytical framework would apply to all rating agencies.

71. It is expected that with this grading system, five significant changes will occur:

   (i) The focus will be on transparency and impeccable management of the bidding process and selection criteria.

   (ii) The natural inclination of the public system to bid out projects by either not taking responsibility for sovereign clearances and permissions, or by conveniently passing on to the private sector all inconvenient tasks and processes, will be curtailed for fear of receiving a poor rating.

   (iii) A poor rating will yield uninterested bidders, which will also show the “sponsor” in poor light.

   (iv) It would provide a master checklist ex ante of all project-related risks to be taken into account, including land availability and title possession, resettlement and rehabilitation, environmental clearances, offtake agreements, market and pricing risks, as well as the risks of regulatory bias and regulatory failure. There would, therefore, be minimal surprises post-award.

   (v) It will also push for greater capacity building in the line ministries for handling PPPs.
72. Keeping in mind that the determinants and parameters of grading vary across projects and sectors, the grading methodology sets forth the key analytical factors that explain PPP infrastructure grading:

- feasibility risk
- project risk
  - construction risk
  - operating risk
- contractual and legal risk
- credit risk for the public body
- bidding process risk
- financial risk
- market risk

73. This methodology is not an exhaustive treatment of all factors reflected in grading, but it should enable an understanding of the key considerations in the final rating determination.

A. Feasibility Risk

1. Needs Assessment Report Analysis

74. The needs assessment report developed by the project authority identifies the strategic importance of the project and defines the services to be delivered. It also specifies the minimum output standards. At the time of grading, the needs assessment report should be assessed by the rating agency. Strategic objectives and the budget are both determined from need analysis, output specifications, and performance indicators.

2. Due Diligence

75. As early as the stage of feasibility assessment, the rating agency should identify and analyze all legal, land and site, technical, social, and environmental issues and suggest remedial measures to mitigate potential concerns of prospective private partners.

3. Review Objectives and Quality of Financial Analysis

76. Most PPP failures can be attributed to inadequate or nonexistent feasibility studies, including unrealistic revenue and cost forecasts and undefined public contribution of funds. Rating agencies should assess the quality of the “base case” financial model.15

77. A project needs to be analyzed with respect to the project economics, country and concession environment, public–private risk sharing, financing structure and sources, government support, guarantees and enhancements, and risk analysis and mitigation measures.

78. Project economics refers to the cost of developing, constructing, and operating the project relative to the revenue it generates. At the core lies the question of whether the facility is or will be self-supporting. The economics of the project is determined by a number of other factors including project functions, physical characteristics, and market demand.

---

15 Base case in reference to a financial model or financial projections is the expected case of the model using the assumptions that management deems most likely to occur. The financial results for the base case should be better than those for the conservative case but worse than those for the aggressive, or upside, case.
predictability of market demand is a particularly sensitive variable. Since market demand materializes over time, the process of attracting customers onto the newly built project and the development of user acceptance is called “ramp up.” The measurement technique of market demand must be thoroughly assessed during the grading process. While analyzing cash flows it is important to adequately capture the market-demand volatility and the ramp up period.

79. The project financial analysis needs to be examined in terms of net present value and internal rate of return on investment. The net present value of the project corresponding to various scenarios would ensure the financial viability of the project. A project may have strong project economics but the project’s ability to obtain financing is not determined solely by its economics. The country and concession environment and public–private risk sharing arrangements would also be examined as these factors have a strong bearing on financing.

4. **Review the Affordability Assessment Report**

80. Affordability assessment is the cornerstone of success of a PPP project. In the absence of affordability assessment during the feasibility stage, a good project may slip into default during the operational phase. Services that a PPP project provides should be affordable either to users of the services (through tariffs charged) and/or for the government paying for the services (availability payment, subsidies). If tariffs are too high and users do not have alternatives, the social impact of the project may be adverse. If alternatives do exist, such a project will invariably be placed in the high-risk zone on the grading spectrum as project failure will then be imminent.

81. A project that is bundled through affordability assessment (users’ willingness to pay is assessed and project costs and available government budget are determined based on the assessment) does better in terms of grading.

5. **Value Assessment**

82. Value for money (VFM) refers to a net benefit, both in financial and qualitative terms, from the outcomes of a PPP project compared with the same project delivered by the public sector over the life span of the project. The rationale of taking the PPP route needs to be visible to all stakeholders for VFM to have a positive impact on the grading.


83. Economic analysis is the estimation of the economic cost and benefits of the project considering externalities to stakeholders to be incorporated during the feasibility stage as it calculates incremental costs and benefits of the project to society as a whole “with” or “without” project. Negative externalities, if large, may lead to project postponement or abandonment.

7. **Verification and Signoff**

84. It should be ensured that all inputs into the feasibility study are signed off as accurate and verifiable by the line committee, PPPU, and each of the transaction advisors.
8. **Project Management Plan**

85. The project management plan summarizes the key issues, institutional approval arrangements, and the schedule of activities until the completion of procurement, as well as the monitoring techniques adopted after procurement.

86. The feasibility study is an essential component of project preparation and allocation of time as it contributes to preventing issues from cropping up later. The decision to undertake a project through PPP should be based on VFM and affordability assessment. The justification of PPP lies in optimal risk allocation rather than full risk transfer by the public partner to the private one. Optimal risk allocation contributes to increased VFM. Early identification of issues and planning of preparation (including necessary approvals and clearances) save time and money down the road. So, feasibility and process assessment play a contributory role at the time of project grading.

**B. Project Risk**

87. Project risk assessment in PPP projects includes construction risks and operating risks.

1. **Construction Risk**

88. The typical PPP transaction is governed by the project agreement (PA), which sets out the obligations of the project company to design, build, and operate the project over the life of the concession. The PA clearly spells out the deliverables, the performance and construction standard, as well as the timetable to be followed. Usually, the construction obligation is defined on a fixed-price and fixed-term basis although, depending on the complexity and the level of design finalized at the time of concession is awarded, some construction elements may not be completely specified. In addition to setting out a target date for completion, the PA also specifies the **sunset date**.

89. From a credit perspective, many challenges are involved in developing and financing infrastructure projects. Risks are associated with acquisition of right of way (permitting risks), and cost and time overruns in project implementation due to unforeseen conditions. It is also recognized that PPP projects undergo significant changes in their risk profile as they move from the pre-completion to the post-completion stage.

90. **Raw construction risk**: The level of raw construction risks in a given project is first and foremost a function of the project’s complexity in terms of nature of construction and technology. Complexity varies from project to project and case by case. At the time of project grading/rating raw construction risk—which is more commonly associated with questions of physical project complexity and the likelihood of budget overrun—is translated into credit risk in order to express the net exposure of a lender to the construction package in terms of rating agencies’ rating/grading equivalent. Construction risk also depends on the compatibility of the construction contractor and the terms and conditions of the construction contract agreement with the project company, if the project company and construction company are different. At the time of bidding it was not possible to analyze the project company and construction company. Therefore, issues that are evaluated are quality of the construction and the robustness of the design. The concession agreement laid down the design and quality parameters; these parameters would be adhered to by the concessionaire and be certified by the independent engineers’ representatives and the executing agency. The detailed design requirements laid down in the
concession agreement need to be identified well with covering the risk of quality of construction and design.

91. **Completion risk:** A key component of the completion risk is the permitting risk, which refers to the project’s ability to attain all clearances prior to the commencement of construction activity. The risk of right of way acquisition, rehabilitation, and settlements in the light of project agreement and the provision of compensation for default is also a subcomponent of completion risk. The permitting risk for the project is usually high if it involves huge land acquisition and resettlement and the cost involvement and the party to bear the cost. Apart from the permitting risk, the rating agency would also evaluate the vulnerability of the project to cost and time overruns due to difficult terrain, mobilization of labor, inappropriate technology and inadequacy of construction, which may contribute to construction delays and cost escalation, as well as monitor mechanism to reduce the time and cost overrun.

92. **Project location and feasibility schedule:** These attributes can be either positive or negative to the model grading/rating. An individual project’s complexity and the reasonability of its construction schedule are compared to the average for the type by reviewing reports from the technical advisor and/or independent engineer. The offtaker’s feasibility studies will also be reviewed, where available, as will the performance of similar projects previously graded/rated by the rating agency.

93. **Site access, acquisition, and planning:** PPP projects may be exposed to increased costs and delays as a result of (i) a failure by the offtaker to acquire the land and/or provide access to the site, (ii) a failure to obtain the relevant planning and other permits required to build the project in accordance with the agreed design, or (iii) issues surrounding utility connections and diversions. A failure by the offtaker to acquire the site and/or provide access to the issuer is generally outside the control of the issuer—making it difficult to mitigate the risk of delays or increased costs. Obtaining planning and other permits whilst part of the contractor's day to day business and taken into account in pricing and scheduling is also outside the control of the issuer or contractor. In contrast, the offtaker may have the ability to exercise its statutory and regulatory powers to facilitate planning and other permits. Similarly, the offtaker will often be in a better position to ensure that the site is connected to all appropriate utilities and undertake appropriate diversions, before it goes for bidding.

2. **Operating Risk**

94. The operating services provided by PPPs typically fall into one of three categories:

- routine operations known as “soft facilities management,”
- routine maintenance known as “hard facilities management,” and
- life cycle or major maintenance (replacement of high-cost plant and equipment).

95. The project's revenue and costs can be affected during the operating phase by the project's availability, its operating performance, and its maintenance costs. Other project costs such as insurance and tax can also affect net cash flow, as can inflation.

96. The most significant component of revenue is usually the availability payment. Revenues for most PFI transactions are also linked to target performance measures. Penalty

---

16 Availability payments are a means of compensating a private concessionaire for its responsibility to design, construct, operate, and/or maintain a PPP infrastructure facility for a set period of time. These payments are made
points for poor performance lead to revenue deductions and could ultimately lead to the termination of the contract.

97. Predictability is another focus of grading. Poor predictability may lead to a lower grading and a high level of predictability may lead to higher grading. Poor predictability could come about because

- there is limited history of usage,
- commercial revenues are derived from activities which are not linked to the operation of the asset,
- rates/leases/fees/toll are higher than the market rates,
- there is no essentiality, 17
- existing and/or future competition is intense, and
- credit quality of the counterparty is poor.

98. High predictability would result if

- there is a long history of usage,
- commercial revenues are derived from activities which are essential to the operation of the asset,
- there is limited competition, and
- rates/fees/leases/tolls are at or below market rates.

C. Contractual and Legal Environment Risk

99. It is possible to mitigate construction and operating risks through contractual arrangements. Granularity of the contractual agreement and its enforceability plays a critical role. At the pre-bid stage, when projects are graded, all the necessary contractual obligations are not always finalized. However, it is imperative for the grading process to evaluate the risk allocation framework embedded in the contract for its definitiveness and absence of ambiguity.

