

**RISK MITIGATION IN PPPs:  
LESSONS FROM BANGLADESH EXPERIENCE**

by

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## **ABSTRACT**

Provision for sustainable and quality infrastructure is a prerequisite for rapid economic development and requires huge sustained investment. The Bangladesh economy needs huge investment in infrastructure development. Government alone is not capable to provide these funds. Government of Bangladesh has embraced private participation in infrastructure development of the country.

The research investigates the existing PPP framework of Bangladesh. It also analyzes the regional PPP framework and growth of private participation in infrastructure development. It considers some recent infrastructure development projects of Bangladesh to learn how the risks are shared and mitigated. The research is expected to guide and encourage private participation in infrastructure development in Bangladesh.

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## ABBREVIATIONS

ADP	Annual Development Programme
ADR	Alternative Dispute Resolution
BEPZA	Bangladesh Export Processing Zone Authority
BIFF	Bangladesh Infrastructure Finance Fund
BBA	Bangladesh Bridge Authority
BDT	Bangladesh Taka
BOO	Build Own Operate
BOT	Build Own Transfer
BPDB	Bangladesh Power Development Board
BIWTA	Bangladesh Inland Water Transport Authority
BOOT	Build Own Operate Transfer
CEO	Chief Executive Officer
CEPZ	Chittagong export processing zone
CCEA	Cabinet Committee on Economic Affairs
DCC	Dhaka City Corporation
DOE	Directorate of Environment
GDP	Gross Domestic Product
GOB	Government of Bangladesh
IPFF	Investment Promotion and Financing Facility
IDCOL	Infrastructure Development Company Limited
LOI	Letter of Intent
MIGA	Multilateral Investment Guarantee Agency
MW	Mega Watt
ODA	Official Development Assistance
PPP	Public Private Partnership
PSIG	Private Sector Infrastructure Guidelines
QTEC	Pre qualification and Tender Evaluation Committee
RFQ	Request for Quotations
RFP	Request for Proposal
SPE	Special Purpose Entity
SPV	Special Purpose Vehicle
VGF	Viability Gap Financing
WASA	Water and Sewerage Authority

# CHAPTER 1 INTRODUCTION

## 1.1 Introduction

Provision for sustainable and quality infrastructure is a prerequisite for rapid economic development and requires huge sustained investment. This investment is supposed to be supported by technological innovation, skilled workforce and excellent project management. Governments alone cannot bring together all these elements. This has led the concept of Public-Private relationship. This is in fact a source of mutual benefit for both public and private sector. PPPs play supportive role to accumulate private capital and experience. It ensures transfer of valuable public assets in the form of concessions.

The importance of investor protection in attracting private investment in infrastructure development is enormous especially in developing countries. The divergence in depth, breadth and effectiveness of financial system across the globe can be partly responsible for the variation in investor protection. Legal rules and the quality of enforcement greatly differ across the country. Foreign investors are prone to the risk of expropriation. So they desire to invest in countries having better investor protection law and their enforcement.

## 1.2 Statement of the Problem

The Bangladesh economy needs huge investment in infrastructure development. Government alone is not capable to provide these funds. That is why government has allowed private sector to join the effort towards infrastructure development of the country. Government is ready to welcome both local and foreign investors. It is true that without participation from foreign investors' rapid infrastructure development is not possible.

Government of Bangladesh has set target of 8 percent GDP growth rate by 2013. To attain this growth rate huge investments are needed for infrastructure development. Government believes that private participation in infrastructure development might be a good solution to scarcity of government fund in doing so. With a view to encourage private participation from both home and abroad government of Bangladesh has taken different initiatives. This is a view from government side. But from the investors' view point whether these initiatives are sufficient or the investors, especially the foreign investors, are confident or not about the protection is the key point for investors.

Investors' protection is critical in attracting private participation in infrastructure project development. Investors always prefer that economy which provides them better protection. This study is an effort to learn about the general framework for private participation in infrastructure development in Bangladesh focusing the investors' protection environment in Bangladesh. Finally the study is expected to assist the prospective investors who are planning to make their investment

destination in Bangladesh and make some comments on how to create congenial atmosphere for the foreign investors in Bangladesh.

### 1.3 Objectives

Government of Bangladesh has embraced private participation in infrastructure development of the country. Bangladesh needs huge investment in infrastructure development from the private sector since government alone cannot meet the financing fund. So securing sufficient funds for financing such massive PPP projects is a big challenge in Bangladesh. It has been learnt that for the private participation in infrastructure development of a country, creating conducive environment for investment is required. Investors are likely to invest in that environment where they feel protected regarding their investment and return thereof. This is critical for foreign investors.

Financing such a large-scale project for rapid infrastructure development requires not only private participation from domestic sources but also foreign investment. Toward realizing this project, the objective of the study was to investigate the existing legal frameworks for private participation in infrastructure development in Bangladesh and to explore some practices of protection and risk sharing mechanisms in some implemented PPP project in Bangladesh. Finally, specific objective of the research study was to make some recommendations with a view to create congenial atmosphere for the private investors' especially foreign investors in infrastructure development based upon regional comparison and literature review.

### 1.4 Methodology

This project follows the following methodology:

- **Literature Review:** This starts with an extensive study in the field of work related to private participation in infrastructure development specially focused on protection of investors to have an overall idea about private participation in infrastructure development.
- **Overview of Bangladesh PPP:** After having an idea of private participation in infrastructure development existing Bangladesh PPP environment with a focus to investors protection and some projects under implementation will be analyzed.
- **Secondary Data:** Secondary data of the related issues has been collected from various published report.
- **Primary Data:** Primary data has been collected from concerned officials over email and through interview.

## **1.5 Limitations**

Private participation in infrastructure development in Bangladesh is comparatively new. PPP framework has not yet been streamlined. From the government point of view it has not yet been possible to find the primary data from a single point. Primary data has been collected from concerned different government offices of Bangladesh. Sometimes there was limited scope for collecting data. Due to government policy all required data could not be making available. For regional comparison secondary data has been used based on availability of data.

## **1.6 Organization of this report**

This report begins with literature review concentrating investors' protection, impact of private participation in building infrastructure, different risks associated with PPP and risk mitigation mechanism in the following chapter. An investigation towards PPP framework of Bangladesh along with a comparative analysis in regional PPP framework has been incorporated in the next chapter. After that some case studies on recent PPP project in Bangladesh have been incorporated in chapter four. Finally, there is conclusion and recommendation.

## **CHAPTER 2**

### **INVESTORS PROTECTION IN INFRASTRUCTURE DEVELOPMENT THROUGH PPP (Literature Review)**

#### **2.1 Introduction**

Provision for sustainable and quality infrastructure is a prerequisite for rapid economic development and requires huge sustained investment. This investment is supposed to be supported by technological innovation, skilled workforce and excellent project management. Governments alone cannot bring together all these elements. This has led the concept of Public-Private relationship. This is in fact a source of mutual benefit for both public and private sector. PPPs play supportive role to accumulate private capital and experience. It ensures transfer of valuable public assets in the form of concessions.

The importance of investor protection in attracting private investment in infrastructure development is enormous especially in developing countries. The divergence in depth, breadth and effectiveness of financial system across the globe can be partly responsible for the variation in investor protection. Legal rules and the quality of enforcement greatly differ across the country. Foreign investors are prone to the risk of expropriation. So they desire to invest in countries having better investor protection law and their enforcement.

#### **2.2 Determinants of Investor Protection**

##### **Profile of the Investors**

Three components may be used as a measurement of investor protection. Investor profile is determined by many factors (i) contract viability of contract or expropriation risk (ii) Delays in making payment (iii) profit repatriation etc. In project finance financial claims may be called that type of contract that gives the opportunity to claim to cash flows of the project by shareholders and creditors. Legal system is supposed to be a guard that protects Contract viability. Contract laws refer to negotiated arrangements and company, bankruptcy and securities law prescribe the rights of corporate insiders and outsider investors. If legal rights are strong and efficiently enforced by regulators courts investors are more willing to finance in projects. In contrast when the legal system does not protect outside investors availability of external finance is weakened. (Bekaert et al, 2007)

##### **Institution Quality or Measure for General investor Protection**

Protection for general investor or quality of institutions can be measured by (i) degree of corruption (ii) Law and order situation and (iii) quality of bureaucracy. Corruption may be threat to foreign participation in private infrastructure due to various reasons. It is likely to distort the overall business environment of a country, it might diminish the efficiency of government and business; encouraging political appointment in different important places of the state

without considering basic quality. As a result unhealthy competition for power begins and that leads to overall instability within the economy of the respective country. (LLSV,1998 and Bekaert et al, 2007 )

### **Quality of Enforcement**

If there is a strong system dedicated towards enforcement that might be a viable substitute for weak laws. An active and efficiently functioning court could come to rescue of investors harmed by the management. Quality enforcement system depends on the efficiency of judicial system. (LLSV, 1998)

### **2.3 Importance of Investors protection**

Modern infrastructure plays a vital role towards economic growth and poverty alleviation. And Governments have to recognize it for the well being of the nation. When Second World War was over, governments in different countries engage state-owned organizations to provide the citizens with infrastructure. But the state owned organizations failed to prove them efficient in doing this over the years. Many developing countries failed to accumulate adequate resources for expanding infrastructure. Because all the governments had to provide subsidy to ensure low priced utility. As a result many governments decided to involve private sector for providing infrastructure to meet rapid growing demand for utility.

### **Impact of private infrastructure**

Private participation in infrastructure has got many positive impacts in different countries (*The world Bank, 2003*). They are as follows:

#### **Service Expansion Impact**

The private sector is found to be more competent by technical and managerial aspect. In case of involvement of private sector in providing infrastructure pricing strategy is found to be market oriented. That pricing strategy is sustainable because it is based on better financial discipline. That leads to relaxing the investment constraints which is a common phenomenon in public sector. In meeting increasing demand which were unmet previously much gain further leads to further expansion.

#### **Efficiency Impact**

Very often governments are not capable to manage public enterprise efficiently. Many utility service providing enterprises are found to be overstaffed and poorly managed. Governments have to provide budgetary support to revive these enterprises every year. But private participation in infrastructure development brings efficiency in managing these organizations.

For example in countries where meter tempering in exchange of bribe is common, benefit of private participation comes from reducing meter tempering and increasing revenue.

### Quality of Service Impacts

Private participation in infrastructure development allows improvement of service quality. If users get quality service with assurance of reliability and continuity then these may have major benefits to consumers.

### Fiscal Impacts

Private participation in infrastructure development allows government in reducing fiscal burden. It helps the government to raise revenues from license fee or concession fee as well as from divestiture. These resources are then used for social sector services. In many cases governments may be encouraged to increase prices to increase revenue with a view to reduce competition in the market.

There are both macroeconomic and microeconomic reasons behind the participation and increase in private participation in infrastructure development. But private investment in infrastructure exposed different risks. Because once investments are made government of host country might have different political stands towards pricing of concerned infrastructure services. So for safeguard investors usually ask for guarantees from the government.

## **2.4 What is Risk in Project Finance? (*The World Bank, 2003*)**

According to theory of Finance and securities analysis and portfolio management, "risk" refers to the variation of return from expected return. In this sense, risk is a statistical concept. If it is not systematic risk then this risk can be eliminated by diversification.

In project finance, on the other hand, "risk" refers to the facts where actual results may be bad than anticipated . In case of project finance the expected return is not the benchmark return. It is the return that investors would receive if all the things happen as expected. For example, investors estimate the returns they will earn on the assumption that the government does not nationalize their investment but note a risk of nationalization. An increase in nationalization risk in this sense does not increase the variation of returns, it reduces the expected return. Like in portfolio investment diversification cannot eliminate these types of risks. It can only spread the loss among many people. In case of project risks are needed to be managed in more efficient way. These risks cannot be eliminated but can be transferred to another party who are efficient to handle this. So there should be an arrangement to recognize these risks and transfer to that party who can manage this risk properly.

## **2.5 How risks can be mitigated**

All investment projects have to face different kinds of risks. Infrastructure projects especially in developing countries are considered more risky in many respects. That acts as a constraint factor towards private financing. Unlike other cases a special purpose company is created to implement infrastructure projects on the basis of concessionary contract. Financing is done by the financing organizations based on revenues stream. Financing organizations look on revenue stream much and scrutinize the issues which might affect the revenue stream. The revenue stream is very much important to ensure debt service obligations. Lenders look in to the revenue stream and try to asses all the risks associated with the revenue. Equity investors may expose to higher risk followed by higher return, but the lenders usually take less risk with mitigation measures. In case of infrastructure project governments conduct project negotiations with the sponsors but the lenders play vital role in setting mitigation standard to make the project financeable. (*Montek S.Ahlowalia, 2009*)

## **2.6 Different kinds of risk**

There are some general risk mitigation principles. Risks cannot be destroyed. Rather it is wise to distribute these risks to the parties who can manage them at low cost with efficient manner. If the risk is supposed to be handled by outside agencies then it will be wise to hand over those risks to outside parties. This transfer of risks involves cost. This cost will be added to the tariff. If the risk is managed efficiently then cost will be less and vice versa.

The following are some risks which are important in case of infrastructure project. There are different methods to handle those risks and during handling these risks some problems may arise. They are discussed below.

### **Construction risk**

Not all infrastructure projects are exposed to same quantity of risks. In some sectors risks is higher and in some sector risks are relatively lower. Suppose for example in power and road sector construction risk is higher and in telecommunication sector construction risk is lower. Generally construction risk refers to delay in construction and as a result project may suffer cost overrun.

Construction risk can be minimized in many ways. In assessing construction risk sponsors quality is considered. Whether the sponsors have got previous experience in implementing similar projects and have construction contractor having background of engineering, procurement and construction. A well managed project facilitates the project sponsors to shift a part of the construction risk to the contractor. Risk mitigation by way of imposing penalties for delay in construction and low performance is common in case of construction risk mitigation. The whole risk cannot be eliminated entirely. Residual risks would be borne by investors.