1. Liquidated Damages

100. Liquidated damages are damages whose amount the parties designate during the formation of a contract for the injured party to collect as compensation upon a specific breach. A PPP contract may define beforehand, that if the concessionaire is unable to (i) achieve certain performance parameters, it will have to pay predetermined performance liquidated damages (PLDs) to the public partner; and/or (ii) meet time bound performance milestones, it will have to pay predetermined delayed liquidated damages (DLDs) to the public partner. In order for a liquidated damages clause to be upheld, two conditions must be met. First, the amount of the damages identified must roughly approximate the damages likely to fall upon the party seeking the benefit of the term. Second, the damages must be sufficiently uncertain at the time the contract was executed.

by a public project sponsor (a state authority, for example) based on particular project milestones or facility performance standards. Project milestones can refer to the completion of the facility itself by a certain deadline, while performance standards can be measured operationally. For instance, in a road project performance metrics could include lane closures for maintenance purposes, incident management, or snow removal. Level-of-service performance could also be used as the primary payment metric for availability payment concessions involving the implementation of managed lanes.

17 Essentiality gives investors the confidence that a project is so important to a locality and its stakeholders that repayment is assured no matter how difficult the economic conditions become. If it is not essential, it will not make money and the PPP will fail.
contract is made that such a clause will likely save both parties the future difficulty of estimating damages.

2. Country and Concession Environment

101. A favorable country and concession environment is crucial to attracting financing of the project. The four principal components of the country and concession environment are the concession policy and process environment, economical and political context, credit risk of the public body, and evaluation of the bidding process, which are analyzed below.

102. Concession policy and process environment: Infrastructure development is a thrust sector of the government. As part of broader policy, the government has already undertaken a few initiatives to undertake infrastructure projects under a PPP module. Specific concession legislation, sound concession policies, and competitive concession processes could minimize the project risk.

103. Economic and political context: A stable economic and political environment is critical for attracting investment to this project as well as successful implementation. The environment is to be evaluated on the basis of macroeconomic stability and country risk ratings.

D. Credit Risk of the Public Body

104. Payment streams for PPP projects can come from a wide array of public entities: the central government, local authorities, or some other government agency. In many instances, when the creditworthiness of the public body is not sufficiently robust when compared to its payment obligation, the government issues letters of support on specific projects to back the obligation of the public body. The rating agency generally incorporates into the grading a strong reliance on government support for those transactions for which a letter of support has been issued.

E. Evaluation of the Bidding Process

105. Grading analysis includes a detailed review of construction risk, performance risk, counterparty risk, and the regulatory framework, as well as a review of the financial structure and documentation. A sensitivity analysis is also conducted to assess the capacity of a project to withstand a number of adverse circumstances. In new markets like Bangladesh, the review of the PPP regulatory framework including the bidding process and government support can be expected to constitute a larger part of the analysis.

1. Selection Method

106. A good procurement process should be clear and transparent, robust, fair, cost effective, and timely. Basis for selection—competitive bidding, competitive negotiation, or direct negotiation—is examined at the time of grading.

2. Selection Criteria

107. The grading process assesses the methods the contracting authority is following in order to select the best bidder. Is the method objective? What are the technical and financial mechanisms? How transparent, comprehensive, and unambiguous are the scoring procedures? How are the weights assigned to the technical and financial evaluation parameters being
determined? Is there complete clarity on these aspects prior to the bidding process? Have the broad principles of the evaluation framework been communicated to the bidders properly? Answers to such questions have a strong bearing on the project grade.

3. **Standardization of Contract**

108. Given the diversity of infrastructure projects and the number of stakeholders in PPPs (local authorities, government, construction companies, insurers, and banks), it may never be possible, nor indeed desirable, to fully standardize concession contracts used in PPP deals. Nevertheless, existence of PPP contract guidelines may contribute to a reduction in the significant bid costs incurred by sponsors, a key concern for market participants, which have become increasingly reluctant to bid for new transactions.

4. **Managing Bids**

109. The bidder selection process needs to be managed effectively. Bid process management review involves the following steps:

- sounding out the market,
- public notification and prequalification,
- evaluation of prequalification,
- responses,
- bidding,
- evaluation of bids, and
- negotiation, when required.

**F. Broad Financial Parameters**

110. During the pre-bid phase, cash flow forecasts are reviewed both under a base case (expected simple funding mix) and in the context of downside sensitivities. When reviewing the cash forecasts, the rating agency conducts sensitivity analyses on the main categories of risk: construction risk; operating and performance risk; market risk, if appropriate; the project’s own costs (insurance, tax); and, if appropriate, the impact of inflation, interest rate, and foreign exchange risk.

111. In conducting the sensitivity analysis, the agency will look at the annual debt service cover ratio (ADSCR), average debt service coverage ratio (average DSCR), minimum debt service coverage ratio (minimum DSCR), and the loan life cover ratio (LLCR) as the key indicators of creditworthiness of the project, and will also attempt to compare different projects in the same sector on a similar maturity basis.

**G. Market Risk**

112. Market risk (demand risk) relates to the demand for the services to be provided by the project. Market risk increases with rise in the cost of raw material (say, residual oil or natural gas in the production of electricity), the development of a substitute service (such as a new road that runs parallel to the rail track), overall economic conditions, government policy (on the tax regime, for instance), political developments, developments in the customer industries (for example, tourism), and environmental concerns. To mitigate this risk, the investors may request the introduction of certain clauses in the concession or management agreement. These may
include automatic rate increases under certain conditions, exclusive rights to provide the service, and/or take-or-pay conditions.

113. For those transactions that involve market risk, analysis will focus on the sensitivity of the project to market risk. A market study conducted by an independent expert may be used to provide the base case and downside assumptions for the project. However, the rating agency will not simply use the forecasts of the independent consultant, but also analyze the rationale behind the forecasts and test the effect of various downside scenarios possible.

V. THE PROJECT RATING MODEL

114. Irrespective of the PPP model being applied, a good rating methodology focuses on the analytical issues common to most PPP infrastructure projects. While the rating methodology presented here does not exhaustively list all the parameters included in a rating process, it hopefully provides a good overview of the key considerations:

- project risk
  - construction risk
  - operating risk
- sponsor/management risk
- contractual and legal risk
- counterparty risk
- structure and transaction risk
- financial risk
- market risk

A. Project Risk

115. The approach to project risk analysis during rating is similar to that adopted for grading (see section IV.B).

B. Contractual and Legal Environment Risk

116. The approach to the analysis of risk posed by the contractual and legal environment is similar to that adopted for grading (see section IV.C).

C. Market Risk

117. The approach to market risk analysis during rating is similar to that adopted for grading (see section IV.G).

D. Financial Risk

1. Capital Structure

118. The rating agency adjusts the project risk for the risk of leverage in the issuer’s capital structure, offset by the effect of any structural enhancement designed to mitigate the risks of operating at high leverage, including appropriate liquidity.
2. Cash Flow Analysis

119. The approach to cash flow analysis during rating is similar to that adopted for grading (see section IV.F).

E. Structure and Transaction Risk

120. The financial structure of a PPP project is designed to offset the risk of operating at high leverage. The rating begins with an assumption of certain baseline structural features. It then examines the strength of the given transaction with respect to the baseline assumptions. Such examination may result in a notch up or notch down in the credit quality. Structural analysis addresses the following questions:

- Does cash flow match the expected debt maturities?
- What is the debt repayment and maturity structure? Is it even/front-end loaded/back-end loaded/sculpted or is it a bullet repayment structure?\(^{18}\)
- What are the withholding tax provisions on cross border deals?
- Is there any provision of cash trapping, early warning triggers, hedging policy or its appropriateness?
- Is there any provision of a reserve account? Who will monitor and control the reserve account? Can the project adequately finance the debt service reserve fund, major maintenance fund, and/or environmental capital expenditure for future compliances?

1. Contractual Protections

121. The rating agency also considers the protections the financial structure affords debt holders in the event the financial performance of the issuer or other key transaction participants deteriorates. Equity lock-up trigger could lead to possible rating adjustment. Most infrastructure projects are built under fixed-price contracts with a predetermined completion date. The risk of cost overruns is thus essentially passed through to the contractors, except for cost variations due to changes of law or variation orders issued by the public partner, which are addressed through different mechanisms (revenue increases and standby facilities). The construction contract specifies the level of liquidated damages due by the contractor in case of delay or underperformance, usually subject to an overall cap. The rating process will review the adequacy of the liquidated damages to allow the project to mitigate the effect of delayed revenue, or, in a worst case, to allow the special purpose vehicle to find a suitable replacement contractor. In this respect, the safeguards existing in the PPP structure, including provisions for monitoring by an independent engineer and milestone-related payments, should be sufficient to ensure that any problem with construction is detected at an early stage, allowing the project to address the issue before the public body can enforce its remedies.

2. Liquidity Support

122. Liquidity support implies partial credit support not amounting to a full substitution of the rating of the support provider for the rating of the issuer of the debt instrument. Liquidity support may include

- government support and guarantees,

\(^{18}\) Bullet repayment is a lump sum payment for the entire loan amount at maturity.
• letter of credit (for operational and debt service),
• senior/subordinate structure (for debt service),
• cash reserve,
• support arrangement from parent such as credit facilities, and
• letter of comfort.

123. In order to capture the liquidity support the rating agencies always look into

• terms and conditions of the liquidity instrument,
• creditworthiness of the liquidity support provider (if rating available, it is to be considered),
• liquidity support needed in view of the termination, and
• other reserves/structural features.

F. Counterparty Risk

1. Credit Risk of the Public Body

124. The approach to the analysis of the credit risk to the public body during rating is similar
to that adopted for grading (see section IV.D).

2. Construction Contractor Credit Quality

125. The rating agency considers the contractor’s track record with similar projects. In
evaluating the contractor’s track record, the agency factors in project history, examines the
criteria used by the design–build consortium in selecting the contractor, and interacts with the
contractor’s senior management to assess competence.

126. There is no stronger mitigating factor against construction risk than the contractor’s track
record of building similar assets on time and within budget. Relevant contractor experience thus
constitutes a key area of rating analysis. Concerns about the creditworthiness of a contractor
can be mitigated by a guarantee from a stronger parent, a surety bond, or a letter of credit
issued by a highly rated institution. In all cases, the agency will consider in its rating the
“vulnerability” of the project in case of contractor default, the availability of alternative
contractors, and the mitigants (financial, contractual, or otherwise) existing in the structure.

3. Subcontracting for Operation

127. The rating takes into account the benchmarking or market testing for hard, soft, and
life cycle maintenance costs. The levels of risk assumed by a subcontractor in terms of
performance risk and price risk are likely to lead to a corresponding reduction in risks affecting
the issuer.

4. Key Raw Material Supplier

128. In power project analysis, the suppliers of raw materials (i.e., gas, coal, or furnace oil)
play a vital role in the success of the project during operation. The rating will therefore take
into account

• the supplier’s ability to meet supply obligation,
• the price setting mechanism, and
• the pros and cons of the long-term contract vis-à-vis the short-term contract.