### **Operating risk**

When investors find the performance of the project fall below the projected level then operating risk arises. Tested technology based infrastructure project exposed to low operating risks. In case of road or power project operating risk is low. The project which is based on rapidly changing technology is exposed to more operating risk. For example telecommunication technology based project is exposed to higher operating risk. Operating risks can be minimized by giving operation to experienced operations and maintenance contractors. Under the contract there might be provision for liquidated damages. Another example of operating risk may be fuel supply risk in case of power project. Fuel supply is very much crucial in case of power project. Thus power project sponsors always try to shift this risk to other party like fuel supplier. In many cases sponsors might demand a guarantee of fuel supply. There might be different arrangement under contract for avoiding operating risks.

### **Interest rate risk**

Infrastructure project is normally capital intensive. Generally all infrastructure projects have got high duration of payback period. Thus changes in interest rate over the period of project life may cause adverse effect on financial terms of the project. Because of capital intensity interest cost poses a lion share of project cost. Thus good care is taken to minimize interest rate risk by the sponsors. But it may vary from market to market and host country situation. In financial market there are so many options for interest rate hedging. But in many markets interest rate hedging options are that much available. And government organizations may not permit to avail this sort of hedging many times. So investors may have to borne the interest rate risk and thus may act as a discouraging factor towards foreign participation in infrastructure.

### **Market risk**

Market risks refer to non viability of market condition in reality. Demand projection is crucial for assessing market risk. In certain situations investors may demand a purchase guarantee from the purchaser. For example in case of power project investors may seek a purchase guarantee in advance to manage market risk. In case of toll project investors may seek a confirmation from the government regarding number of vehicle movement on the road. That is number of projected traffic may be adequate for project viability but there might be lots of uncertainty. In those cases financial projections sometimes allow for downside possibilities. Sponsors might like to share this uncertainty with the government. Sponsors may wish to manage the risk through different sorts of guarantees from the governments. In that case government might have to pay if the number of traffic is low then a certain number. But in many cases market risks are supposed to be borne by the investors. Say for example in case of ports, road project and telecommunications individual users can take the advantage of competitive market situation.

### **Foreign exchange risk**

In case of infrastructure development project foreign exchange risk is one of the most crucial risks. Since infrastructure project is capital intensive and many a times it is not possible to finance the project from the domestic financial market in full. Then project sponsors may take foreign currency denominated loan to finance the project. And in case of foreign investors may wish to repatriate its earnings converting in to foreign currency from domestic currency. It is not unlikely that domestic currency exchange rate with foreign currency will not remain same over the period of project life. So we find two types of foreign exchange risk in case of infrastructure development project financing. The first one is related to convertibility and second one is related to exchange rate. Foreign investors always need the guarantee from the host government that anytime investors can convert its earning in domestic currency to desired foreign currency. The second one is exchange rate risk. Since foreign loan are denominated in foreign currency and earnings is in domestic currency so always there is a risk of exchange rate fluctuation. If the exchange rate does not remain the same during making loan then domestic currency cost may go high if the domestic currency depreciates.

Investors take different steps in mitigating exchange rate risk. It basically depends on host country financial market situation. In many countries financial market are well organised and availability of different instrument facilitates the sponsors to handle the foreign exchange risk efficiently. Sometimes sponsors go for government guarantee regarding foreign exchange risk and sometimes there are mechanisms to set infrastructure service price tagged with exchange rate fluctuation. Sometimes sponsors take resort to domestic financial market to avail suitable instruments to handle foreign exchange risk. But the availability always depends on the host country policy and regulation.

If host country financial market is not developed or the foreign exchange market is regulated then it is a problem towards attracting foreign investment in infrastructure as well as flow of fund from outside world. In developing countries there is always a great portion of uncertainty towards exchange rate movement. So, if there is not enough safeguard from the government side then it become expensive for the investors to take decision regarding investment.

### **Payment risk**

Not all infrastructure projects exposed to payment risk. Degree of payment risk varies from sector to sector. For example in a toll road project the user is supposed to pay directly to the project entity in exchange of using the road. The same thing happens in case of Telephone Company or a port. But in case of power project sponsors might have to handle payment risk if the power projects supply electricity to the public sector entity. Then the sponsors may seek government guarantee in addition to contract with the public entity. Same condition might be applicable for water distribution entity.

This is a common problem in developing countries to have weak utility service providing entity. Foreign investors thus scrutinize the public entity position. Sponsors always feel at home to deal with private entity in utility distribution. But in developing countries this issue is very much politically sensitive to privatize the distribution. So, government need to provide guarantee to the sponsors to attract foreign investment.

### **Regulatory risk**

During the entire project life cycle project entity needs to cross different regulatory regimes and regulatory authorities. Thus project entity may be affected by adverse regulatory act. It may happen because of tariff re fixation. Government may agree at a price at the starting of the project and during the project journey the price might perceived to be high by the regulatory authority. In case of many project problems may be created by environment activist group. In the name of public interest some group may go for public litigation. Thus project cost may go up. For these reason private investors always try to seek government assurance regarding regulatory risk. There are two types of things might happen. Government may provide assurance or may agree with the project sponsors to let them accommodate regulatory cost towards pricing of infrastructure.

Investors feel protected if there is independent regulatory authority to handle dispute. Investors also seek for credible legal framework to mitigate regulatory risk. Generally, regulatory risks vary from country to country. If investors are assured about transparent policy and legal framework then investors are encouraged to take investment decision. This does not happen overnight. Until and unless the perception is built within investors' community regulatory risks remain as a bottleneck in attracting foreign investment in infrastructure.

### **Political risk**

Infrastructure is a factor on which public interest is surmountable. Since public interest is there political issues are there with infrastructure. In developing countries especially infrastructure is thought to be public goods. So commercial terms of infrastructure projects might be interrupted many cases. Degree of political risk may vary across the globe. In one extreme license can be cancelled and in another extreme project might be nationalized.

Political risk might be mitigated to the some extent by the assistance from international agencies like MIGA. Investors may go in to agreement with other international agencies like the World Bank to protect itself from political risk. But all these arrangement might increase project cost and can be reflected in infrastructure price.

## **2.7 Key features of creditor protection**

Proper insolvency system as well as creditor protection are important factors to attain financial system stability. To gain investors attention financial system stability is needed. If a forward looking financial market is to be built then

creditors' right should be established. Creditors' right system need to be transparent and predictable. During financial turmoil effective creditor protection system plays a vital role to bring back the confidence of the investors. National aspect evolves by different linkage among concerned institutions. Sometimes regional aspect may be similar with common law. Both credit delivery and investment availability depends on perception about the market. Creditors always try to predict in advance before credit delivery. If credit market is competitive then free flow of information is a must.

International best practices do not come overnight. Before adapting international best practice of creditor protection it is urgent to know the market environment. In the developing countries where there are some common phenomenon. Like ambiguous social protection mechanisms, inefficient financial market and system, absence of competitiveness in business, unorganized capital market etc. These factors act as a bottleneck towards adopting required practices in developing countries. The following are some of the key features of standard creditors' protection system (*The Principles for Effective Insolvency and Creditor Protection Systems, The World Bank, 2005*)

### **Enforcement systems**

A disciplined credit system refers to systems that have transparent, efficient and reliable methods for getting back the debt. For proper functioning of sound enforcement of debt claim is very crucial. Prompt payment may be measured by how quickly debtor's asset might be converted in cash and to satisfy the debt. It is the most simple and effective way to ensure prompts payment. Experts are opined that it is more effective than the threat of an insolvency proceeding. Because, bankruptcy proceeding might have got procedural delay. In developing countries much credit is unsecured and requires an efficient enforcement system. Though in some cases equity markets can provide cheaper and more attractive financing, developing countries have limited offers and capital market is not matured enough to response adequately. Financing in debt form is very much common in developing economies and that is why creditors require security to reduce the risk and protection from insolvency.

### **Collateral systems**

For a well functioning of market economy financial transactions need to be secured. To secure financial transaction proper laws and regulations should be there. Smart credit economy runs with the availability of ability to transfer ownership interest to the lenders. Lenders feel at home if it avails the ownership interest. So specific laws reduce the risk of the lenders and facilitate availability of credit in the market. And even it facilitates low cost financing. If uncertainty can be removed through proper law and regulations then lenders are encouraged to provide credit. The law should cover any or all of a debtor's liability to a creditor at present or in future between all types of parties. There should be a sound registration system to record interest on property. If there is multiple

registry system then there should be an integration to accommodate all the records so that the required information can be retrieved in need.

### **Credit information systems**

Borrower's payment history is an important ingredient of modern credit based economy. For efficient functioning of credit system accurate and reliable information about prospective borrower is required. It acts as a safeguard for credit system. Credit information system should be based on an institutional framework which ensures creation and operation of effective information system. Uses of borrower's information in a permissible way should be facilitated. There should be a way of control in using and collecting borrower's previous history. This information may be used in preparing government policies. Privacy of the information should be maintained. If any dispute arises then should be a mechanism to resolve that in an amicable way.

### **Alternative way of resolving financial difficulty**

There should be an alternative way of settling financial difficulty in corporate sector in an amicable way. With the assistance from the respective central bank in association with ministry of finance there might be an informal way to settle issues of interbank financial disputes. If any enterprise is in distressed then the respective financing bank or financial institution might be in trouble. Even if there is clear existence of insolvency law yet informal way out might help the involve parties to come out off the situation.

### **Insolvency System**

If an enterprise in financial distress then there should be a mechanism to come out of the situation with a view to provide creditor's claim. The system of insolvency should be fast and efficient to provide the creditor with maximum recovery benefit. The insolvency system should be integrated with the concerned country's legal environment and commercial framework. There should be an expert mechanism to find out the really distressed position. If the enterprise is viable then it could be rehabilitated. All creditors should be treated fairly. There should be a mechanism to address the issue of foreign companies.

### **Institutional and Regulatory Frameworks**

An effective insolvency system cannot do without viable institutional support with proper regulatory framework. There are many factors which act to build a strong institutional framework. For that a dedicated institution should be there with sound operation system that runs with trusted integrity.

## **Sound Corporate Governance**

One of the key elements of sound corporate governance is disclosure of financial performance. Disclosure of financial and operating statement is required for sound risk assessment. In this case international best practices should be adopted. International best practices are required for the prospective creditor to assess the financial soundness of the prospective borrower. Sound corporate law should be there for guiding borrower's shareholders attitude. Board of directors should be independent. Management should be away from undue influence from the board. These are all required for creditors' protection and smooth insolvency system. Without transparency and good corporate governance effective lending practices cannot be ensured. Free flow of information to all of the involved parties facilitates to attain transparency. In emerging economy transparency is required most. Because emerging markets are more volatile than the developed one. If transparency is not ensured then there is a possibility of charging higher interest rate.

Continuous changes in financial market are a common phenomenon is present world situation. From the borrower point of view commercial banks are not the sole option for borrowing. There are so many borrowing instruments today. Though this availability varies from market to market and it is not necessary that every market has same quantity of borrowing instruments and degree of risk is not same in case of every borrowing. So borrower should require maintaining a risk profile about the consequence of excessive borrowing. Free flows of information make the prospective creditor about the financial situation of the borrower.

Free flow of information makes the lenders aware of financial difficulties of the borrower. Lenders then take preparation to maximize the value of repayment. Lenders might take resort to an exit plan to make the value of borrower's asset highest awarding. In case of restricting of a firm lender must have the ability to determine the extension of final maturity.

## **Predictability**

Sometimes in emerging market the application of written laws are not predictable. Since risk cannot be assessed and allocated in a predictable way investment are discouraged in emerging market. It happened because there is lack of well defined risk allocation procedure. If there is enough systematic risk investors might ask for risk premium to take investment decision. If investors are not offered risk premium then investors are not encouraged to take investment decision. Lenders, in the same way demand extra risk premium for the presence of systematic uncertainty in making loan and getting repayment thereof. If the creditors have to depend on risk allocation rules then prospect for investment worsen. If the perceptions of the prospective lenders are prone to systematic risk then lenders always try to go for extra premium for perceived risk. If lenders are not in a position to assess risk then they may not in a position to value the sound

borrower. As a result credit flow may be reduced and this may affect the economic progress.

## **2.8 Criteria considered by Rating Agency in protecting creditors in financing project**

Project Finance is done like corporate financing as well as in a structured way backed by asset from the respective project. Project finance transaction happens surrounded by way a number of contracts. In these contracts in one end there are lenders on the other end there are sponsors and other parties. All the parties play their role to run the project to achieve project objectives. Since a major portion of project finance is done through debt, at the very beginning debt instrument is issued and serviced until the debt is repaid in full. Project financing has turned into complex procedure in presence of global investors required for financing mega projects.

A project finance transaction generally can be defined as non-recourse financing. This non recourse may be based on a single asset or a bundle of asset. In case of project finance lenders look for cash flow and try to tag the assets which generate cash flow. In case of any difficulty in getting back debt service the sponsors' asset are not considered but under project financing lenders look only to those specific assets that generate the cash flow. This cash flow is used to service its fixed obligations. Among fixed obligations interest and principal payments is lion shared. Lenders' are supposed to consider the concessionary contract as asset to finance the project. By way of legal arrangement lenders try to keep them away from any financial difficulties.

Before rating any project finance transaction rating agencies need to consider or analyze different type of risks associated with the project. Main concentration goes to the cash flows that are generated from the project.

During debt ratings the probability of failing debt service is examined. Lenders try to measure the degree of certainty with which lenders can expect to receive in time. Every transaction should occur in future as expected during extending the financing facility. Corporate debt may be of many forms but in case of project finance debt becomes an integral part of capital structure. Naturally debt is designed in a way that is matched with project life. Debt tenure becomes the reflection of risk associated with financing the project. Recovery ratings are another aspect of rating a project. In case of recovery rating the range of principle and interest payment is considered.