G. Sponsor and Management Strength

129. In evaluating the robustness of the sponsor and the management, the rating process will raise the following questions:

• Has full equity commitment been provided in cash?
• Is contingent equity to be relied upon during the start up and construction?
• Does the sponsor’s credit rating constrain the rating of project?
• What is the track record of the project management team?

VI. KEY CONSTRAINTS

130. There is no “one size fits all” approach to the success of PPP projects. Determinants of success of PPP projects vary from project to project and from economy to economy. Some of the key ingredients of a successful PPP program in the context of Bangladesh are

(i) high-level political commitment and support for the PPP program;
(ii) clear and stable policy and legal framework as well as transparent procedures for PPPs;
(iii) competent, enabled, and high-powered institutions that can identify potential PPP projects, assess their essentiality, and then undertake a comprehensive feasibility study, procure and properly monitor them;
(iv) efficient oversight and quick dispute resolution procedures; and
(v) well-developed and informed financial markets (where risk assessment and disclosures are made available—rating/grading report), including a long-term corporate bond market.

A. Policy and Institutional Constraints

1. Absence of Clear and Consistent Policy and Procedure in the Past

131. A major cause for the lack of private sector participation in PPP projects in the past has been the absence of clear and consistent procedures to identify, formulate, appraise, and approve PPP projects.

2. The Challenge of Fully Empowering the Nodal Office to Manage All Public–Private Partnership Projects

132. The nodal office for PPP projects plays a vital role in enabling interagency coordination and generating political support for achieving PPP objectives. While under the present set-up the PPPO functions under the jurisdiction of the PMO and the proposed PPP law provides administrative as well as financial independence to the PPPO, its success depends to a very large extent on adequate budgetary allocation and a level of operational independence. Although the Government of Bangladesh has legislated to empower the PPPO to take initiatives in PPP projects from project identification to project monitoring after implementation, good legislation is a necessary but by no means a sufficient condition for the PPPO to be able to do
its job well. It needs staff that have the required skills, knowledge, and experience. This is presenting a major challenge for the government.

3. Lack of Political Commitment to Advance the Public–Private Partnerships Program

133. The absence of political commitment to advancing the PPP program, or lack of transparency and coordination within government agencies, may reduce the chances of success for PPP projects. The current government seems strongly committed to pursue the agenda and the political mandate in favor of reforms, and regional integration is considered higher than at any point in Bangladesh’s recent history. However, it remains to be seen if the commitment will remain steady in the long run or will lose steam.

4. Weak Accountability Mechanism

134. A major lacuna that Bangladesh’s PPP program is grappling with is the paucity of experienced and skilled staff along with the virtual absence of accountability for project outcomes in line ministries and implementing agencies. Although the new framework does lay some emphasis on accountability of line ministries and implementing agencies, this can at best be termed as “accountability to the law” but “accountability for results/outcomes” is still missing in the public sector.

135. Under the new policy, all PPP projects are to be routed through the PPPO. Ensuring the willingness of the line ministries to route their projects through the PPPO with a full understanding of the bifurcation of the roles and responsibilities of the line ministry and PPPO during the operational phase poses challenges.

5. The Challenge of Aligning Different Entities to the Common Objective

136. The challenge in front of the government is to align the role of IDCOL, IPFF, BIFF, VGF, and IIFC towards a single objective of promoting PPP infrastructure.

B. Financial Challenges

1. Constraints Related to Banks and Financial Institutions

137. Infrastructure projects are capital intensive, complex, and have long gestation periods. They thus involve multiple and unique risks for project financers. Although the responsibility for arranging project financing lies with the private partner, all stakeholders are expected to understand the process thoroughly if they are to evaluate the value for money conditions of PPP projects. Some of the constraints to full participation of banks and NBFIs in infrastructure financing in Bangladesh are listed below.

(i) Regulatory uncertainties coupled with politically motivated contract awards have put infrastructure projects in the high-risk category in Bangladesh. Even where the contract is robust and fair, enforcement mechanisms have been historically weak. The response of banks and NBFIs to such projects has naturally been tepid. In order to address the regulatory uncertainties, the proposed PPP law 2013 defines terms and conditions for determining private partners, cancellation and extension of agreements, the negotiation process, the dispute resolution process, and scope
for accepting unsolicited proposals. However, it requires time to build the confidence of investors on regulatory uncertainties.

(ii) The financial sector of Bangladesh is characterized by the dominance of commercial banks who receive most of their funds in the form of deposits, which are channeled into lending. Commercial banks have demonstrated little appetite for infrastructure financing. This stems from asset–liability mismatches on account of the difference in tenor between the bank’s liabilities and the advances needed for infrastructure financing. It is very difficult for a bank to manage longer-tenor investments with shorter-tenor liabilities.

(iii) While there are no serious regulatory constraints embedded in the Bangladesh Bank guidelines that prevent banks from increasing their exposure to infrastructure, a couple of regulations do reduce their flexibility. Provisions such as interest rate caps and lack of differentiation in the treatment of subordinate and senior debt in nonperforming assets reduce the attractiveness of mezzanine financing of PPP infrastructure projects for banks.19

(iv) Infrastructure financing is not treated as priority sector lending by Bangladesh Bank.

(v) No mechanism has been developed as yet to fill the credit risk information gap in PPP infrastructure financing before the finalization of the debt structure and contract documents.

(vi) Banks and NBFI$s do not have adequate expertise to properly assess credit risk at the time of project identification and structuring. This has resulted in a dearth of bankable projects.

(vii) Commercial banks have historically focused on working capital, trade finance, and bill discounting and therefore have not developed sufficient expertise to appraise complex infrastructure projects with long gestation periods.

2. Underdeveloped Corporate Bond Market

138. The bond market in Bangladesh is currently characterized by

- excessive reliance on bank credit,
- primary-auctions based government dominated debt instruments,
- relatively high and risk-free interest rates,
- near absence of corporate and international bonds,
- absence of market-based or benchmark yield curve,
- lack of institutional investors,
- low confidence in the private sector,
- shallow capital market,
- lack of appropriate regulations and infrastructure,
- lack of expertise and innovation,
- inefficient and unaccountable trustees,
- high tax incidence and issue cost, and
- lack of product variations.

139. Also missing are other determinants of a well-functioning bond market:

---

19 Mezzanine financing is a hybrid of debt and equity financing that is typically used to finance the expansion of existing companies. Mezzanine financing is basically debt capital that gives the lender the right to convert to an ownership or equity interest in the company if the loan is not paid back in time and in full. It is generally subordinated to debt provided by senior lenders such as banks and venture capital companies.
a degree of efficiency and reliance on credit rating agencies,
- standards of accounting, auditing, and disclosures,
- institutional infrastructure, and
- prevalence of an environment for enforcement of contracts.

140. In the absence of a bond market, issuers who have long-term financing needs cannot be linked with investors willing to place funds in long-term interest bearing securities. Bangladesh has both the issuers and the investors in place but it still has not been able to link them effectively through a bond market.

141. In Bangladesh, an efficient bond market can play a critical complementary role to the banking system in meeting the requirements of the corporate sector for long-term capital investment and asset creation. It can provide a stable source of finance when the equity market is volatile. The bond market in Bangladesh, however, is thin and nascent. While the size of tradable government bonds is small, secondary trading of government bonds is rare. There have been only two public issuances of corporate bonds in the country’s bond market. Key constraints and challenges that have led to an underdeveloped bond market in Bangladesh are as follows:

(i) **Weak regulatory and governance infrastructure.** The breadth and depth of an active bond market depends on well-framed rules and regulations (under umbrella law) and required infrastructure in addition to prospective buyers and sellers. This ecosystem is missing in Bangladesh.

(ii) **Lack of investor confidence.** The general investor’s confidence in bonds is shaky partly due to the absence of a clear regulatory regime. The role of efficient and reliable rating agencies is indispensable in obliterating uncertainty and hesitation in investors. Although seven rating agencies are now operating in Bangladesh, surveillance or continuous rating have not yet been carried out to get early signals on a company’s financial condition or the instrument being issued. Similarly, overlapping regulatory powers on the money and bond markets of the Bangladesh Bank and SECB expand the scope of confusion among the issuers and market intermediaries. The governance of debt securities is weak and works as a disincentive, as does the absence of arbitration institutions.

(iii) **Conventional long-term financing vis-à-vis bond financing.** Private companies including financial intermediaries and large businesses have little interest in launching new debt products in the bond market to raise long-term funds due to high interest rates (14%–18%) and high non-interest fees due to dealers, trustees, and others, as well as interest costs to be given to the bond buyers. The non-interest cost of public issue of debenture is also initially high. This tends to discourage companies from issuing bond/debentures to the public since obtaining debt from commercial banks, share market IPOs, and NBFIs is more economical and procedurally simpler with lesser compliance obligations.

(iv) **Absence of benchmark yield curve.** A benchmark yield curve is used as an indicator to measure the current term structure of interest rates, to form the basis for valuation of all fixed income instruments (for pricing different debt securities), to forecast future interest rate movements and associated risk, and also to select
mispriced securities in active bond portfolio management. The absence of such a long-term risk-free yield curve for government securities is a key hindrance to the development of an active bond market. Bangladesh Bank did take a few steps including introduction of long-term bonds to develop a yield curve, and the coordination of monetary and fiscal policy. Banks hold government bonds largely to meet their statutory liquidity reserve (SLR) and have little incentive to engage in secondary trade of government securities.

(v) National savings certificates distort the market yield. There exist distortions in the bond market caused by the wide use of National Savings Certificates (NSCs) by the government offering above-market returns. This is in contravention of the conventional high risk–high return and low risk–low return rule and fails to generate adequate interest on bond borrowing by corporate bodies, which also hamper the development of an active bond market.

(vi) Lack of a secondary market. The prevalence of fiscal dominance prevents competitive auctioning of government securities based on market prices. The operating framework of the primary dealer system does not promote competitive bidding because under current practice devolvement absorbs up to 35% of allocated issuance. This financial repression impedes development of a secondary government bond market because primary pricing does not reflect market fundamentals and the primary dealers are, therefore, inclined to hold their portfolio of government securities until maturity to minimize losses. The development of the secondary government bond market is also hindered by too many issues of government securities (250 plus) and the average size of each issue ($50 million) being too small, which prevents the creation of liquid benchmark issues.

142. General lack of expertise and innovation and the absence of institutions that can bring variation in debt products have kept the market undeveloped. Although Bangladesh Bank has issued primary dealer licenses to select banks and NBFIs and the SECB has initiated the process of appointing eligible stock brokers for trading of government securities at the bourses, they lack necessary skills and competence to identify attributes, rights, and obligations of parties in debt securities. Public sector borrowing is opaque and fails to foster a reliable demand–supply scenario in which an efficient debt market can function. Given the frequent shifts, the ad hoc culture, and volatility of demand, there is hardly any opportunity for debt instruments to be designed for public trading, thus fueling a vibrant market for bonds, both corporate and public.

3. Restrictions on Insurance and Pension Funds

143. For PPP infrastructure financing, insurance and pension funds can play a major role. Due to regulatory restrictions, insurance and pension funds could not invest in the corporate bond market in Bangladesh.