A project-finance transaction generally provides lenders with full security. Project financing focuses on a special purpose entity (SPE) whose capital structure is created for the purpose of acquiring, financing, and operating the project facility. All the assets of the SPE, as well as ownership interest are pledged to lenders. The SPE has single business purpose, is limited in the amount of debt that it can issue, and has various other restrictions imposed on it as a

condition of borrowing. In return, lenders agree to look solely to the project cash flows and assets in satisfaction of their debt. These facts make project financing eminently suitable for recovery analysis with the provision that the pledge mechanism is subject to creditor's rights laws that is bankruptcy regimes. These regimes vary from country to with some being "creditor friendly" and other being "debtor friendly", while some other virtually nonexistent. Well secured project debt that is subject to the US bankruptcy code generally receives higher rating than would an unsecured loan. On the other hand, no consideration is given for security in many countries such as China, where property rights and their enforcement are in a nascent state, which makes the bankruptcy process virtually unpredictable.

Project cash flows require systematic analysis of the following five principle factors:

### **2.8.1 Project-Level Risks**

The risks which are related to the business of the project are project level risk. The industry in which the project is operated is very important. Here rating agency examines how well the commercial operation will be operated throughout the project. During operation of the project how well it will be able to meet the financial obligations should be looked at. Specifically, the following things are look at:

#### Contractual foundation

How well the contractual foundation of the project is. The structure of the project should be like that it can protect all the stakeholders' interest. If the contract can be done in that way then it encourages all the parties involved to complete the project in a satisfying way. The project structure should facilitate the stakeholders the right on cash flow. Some portion of the cash flow should be released as dividends. Higher rated project assures the lenders that respective management of the project will be guided the interest of the lenders. Project management should not have unlimited willingness to change the project's business structure and financing means. The projects which has got comparatively higher ratings usually provide better interest over project assets. So that in extreme cases lenders might have access over project asset and take charge to run the project in difficult time and ensure debt services. In involves replacement of project's existing management and generating cash flow to serve the debt.

Two types of contract analysis are done towards project rating. The agreements which govern revenue and expenditure of the project are commercial agreements. On the other hand the contract which deals with collateral is collateral agreements. As a part of commercial contract analysis agreements like power purchase agreements, gas supply agreements, Steam sales agreements, liquefied gas sales agreements, concession agreements, airport landing fee agreements, founding business agreement, and other such agreements are analyzed. As part of

collateral agreements analysis Credit facilities or loan agreements, indenture, equity contribution agreements, mortgage, deed of trust, or similar instrument that provide lenders with right to a particular asset is analyzed. By analyzing all these agreements lenders try to assess the associated risks with the project.

Prime objective of review contracts are to knowing the risks upfront along with possible force majeure and mitigation measures. In fact project financing depends on asset and counterparty performance. If any unanticipated events occur outside the control of both parties it is called force majeure. It hurts performance of both the parties. Since force majeure happens without any control of any party an analysis is required upfront so that allocation of risk might be done. Such analysis is very much important. If it is done then proper attention can be given in managing the risk. Some of the force majeure is Floods, earthquakes, civil disturbances, strikes, or changes in law. If any one of these happens then the cash flow of the project might be affected and can disrupt a projects operation and affect its cash flow. Besides, any mechanical failure due to human error may cause failure towards debt service obligations. Despite excusing a project from its supply obligations, the force majeure event still may lead to as default depending on severity of the mishap.

#### Technology, Construction and operations

For the perspective of lenders technical risk in implementing the project is a major concern. It might influence the investment decision. Lenders have to evaluate the technical risk before taking investment decision. In other way lenders may opt for depends on qualified construction contractor having experience and quality. If the lenders want to finance a project which is not rated then the lenders may depend on the previous working background of the respective contractor. As per as rating agency is concerned project rating is required during But as per as rating agencies are concerned project finance rating remains effective both before and after construction time. If the project is in turmoil the sponsors may or may not come forward to rescue it. So for rating purpose rating agencies rely on the design of the project. If a project is failed to complete the design then the rate of the project will fall. The lenders might be at stake because other legal bindings may not recover the risk of failure in project design. So project performance as per design is very much essential in mitigating operational and construction risk.

#### Resource availability

Resource availability is another type of project level risk. To run the project effectively sufficient amount of input resources is required. So supply chain must be in a proper state for smooth functioning of the project. During considering project level risk assessment of the project's ability to have sufficient input is need to be considered.

### Competitive market exposure

Competitive market exposure is one of the key elements of project level risk. The competitive position in the market is the key determinant towards credit availability. In spite of the presence of contractual cash flow market competitiveness is the prime consideration of credit availability. Considering this rating agency protect the lenders. Naturally project which is in a competitive position in the market get higher rating from the rating agencies. During analyzing the market position rating agencies give importance on number of factors. The factor which are considered by rating agencies are industry indicators, factor price risk, supply and cost risk, regulatory risk, demand outlook, exposure towards foreign exchange transaction, the project's source of competitive advantage, possibility of new technologies etc. There may be different types of projects and they may be producing different product like electricity, ore, gas, oil and transport. If the production cost is low in comparison with the market then the project has got a possibility to get investment grade rating. On the other hand if the production cost is higher than the market then the lenders are in risk automatically. And it will be reflected in the rating.

### Counterparty exposure:

Contract is a reciprocal thing. One side there is the project and its financing ability depends on capacity of generating enough stable cash flow under general contractual framework. If the counterparty does not act in a contractual way then there might be a problem. So during rating this issue is considered also.

### Financial performance

Financial performance of a project depends on many things. During analysis all these factors need to be taken care of. Project's financial strength refers to (i) The strength of the project to generate adequate cash flow consistently so that it would be able to pay its debt service obligation in full and on time; (ii) Debt Equity ratio of the project; and (iii) liquidity. Projects must overcome numerous financial threats to their ability to generate cash flows sufficiently to pay for operating and maintenance expenses, maintenance expenditures, taxes, insurance and annual debt services. Besides, nonrecurring items need to be taken into account. Furthermore, some projects may also have to deal with some external risk, such as interest rate and foreign currency volatility, inflation risk, liquidity risk, and funding risk. Credit evaluation is done by considering all the risks that might affect it in future and hamper debt service.

Financial performance of the project under different scenario is examined. In one angle the base case scenario is examined in other angle condition under difficulties are examined. Financial difficulty based stress scenarios are selected on a project by project basis given that each project faces different risks. Every project has different structural and economic features. It is required that investment grade projects have strong debt service coverage ratios. Project's Debt

Equity ratio i.e. capital structure is also examined as part of rating analysis. In case of infrastructure project it is very natural to use high debt. But against this debt creation asset size might be limited to the some extent. So obviously the strength of asset size is examined very seriously. In fact the capacity of the asset is examined considering the high debt size. Here the difference arises between a corporate entity and an infrastructure project. Suppose for example if we consider a toll road project is considered then we find that project has no value without the concession. This concession has got a limited life. All the debt is supposed to be repaid within this concession period otherwise the lenders would be in trouble.

The limited life of a project has got its point from the operational aspect of the project. If we consider diminishing character of an asset quality it is apparent that the more the project comes closure it become difficult to ensure debt service. So in some case this diminishing asset quality character needs to be matched with debt service at a declining rate. If this can be ensured then the project is supposed be get a higher credit rating.

If a project is considered as having debt highly then project sponsors might go for a change in debt structure. They might incorporate some debt which may be regarded as subordinated debt. This is done to make available a various kinds debt from different market. This is a try to buffer the senior most debt from default risk. The other types of debt might be issued at the operating project or at the operating holding company that wholly owns the project. In spite of helpfulness towards senior debt holder, it hampers the credit quality of the subordinated debt. In most cases this debt class is inferior to senior lenders' rights to cash flow until senior debt is fully repaid, or to collateral in the event of bankruptcy.

### Liquidity

Liquidity is the life blood of any financial and production oriented organization. So liquidity analysis is an important part of rating analysis. In case of infrastructure project lenders most of the times rely on a single asset for debt repayment. The asset might have to face unexpected problems having unfavorable consequences. To avoid this kind of unforeseen consequences it is needed to be dealt from time to time. Maintaining a debt service reserve account may be a solution to ensure liquidity. If any unfavorable incidence happens and project become unable to generate sufficient cash for servicing the debt then debt service might be done from this account. Projects having such arrangement might be rated superiorly in terms of liquidity. Size of this reserve might vary from project to project. It may be equivalent to six months debt service or much. The nature of project might be considered to make such arrangement. The reserve should be cash or an on-demand cash instrument. To make sure having such reserve a maintenance reserve account may be maintained. If in a project there is a chance of huge unexpected capital expenditure or there is possible concern over technology being employed this type of reserve is expected. Investment-grade projects are supposed to have such a reserve.

## **2.8.2 Transactional Structure**

Rating firm is supposed to analyze and assess project's structural arrangements to ascertain how they are supportive to pay the lender's obligations. This is compared with the expected event. It has been learnt that a special purpose entity is created to implement the project. Scrutiny is done in a way to judge the way how cash flow is managed and how the other parties are linked with the arrangement. If there is a possible insolvency, then how the structure will manage the situation.

### Special Purpose Entity

Special Purpose Entity is an entity which is created for business purpose. This purpose is limited to owning a project. The SPE has the right to enter into a contract whether it is finance contract or any contract to operate the business. Debt repayment is done out of cash stream of project asset. During assigning rating there are some defined activities of project. It is assumed that project entity will not involve itself in other obligatory activities. So throughout the debt tenure the project entity remains with same obligatory status. If the project is duly structured then there is more confidence about the performance of the project. Project with this type of structure generally get higher credit rating.

### Cash Management

Since the infrastructure project is financed in a structured way, cash management is very crucial for meeting project debt. Rating agency looks for cash management mechanism of the project before rating. In cash of infrastructure project an independent trustee is supposed to manage the cash flow. If an independent trustee is there then it prevents leaking of cash flow which the project generates. Before meeting operating expenses and debt servicing no cash flow is supposed to reach the sponsors. This is to verify first. So to get higher rating for the project sponsors ensure that no cash will be available for them until and unless debt obligations are met.

## **2.8.3 Sovereign Risk**

Government itself can be a source of risk for the project in a number of ways. After the contract sovereign government may place restriction on currency conversion. Consequently ability of the project to meet debt obligation may be limited. Even in case of operation there might be further restriction on environmental ground in case of many projects. In the extreme case respective government may nationalize the project operation. Sovereign government may emerge as a risk factor for a project. If any government imposes currency restrictions then the ability of the project to service existing debt might be hampered. It may intervene in the project operations. Government has the

authority to nationalize any project. So if it is foreign currency denominated debt then during rating this issue is considered very seriously.

Sovereign rating refers to respective government desire and ability to meet its obligation timely and fully. Suppose a sovereign credit rating is not favorable then it might act as a constraint towards foreign currency denominated debt. For servicing the debt in time, adequate foreign currency may not possible to collect. For example, if any economic or political situation that is not favorable to both the government arises respective government may restrict the settlement process by imposing commercial conversion or transfer mechanisms or by implementing exchange controls. It is very rare for a project to earn foreign exchange by way of producing and exporting to other countries. Like if it an oil exploration company and it can export to other countries after meeting local demand then availability of foreign exchange may be met. Again there is a risk of other country's policy and regulations.

#### **2.8.4 Business and Legal Risk**

Sponsors of a project in association with advisors having background of legal and financial aspects may structure the project considering the contingencies yet certain country specific issues may push the lenders towards certain country specific risks. It is important to being enabled to run the project according to an intended way. But that might be at a stake if the business and legal institutions do not permit to do so. This is a problem for emerging market where important business and legal institutions may or may not exist. There might be an existence of these organizations in a very elementary stage. One issue is needed to be cleared here. There is basic difference between country risk and sovereign risk. So these two risks namely country risk and sovereign credit risk should not be matched or be treated as same. Sometimes, in spite the project is sound in many ways, because of institutional weaknesses it might deter the giving a good rating for foreign exchange risk. Infrastructure project does not generate foreign exchange. But for foreign investors domestic earnings need to be converted into foreign currency. Host country may again underscore the risk. In many developing countries, the framework for property rights and respective law may be at a vulnerable state. In some cases assignment of power purchase agreements may not be negotiated with the lenders. For the sake of simplicity if it is assumed that pledge is possible then it might be impossible to implement the right due to no capacity of institutional support.

#### **2.8.5 Credit Enhancement**

In mitigating project level risk there are number of third parties which offers different type of credit enhancement products. These agencies not only act in mitigating project level risk but protects from sovereign risks and currency risks. Different Multilateral agencies offer various insurance to protect from sovereign and currency risks. Name of such organizations are Multilateral Investment Guarantee Agency, the International Finance Corporation and the overseas

private investment Corp. These organizations offer various insurance programs to cover both political and commercial risks. Project Sponsors can avail some support from these bundles of products with a view to mitigate the associated risks. As a result a non recourse financing is converted into limited recourse financing. Only specific types of risk are covered by these enhancement packages.

## **2.9 Summary**

The importance of investor protection in attracting private investment in infrastructure development is enormous especially in developing countries. There are different determinants for measuring investor protection. Private infrastructure has got different positive impacts in different countries. Similarly from investors' point of view there are risks in case of building infrastructure through PPP and risk mitigation mechanism as well.

## **CHAPTER 3**

### **EXISTING PPP FRAMEWORK IN BANGLADESH WITH COUNTRY COMPARISON**

#### **3.1 Introduction**

Concerned government officials have claimed that PPP projects in Bangladesh have gained utmost attention from the government. In any PPP project government has the prime role to identify the project and create an enabling environment for private participation. The government obligation in PPP projects have been found limited to the upfront development of the project like feasibility study, transaction support and implementation of linked public sector projects under ADP. In order to accelerate the economic growth through private participation in infrastructure sector, Policy and Strategy for PPP, 2010 (PPP Policy) has been adopted. Before the policy adopted, Bangladesh PSIG 2004 was the major guiding instruments especially to facilitate private investors to invest in PPP projects. The policies delineate the extent of responsibilities of the involved agencies and private sectors.

In the PPP policy it has been stated that “government has taken a two-pronged strategy for building public-private partnership: one is to attract investment for projects, where building new infrastructure and expanding existing infrastructure is the major component; the second is to attract innovation and sustainability of public service delivery to the citizens. While the government is committed to launch public private partnership in a big scale, the essential ingredient to that endeavor is to set up a forward looking strategy and a framework for operationalization of PPP as well as clear cut procedural guidelines for the sake of ensuring transparency and building confidence among the private sector players.”

The Government of Bangladesh has endorsed that PPP fosters economic growth by developing new commercial opportunities and increasing completion in the provision of public services. Government wishes to crowd in of private investment in infrastructure development through adopting the policy and strategy for PPP. Government is ready to welcome both local and foreign investors.

#### **3.2 Applicability of Private participation in infrastructure**

In the Policy and Strategy for Public Private Partnership (PPP), 2010 private participation in infrastructure has been declared applicable in some cases. As per as the policy and strategy is concerned if any of the following happens to be the case private participation is applicable:

- The implementation of the project is difficult with the financial resources or expertise of the government alone;

- The private investment would increase the quality or level of service or reduce the time to implement compared to what government could accomplish on its own;
- There is an opportunity for competition, where possible, among prospective private investors, which may reduce the cost of providing service;
- Private investment in public service provides an opportunity for innovation; and
- There are no regulatory or legislative restrictions in taking private investment in the delivery of public service.

### **3.3 Sectors open for private participation**

In the policy and Strategy for Public Private Partnership (PPP), 2010 declared by the government of Bangladesh the following sectors meeting the above mentioned criteria in any economic sector, according to the International Standard Industrial Classification of all economic activities, specified by the United Nations, is eligible for private participation. However, the priority sectors are:

- Exploration, production, transmission and distribution of oil, gas, coal and other mineral resources;
- Oil refinery and production of LPG;
- Production of fertilizer;
- Power generation, transmission and distribution and services;
- Airports, terminals and related aviation facilities;
- Water supply and distribution, sewerage and drainage, effluent treatment plants;
- Land reclamation, dredging of rivers, canals, wetlands, lakes and other related facilities;
- Highways and expressways including mass transit, bridges, tunnels, flyovers, interchanges, city roads, bus terminals and commercial car parking etc.;
- Port development (sea, river and land) including inland container terminals, inland container depot and other services;
- Deep sea port development;
- Telecommunication systems, networks and services including information and communication technology;
- Environmental, industrial and solid waste management projects; railway systems, rolling stock, equipment and facilities;
- Tourism industry;
- Economic zone, industrial estates and parks, city and property development including services to support commercial and non commercial activities;
- Social infrastructure e.g. health, education, human resources development, research and development and cultural facilities;
- e-service delivery to citizens;

- Different poverty alleviation projects like water supply in the villages, irrigation and other agricultural services, rural internet projects, remote area power supply
- Other urban, municipal and rural projects that the government views as priority areas for development so as to support economic development activities.

### **3.4 Provision for Financial Participation by the Government in PPP project**

With a view to make private participation attractive GOB has kept some provision for financial participation in the PPP project [Policy and Strategy for Public Private Partnership (PPP), 2010]. The detailed guidelines for the participation are yet to be issued. GOB has declared three kinds of participation. Each kind will be applicable for respective projects. The following are the three kinds of participations

**Technical Assistance Fund:** This fund is dedicated to finance pre feasibility study for prospective projects, preparation of RFQ and RFP documents for the projects and preparation of concession contracts for projects. It has been learnt that government is also planning to use technical assistance fund with a view to build capacity within different ministries as well as to organize road shows in abroad to attract investors.

**Viability Gap Funding:** In case of infrastructure project sometimes it is found that projects are not viable financially but it has great impact on economic and social life of the people of the country. In that case by participating in financing with the private sector, government tries to make the private participation happen. VGF may be of many forms. It could be capital grants or annuity payment.

**Infrastructure Financing:** Government has kept an arrangement for financing infrastructure project through specialized financial institution. BIFF and IDCOL are example of such organization.

### **3.5 Steps involved in PPP project implementation in Bangladesh [as per Policy and Strategy for Public Private Partnership (PPP), 2010]**

Promoting PPP in the country needs multiple institutions to work together in a harmonized way to achieve the desired objectives. As per PPP policy, the following institutions are envisaged to play key roles in implementing PPP projects, with their respective mandates:

- PPP Advisory committee
- Cabinet Committee on economic affairs
- Office for PPP
- Respective line ministry
- Executing Agency
- Finance division

- Ministry of Law, Justice and Parliamentary Affairs
- Planning Commission

As per stipulation in the PPP policy the life cycle of PPP project may be segregated in to seven phases in terms of role played by the executing agency. In different phases the sector agencies have different roles. The PPP project phases in Bangladesh are:

### **Project Identification Phase**

As per policy, PPP projects are generally identified by the government executing agencies or PPP office. During the project identification process, some project needs pre feasibility study which is made by PPP office by engaging consultant using technical assistance fund. The project concept paper is generally developed by the relevant executing agencies taking input from the stakeholders and forwarded to the line ministries to finalize the concept paper. Based on concept paper the PPP office endorses the PPP proposal to cabinet committee for economic affairs for approval of medium and large projects. Small project is generally approved by the line Ministry. Project identification phase ends with approval of the project.

### **Feasibility Study and Preparation of Documents phase**

After project approval, the executive agency facilitates and co ordinates in obtaining clearance from line ministry as well as PPP office for engaging consultants to carry out detailed feasibility study. If requirement of viability gap funding is advised in the feasibility report then PPP office proposes Finance division to arrange for VGF. The Finance division in consultation with the line ministry and executing agency appraises the requirement of VGF.

After detailed feasibility study, The PPP office makes arrangement through executing agency for project development and promotion of investment. Private sectors and relevant stakeholders give input in project development process. The investment promotion intends to an initial polling of the investor community to determine the risk issues perceived with respect to the project. After investment promotion, the executing agency through line ministry requests the PPP office to engage consultants for preparation of prequalification documents, RFP and the relevant agreements. During this phase of PPP project, the executing agency identifies the linked projects and submits proposals to planning commission to include the linked projects in the ADP to complete the projects in time so as to ensure that the PPP project construction and operation would not be hampered due to delay in completing the linked projects.

This phase relates to preparing the contractual framework for the investment and is the most critical phase as it is the heart of the transaction activities. In this phase the risk allocation between the investor and government is determined and concession design, regulatory structure, tender parameters, evaluation parameters,

fiscal incentives etc. are identified. In this phase, investors are not allowed to participate in preparing the contract documents in order to avoid conflict of interest.

### **Request for qualification and request for proposal phase**

Pre-qualification and Tender evaluation committee (QTEC) is generally formed by the line ministry to select qualified bidders and evaluate bids. The executing agency publishes notice for pre-qualification of investors. Based on the criteria set as set in the pre-qualification documents, QTEC evaluate the potential investors and select the pre qualified bidders. Afterwards, the request for proposal is issued to the pre qualified bidders. The bidders submit proposals both technical and financial to the executing agency. The QTEC undertakes the bid evaluation. After bid evaluation a letter of intent is issued to the successful bidder by the executing agency getting approval from the line ministry.

### **Negotiation and Contract Award Phase**

Negotiation with the successful bidders is started after LOI is issued by the executing agency. Generally a negotiation team is formed by the relevant executing agency where members from different agencies/ministries are included to carry out negotiation with the private investors. Negotiation ends with signing the contract between different parties to be involved in the project implementation. Afterwards, project related development activities i.e. setting up an SPV, obtaining various statutory clearances is undertaken with support from other stakeholders.

### **Monitoring and Evaluation Phase**

Once the investor signed the agreements it is expected to attain financial closure by the private investor within specified time. Lenders due diligence is generally started when it gets the loan application from the private investor. Finally the financial closure attained by the investor, the construction phase of the project is started. The respective executing agency and PPP office monitor the progress of the project construction for fulfilling the contractual obligation. After construction is completed, the project starts commercial operation. During the operation period the investor provides services as envisaged in the signed agreements. The PPP office and the executing agency are responsible for reviewing the performance of the private investor against contractual commitments at regular intervals. The line ministry, PPP office and other stakeholders deliver commitments as stipulated in the agreements.

## **3.6 Regional comparison of PPP framework**

If we compare PPP framework of three Asian countries namely Bangladesh, India and the Philippines we get that among the PPP framework of the three countries, PPP framework of the Philippines is in strong footing.

Both India and Bangladesh have no law regarding PPP project implementation. But in the Philippines there is a law named “The Philippines BOT Law” which was enacted in 2003 is being followed. On the other hand both in India and Bangladesh there is guidelines for PPP. In Bangladesh until 2004 there were no guidelines regarding PPP investment. Government took PSIG in 2004 to facilitate private participation in infrastructure development. Under PSIG there was no provision for dedicated PPP office to work as a single point for the facilitation of PPP. But in the Policy and Strategy which has been decaled in 2010 have provision for dedicated PPP office. GOB has delimited the responsibilities and role of PPP office. It is supposed that PPP office will promote and efficiently handle PPP projects. This is why it has been designed to be a separate office under the Prime Minister’s office.

As per (Policy and Strategy for PPP, 2010) the following are the role of the Office for PPP.

- To initiate, develop, formulate PPP projects;
- To actively promote PPP to various potential investors;
- To conduct pre feasibility, feasibility studies and prepares relevant bidding documents if needed;
- To secure annual technical assistance financing for conducting pre-feasibility, feasibility studies and prepare relevant bidding documents;
- To seek appraisal for VGF for PPP projects;
- To propose for various laws, rules, regulations, model documents, guidelines, procedures for general use and use of specific types of PPP projects;
- To support line ministries/implementing agencies in tendering and selection of investors;
- To undertake awareness creation activities and build capacity in line Ministries and implementing agencies of PPP affairs;
- To monitor PPP projects including the linked components;
- To facilitate risk mitigation measures for private investment; and
- To maintain an up to date internet portal with public access to laws, rules, regulations, model documents, and short description and scope of negotiated documents and secure access to private participants for tracking progress of processing of specific PPP projects.

From the perspective of investors’ point of view the initiative of establishing a separate PPP office is commendable. It has been learnt that initially IPFF, a world Bank financed project is providing financial support for the running of PPP office. PPP office is to be headed by a CEO. The CEO will be assisted by other officials deputed from the different government offices as well as specially recruited for PPP office. The CEO is supposed to report to the Prime Minister directly.

In India there is also a dedicated PPP unit. This has been set up within the Ministry of Finance and Planning commission. In India for processing PPP projects “Guidelines for formulation, appraisal and approval of PPP Projects, 2006” is followed. In the Philippines PPP projects are taken by National Economic Development Authority.

Among the three countries only in BOT law of the Philippines has got provision for some guarantees related to protection for the investors as well as creditors (*BOT Law, 2003*).

The Philippine government recognizes the critical role of the private sector as the main engine for the national growth and development. In accordance with this, pertinent incentives are being provided to stimulate private resources for the purpose of financing the construction, operation and maintenance of infrastructure and development projects normally done by the government.

The government is willing, on case-to-case basis, to protect investors for certain regulatory risk events such as court orders or decisions by regulatory agencies which prevent investors from adjusting tariff to contractually agreed levels. Such regulatory risk insurance could take the form of makeup payments from the government to PPP investors, other guaranteed payments and adjustments to contract terms for each project. Such protection only offered for solicited projects which undergo a competitive bidding process.

Private sector investor is supposed to be selected through open competitive bidding under fair and transparent terms. All interested investors are given a level playing field with reasonable returns and appropriate sharing of risk without compromising the protection of public interest. Through this program the Philippine government wishes to provide the end user with adequate, safe, efficient, reliable and reasonably priced infrastructure services.

In the Philippines there are provisions for giving money back should regulatory bodies later stop projects due to the questions in the contract in BOT law. There are some other provisions in the BOT law which acts as protection to the investors and creditors as well. They are as follows:

**Declaration of Policy** It has been declared that the State has recognized the indispensable role of the private sector as the main engine for national growth and development and provides the most appropriate incentives to mobilize private resources for the purpose of financing the construction, operation and maintenance of infrastructure and development projects normally financed and undertaken by the Government. Such incentives, aside from financial incentives as provided by law, shall include providing a climate of minimum government regulations and procedures and specific government undertakings in support of the private sector.

**Private sector infrastructure or development project** The general description of infrastructure or development projects normally financed and operated by the public sector but which will now be wholly or partly implemented by the private sector, including but not limited to, power plants, highways, ports, airports, canals, dams, hydropower projects, water supply, irrigation, telecommunications, railroads and railways, transport systems, land reclamation projects, industrial estates or townships, housing, government buildings, tourism projects, markets, slaughterhouses, warehouses, solid waste management, information technology networks and database infrastructure, education and health facilities, sewerage, drainage, dredging, and other infrastructure and development projects as may be authorized by the appropriate agency/LGU pursuant to this Act. Such projects shall be undertaken through contractual arrangements as defined hereunder and such other variations as may be approved by the President of the Philippines.

For the construction stage of these infrastructure projects, the project proponent may obtain financing from foreign and/or domestic sources and/or engage the services of a foreign and/or Filipino contractor.