4. Restrictions on External Commercial Borrowings

144. Bangladesh Bank has formulated a policy for NBFIs to allow them to receive foreign loans only for manufacturing industries and infrastructure funding (barring real estate construction) with prior approval of Bangladesh Bank and through proper approval route on 9 April 2009 vide FI Circular No. 01. Despite the regulation, the flow of external funds is quite
meager due to a lengthy approval process involving both Bangladesh Bank and the Board of Investment on a case by case basis. Furthermore, there is neither any written policy for approval or rejection nor a forward market in foreign exchange. Infrastructure projects require long-tenor loans, and if financed through foreign currency borrowings these funds need to be adequately hedged against currency risks since few infrastructure projects have foreign exchange earnings to serve as a natural hedge. Inability to hedge long-term currency risk is a big disincentive in as far as foreign currency loans are concerned.

5. Constraints Related to Equity/Capital Market

145. Raising equity capital is one of the most challenging aspects of infrastructure project financing as equity typically bears the greatest level of operational, financial, and market risks.

146. Equity can be provided by many parties—sponsors, financial investors, general public, equipment suppliers, and the government. Sponsors have an operational interest as well as management control over the project. But large projects require huge amounts of equity and past experience in Bangladesh has shown that sponsors are reluctant to provide significant equity from their own sources. In the absence of private equity funds (such as venture capital funds), dedicated infrastructure funds, pension funds, insurance company funds, government sponsored funds, or even private fund managers, getting access to longer-term funds remains a critical issue.

147. Limited exit options, if not listed, constrain equity participation by financial investors. Furthermore, a shallow capital market, dilution of interest, and corporate governance issues restrict the sponsor or project developers to list in the bourses. Often infrastructure project developers are construction companies, equipment suppliers, or infrastructure services companies. Return on equity for these companies on their investment in infrastructure projects comes not only from the profit generated by the project, but also from the additional business generated from secondary activities. Therefore, there may be a severe conflict of interest between the project developer and the retail investor. A project developer may maximize its return from secondary activities at the cost of project revenues. The retail or financial investor who has a minority stake in such projects loses out.

148. In the presence of a bank-dominated financial system where the dependence on bank loans is substantial, Bangladesh's capital market is small and has a heterogeneous composition compared with developed and well-functioning capital markets.

149. A major weakness of the market, however, is its inability to reflect the company fundamentals adequately in the market price of its shares. For sustained development, it is also important to reduce unpredictability in the market, which has shown an increasingly volatile trend in recent years. The price–earnings ratio trend is the outcome of high demand and shortage of quality security—the average price–earnings ratio is currently around 15.

6. Limited Hybrid/Mezzanine Financing

150. Considering the lack of a large and varied pool of infrastructure projects, hybrid financing models are not yet developed. The norms for provisioning against nonperforming assets do not make a distinction between senior debt and subordinated debt.
C. Fiscal Barriers to Private Financing of Infrastructure

151. The fiscal environment plays a pivotal role in promoting private financing of infrastructure projects. There are some fiscal issues which need to be streamlined in order to give further fillip to infrastructure sectors. Some of these are:

- streamlining dividend tax,
- tax incentives for investment in infrastructure bonds,
- concession tax/tax holiday,
- import tax/duty, and
- stamp duty.

D. Inadequate Administrative Capacity in the Government

152. A major obstacle to the successful implementation of PPP projects in Bangladesh is the lack of coordination across the ministries and departments. This compounds the problems of delays in approvals and inadequate administrative capacity. Some of the barriers are noted below:

1. Absence of the Partnership Motive

153. Cultural differences between private and public partners are another constraint for the success of PPP. A trusting relationship between the parties based on a shared vision has not yet been established. Partnerships appear to be most justified where traditional ways of working independently are not able to throw up suitable solutions to a problem; the specific desired goals can be agreed upon by potential collaborators; there is relevant complementary expertise in both sectors; the long-term interests of each sector are fulfilled; and the contributions of expertise of the different sectors are reasonably balanced. Generally, the public sector’s concerns for transparency and accountability need to be accommodated, and the private sector needs reassurance on safety and return on investments. The challenge therefore is to ensure that the multiple interests of key participants are skillfully negotiated and packaged.

2. Coordination Issues in the Past

154. An infrastructure project involves multiple government agencies and private participants. While at the pre-bid stage, coordination and convergence amongst different government agencies poses challenges, after bidding, the private participants also join the bandwagon to further complicate matters. In the past, there were many situations where coordination challenges across government departments at the pre-bid stage became so overwhelming that the inordinately long time it took to bundle a project for bidding rendered it economically unviable. However, after setting up the PPPO this aspect will be better handled.

3. Multiple Clearances and Delays in Negotiation

155. Infrastructure projects require multiple clearances of government bodies. Getting clearances from all levels is time consuming and cumbersome, and is also sequential (not concurrent). Projects become economically unviable if it takes a very long time to receive necessary clearances after achieving financial closure. Such delays in getting government approvals do not contribute to an ecosystem conducive to PPP infrastructure projects.
4. Inadequate Capacity to Execute

156. The Bangladesh government has had limited experience with PPP infrastructure projects. Only a few power projects and land port terminals have been implemented by this route. As a result, the capacity within the government to execute PPPs has not been comprehensively tested. The capacity to effectively conceptualize, procure, and manage PPPs is limited within the public sector both organizationally (in terms of legal frameworks, procurement, policy, guidelines, etc.) and at the individual level. Such considerations include but are not limited to

(i) careful consideration and precise articulation of the purposes of the partnership;
(ii) clear delineation of targets and goals;
(iii) a timely and transparent mapping of all costs, revenues, and profitability aspects of a PPP;
(iv) a clear insight into the planning of the project’s parts, the risk profiles involved, and the ways in which various partners are involved;
(v) clear boundaries, measurable output performance, and transparency;
(vi) specific reporting and record keeping requirements;
(vii) a strong central structure at the level of central administration, using private sector expertise to promote and guide policy implementation;
(viii) provisions for contract renegotiation and for adjusting contractual terms, particularly in countries where administrative capacity is weak;
(ix) an appropriately designed legal framework;
(x) a consideration of environmental impact, safety standards, and health responsibilities; and
(xi) control over and close monitoring of possible monopolistic situations.

E. Inadequate Capacity in the Private Sector

157. Capabilities of the private developer or investor, technical manpower, and project analysis cell are also suboptimal. Bangladesh does not have the technology and technical manpower to develop and construct large infrastructure projects, but has to rely on international companies and personnel. In several power projects set up via the PPP route in Bangladesh, the project developers have had to pay substantial liquidated damages for not starting commercial operations within the due date.

F. Credit Information Gap (Pre-Bid Grading by Rating Agencies)

158. The process of developing a PPP project is carried out over four sequential stages—identification, development, procurement, and implementation. At present, financers are not involved at the time of project initiation, feasibility assessment, project structuring, or bidding. Government authorities in Bangladesh are closely involved from project identification to project implementation with little engagement with potential private partners. In general, investors expect that the government will understand and mitigate project risk and develop bankable projects. However, this expectation has not always been met and in many cases, projects designed by the government agencies have been found to be unviable and unattractive by the private financers. Local investors and lenders have cited information asymmetry as the highest barrier to financing PPP projects. Historical experience showed that the financer got involved with the project only after the sponsor had been selected through the bidding process. At that time, most of the risks were built into project and its process. Through signing the concession, the sponsors entered into a time bound schedule. Due to the lack of information on the project,
it took a long time for the lenders to take key decisions on project participation. Indecision led to delays in financial closure and in some situations the sponsor failed entirely in bringing lenders on board.

159. It is ideal if reasonable risk allocation is made in the early stages of project development and designing. After the bid award, the emphasis shifts to achieving closure on the transaction rather than to improving risk allocation. Credit information gap is thus a critical constraint to the success of a PPP project.

160. Success of a project depends on proper identification of all transaction risks and their categorization into those that are controllable, avoidable, and insurable or de minimis in effect and the identification of uncovered risks that lenders bear. Rating agencies as independent bodies can play an important role in risk identification and assessment at the pre-bid level.

G. Flaws in the Tendering Process

161. Protracted tendering and negotiation processes undermine the credibility of PPP initiatives. Policy risks get amplified and the mismatch between the risk perceptions of the public and private stakeholders widens. Accordingly and with the assistance of the ADB-funded PPP Program Operationalization project (TA 7691), the tendering and negotiation process has been standardized.

H. Poor Infrastructure Regulation

162. Regulatory impediments vary considerably across the sectors. In some, such as telecom, the obstacles faced during the initial phase of the 1990s are thing of the past. Through learning by doing, the Bangladesh Telecommunication Regulatory Commission (BTRC) has established itself as a proactive independent regulator which is respected as a body for creating a level playing field and fostering rapid growth in telecom. However, no independent regulatory institution is in place for roads, ports, and/or airports.

VII. POLICY AND BUSINESS RECOMMENDATIONS

A. Building Government Capacity

163. A major constraint that needs to be overcome in Bangladesh relates to poor capabilities within the government to handle and administer PPP projects. Various measures that can improve capacities are listed below.

(i) **Capacity building.** Expeditious measures to remove significant asymmetries in governmental capacity for undertaking PPP projects are essential for the long-term sustainability of PPP initiatives. The government needs support in building capabilities for managing PPP procurement processes and facilitating quicker assimilation and dissemination of best practices across line agencies within the government. The Bangladesh government has already received assistance from ADB for capacity building under TA 7691. Based on the output of the technical assistance provided, further capacity building programs for the line ministries may be undertaken to develop, implement, and monitor infrastructure projects on a sustainable basis.
(ii) **Training and education of stakeholders.** Training and education of the stakeholders are a precondition for the success of sustainable PPP initiatives. A wing of the PPPO could be designated to organize quality training programs and conduct regular workshops and consultations in PPPs, regulations, and management of utility reform and infrastructure development.

(iii) **Advocacy initiative through an infrastructure forum.** The Bangladesh government may think to take an initiative for setting up a Bangladesh infrastructure forum (BIF) to create greater acceptance of PPPs. The forum is expected to act as a neutral, independent, and inter-stakeholder convergence platform to address a wide range of emerging policy issues related to infrastructure, its development, and its growth. The forum will design a cohesive, decisive, and committed platform to consolidate the views of the stakeholders (private sectors, associations, user groups, NGOs, academicians, and public-at-large) to build consensus and to come up with recommendations on policies related to infrastructure development. The forum will make periodic recommendations to the government for formulating policies on infrastructure development in Bangladesh.

**B. Domestic Credit Rating Agencies to Step in to Fill the Credit Information Gap**

1. **Pre-Bid Project Grading**

Project grading by DCRAs should be a mandatory component of the overall appraisal procedure through which each PPP project passes prior to the bid and prior to submission to the Cabinet Committee of Economic Affairs (CCEA) for final approval. Grading of PPP projects at the pre-bid stage would be incorporated into the PPP approval mechanism for achieving technical closure. In order for DCRAs to be able to play the role of effectively bridging the credit information gap, some proactive steps would need to be taken by the government, financial institutions as well as the rating agencies. Some possible initiatives are listed below.

(i) Initiatives that the Government of Bangladesh could take:
   a. Incorporate project grading at the pre-bid stage into the project approval mechanism.
   b. Disseminate complete information regarding the PPP policy, regulations, and procedures across all stakeholders.
   c. Include the cost of project grading at the pre-bid stage in the PPPTAF.

(ii) Initiatives that the Multilateral Financial Institutions (MFIs) could take:
   a. Advocate for the inclusion of pre-bid grading of PPP projects to ensure technical closure.
   b. Support the PPPTAF by way of providing technical assistance for the project development cost.
   c. Extend support towards capacity building to DCRAs.

(iii) Initiatives that could be taken by DCRAs:
   a. Devise criteria/methodology/model aligned with international best practices on grading of PPP projects in consultation with the PPU.
   b. Develop grading scale aligned with international best practices in consultation with the PPU.
c. Strengthen capacity within the organization for ensuring rating services of global standards.

2. Project Rating at the Funding Stage

165. The existing regulatory environment is supportive of credit rating of PPP projects at the funding stage. Funding of PPP projects through the public issuance of equity, public and private issuance of bonds, and loans from banks and financial institutions would fall under the purview of credit rating.

C. Strengthening the Process

166. There is an urgent need for tightening the process followed for bringing a PPP infrastructure project from concept and identification to operations. There is scope for intervention at many levels.

(i) **Empowering the PPPO to provide single window clearance.** The initiative of empowering the PPPO with function as an autonomous nodal office for PPP is a significant milestone. Given that the newly appointed CEO of the PPPO brings with him rich international experience and exposure to PPP, it is expected that he will be able to infuse new dynamism into the PPP initiative in Bangladesh and lead from the front in creating a bridge between the public and private partners. However, having a visionary CEO in place can lead to concrete gains in efficiency and effectiveness only if the PPPO is staffed with personnel with required skills, knowledge, and experience.

(ii) **Creating a framework for rationalization of costs and risks at the outset.** The cabinet-approved Public–Private Partnership Bill 2013 defines the regulatory framework for accepting unsolicited proposals. Where the identification of projects is being undertaken by the private sector, there is a need for a clear and unambiguous set of guidelines that will define the way forward and enable the private sponsor to make a realistic assessment of the costs and risks at the outset and create ways to minimize both.

(iii) **Using a special purpose vehicle for project bundling.** Large PPP projects may be awarded through the special purpose vehicle (SPV) route, wherein a project SPV first acquires the land, permissions for shifting of utilities, and environmental as well as other statutory clearances and approvals necessary for undertaking the project. The SPV—along with the project—is then bid out through a transparent process.

(iv) **Ensuring efficient and transparent dispute resolution systems.** This would involve developing (or strengthening) the procedural and legal framework through the establishment of due process and arbitration mechanisms (in a manner that does not lengthen the existing process from project identification to operations) to avoid increasing uncertainty (and hence risks). It is expected that the Public–Private Partnership Bill 2013 will, if passed by the Bangladesh Parliament, give the existing PPP framework effective legal muscle to preempt and resolve disputes speedily. There are 7 chapters and 68 sections in the proposed PPP law that dwell on various aspects of selecting private partners,
cancellation and extension of the agreements and negotiation process, dispute resolution process, and treatment of unsolicited proposals.

(v) **Addressing the methodological constraints.** If PPP projects are graded by credit rating agencies at the pre-bid stage, it would be easier to establish and define general (flexible) specifications—the core requirements—for the development of project concepts and to allow private participants to find ways to rationalize risks and costs right at the planning stage (or, at least, after the completion of the public information/participation phase over project concepts). In addition, it would permit the estimation and pricing of risks and the better definition of performance indicators (which would be strongly correlated to variables such as tariffs and demand). In all, the aim is to put in place techniques that would allow greater flexibility in project specifications (to encourage innovation) without compromising on the greater objectivity and precision that is possible when specifications are standardized.

D. **Streamlining the Regulatory and Policy Environment**

167. There is need to strengthen the evolving regulatory environment, to ensure consistency in basic principles of regulation across states/over time, and to minimize risks of regulatory discretion. Central to this process is the prerequisite of a clear and realistic sector strategy and road map that sets specific targets along with action plans that are time scheduled. Once the road map is in place, the regulatory and policy environment must be tightened with the sole objective of ensuring that the targets set in the road map are met adequately and competently. Besides the statutes laid down in the Public–Private Partnership Bill 2013, streamlining of the regulatory and policy environment would involve

(i) empowering the PPPO to ensure a one-stop-shop for all PPP issues,
(ii) developing an online toolkit for PPPs,
(iii) making policies and regulations across all segments PPP friendly,
(iv) developing a regulatory framework for sectors where no framework has been articulated (such as airports and railways),
(v) establishing an independent regulatory authority for each segment within infrastructure, and
(vi) striking a balance between competition and regulation so as to meet consumer demands and expand infrastructure.

E. **Devising Appropriate Project Development Cost Funding Mechanisms**

168. The PPPTAF has been created with initial budgetary outlay of Tk1.0 billion by the Ministry of Finance, Government of Bangladesh for supporting credible and bankable PPP projects. To make the initiative effective on a sustainable basis, the following actions are recommended:

(i) The existing PPPTAF policy does not consider the cost of pre-bid grading. It is proposed that the purpose of PPPTAF (defined in the PPP Policy and Strategy 2010) be revisited to cover the following:
   a. pre-feasibility and feasibility studies;
   b. environment impact studies;
   c. financial structuring and legal reviews;
   d. preparation of RFQ and RFP documents;
Use of Credit Rating Information of DCRAs for PPP Projects in Infrastructure in Bangladesh

5. Addressing Financing Issues

169. Multilateral funding institutions could engage in advocacy to revisit the purpose of PPPTAF on the lines defined above and also join the PPPTAF by way of providing technical assistance for the project development cost.

170. Furthermore, the Government of Bangladesh could ensure that comprehensive and unambiguous guidelines for the management of PPPTAF are in place.

### F. Addressing Financing Issues

171. Project financing is one of the primary challenges of PPPs in infrastructure. Some important interventions which can help reduce the stress are listed below.

   (i) Diverse financial institutions dedicated to infrastructure financing need to be expanded, strengthened, and aligned to each other. The Bangladesh government created BIIFL with seed money of Tk16.0 billion in order to infuse debt or equity funds into PPP projects. The fund expected to expand through institutional and individual equity participation both international and domestic. The government has also made provisions for debt or equity financing through IDCOL. Clear procedures for administering these funds (BIIFL, IDCOL, VGF, and IIFC), programming systems, implementation structures, and standardized procedural mechanisms related to the drawing on the funds need to be articulated.

   (ii) Private players must be encouraged to set up infrastructure funds. The government should take measures to deepen debt markets and encourage insurance and provident funds to invest in infrastructure projects.
(iii) Robust equity financing models need to be created. The division of equity financing between private partners and public agencies determines the sharing of project profit streams and affects the successful delivery of PPP projects. A linear programming model could be developed to help public agencies accomplish their objectives of minimizing PPP financing costs to public agencies while remaining attractive to private investors.

(iv) Issuer ratings should be made publicly available and updated each year. With publicly available ratings and a good flow of project information, the market would be able to make a rational value determination. Infrastructure projects funded in the capital markets have been structured to achieve a minimum rating of investment grade as required by the investors. Low investment grade rating is not acceptable without credit enhancement to a large number of investors who require fund managers to adhere to a minimum rating standard. To address the bond investor rating hurdle properly, the market needs to have specific guidance from the rating agencies on their requirements to achieve the desired rating level. The gap between the bank credit risk standard and the capital market investor standard could be bridged in a number of ways: letters of credit and high performance bonding to mitigate construction risk, higher coverage ratios to mitigate operating risk, and lower leverage to create a greater capital cushion to absorb losses before the senior debt is affected. All of these would result in increased costs and research is necessary to determine if the benefits of increased funding competition would be adequate to offset these costs.

(v) Interest caps on external commercial borrowings for PPP infrastructure projects should be relaxed.

(vi) There should be a clear delineation of accounting policies regarding diverse financial instruments, such as hedges, swaps, and derivatives.

(vii) For a project to be bankable, the returns on investment have to be attractive. At the same time it is necessary to ensure that the pricing of the service that the project provides is not so high that it no longer serves public interest or welfare. Hence a balance needs to be struck to ensure that both objectives are met.

(viii) The procurement process needs to be adjusted to ensure easier integration of capital market solutions.

   a. Experts in capital market techniques should be consulted when the terms of the tender documents are being drawn up.

   b. Contract terms should adhere, to the extent possible, to accepted “international standards” to facilitate cross-border investments.

   c. Dual bank debt/bond routes may be incorporated into terms of the tender (perhaps with different underlying project ratings).

   d. A standard cost–benefit analysis may be undertaken of potential capital market solutions, in order to analyze the trade-off between the constraints imposed by a bond solution and the improved terms it may offer.

   e. Advance rulings on tax issues should be made available.

(ix) Dialogue between various stakeholders across and within public agencies and private players can clear the air of misunderstandings and mistrust. Potential direct public support measures are

   a. public guarantees or partial public guarantees;

   b. a public infrastructure bond agency, which could intermediate for private investors or facilitate liquidity;

   c. fiscal incentives; and
d. establishment of a mechanism to appropriately measure the contingent commitments made by government as part of PPP projects within the overall fiscal context:
   ▪ public sector and private sector loans, loan syndication, and credit enhancements;
   ▪ strengthening policy guidance and bringing additional financial and technical expertise; and
   ▪ offering innovative range of credit enhancements and risk mitigation measures.

(x) Appropriate modalities and availability of funds to package linked projects with the main PPP projects should be ensured. As per PPP Policy and Strategy 2010, linked projects are not bundled with the main project and cannot avail of the PPPTAF. Viability of certain projects requires the availability of linked services and if linked services are not in place then the main project cannot launch commercial operations or even construction. Under these circumstances, when linked projects and the main project need to be executed simultaneously while the channels of funding for these are different, there is scope for roadblocks and delays.

(xi) There are certain initiatives that MFIs can take to address issues related to project financing:
   a. They could adopt innovative funding strategies that can support the PPP infrastructure drive directly.
   b. Alternately, they could offer an innovative range of credit enhancements and risk mitigation measures.
   c. They could also set up financing vehicles.

G. Developing a Longer-Term Corporate Bond Market

1. Facilitate Timely and Cost-Effective Access to the Market

172. The procedures for public issuance of debt need to be streamlined. To facilitate timely market access of corporate debt securities a distinction needs to be made between regulatory requirements that apply to the wholesale market and those that apply to the retail market to enable a straightforward listing exercise. Extending shelf registration to all types of corporate issues would also facilitate quick, timely, and cost-effective access of issuers to the market.