Provided, That, in case an infrastructure or a development facility's operation requires a public utility franchise, the facility operator must be a Filipino or if a corporation, it must be duly registered with the Securities and Exchange Commission and owned up to at least sixty percent (60%) by Filipinos: Provided, further, That in the case of foreign contractors, Filipino labor shall be employed or hired in the different phases of construction where Filipino skills are available: Provided, finally, That projects which would have difficulty in sourcing funds may be financed partly from direct government appropriations and/or from Official Development Assistance (ODA) of foreign governments or institutions not exceeding fifty percent (50%) of the project cost, and the balance to be provided by the project proponent.

Direct government guarantee - An agreement whereby the government or any of its agencies or local government units assume responsibility for the repayment of debt directly incurred by the project proponent in implementing the project in case of a loan default.

**Private Initiative in Infrastructure** - All government infrastructure agencies, including government-owned and-controlled corporations (GOCC) and local government units (LGUs) are authorized to enter into contract with any duly pre-qualified project proponent for the financing, construction, operation and maintenance of any financially viable infrastructure or development facility through any of the projects authorized in this Act. Said agencies, when entering into such contracts, are enjoined to solicit the expertise of individuals, groups, or corporations in the private sector who have extensive experience in undertaking infrastructure or development projects.

**Contract Termination** - In the event that a project is revoked, cancelled or terminated by the Government through no fault of the project proponent or by mutual agreement, the Government is supposed to compensate the said project

proponent for its actual expenses incurred in the project plus a reasonable rate of return thereon not exceeding that stated in the contract as of the date of such revocation, cancellation or termination:

Provided, That the interest of the Government in these instances shall be duly insured with the Government Service Insurance System (GSIS) or any other insurance entity duly accredited by the Office of the Insurance Commissioner: Provided, finally , That the cost of the insurance coverage shall be included in the terms and conditions of the bidding.

In the event that the government defaults on certain major obligations in the contract and such failure is not remediable or if remediable shall remain unremedied for an unreasonable length of time, the project proponent/contractor may, by prior notice to the concerned national government agency or local government unit specifying the turn-over date, terminate the contract. The project proponent/contractor shall be reasonably compensated by the Government of equivalent or proportionate contract cost as defined in the contract.

**Investment Incentives.** - Among other incentives, projects in excess of One billion pesos (P1,000,000,000) is entitled to incentives as provided by the Omnibus Investment Code, upon registration with the Board of Investments.

Summary: Bangladesh issued Private Sector Infrastructure Guidelines (PSIG) in 2004. Later in 2010 it took comprehensive PPP policy. Bangladesh should not be considered as late entrant in formulating PPP policy in comparison with India and Philippines

### **3.7 Legal basis for Protection of Investors and creditors in Bangladesh**

In Bangladesh financial system and development are guided by the following legal aspects. :

- The Contract Act, 1872
- The Bangladesh Bank Order, 1972
- The Banking Companies Act, 1991
- The Financial Institutions Act 1993
- The Securities and Exchange Commission Act 1993
- The Companies Act, 1994
- The Partnership Act 1994
- The Negotiable Instrument Act 1881
- The Bankers Book of Evidence act 1891
- The Transfer of Property Act 1882
- The Registration Act 2004
- The Stamp Act 1899
- The Limitation Act, 1908

- The Public Demands Recovery Act 1913
- The Artha Rin Adalat Ain 2003 ( The money Loan Court 2003)
- The Bankruptcy Act 1997
- The Trust Act 1882
- The Money Laundering Prevention Act 2009
- The Anti Terrorism Act 2009

Among the above legal aspects for creditors' protection is directly related with the following two Acts:

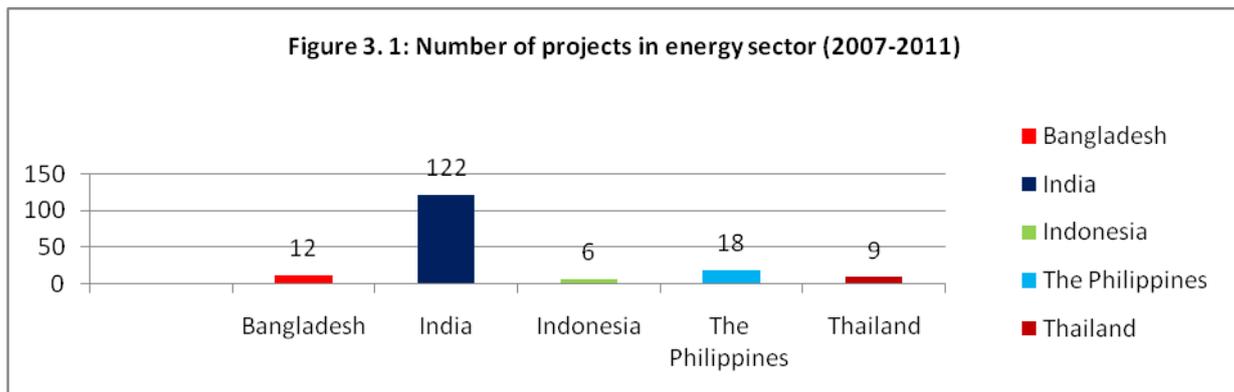
- The Artha Rin Adalat Ain 2003 ( The money Loan Court Act 2003)
- The Bankruptcy Act 1997

According to a report published in a local newspaper (The Financial express, 9 March, 2010) one of the drawbacks of Money loan court is that it takes long time to settle any claim. During the period of 1989-2009 number of cases with Money Loan Court was 104,832 with a total claim of BDT 294.54 billion. But it was found that only 67,336 cases with an involvement of BDT 42.00 billion were settled. In the past creditors found the Money Loan Court Act very complicated and it was amended many times in the past but now it's time to facilitate settlement outside the court. The government is planning to make alternative dispute resolution (ADR) mandatory under Money loan Court Act 2003 to encourage settlement of loan cases out of the court. The proposed change aims to settle cases quickly in a simple way and to create a win-win situation for both the conflicting parties.

Besides, The Foreign Private Investment (Promotion and Protection) act, 1980 was enacted with a view to protect foreign investors investing in Bangladesh and consequently promote foreign investors. The act has got clear outline about safeguard against expropriation and nationalization as well as repatriation of investment. But the act is found to be give clear definition of foreign investment in industrial undertaking as "an industry, establishment or other undertaking engaged in the production or processing of any goods or in the development and extraction of such mineral resources or products, or in the providing of such services as may be specified in this behalf by the government."

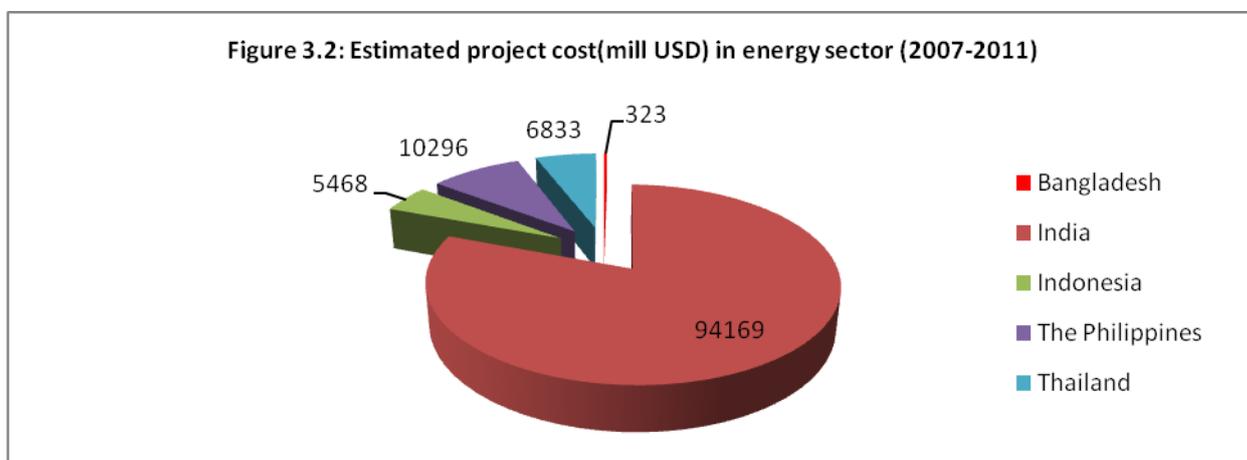
### **3.8 Comparative analysis covering several countries in the region**

In the comparative analysis country data published by the World Bank was used. Sector wise data regarding private participation in infrastructure development in Bangladesh, India, the Philippines, Thailand and Indonesia was considered. There were four sectors in broad category namely energy comprising electricity and natural gas, telecom sector, transport sector comprising airport, roads, railroads and seaports and water and sewerage comprising water treatment and utility. For comparison number of projects implemented for the period of 2007 to 2011 and amount of investments were considered for the five countries mentioned above.



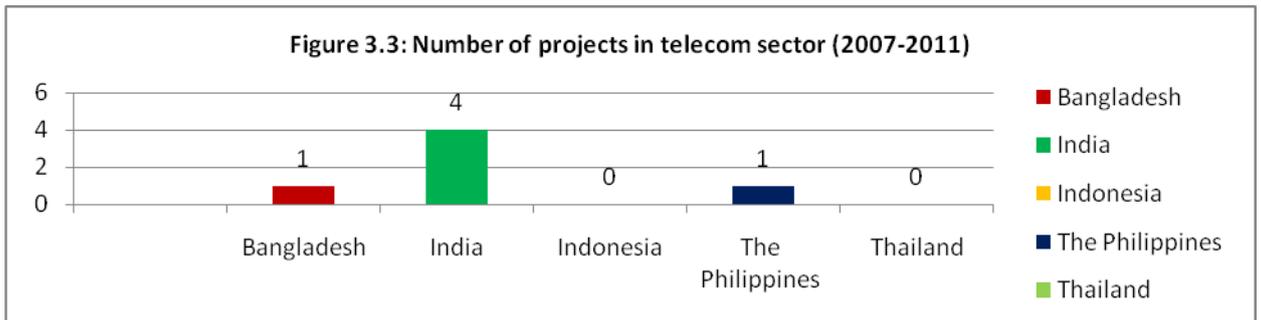
Source: the World Bank

Figure 1 shows that India implemented the highest number of projects in energy sector while the Philippines were in the second position. Though Bangladesh was in third position among the countries size of investment was very little in comparison with other countries. One reason for this might be that Bangladesh implemented small power projects in comparison with Thailand and Indonesia. As it was observed from figure 2 (next page) that Bangladesh implemented 12 projects with an investment of 323 million USD. In case of Indonesia and Thailand it required more investment than Bangladesh in implementing lesser number of projects in energy sector.



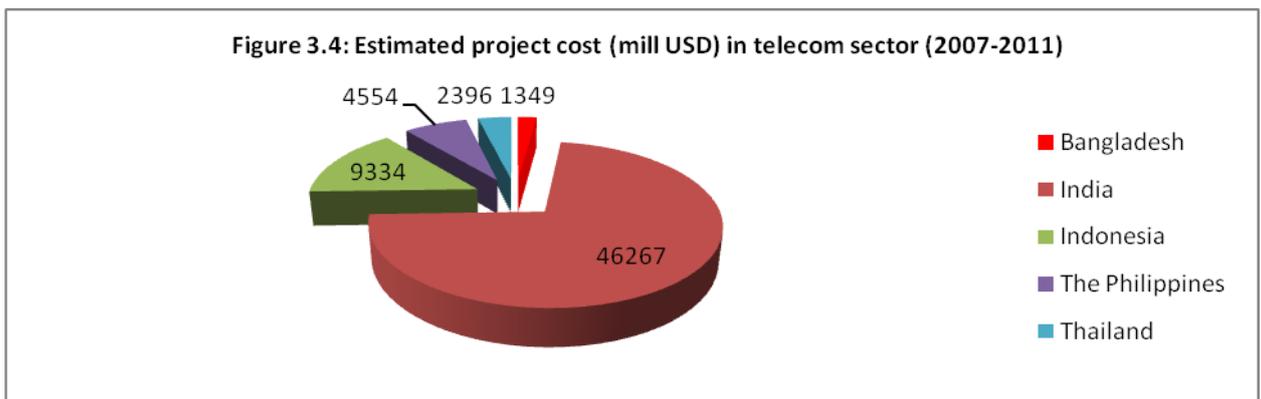
Source: the World Bank

Figure 2 show that India implemented the projects in energy sector during the 2007 to 2011 with an investment of 94,169 million USD from private participation. During the same tenure the Philippines facilitates an investment of 10,296 million USD in energy sector. Though number of projects implemented in Bangladesh was higher than that of Thailand and Indonesia amount of investment was negligible in case of Bangladesh in comparison with Thailand and Indonesia.



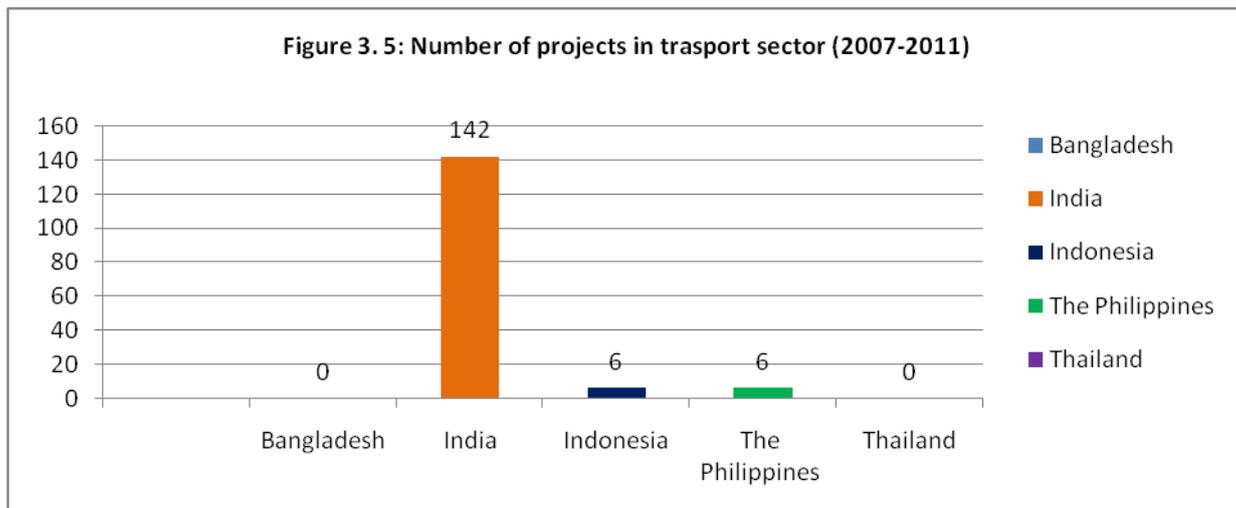
Source: the World Bank

Figure 3 shows that India implemented the highest number of projects in telecom sector while the Philippines and Bangladesh implemented one project each in telecom sector. During this period (2007-2011) both Thailand and Indonesia implemented no project in telecom sector with private participation. But it was found that there were investment in Thailand and Indonesia in telecom sector and it was revealed in figure 4 (next page). One reason might be that projects were taken before 2007 and extension of existing projects was taken place.