2. Reform the Primary Dealing System

173. The primary dealer system needs to be reformed to ensure the development of a liquid bond market and reliable yield curve. The government should be a price-taker by issuing treasury bills and bonds at market rates. A strategy of creating liquid benchmark issues should be pursued by reducing the number of issues and increasing the average size of issues by re-opening existing issues. The initial focus should be on smaller tenors since these are easier for the market to price. Longer tenors can be developed as the market matures.

3. Regulatory Measures

174. Certain regulatory measures are needed to encourage the promotion of the corporate bond market. For example, if it is made obligatory for infrastructure companies in PPP to develop corporate debt instruments, this could ensure an enabling environment for the secondary bond market. Further, provident funds, insurance funds, and mutual funds are not
generally allowed to invest in stock market instruments. To begin with, a part of these funds could be allowed to be invested in marketable instruments subject to prudential guidelines, which may necessitate the supply of lucrative debt instruments. Reduction in the interest on government savings instruments (NSCs) would boost the demand for alternate debt instruments. Also, the registration fee for trust deeds and trust fees could be reduced in order to provide incentives to bond issuing companies. Similarly, the interest received by individual investors on bonds/debentures, approved by the SECB, could be fully exempted from tax, and investment by other investors (other than an individual investor, i.e., institutional investor) could be tax exempt up to a certain limit. The tax rates/relief available to investors on zero coupon bonds could be extended to all other bonds and debentures approved by the SECB.

4. **Enhance the Role of Rating Agencies**

175. All bonds and debentures should be compulsorily rated by independent rating agencies prior to the issue and the rating should be periodically updated.

5. **Create Customized Products**

176. Bonds need to be diversified—in terms of duration of maturity, debt repayment preference (senior, subordinate, and mezzanine), and debt repayment procedure (prorata or sequential)—so as to give the investors different maturity profiles and the option of purchasing debentures under different schemes. Furthermore, to ensure liquidity of marketable bonds, discounting facilities should be provided by financial institutions.

6. **Allow Market Determined Coupon Rates**

177. Coupon rates and other issuing conditions of debentures/bonds need to be determined by market forces. Coupon rates may differ according to the rating of the issuer accorded by independent rating agencies. In order to make long-term investment more attractive, issuers may find it useful to increase the coupon rate as years go by, say 9% in the first year, 10% in the second year, 11% in the third year, and so on. Such methods would be especially useful if the investor is given the right to call for redemption of the bonds at the end of each year so that he/she may choose to hold them to enjoy a higher coupon rate. In addition to the above, several long-run policy measures are required to ensure bond market development.

7. **e-Investor Database and e-Based Trading of Bonds**

178. A large and diversified investor base is important for ensuring strong and stable demand for both public and private securities. In this respect, policy focus on the development of institutional investors and encouraging foreign investors to participate in the local bond market will enhance its credibility. For the purpose, the Central Depository Bangladesh should be equipped with an easily accessible e-investor database and e-based trading of bonds. A revolving underwriting facility may be introduced so that companies can issue short-term debentures whenever necessary. This would create a system in which consortiums of underwriters could make a commitment to the issuing company to purchase all unsold portions of the short-term debentures which may be issued from time to time during a certain period (say, 5 years) up to a maximum limit.
8. Strengthening Corporate Governance and Disclosures

179. Strengthening of corporate governance and improving disclosure and transparency in business transactions to create confidence of investors and issuers alike must be accompanied by the development of an effective interbank money market and a benchmark money market rate to assist secondary trading. In principle, efficient bond markets must encompass a mobile primary market, a fluid secondary market, transparent rules and regulations, a conducive tax system, market rules and awareness, well-functioning settlement and custody systems, and a trustworthy rating system. Finally, public awareness and consensus on the roles of a corporate bond market and its operation mechanism are essential for developing an active secondary market of corporate bonds.

9. Increasing the Appetite of Long-Term Investors

180. Banks are invariably amongst the major users of long-term debt in order to raise long-term subordinate debt to supplement their capital bases. Given that in Bangladesh long-term institutional investors are yet to develop, the banking system could play an important role in the development of the corporate debt market. Infrastructure projects via PPP could expedite the bond market development. Public utilities and infrastructure projects and projects under PPP mode need to raise a part of their finance through issuing marketable bonds. To facilitate the participation of small investors, the bonds could be split into smaller denominations. The existing public utilities and infrastructures could also securitize debts by issuing marketable bonds. Also, industrial companies could be encouraged to replace a portion of their bank/direct foreign loans with marketable bonds.

H. Encouraging Participation by Banks and Financial Institutions in Infrastructure Financing

181. Long-term investment institutions need to be developed with demand for longer maturity assets if the bond market is to mature. Investment policies and regulatory guidelines for insurance companies, pension funds, banks, and other NBFIs need to be sufficiently flexible to invest in infrastructure projects.

1. Modify the Investment Guidelines for Insurance Companies

182. The investment guidelines for insurance companies need to be modified to allow investment in instruments issued by infrastructure project companies with a minimum rating threshold. Insurance companies should be allowed to participate in credit enhancement products of PPP infrastructure projects. The government is in the process of revisiting the rules and regulations of insurance companies under the newly enacted Insurance Law 2010. The above proposition could be considered to foster infrastructure growth.

2. Tap Provident Funds, Pension Funds, and Gratuity Schemes

183. Provident funds, pension funds, and gratuity schemes are established as trust funds and need to be approved by the National Board of Revenue for tax deduction and incentives under the Income Tax Ordinance, 1995. These sectors are not active participants in the capital market because their investment options are restricted to government and government-approved securities and also because they lack experienced investment managers. Investment guidelines for these sectors need to be modified so that they are allowed to invest into PPP infrastructure projects. Going forward, while relaxing the norms to allow these funds to invest into PPP
infrastructure projects, the investment guidelines should also define a few conditions so that the risk–return spectrum of these funds is factored in. Some examples are presented below:

(i) The project being invested into should at least have an AA category rating.
(ii) It could be a project where a multilateral agency or the government extends a guarantee on the minimum rate of return.
(iii) Part of these funds should remain deposited with banks for long periods and all of it should not be used exclusively for infrastructure financing.

184. The government could create an infrastructure financing pool fund where these funds could participate.

3. Resolve the Maturity Mismatch in Asset and Liabilities

185. In the context of Bangladesh, in the absence of a mature corporate bond market, the financing of PPP projects urgently requires energetic participation from banks. Asset–liability maturity mismatch is a central hurdle for banks to finance long-term investment. Mechanisms should be put in place such as refinance schemes, issuance of long-term bonds to finance long-term infrastructure projects, or long-term bridge financing, etc. to address the issue. In order to incentivize banks to scale up infrastructure financing, Bangladesh Bank could consider classifying infrastructure as one of the priority sectors. Restrictions on single exposure limit could be waived for infrastructure projects under PPP, like the existing waiver for the power sector. Liabilities created by the sale of long-term infrastructure bonds could be kept outside the purview of the SLR and cash reserve ratio.
## APPENDIX 1: PRIVATE SECTOR INFRASTRUCTURE GUIDELINES 2004 VERSUS POLICY AND STRATEGY FOR PUBLIC–PRIVATE PARTNERSHIPS 2010

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Structure</td>
<td>• Private Infrastructure Committee (PICOM)</td>
<td>• Public–Private Partnership Advisory Council (PPPAC)</td>
<td>a. High-level political support for PPP program under the new guideline.</td>
</tr>
<tr>
<td></td>
<td>• Cabinet Committee on Economic Affairs (CCEA)</td>
<td>• CCEA</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Line Ministry/Implementing Agency</td>
<td>• Office for Public–Private Partnership (PPPO)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Finance Division</td>
<td>• Line Ministry/Implementing Agency</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Planning Commission</td>
<td>• Finance Division</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Planning Commission</td>
<td></td>
</tr>
<tr>
<td>Framework</td>
<td>a. An 11-member PICOM has been constituted. The Board of Investment (BOI) provided secretarial services to PICOM.</td>
<td>a. A 23-member PPPAC is to be established as an apex body headed by the Prime Minister to advise on the overall PPP policy and give broad guidance on PPP affairs. The principal secretary of the Prime Minister’s Office (PMO) will act as member-secretary.</td>
<td>a. High-level political support for PPP program under the new guideline.</td>
</tr>
<tr>
<td></td>
<td>b. The PICOM places proposals to the CCEA.</td>
<td>b. The CCEA would look into policy, guidelines, and approvals for PPP.</td>
<td>b. Single point technical services may be established through dedicated PPPO.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>c. A dedicated PPPO would be established to act as a nodal office. The PPPO will be formed as an autonomous unit having significant independence in discharging its mandated functions on administrative and financial matters. The PPPO shall be headed by a chief executive officer (CEO). The CEO of the PPPO shall report directly to the Prime Minister.</td>
<td>c. The PPPO’s location in the government is important for interagency coordination and leveraging political support. The PPPO with its CEO reporting directly to the Prime Minister is expected to be effective.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>d. For decision making, a qualification and tender evaluation committee (QTEC) shall be formed.</td>
<td></td>
</tr>
<tr>
<td>Terms of Reference</td>
<td>a. The PICOM’s role is limited to coordination, communication, and encouragement for PPP-related activities and placement of proposal to the CCEA.</td>
<td>a. The role of the PPPAC:</td>
<td>a. The policy clearly spells out the responsibility of each committee and functional authority and link between and among them.</td>
</tr>
<tr>
<td></td>
<td>b. Since the PICOM’s role is limited to coordination and communication, it is understandable that in most cases PICOM cannot examine and evaluate PPP projects properly.</td>
<td>• to provide guidance to PPPO and line ministries, for accelerating PPP projects,</td>
<td>b. The authority that the PPPO wields must match what it is expected to achieve. If the PPPO is expected to provide quality control or assurance, it needs the authority to stop or alter a PPP that it perceives to be poorly designed. But this executive power must be coupled with a mandate to promote good PPVs—otherwise the unit may simply wield a veto without adding value.</td>
</tr>
<tr>
<td></td>
<td>c. Single point technical services are hindered in the absence of dedicated PPPO.</td>
<td>• to provide advice on possible bottlenecks related to inter-ministerial coordination for the implementation of PPP projects, and</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>• to review and ensure achievement of PPP targets at the national level.</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>b. The role of CCEA:</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>• to approve guidelines, procedures, models, classes and threshold investment values,</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>• to make recommendations to PPPAC regarding PPP policy, “in principle” approval authority for medium and large projects,</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>• to approve selected bidders, and</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>• to approve organizational structure and terms of reference (TOR) for PPP.</td>
<td></td>
</tr>
<tr>
<td>--------</td>
<td>--------------------------------------------------</td>
<td>------------------------------------------------------</td>
<td>-------------</td>
</tr>
<tr>
<td>c. The role of the PPPO:</td>
<td>- Nodal agency for PPP</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>- From project identification to project monitoring including pre-feasibility, feasibility study, and bid document preparation</td>
<td></td>
<td></td>
</tr>
<tr>
<td>d. The line ministries and implementing agencies are primarily responsible for identification, formulation, pre-qualification, tendering, contract award, and overseeing the implementation of PPP projects on the basis of the concession agreement. The secretary of the relevant line ministry will propose the QTEC which will have to be approved by the relevant minister.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>e. The Finance Division is primarily responsible for examining PPP proposals from a financing perspective and managing financial participation of the government in PPP projects. A PPP unit will be established in the Finance Division for this purpose. The Finance Division will approve annual allocation for technical assistance and arrange annual allocation for viability gap funding (VGF) as well as to route the funds through specialized financial institutions. The Planning Commission is primarily responsible for the inclusion of linked components of PPP projects into the annual development plan.</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Project Approval**

| a. Approval will be granted by the CCEA for project sizes that are more than or equivalent to $5 million. | a. Approval will be granted by the CCEA for project sizes that are greater than Tk2.5 billion. | a. For small projects “in principle” approval authority is now the line minister and for medium and large ones it is the CCEA. |
| b. Approval will be granted by the concerned ministry for project sizes that are less than $5 million. | b. Approval will be granted by the finance minister for medium projects between Tk500 million and Tk2.5 billion. | b. Based on the classification of project, the approval authority is redefined. |
| c. Approval will be granted by the concerned ministers of the line ministries for small projects that cost less than Tk500 million. | c. Approval will be granted by the concerned ministers of the line ministries for small projects that cost less than Tk500 million. | c. The Planning Commission is now involved in order to avoid duplication and expedite the linked component. |