Source: the World Bank

Figure 4 reveals that India implemented the projects in telecom sector during the 2007 to 2011 with an investment of 46,267 million USD from private participation. During the same tenure Indonesia facilitated an investment of 9,334 million USD in telecom sector. Though the number of project implemented in Bangladesh and in the Philippines was same the amount of investment in Bangladesh was less than one third of investment in the Philippines.



Source: the World Bank

Figure 5 shows that India implemented the highest number of projects in transport sector while there were no projects implemented in Thailand and Bangladesh during the period of 2007 to 2011. Indonesia and the Philippines implemented six projects each in transport sector with private participation.

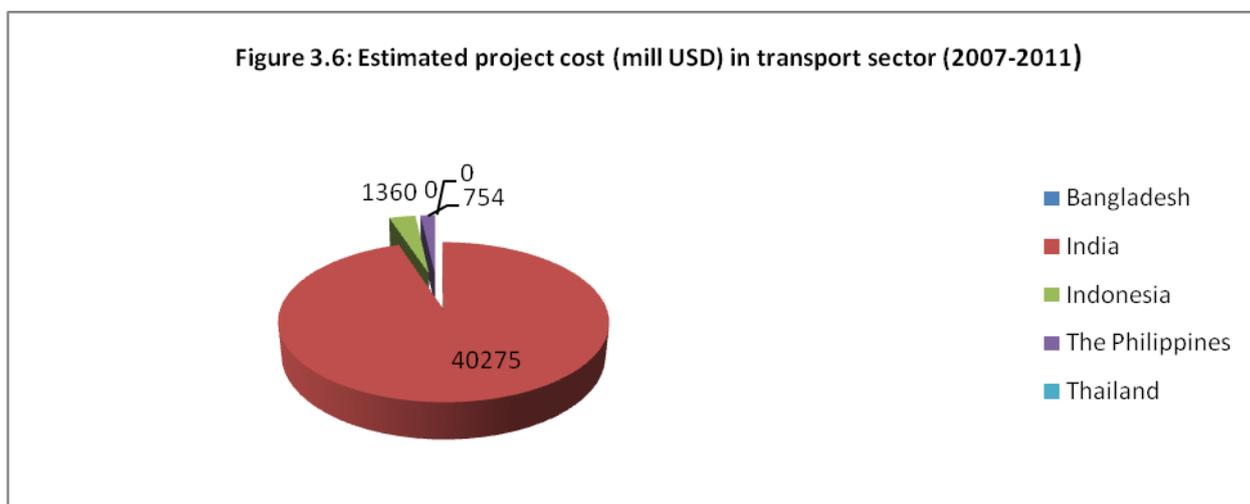


Figure 6 reveals that India implemented the projects in transport sector during the 2007 to 2011 with an investment of 40,275 million USD with private participation. During the same tenure Indonesia facilitated an investment of 1,360 million USD in transport sector. The Philippines was in the third position considering total investment of 754 million USD in transport sector. Both

Bangladesh and Thailand had no investment from private sector during this period in transport sector.

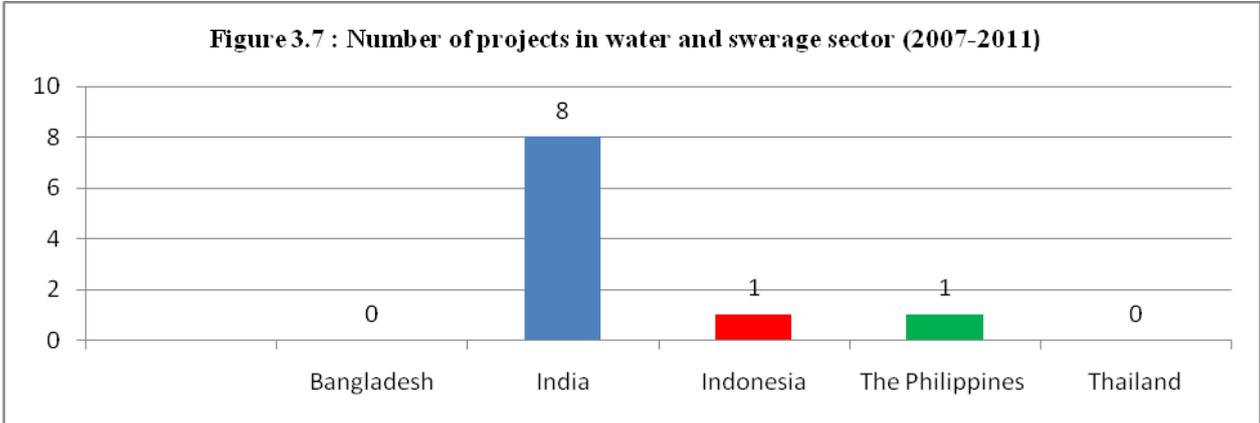
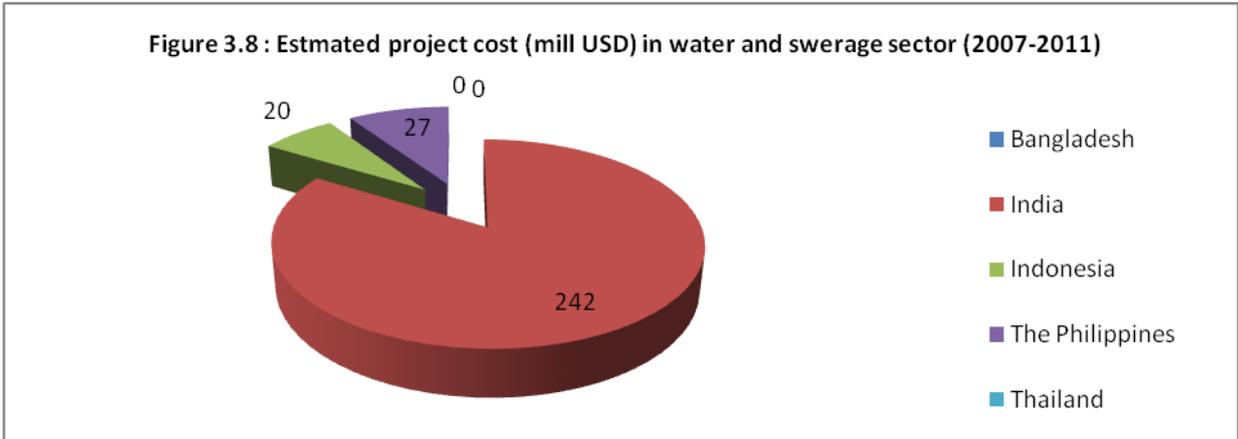


Figure 7 shows that India implemented the highest number of projects in water and sewerage sector while there were no projects in water and sewerage sector implemented in Thailand and Bangladesh during the period of 2007 to 2011. Indonesia and the Philippines implemented one project each in water and sewerage sector with private participation during the same period.



Source: the World Bank

Figure 8 reveals that India implemented the projects in water and sewerage sector during the 2007 to 2011 with an investment of 242 million USD with private participation. During the same tenure the Philippines facilitated an investment of 27 million USD in water sector. Indonesia was in third position considering the investment of 20 million USD in water sector. Both Bangladesh and Thailand had no investment from private sector during this period in water sector.

**Summary**

From the above analysis it was understood that Bangladesh was behind of rest four countries in this region. From the data analysis it was found that Bangladesh could attract investment in energy sector as well as telecom sector. Though the

investment amount was found to be small in comparison with that of other countries there were investments in energy and telecom sector. In comparison with other countries Bangladesh could attract investment for comparatively small project. During the period of 2007 to 2011 Bangladesh failed to attract private participation in transport and water sector. Since the World Bank considered transport sector comprising airport, railroads, sea port, roads so it could be said that Bangladesh was not in a position to attract investment in airport, seaport etc. Generally airport and seaport related projects are mega project. Bangladesh might not be considered suitable by the investors for mega projects. Though as per policy for PPP there were as many as eighteen sectors were identified for private participation investment was done only in energy and telecom sector.

## **CHAPTER4**

### **SOME RECENT PPP PROJECTS IN BANGLADESH**

#### **CASE STUDIES**

Implementation of PPP projects in Bangladesh is comparatively new. Until 2004 there was no PPP policy at all. In 2004 GOB adopted PSIG for facilitating PPP projects. In 2010 GOB adopted Policy and Strategy for PPP reflecting some new provisions for streamlining PPP project. Under this research project some PPP projects were selected for investigation how the projects were born and what were the risk sharing mechanisms between the government and private parties and what sort of protections they received from the government and finally how the projects were financed. The following are some of the newly developed PPP projects following the existing PPP framework. The discussion will facilitates in understanding Bangladesh PPP framework in detail. Most of the projects are in development stages. No one has gone for commercial operation. Since focus was given on investors and creditors protection the following discussion would assist in perceiving the associated risk in detail.

#### **4.1 Bibiyana 300-450 MW Gas-Fired Combined Cycle Power Project**

The project was identified by BPDB in 2010. In order to overcome serious power crisis BPDB decided to implement a 300-450 MW gas-fired combined power plant on BOO basis at Bibiyana of Sylhet division. The PPA term was 22 years for the project. The project's site is in the North East of Bangladesh approximately 180 Km from Dhaka, adjacent to the Bibiyana gas field. The site is on the Kushiyara River.

BPDB floated pre-qualification document to select a potential sponsor to develop this plant on a site owned by BPDB. A total of twelve bidders expressed their interest for the project. After evaluation BPDB issued RFP to eight pre-qualified bidders. Pre-bid meeting was held at BPDB office in presence of pre qualified bidders. BPDB evaluated the technical and financial offer of bid proposals following competitive bidding process taking into account the technical responsiveness and offered tariff rate. Summit Industrial and Mercantile Corporation and its partner GE Energy, LLC, USA finally selected to be awarded to install the power plant.

The flow of development activities carried out by the Executing Agency and associated entities for the above project are shown below.

#### **Project Identification**

The project was identified by the BPDB in 2010 to implement it on BOO basis and approved by the Ministry of Power, Energy and Mineral Resources.

### **Preparation of Document**

Generally bidding document is prepared by a consultancy firm. In case of Bibiyana Project BPDB prepared the document in light of previously implemented project.

### **Request for qualification**

The executing agency BPDB published notice for invitation to investors for prequalification. The committee for qualification and tender evaluation evaluated the prequalification document and short listed the pre qualified bidders.

### **Request for Proposal**

Upon approval from the line ministry, BPDB invited the eight pre qualified bidders for RFP and arranged pre bid meeting for the project in presence of pre qualified bidders. The evaluation committee evaluated the bid proposals following competitive bidding process in accordance with meeting technical criteria. Summit Power was found technically responsive and first ranked bidder in terms of lowest offered tariff. BPDB issued the letter of intent to summit to initiate negotiation process.

The project cost is around BDT 22.50 billion (USD300 million). Among the eight qualified bidders there were three foreign firms also. The local firm which won the bid is the top firm in energy sector in Bangladesh. One of the key features of the project was that the Government of Bangladesh was providing land and gas to this project. The following are three linked activities related to the project and the respective government agency is supposed to perform them all.

### **Land Acquisition**

For this power plant executing agency BPDB is responsible to acquire the site for the project and lease it to the project company through a land lease agreement.

### **Transmission Line**

There is no transmission line at the proposed project site. For evacuation of the produced power a new 90-km 400-kv transmission line will be constructed, which will put 400 kv line in the vicinity of the Bibiyana site. The Power Grid Company of Bangladesh, a government owned company will construct the aforesaid transmission line.

### **Gas Supply Line**

Required natural gas will be supplied from the Bibiyana gas field via a new pipeline connecting the power plant to the gas field. Jalalabad Gas Transmission

and Distribution Company Limited will construct the gas supply line required for the project.

### **Protective Features for Investors and prospective creditors of the Project**

The bid winning company is a successful company in Bangladesh. It implemented several power projects in the country. It has got the relevant experience and exposure in power sector. One of the strong protections for the investors is Power Purchase agreement with the Government. In case of power project this is a common protection for the investors. It has got 22 year term off take agreement with the government. There is a scope for price escalation in terms of inflation adjustment. To protect the environmental issues it has taken US based JE energy which has got reputation for producing green energy with it. Basically it is a joint venture between Summit power and GE energy. Another big protection for the investors is the assurance of fuel supply from the gas field. It is a gas based power plant. So for the input it has got input supply assurance and for the output it has got off take agreement with the government agency. Since the off take agreement is with the respective government agency so there should be no doubt about the payment. The government is providing the required land for the project.

For financing the project the sponsors are planning to issue privately placed bond as well as trying for getting subsidized rate loan from the local banking sectors. The debt-equity ratio is to be 75:25 for the project. Since sponsors are well known business persons in Bangladesh and they have got reputation in the respective sector, financing the project will not be a very hard issue. If the local banks and financial institution come forward to finance the project they will maintain an escrow account to get the loan back.

### **Latest Development of the Project**

Summit has signed agreement with the Government of Bangladesh in April 2011. Earlier Summit set conditions for signing the contract to hand over them the required land for the plant and transmission line for signing the contract. Government accordingly had to acquire the required land for the plant and transmission line and Summit agreed to sign the contract accordingly. For financing the project Summit has signed agreement with a local non bank financial institution to get subsidized loan of the World Bank through Investment Promotion and Financing Facility and issue zero coupon bonds to state owned commercial banks.

### **Risks perceived by the investors in implementing the project**

Financing the project was the main challenge for the project sponsors. Finally the sponsors could manage financing from domestic sources but a portion of financing was done on floating rate. So if the interest rate increases then there is a risk of increase in financing cost. Political continuity was considered another risk

factor for the sponsors. Government has provided land for the power plant and transmission line. If due to changes in political government land lease agreement is cancelled then project will be in trouble. The project is a gas based power plant so availability of gas resources has been considered as a major concern from the sponsors of the project. Here availability is not the last thing for producing power required gas pressure is also very crucial.

**Table 4.1 Risk Mitigation (at a glance): Bibiyana 300-450 MW Gas-Fired Combined Cycle Power Project**

Risk	Mitigated	Not Mitigated	Conclusions
Political Risk		√	Available data shows that in case of Bibiyana project most of the risks are mitigated via government guarantee and contract clause. There are some risks still now to which the project is exposed.
Regulatory Risk		√	
Foreign Exchange Risk		√	
Interest Rate Risk	√		
Construction Risk	√		
Operational Risk	√		
Market Risk	√		
Payment Risk	√		
Price Risk	√		

#### 4.2 CEPZ Water Treatment Plant Project

BEPZA being advised by WASA to set up a water treatment plant inside the CEPZ, initiated the project as per decision of the BEPZA Governor's Board. BEPZA invited tender for setting up of a Treatment plant at CEPZ with a view to supply treated water to the enterprise inside the EPZ for the use of industrial purpose as well as drinking water. The project tenure is 30 years. The capacity of the plant would be 3 million gallons/per day. Estimated project cost would be BDT 220 million.

Through competitive bidding D Water Tech Limited has become successful bidder and signed water supply Agreement with BEPZA. The project was scheduled to be completed by December 2011. Due to finance constraints the project was delayed and it has been estimated by the project sponsors that by 2012 the project will be ready for CEPZ. The contract period of prolonged 30 years of continuous supply of industrial pure water to CEPZ industries including the operation, maintenance and quality management of the treatment plant will be under the full responsibility and ownership of the project company.

The flow of development activities carried out by the executing agency and its associated entities for the water treatment plant of CEPZ are shown bellow.

**Project Identification:** Being advised by Chittagong WASA, BEPZA initiated the project for making their own arrangement of water supply to the industrial units through setting up of water treatment plant by private investor at CEPZ in 2009.

**Feasibility Study and Preparation of Document:** The private investor carried out feasibility study for this project and submitted to the executing agency. On the other hand BEPZA prepared relevant bidding documents for the project.

**Request for RFQ and RFP:** BEPZA invited open tender for construction, operation and maintenance of the water treatment plant at CEPZ and following competitive bidding process it has selected D-Water Tech Limited to implement the project.

**Negotiation and Contract Award:** After negotiation with the winning bidder, BEPZA awarded the project to D Water Tech Limited. In this context BEPZA has signed the water supply agreement and land lease agreement with D-Water Tech Limited.

**Protective Features for Investors and prospective creditors of the Project:**

The water treatment plant project is a new concept in Bangladesh. BEPZA is an autonomous body which is supposed to facilitate, promote and administer the enterprises within the export processing zone. Among the export processing zones in Bangladesh there is a export processing zone in Chittagong also. Earlier Chittagong WASA supplied industrial water to the industries within export processing zone. To shed the load on Chittagong WASA, it advised BEPZA to arrange industrial water itself. That is why BEPZA went for set up a plant on PPP basis.

This is comparatively a small project. One of the strong protections for the investors is water supply agreement with the BEPZA. BEPZA will act as a middle man between the industrial user and the project for water supplying entity. Each enterprise is supposed to pay for water as per usage. There is a scope for price escalation in terms of inflation adjustment.

Another big protection for the investors is the assurance of supply of electricity to run the plant. So for the input it has got input supply assurance and for the output it has got off take agreement with the government agency. Since the off take agreement is with the respective government agency so there should be no doubt about the payment. The government is providing the required land for the project. For financing the project the sponsors have arranged bank loan from the local banks. The debt-equity ratio is to be 70:30 for the project. Local banks and financial institution will maintain an escrow account to get the loan back.

**Risks perceived by the investors in implementing the project**

Though the project was identified for implementation in 2009 it took around 2 years to start project work. The project sponsors had to wait for environmental clearance from DOE. As per project sponsors view environmental issue was one of major concern in implementing the project. The sponsors got a 30 years contract but if future governments policy deter them extracting water from the earth then it would be a major setback for the project.

**Table 4.2 Risk Mitigation (at a glance): CEPZ Water Treatment Plant Project**

Risk	Mitigated	Not Mitigated	Conclusions
Political Risk		√	Except political risk, regulatory risk foreign exchange risk, interest rate risk all other risks are found to be mitigated to the some extent in case of CEPZ power project.
Regulatory Risk		√	
Foreign Exchange Risk		√	
Interest Rate Risk		√	
Construction Risk	√		
Operational Risk	√		
Market Risk	√		
Payment Risk	√		
Price Risk	√		

### **4.3 Dhaka Elevated Expressway PPP Project**

The Bangladesh Bridge Authority under of Ministry of Communications as executing agency intended to construct 26 kilometers elevated expressway on BOT basis to alleviate city traffic congestion and improve inter-city transport services. The concession period for this project is 25 years including the period for construction and operation. The total cost of the project is estimated to be USD1.24 billion.

The following are the flow of activity by different executing agencies during development of the elevated expressway project.

#### **Project Identification and Approval phase**

BBA identified the project for development of existing communication facilities within Dhaka City through the PPP based model and forwarded for approval to the CCEA. CCEA approved the project accordingly in June 2009.

#### **Feasibility Study and preparation of documents**

The executing agency, BBA engaged AECOM Australia Pty Limited in association with SARM and Gide Loyrette Nouel to conduct feasibility study and to prepare other supporting documents. Accordingly the consultants prepared the documents and submitted to the executing agency on August 2010.

#### **Request for Proposal**

The process of bidding was initiated by the executing agency through publication of pre qualification notice on November 2009. Initially the submission deadline was January 2010 but later it was extended to March 2010. In order to select the pre qualified bidders and to evaluate the proposals, prequalification and tender evaluation committee was formed by the line ministry on 31 January 2010.

BBA conducted an investment promotion meeting on 12 January 2010 to give wide publicity to the project and attract the best investors. The attendees were informed about the salient features of the project. The potential bidders were given the opportunity to raise any queries regarding the substance and content of pre qualification document.

In response to the pre qualification notice, nine firms submitted their prequalification statements. Among nine firms four bidders were selected by the evaluation committee and subsequently approved by CCEA. The letter of invitation for bids was issued to the four selected pre qualified bidders on 2 September 2010. Following the issuance of RFP, concession agreement was issued to the bidders by BBA on 5 October 2010 with a deadline of 9 October 2010. As per policy and strategy for PPP, 2010 the bid document were sent to the office of the PPP Advisory Committee. The executing agency BBB arranged a pre bid conference on 11 October 2010. Representatives from all four companies attended the pre bid conference. BBA clarified the queries submitted by the bidders on the bid document during pre bid conference. Subsequently, BBA prepared modified version of RFP and issued to the bidders on 9 November 2010 incorporating the suggestions from the bidders with a revised deadline of 23 November 2010. Two companies submitted the bid. Among the two bidders Italian Thai Development Public Limited Company was found as winning bidder and LOI was issued in favor of them.

### **Negotiation and Contract Award**

After LOI is issued negotiation with the winning bidder was held. At the negotiation meeting concession agreement was finalized and sent to Ministry of Law, Justice and Parliamentary affairs for vetting. Finally the bridges division on behalf of the GoB signed concession agreement on 19 January 2011. The project is supposed to come under operation by 2014.

### **Protective Features for Investors and prospective creditors of the Project**

Elevated Expressway is the biggest project of Bangladesh under PPP and a foreign firm has become the winning bidder and implementing the project. Total cost of the project is USD1.24 billion (BDT 83.66 billion). As per concession agreement signed with GOB the project company is supposed to arrange the entire fund for financing except VGF. To make the project viable to the project sponsors GoB is providing VGF to the project to the tune of BDT 22.59 billion. Another feature is that there is a guaranteed number of vehicles that will use the elevated expressway if not then the concession period will be increased accordingly in favor of the project company by GOB in due course. The following are the main features of the project.

### **Guaranteed Traffic Transactions**

GOB guarantees a traffic level of 13,500 per day during operation period. In case any shortfall of traffic on the expressway below the guaranteed traffic level and if it occurs for 15 consecutive days then the concession period would be increased by 15 days. This increase will be a multiple of 15 days.

### **Concession Fee**

The project company will provide BDT 2.7 billion as concession fee to GoB

### **Revenue Sharing**

There is a ceiling of traffic transaction of 80,000 vehicles per day. If this ceiling exceeds then the GOB will get 25% of the revenue earned from the excess vehicles then ceiling.

### **VGF**

GoB will provide a total of BDT 22.58 billion in three tranches to the project company through budget allocation as an initiative to make the project viable.

### **Repatriation of Foreign Exchange**

GoB guarantees that project company will be allowed to convert its earnings in to foreign currency and the project company will be able to purchase and hold foreign currency for the purpose of debt servicing and profit as well as capital repatriation.

### **Financing Party Step-in Right**

In the event of default by the project company, the financing party will have the right to step in for the purpose of operates, maintain and sell or assign the project asset to recover the debt.

### **Guarantee of non-competition**

GOB has given a guarantee of not implement or develop, establish, construct, manage or operate any new road parallel facility adjacent to the project area or permit any person to do so which would adversely affect traffic flow or revenue streams of the project for the first 12 years of operation of the project.

### **Risks perceived by the investors in implementing the project**

Construction of the project has been started in May 2011. One of the key risks of the project was to access land for construction. But government has passed law to acquire land for the elevated expressway. There is a provision for liquidity

demurrage for both the party. In case government fails to provide land as per agreement then government shall have to pay demurrage and if the sponsors company fails to handover the project then the sponsors company shall have to pay demurrage to the government. Another major risk is political risk. If there is political instability and discontinuity of governments' policy then the sponsors company might suffer in implementing the project. Though there is guarantee from the government side regarding conversion of local currency in dollar for repatriation there is no guarantee for stability of exchange rate. If local currency depreciates much over the years then it would be difficult for the project company to service its debt in foreign currency.

**Table 4.3 Risk Mitigation (at a glance): Dhaka Elevated Expressway PPP Project**

Risk	Mitigated	Not Mitigated	Conclusions
Political Risk		√	Except political risk, regulatory risk all other risks are found to be mitigated to the some extent in case of Dhaka Elevated Project.
Regulatory Risk		√	
Foreign Exchange Risk	Financial Closure was extended		
Interest Rate Risk			
Construction Risk	√		
Operational Risk	√		
Market Risk	√		
Payment Risk	√		
Price Risk	√		

#### 4.4 Jatrabari-Gulistan Flyover Project

Dhaka City Corporation invited tender for Jatrabari-Gulistan Flyover project on 28 April 2003. The project was identified by DCC. In order to overcome traffic congestion DCC took initiative to build a flyover starting from Gulistan area and ended at Jatrabari of Dhaka city. Length of the flyover is around 8.4 kilometer. DCC gave concession on BOOT basis for the period of 24 years. Estimated implementation period for the project was 3 years which was not included in the concession period.

A Canada based company named LEA Associates South Asia Pvt. Limited did the design for the project. In 2005 LOI was issued in favor of winning bidder Belhasa Accom and subsequently concession agreement was signed in the same year. Due to some legal complicity construction of the project was delayed and resumed in 2009.

Initially project cost was estimated as BDT 7.75 billion. But with the changes in design and length revised project cost stood at BDT 13.31 billion. Project sponsors are implementing the project keeping the debt level at the minimum to avoid fixed charge obligation for debt issuance. It has been learnt that around 7.5

% of the total project cost would be financed by existing paid up capital injected by the sponsors, 45.05% of total project cost would be financed by issuing ordinary shares, another 45.05% would be financed by fully convertible preference share and remaining 2.39% would be financed by suppliers' credit and director's loan.

One of the key features of the project is sharing risk and revenue of the project. DCC has given a guarantee of minimum traffic of 43,283 vehicles per day. If the number of vehicles is less than this then there is scope for extension of concession period. On the hand if the number of vehicles is more than 65,581 then 40% of the revenue earned from excess vehicles will go to DCC. Bangladesh government has given a guarantee of repatriation of profit and capital in due course.

**Risks perceived by the investors in implementing the project**

Due to changes in design of the project cost has increased. There was lack of coordination among the government agencies initially. At one stage project work was suspended. Then the government took initiative to resume the project construction. The project was found going in full swing. Project sponsors hoped that by the year 2013 work would be finished.

Key risk in implementing the project was identified as construction risk. Initially there was no co ordination among the utility service provider of Dhaka city. Then DCC coordinated and the project work was going once the work is finished except natural disaster there is no major risk involved since the sponsors company went in to risk sharing arrangement with the government. The sponsors opined that government might not interrupt in project development in future keeping in mind that once the project is implemented it would help to ease traffic congestion problem in Dhaka city.