*continued next page*
|-----------------------------|--------------------------------------------------|--------------------------------------------------------|-------------|
| **Project Identification**  | a. Projects of sizes larger than $5 million, when identified by line ministries or PICOM, are placed before the CCEA for approval for inclusion into the PPP project list.  
  b. Projects that are less than $5 million in size, once identified by line ministries, are sent to PICOM for inclusion into the PPP project list. | a. Irrespective of project size, any project identified by line ministries/implementing agencies or PPPO or private investor, would have to be included in the PPP projects list by the PPPO.  
  b. The PPPO, if necessary, conducts pre-feasibility studies in consultation with line ministries/implementing agencies before inclusion in the list.  
  c. The PPPO submits the list with recommendations for “in principle” approval to the CCEA for large and medium projects.  
  d. In case of small projects the line ministry can give “in principle” approval.  
  e. The PPPO then appoints consultant(s) to prepare a detailed feasibility study (DFS), request for quotation (RFQ), request for proposal (RFP) documents (including concession agreement), and other required documents. | a. As per PSIG 2004, after identification, all projects large and small had to be placed before the CCEA. This was a time-consuming process that discouraged the private sector and the concerned ministry. In order to address the issue, the authority for listing of projects and the conducting of the pre-feasibility study have been delegated to the PPPO and the line ministries or implementing agencies. |
| **Use of Standard Formats for Approval** | a. According to guidelines, standard formats for tender, contract, etc. are to be included.  
  b. Concerned ministries and interested private investors face a dilemma as no standard formats have been included in the guidelines. | a. Different standard formats for different stages have not been yet developed and included in the guidelines. | |
| **Classification of the Project** | a. A project that has a capital cost of at least $25 million is defined as a big project.  
  b. Where the capital cost is less than $25 million, the project is deemed to be a small one. | a. For a project to be categorized as large it needs to have a capital cost that is greater than Tk2.5 billion.  
  b. When the capital cost of a project is between Tk500 million and Tk2.5 billion it is categorized as a medium project.  
  c. If the capital cost of a project is less than Tk500 million, it is categorized as small. | Approval for listing and “in principle” approval is now conducive to fast track decision making. |
| **Executive Responsibility** | a. Board of Investment (BOI) provides secretarial services to PICOM.  
  b. Additional stages require additional time for project processing that cause delays in PPP project approval.  
  c. Line ministries/executive agency | a. The PPPO will provide all the technical as well as secretarial and coordination services to the PPP project.  
  b. Line ministries will also perform necessary activities.  
  c. The Ministry of Finance acts as the nodal ministry in financial and other matters. | Single point technical services may be provided through a dedicated PPP unit. |
| **Bid and Tender Evaluation** | Line ministries/implementing agency | a. Line ministry or implementing agency calls for RFQ, establishes QTEC, and issues the RFP.  
  b. Once the bid is selected and vetted by the Legislative and Parliamentary Affairs Division, the line ministry or implementing agency would seek approval from authorized agency (based on project size) and then the line ministry or agency would sign contract with the selected bidder. | Approval process is defined in the new guidelines but the evaluation criteria and methods of bidding need to be formulated. |

*continued next page*
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Monitoring and Evaluation</td>
<td>Line ministries/implementation agency and no check and balance.</td>
<td>a. Line ministry/implementing agency monitors project implementation and fulfillment of contractual obligations based on key performance indicators (KPI) in the signed document and reports to the PPPO.</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>b. The PPPO conducts independent monitoring of project implementation and fulfillment of contractual obligations of the private investors and reports periodically to the CCEA.</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>c. The PPPO independently also monitors the progress of linked components of the PPP project. Principal secretary may resolve complexities or delays in implementation of the linked component.</td>
<td></td>
</tr>
<tr>
<td>Determination of Terms and Conditions for Projects Related to Different Contracts</td>
<td></td>
<td>a. The CCEA constitutes separate committees for each project as the Major Terms and Condition Committee (MTCC) for determining terms and conditions for different contracts in a project.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>b. Constituting a separate committee and determining terms and conditions by that committee require time. The committee is constituted on an ad hoc basis and in most cases the desired professional opinion remains unviable.</td>
<td>b. After &quot;in principle&quot; approval from the CCEA, the PPPO appoints consultants from a preselected panel or through an independent bidding process to conduct a feasibility study and prepare the draft contract documents.</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>b. The CCEA’s involvement is now at the &quot;in principle&quot; approval stage and negotiation and contract award stage.</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>c. The CCEA determines the terms and conditions on the basis of reports on technical, engineering, and legal matters and reports from the consultant.</td>
<td></td>
</tr>
<tr>
<td>Risk Allocation Principle</td>
<td>Focus is on risk transfer to the private partner rather than optimizing risk allocation. The government prefers and gives priority to those infrastructure projects in which investors take the risk for the demand (business risk) for the infrastructure services provided under the project.</td>
<td>Under this regime, PPP is a win–win relationship between the government and various private sector players for the purpose of delivering a service by sharing the risks and rewards of the venture.</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Without lenders’ participation no PPP project can be implemented. But involvement of lenders in the project under the present framework is at best Stage VI and onwards. The project design, structure, terms, and conditions are set before the involvement of the private financier. In order to protect the interests of lenders, involvement of rating agencies at the pre-bid stage could be a good option.</td>
<td></td>
</tr>
<tr>
<td>Sick Project</td>
<td>a. According to guidelines, in addition to other clauses, the government shall not take responsibility of a project if it turns sick due to bad business judgment, competition, change in government policy, increase in taxes, or reduction in fiscal incentives.</td>
<td>Nothing has been mentioned in the guidelines regarding this issue.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>b. Presence of the sick project clause in the guidelines is not favorable to the private sector entrepreneur.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
APPENDIX 2: LIST OF PUBLIC–PRIVATE PARTNERSHIP PROJECTS
UNDER THE EXISTING FRAMEWORK

The list of CCEA approved projects under the Public–Private Partnership Program is set out:

<table>
<thead>
<tr>
<th>SL</th>
<th>Sector</th>
<th>Project Name</th>
<th>Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Health</td>
<td>Hemodialysis Centre at Chittagong Medical College Hospital.*</td>
<td>Procurement Stage - ROI</td>
</tr>
<tr>
<td>2</td>
<td>Health</td>
<td>Hemodialysis Centre at National Institute of Kidney Diseases and Urology (NIKDU).*</td>
<td>Procurement Stage - ROI</td>
</tr>
<tr>
<td>3</td>
<td>Roads</td>
<td>Jatrabari-Sultana Kamal Bridge-Tarabo PPP Road.*</td>
<td>Project Preparation Stage</td>
</tr>
<tr>
<td>4</td>
<td>Roads</td>
<td>Hemayetpur-Singair-Manikganj PPP Road.*</td>
<td>Project Preparation Stage</td>
</tr>
<tr>
<td>5</td>
<td>Housing and Works</td>
<td>NHA Housing Satellite Project at Mirpur.*</td>
<td>Project Preparation Stage</td>
</tr>
<tr>
<td>6</td>
<td>Bridge</td>
<td>Dhaka-Ashulia Elevated Expressway.</td>
<td>Procurement Stage - RFQ</td>
</tr>
<tr>
<td>7</td>
<td>Transport</td>
<td>Dhaka-Elevated Expressway.</td>
<td>Contract Signature</td>
</tr>
<tr>
<td>8</td>
<td>Bridge</td>
<td>2nd Padma Multipurpose Bridge at Paturia-Goalundo.</td>
<td></td>
</tr>
<tr>
<td>9</td>
<td>Transport</td>
<td>Flyover from Santnagar to Mawa Road via 4th (New) Bridge over Buriganga River.</td>
<td>Project Preparation Stage</td>
</tr>
<tr>
<td>10</td>
<td>Roads</td>
<td>Upgrading of Dhaka Bypass to 4 Lane (Madanpur-Bhulta-Joydebpur).</td>
<td>Project Preparation Stage</td>
</tr>
<tr>
<td>11</td>
<td>Shipping</td>
<td>3rd Sea Port.</td>
<td></td>
</tr>
<tr>
<td>12</td>
<td>Shipping</td>
<td>2 Jetties at Mongla Port through PPP.</td>
<td>Procurement Stage - RFQ</td>
</tr>
<tr>
<td>13</td>
<td>Shipping</td>
<td>Construction of Laldia Bulk Terminal.</td>
<td>Project Preparation Stage</td>
</tr>
<tr>
<td>14</td>
<td>Social Welfare</td>
<td>Oboshor: Senior Citizen Health Care and Hospitality Complex.</td>
<td>Procurement Stage - ROI</td>
</tr>
<tr>
<td>15</td>
<td>Tourism</td>
<td>Establishment of 5 Star Standard Beach Hotel along with 18-Hole Golf Course at Cox’s Bazar under Public–Private Partnership.</td>
<td>Project Preparation Stage</td>
</tr>
<tr>
<td>16</td>
<td>Roads</td>
<td>Dhaka-Chittagong Four-Lane Access-Controlled Highway.</td>
<td>Project Preparation Stage</td>
</tr>
<tr>
<td>17</td>
<td>Economic Zone</td>
<td>Hi-tech Park at Kallakoir.</td>
<td></td>
</tr>
<tr>
<td>18</td>
<td>Transport</td>
<td>Construction of a Railway Bridge over the River Jamuna near Fulchhari Bahadurabad Ghat Including Approach Rail Links.</td>
<td>Project Preparation Stage</td>
</tr>
<tr>
<td>19</td>
<td>Transport</td>
<td>Construction of a Railway Bridge Parallel to the Existing Bangabandhu Bridge with Provision of Dual Gauge Double Track over the River Jamuna.</td>
<td>Project Preparation Stage</td>
</tr>
<tr>
<td>20</td>
<td>Transport</td>
<td>Supply, Installation, and Commissioning of a Multi Mode Surveillance System (Radar, etc. at Hazrat Shahjalal International Airport, Dhaka).</td>
<td>Project Preparation Stage</td>
</tr>
<tr>
<td>21</td>
<td>Health</td>
<td>Establishment of a Medical College and Nursing Institute on the Unused Lands adjacent to the Railway Hospital at Kamlapur in Dhaka and Up-gradation and Modernization of Existing Railway Hospital into 250 Beds.</td>
<td>Project Screening Stage</td>
</tr>
<tr>
<td>22</td>
<td>Health</td>
<td>Establishment of a Medical College and Nursing Institute on the Unused Lands adjacent to the Railway Hospital at Central Railway Building in Chittagong and Up-gradation and Modernization of Existing Railway Hospital into 250 Beds.</td>
<td>Project Screening Stage</td>
</tr>
<tr>
<td>23</td>
<td>Health</td>
<td>Establishment of a Medical College on the Unused Land adjacent to the Railway Hospital at Saidpur in Nilphamary and Up-gradation and Modernization of Existing Railway Hospital into 250 Beds.</td>
<td>Project Screening Stage</td>
</tr>
<tr>
<td>24</td>
<td>Health</td>
<td>Establishment of a Medical College on the Unused Land adjacent to the Railway Hospital at Paksey in Pabna District and Up-gradation and Modernization of Existing Railway Hospital into 250 Beds.</td>
<td>Project Screening Stage</td>
</tr>
<tr>
<td>25</td>
<td>Health</td>
<td>Establishment of a New Modern Medical College and Hospital of 250 Beds on the Unused Land in Khulna.</td>
<td>Project Screening Stage</td>
</tr>
<tr>
<td>26</td>
<td>Transport</td>
<td>Construction of a New Inland Container Depot (ICD) near Dhirafram Railway Station.</td>
<td>Project Screening Stage</td>
</tr>
<tr>
<td>27</td>
<td>Transport</td>
<td>Construction and Operation of Inland Container Terminal (ICT) at Khapur.</td>
<td>Project Screening Stage</td>
</tr>
<tr>
<td>28</td>
<td>Fisheries and Livestock</td>
<td>Fisheries and Livestocks PPP Projects.</td>
<td>Project Screening Stage</td>
</tr>
<tr>
<td>29</td>
<td>Civil Accommodation</td>
<td>Construction of BSS Bhaban under PPP.</td>
<td>Project Screening Stage</td>
</tr>
</tbody>
</table>