**Table 4.4 Risk Mitigation (at a glance): Jatrabari-Gulistan Flyover Project**

Risk	Mitigated	Not Mitigated	Conclusions
Political Risk		√	In case of Jatrabari flyover project except political risk, regulatory risk and foreign exchange risk all other risks are found to be mitigated to the some extent.
Regulatory Risk		√	
Foreign Exchange Risk		√	
Construction Risk	√		
Operational Risk	√		
Market Risk	√		
Payment Risk	√		

## **4.5 Investment Promotion and Financing Facility (IPFF)**

IPFF is an on-lending based technical assistance project being implemented by Bangladesh Bank. With a view to provide long term credit support to the participating commercial banks and financial institutions for financing PPP projects in Bangladesh IPFF project was launched in 2006. Initially its implementation period was 5 years with a total project cost of USD 60 million. But due to exhaust of entire credit line earmarked for financing PPP project before the project period the World Bank came with additional financing of USD 257 million with an extension of project period until 2014.

In the backdrop of weak capital market in Bangladesh and shortage of long term financing source and more over for promoting PPP in Bangladesh the World Bank designed the project. It extended a credit of USD 50 million to the GOB and the government provided another USD 10 million as co financing to IPFF. Bangladesh Bank got the responsibility to implement the project on behalf of government.

**Objectives of IPFF:** IPFF project was launched with two fold objectives. The first objective of IPFF was to provide partial debt financing to government endorsed PPP project through the participating commercial banks and financial institutions and the second objective was to promote PPP in Bangladesh by using technical assistance fund through capacity building both in private sector and public sector.

**IPFF Mechanism:** As per IPFF criteria all commercial banks and financial institutions were invited to join IPFF subject to meeting the eligibility criteria. But due to stringent criteria only a small number of private commercial banks and some non bank financial institutions could make it happen and joined IPFF. By joining IPFF they were allowed to get low cost fund to finance PPP projects in market rate. So this was clearly an incentive for them to finance PPP project. As per IPFF a ppp project need to maintain a minimum debt: equity ratio of 70:30 and IPFF loan were tenured at a maximum period of 20 years. Out of this 70% debt IPFF was supposed to provide 80% or 56% of total project cost and the participating banks are supposed to provide the rest 20% or 14% of total project cost. So the financing participation ratio of IPFF project, Sponsors of the project and the participating banks stands to 56:30:14. This is to mention here that though 56% of the project cost was supposed to finance out of IPFF project it did not bear any commercial risk. The commercial risk went to the participating commercial banks. Since Bangladesh Bank is the central bank of the country all scheduled banks are supposed to maintain a current account with it and there is a clause in the signed agreement that in case of any default by the bank in repaying the loan Bangladesh Bank has got the right to debit its account.

**Factors cause delay in disbursing IPFF Fund:** Though the IPFF fund was in operation back in 2006 no fund was disbursed until 2008. The participating banks were not ready to take the entire commercial risks of the concerned PPP project.

Apart from that there were some issues relating to pricing of the loan and single borrower exposure issue. Finally the World Bank set the applicable interest rate applicable for IPFF fund and the participating banks were allowed to set their interest rate at their liberty with market terms. There were two types of loan one is fixed rate and another is floating rate. Fixed rate loan were priced matching with similar tenure treasury bond rate and floating rate was set at 364-days treasury bills rate with a fifty basis point. The participating banks found the floating rate favorable in comparison with fixed rate. Another issue of single borrower exposure limit was address by Bangladesh bank allowing breaching the prescribed limit for single borrower in case of financing PPP project only. These two factors encouraged the participating banks to finance PPP projects.

**Financing under IPFF project:** During 2006-07, GOB decided to install some small gas based power plant in PPP basis. With a view to make the bid attractive to the prospective investors the concerned department of the government announce about the availability of IPFF fund in the bidding document. IPFF fund was perceived favorable by the prospective investors and finally IPFF project could make it available to the following projects through participating banks.

**Table 4.5 Financing under IPFF**

Sector	Serial No.	Project Name	PPP Model	Investment (Million BDT)
Power and Energy	1	Three 22 MW Doreen Power Generations & System Ltd.	BOO	3430.00
	2	11MW Doreen Power House & Technologies Ltd.	BOO	564.30
	3	22 MW Regent Power Limited	BOO	1108.20
	4	Malancha Holdings Limited (44 MW Captive Power Plant)	BOO	1919.00
	5	Malancha Holdings Limited (44 MW Captive Power Plant)	BOO	1649.00

Source: IPFF Project, Bangladesh Bank (2010)

**Protective Features for Investors and prospective creditors of the Project:**

Out of IPFF project fund till 2010 only power projects had been financed through participating banks and financial institutions. It has been found that in some cases a single bank financed the project and in other cases participating banks financed the project in syndicated way.

One of the strong protections for the investors is Power Purchase agreement with the Government. In case of above power project this is a common protection for the investors. All the five projects mentioned above got 15 year term off take agreement with the government. There is a scope for price escalation in terms of inflation adjustment. To protect the environmental issues all the projects followed the World Bank guideline in conjunction with IPFF guidelines. All the projects are sponsored by local investors except two which got joint venture arrangement

with foreign investors. In those cases government provided guarantee of profit repatriation. Another big protection for the investors is the assurance of fuel supply from the gas field. All the projects are gas based power plant. So for the input all the projects got input supply from government owned gas field.

The participating banks which came forward to finance all the projects found them satisfied with financing the World Bank supported project. Since all the projects had to go through a stringent scrutiny by the World Bank so the financing commercial banks found them at ease with some extent. Additionally all the banks maintain escrow account to get the loan repayment with an arrangement with the government entity paying the sponsors for purchasing power. Until the participating banks ensure this mechanism with the government entity they were not convinced about financing the projects.

**Table 4.6 Risk Mitigation (Summary)**

<b>Risk</b>	<b>Project yana Power Project</b>	<b>CEPZ Water Treatment Project</b>	<b>Dhaka Elevated Expressway</b>	<b>Gulistan Jatrabari Flyover</b>
Political Risk	<b>NM</b>	<b>NM</b>	<b>NM</b>	<b>NM</b>
Regulatory Risk	<b>NM</b>	<b>NM</b>	<b>NM</b>	<b>NM</b>
Foreign Exchange Risk	<b>NM</b>	<b>NM</b>	<b>AFM</b>	<b>NM</b>
Interest Rate Risk	<b>M</b>	<b>NM</b>		<b>M</b>
Construction Risk	<b>M</b>	<b>M</b>	<b>M</b>	<b>M</b>
Operational Risk	<b>M</b>	<b>M</b>	<b>M</b>	<b>M</b>
Market Risk	<b>M</b>	<b>M</b>	<b>M</b>	<b>M</b>
Payment Risk	<b>M</b>	<b>M</b>	<b>M</b>	<b>M</b>

**Conclusion:** Here ‘NM’ refers to ‘not mitigated’, ‘M’ refers to ‘mitigated’ and ‘AFM’ refers to awaiting for mitigation plan. In spite of exposure to some risks (political, regulatory and foreign exchange) investors are implementing those projects. Here the risks might be perceived as low or risk mitigation measures might be perceived as expensive in comparison with loss due to risks to the investors.

## **CHAPTER 5**

### **CONCLUSIONS AND RECOMMENDATIONS**

#### **5.1 Conclusions**

Considering the fact that government alone is unable to provide necessary infrastructure to the people with given scarce resources GOB has decided to permit private participation in infrastructure development. GOB took PSIG in 2004 and in 2010 it formulated Policy and Strategy for PPP replacing PSIG. It is true that adopting a guidelines or formulating policy is not enough in attracting private participation in infrastructure development of a country. In case of PPP since the private parties are responsible for financing the concerned project financing always is a challenge and especially it is more than true in case of country like Bangladesh. Apart from financing in some cases it is a daunting task to deliver a project for private participation due to lack of capacity and proven experience of public officials. So for financing the project as well as deliver the project for private parties is difficult to the some extent.

Private participation in infrastructure development is challenging from the investors point of view. Investing in infrastructure is different because it causes huge sunk investment and investment is done on the basis of concession contract with the government and there are so many risks in investment. Thus the issue of protection for investors arises. This protection comes from the government. In absence of any law for protection for the investors extreme situations may arise where sometimes government is reluctant to give any protection at all. Sometimes government may give many things knowingly or unknowingly. Two ways are extreme situation. It is not win- win situation. Government sectors should be smarter than the private sector. Many guarantees have got hidden cost. Government should identify those items and should negotiate with private parties. Risk cannot be destroyed. If we think commercially it should be handled by that party who is efficient to handle it. Say for example foreign exchange risk. If government follows stable macroeconomic policy then risks regarding foreign exchange volatility get minimized. Private parties have It's a journey from one point to another point. Initially government should provide protections for the foreign investors but with the passage of time and different incidents that when stable policies will be there then foreign investors will be attracted.

In case of Bangladesh PPP we find that private parties are participating in infrastructure development. The projects which we have analyzed contain different kind of protections for investors. It is not unusual to provide those sorts of protections to the investors. It is obvious that major portion of financing has been done locally but we have learnt some of the projects have not yet get their financial closure and those are in challenge to accommodate financing. Besides, GOB has identified many mega projects for implementing under PPP. Those projects will require billions of dollars for implementation. Thus GOB has got many things to do to attract foreign investors as well as strengthening local financial market in this regard. It should be noted that government should

proceed with utmost preparation to attract foreign private participation in infrastructure development and focus on strengthening local financial market so that it can accommodate financing for infrastructure development.

Investors are implementing different projects in spite of their exposure to political, regulatory and foreign exchange risks. Market demand could be a vital factor for taking the risk exposure. When public interest increases political risks and regulatory risks might be perceived as low.

## **5.2 Recommendations**

### **5.2.1 General Recommendations**

**Creating good example in PPP:** There are a number of PPP projects under implementation in Bangladesh. Government should give much effort to make those projects successful. Government should provide all sorts of cooperation in implementation of those projects with a view to create good impression about government's pledge. As much as good example will be created have an impact on prospective investors in taking investment decision.

**Pursuing stable economic policy:** Investors prefer stability in economic condition of the country in which they are investing. So government should pursue stable economic policy both in case of macro and micro scenario. Investors always predict future scenario in taking investment decision. If the government does not follow stable economic policy then it becomes difficult for the investors to take investment decision. In case of infrastructure investment economic stability is much needed otherwise investors especially foreign investors will not be attracted to invest.

**Capacity Building in Public sector:** PPP is comparatively a new concept in Bangladesh. In case of infrastructure development through PPP it is very important to identify concerned risks in implementing a specific project. If risks could be identified properly then next step is to divide the risks among private parties and public sectors with a view to mitigate those risks. There are some risks which the government can handle properly and some risks are better handled by the private parties. It is wise to share these risks since risks cannot be destroyed. To identify these risks public officials should be smarted then the private parties to remain in win-win situation in formulating contract. So government should focus on building more capacity in public officials

**Ensure free flow of information:** To ensure fair competition among the investors government should ensure free flow of information. Government should ensure all relevant information publicly available. If free flow of information is not ensured then distorted information might discourage investors in taking investment decision.

**Developing Capital Market:** In case of infrastructure development through PPP private parties are responsible for financing the project. For infrastructure development long term financing is required. Commercial banks are unable to provide long term fund due to maturity mismatch. On the other hand non bank financial institutions though designed for providing long term fund are not matured enough. In some cases they are unable to provide bulk funding for infrastructure project. So capital market of the country should be developed in such a way so that it could provide sufficient fund for infrastructure development. Like in developed capital market a vibrant bond market may also be a good source debt financing for infrastructure fund.

**Foreign Exchange Factor:** In addition to focus on developing the capital market and bond market of the country government should focus on foreign exchange issues related with foreign borrowing and foreign investment. Since infrastructure investment is capital intensive so it requires huge investment. Both Local and foreign investors might find it convenient to borrow from abroad. In case of borrowing in foreign currency exchange rate is an important factor. Besides, availability of required foreign currency during repayment of the loan is another crucial issue. It is also true during repatriation of profit. Government should formulate a framework in association with the central bank regarding foreign exchange factor and make it transparent to the investors so that investors get confidence in making investment decision.

### **5.2.2 Specific Recommendations**

**Formulating PPP Law:** GOB adopted PSIG in 2004 and has replaced it with “Policy and Strategy of PPP, 2010” to accommodate the drawbacks of the previous guidelines. But now government should move towards enacting a comprehensive PPP law like in many countries. The prospective PPP law should contain all the issues like investor’s protection, creditor’s protection and dispute resolution.

In Bangladesh there is a law for the protection of foreign investors named “The foreign private investment (Promotion and Protection) Act 1980”. But when it was enacted the possibility of private investment in infrastructure by foreign investors was not considered. Since this law has a protection against expropriation or nationalization of industrial unit it can be amended incorporating the infrastructure project in addition to industrial unit.

Another issue is step in right of the lenders in case of financial adverse situation in respective infrastructure project. Big infrastructure project needs huge big investment. This huge investment is met up by issuing debt. Since the infrastructure financing is done based on cash flow so if the project sponsors become unable to tackle financial adversity lenders should have right to step in and manage the project. Modality of step in procedures may be fixed following the pattern of other country. This will be a safeguard for the lenders and it is

hoped that lenders will be encouraged to finance infrastructure project if the act contains such protection.

For smooth functioning of any PPP projects delay in implementing project should be avoided. Sometimes there might be any social activities protesting implementation of respective project in the name of say for example environmental issues. If the activists go to court then court might sanction stay in implementing project. So there should be some check and balance in honoring court order. There should be some scope to bypass court order for greater interest of the people to avoid unnecessary delay in implementing project.

Sometimes government itself may wish to abandon a project in special circumstances. There should be a provision to compensate the investors if so happens.

Considering the factors discussed above, if PPP law is formulated then investors and lenders might feel more protection and encouraged to invest in infrastructure in Bangladesh.

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