* = pilot projects, which were selected by respective ministry and PPP Office on a priority basis for immediate implementation.
APPENDIX 3: LIFE CYCLE PROCESS FLOW OF PUBLIC–PRIVATE PARTNERSHIP PROJECTS

Appendix figures A3.1 to A3.6 present various process flows and modalities of PPP under the existing framework.

Figure A3.2: Project Identification/Screening

CCEA = Cabinet Committee on Economic Affairs, IPA = in-principle approval, PPP = public–private partnership, PPPO = Public–Private Partnership Office.
Figure A3.3: Project Development Process


Figure A3.4: Bidding Process

Figure A3.5: Project Financing and Closure

BIFF = Bangladesh Infrastructure Finance Fund, CCEA = Cabinet Committee on Economic Affairs, DD = Debt Department, LPAD = Law and Parliamentary Affairs Division, MOF = Ministry of Finance.

### APPENDIX 4: INTRODUCING PRE-BID PROJECT GRADING

<table>
<thead>
<tr>
<th>Stage of Completion</th>
<th>Pre-Bid Phase</th>
<th>Bid Phase</th>
<th>Implementation Phase</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Stage 0</td>
<td>Stage I</td>
<td>Stage II</td>
</tr>
<tr>
<td></td>
<td>CCEA Approval</td>
<td>Feasibility</td>
<td>Commercial</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Framework</td>
<td></td>
</tr>
</tbody>
</table>

#### Processes

- **Stage 0**: CCEA Approval
  - a. Line ministry/implementation agency office for PPP identifies the project
- **Stage I**: Feasibility
  - b. Consultant prepares RFQ and RFP (including draft concession agreements) and other relevant documents
- **Stage II**: Issue RFP
  - c. Consultant prepares a. QTEC evaluates the investor's proposals based on the technical responsiveness criteria and screens out the non-responsive proposals
  - b. The QTEC prepares the RFP evaluation report with a ranking of the technically responsive investors based on the financial evaluation criteria

#### Action/Output

- **Stage 0**: List of project proposals
  - a. Detailed feasibility studies (DFS) of the project completed
- **Stage I**: Pre-feasibility report for each project
  - b. Estimate of VGF requirement
- **Stage II**: List of "in principle" approved projects by CCEA
  - c. Shortlisted investors identified and RFP issued

#### Parties Involved

- **Stage 0**: a. Line ministry
- **Stage I**: b. Implementing agency
  - c. Office for PPP
- **Stage II**: d. CCEA
  - e. Consultant

#### Grading of Project at Pre-Bid Stage

- a. Government to bring modifications or restructuring of the project to mitigate the risk associated with particular variables
- b. Project to make more attractive to the prospective investors and get good bid from experienced market player as well as could make project bankable

---

**Prospective investors get an idea of the risks associated with the project**

- a. Structure Risk
  - b. Market Demand Risk
  - c. Contractual Demand and Features
  - d. Quantification of Risk
  - e. Operational Risk
  - f. Process Risk

**Save time and ensure value for money**

- a. If risk could be identified at pre-bid stage then before taking appropriate mitigation measures the bid process would not start which would save time and money
- b. Projects require approval of CCEA at two stages, i.e., "in principle" approval at Stage 0 and final approval at Stage IV. Once a bidder is selected based on certain stipulated terms and conditions, then any alteration or modification by CCEA at Stage IV level could delay the implementation of the project. A project grading report may assist the CCEA to accelerate the approval process
- c. Availability of a project grading report at the early stage could assist the investors and lenders to take decisions on their participation based on their risk appetite
## APPENDIX 5: REGULATORY FRAMEWORK FOR RATING/GRADED OF PUBLIC–PRIVATE PARTNERSHIP PROJECTS: PREVAILING VERSUS IDEAL

<table>
<thead>
<tr>
<th>Pre-Bid Phase</th>
<th>Funding Stage</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Existing Rules/ Regulations/ Environment Related to Infrastructure Project Grading</strong></td>
<td><strong>Existing Rules/ Regulations/ Environment Related to Infrastructure Project Rating</strong></td>
</tr>
<tr>
<td><strong>Required Environment</strong></td>
<td><strong>Required Environment</strong></td>
</tr>
<tr>
<td><strong>Action</strong></td>
<td><strong>Responsibility</strong></td>
</tr>
<tr>
<td>a. Innovative idea; no single precedent</td>
<td>a. Rules to be formulated that for technical closure PPP project to be graded by the ECAI (External Credit Assessment Institution) at pre-bid stage</td>
</tr>
<tr>
<td>b. No supportive rules and regulations</td>
<td>b. Funding mechanism to be developed (i) from Technical Assistance Financing Scheme and (ii) through creating Infrastructure Project Development Fund</td>
</tr>
<tr>
<td>c. No funding mechanism for availing the grading services</td>
<td>c. A common framework for pre-bid grading to be developed</td>
</tr>
<tr>
<td>d. No experience of rating agencies in infrastructure project evaluation at pre-bid stage</td>
<td>d. Capacity enhancement of rating agencies</td>
</tr>
<tr>
<td>e. Methodology exists for infrastructure project rating but not tailored to grading at pre-bid stage</td>
<td>e. PPP-related awareness building especially grading methodology and risk assessment framework</td>
</tr>
<tr>
<td>f. No benchmark data is available except a few power projects to compare relative risk</td>
<td></td>
</tr>
</tbody>
</table>

- a. Innovative idea; no single precedent
- b. No supportive rules and regulations
- c. No funding mechanism for availing the grading services
- d. No experience of rating agencies in infrastructure project evaluation at pre-bid stage
- e. Methodology exists for infrastructure project rating but not tailored to grading at pre-bid stage
- f. No benchmark data is available except a few power projects to compare relative risk

- a. Credit Rating Agencies Rules 1996
  - (i) Public offering of all debt instruments: bond, debenture, commercial paper, structured finance (asset/mortgage backed securities), and preference shares
  - (ii) Public issue of shares at a premium

- b. Right Issue Rules 2006: all right issues at premium

- c. Adoption of standardized approach under Basel II framework for calculating risk-weighted assets of banks, which is linked with the credit rating of the issue/issuer by ECAI (CRAB and CRISL)

- d. The central bank has decided to implement Basel II Accord in the financial institutions from January 2012; once implemented, counterparty of financial institutions to come under purview of credit rating

- e. Recent amendment (November 2009) in the CRC Rules 1996 stipulated that if an agreement for entity ratings executed with a CRC, the CRC shall perform surveillance rating for at least the next 3 years after the initial rating, and for an issue or instrument rating, CRC shall perform continuous surveillance rating for the lifetime of the instrument. The new rules will assist the rating agencies to monitor and validate its rating.

- f. Both CRAB and CRISL conduct more than 500 rating assignments including few infrastructure projects.
Use of Credit Rating Information of Domestic Credit Rating Agencies for Public–Private Partnership Projects in Infrastructure in Bangladesh

The working paper identifies the effective use of credit rating to enable financing of Public–Private Partnership (PPP) projects in infrastructure in Bangladesh and shares key aspects of the government’s policy and strategies for PPP and information on the progress made so far. It also sums up the constraints in financing PPP arrangements, its potential solutions, and presents an outline of the credit rating methodologies suitable for detailed risk assessment in both PPP project grading and project rating. This paper should enable the reader to understand the key rating factors used by Domestic Credit Rating Agencies in the final rating determination.

About the Asian Development Bank

ADB’s vision is an Asia and Pacific region free of poverty. Its mission is to help its developing member countries reduce poverty and improve the quality of life of their people. Despite the region’s many successes, it remains home to approximately two-thirds of the world’s poor: 1.6 billion people who live on less than $2 a day, with 733 million struggling on less than $1.25 a day. ADB is committed to reducing poverty through inclusive economic growth, environmentally sustainable growth, and regional integration.

Based in Manila, ADB is owned by 67 members, including 48 from the region. Its main instruments for helping its developing member countries are policy dialogue, loans, equity investments, guarantees, grants, and technical assistance.

USE OF CREDIT RATING INFORMATION OF DOMESTIC CREDIT RATING AGENCIES FOR PUBLIC–PRIVATE PARTNERSHIP PROJECTS IN INFRASTRUCTURE IN BANGLADESH

Jiro Tsunoda and Mohammed Tajul Islam

NO. 23
February 2014
ADB SOUTH ASIA WORKING PAPER SERIES