Public-Private Partnership as a Paradigm Shift in Development Management: The Case Study on Power Sector in Bangladesh

Md. Robiul Islam* Abdur Rahman**

Abstract

Public-Private Partnership is now a day's regarded as a widely emerged approach for development. In this process, government agencies and private partners are key actors to operate through a contractual agreement to utilize public sector assets effectively. This article has reviewed relevant books, articles, online journals, government websites, and findings to collect information from secondary sources. It tries to understand the nature of the paradigm shift of PPP from development management. Furthermore, this article attempts to answer the extent to which PPP contributed to ensuring citizens' full access to electricity in Bangladesh by 2021. In doing so, the article explores the emergence of PPP from development management and finds it as a paradigm shift with several qualitative changes in management style, the mindset of public officials, and method of work. Finally, the paper presents explicitly gradual increase of a large number of PPP projects on power generation and enhancement of power installation capacity that will sufficiently reduce system loss for ensuring 100% access to electricity of the mass population in Bangladesh by 2021.

Keywords:Public-Private Partnership, Development Administration, Public Administration, Power Sector, Private Sector, Paradigm Shift.

Introduction

~

Economic development is a prerequisite for both developing and developed countries. "Provision for sustainable and quality infrastructure is a prerequisite for rapid economic development and requires huge sustained investment" (Paul, 2012, pp.1). In 2018, Bangladesh met the eligibility criteria to graduate from the United Nations' Least Developed Countries (LDC) list and graduated in 2024 as a developing country. To achieve its growth to be an upper-middle-income country by 2021, the country should focus on implementing structural reforms, increasing female labor in the workforce, raising productivity, and expanding human capital investment

Lecturer, Department of Public Administration, Bangladesh University of Professionals, Email: amaarrobidu@gmail.com / robiul.islam@bup.edu.bd

Senior Lecturer, Department of Public Administration, Stamford University Bangladesh, Email:abdurrahmansobuj16@gmail.com

(World Bank, 2018). However, Bangladesh has made remarkable progress in reducing poverty, supported by sustained economic growth."On the economic front, one of the few countries has demonstrated a consistently strong GDP growth rate averaging over 6% over the last five years despite the general global slowdown. Over the same period, per capita income has increased from \$638 in 2009 to over \$1000 in 2013" (PPP Office, 2013, pp.2). In the fiscal year 2018-19, Bangladesh scored a record 8.15% GDP and \$1,909 per capita income (Financial Express, 2019). To keep pace with recent development, Bangladesh requires about \$3-3.5 billion, which is impossible for the government within budgetary resources. To ensure sustainable growth at a high level, Bangladesh needs an additional \$9 billion investment in major infrastructure projects annually. The government would require to blend with private partners through the PPP program resulting in the improvement of Bangladesh's infrastructure (Planning Commission, 2015, pp.103).

Vision Similarly, 2021 of the Government of Bangladesh emphasizesincreasing investments in infrastructure areas 2% to 6% of GDP and allowing 77% investment from the private sector (Alam, 2015). The government of Bangladesh (GoB) is now appreciating PPP projects for ensuring significant investment in multi-purpose sectorial development. In 2010, the government adopted the public-private partnership policy in National Budget Legislation (Rashed, Alam& Faisal, 2014). development of PPP started focusing on project-basedand sector-wise initiatives. The Private sector power generation policy was adopted in 1996, and program initiatives were highlighted to implement the proposed program successfully between 2005-09 (MoF, 2009). Due to government's friendly investment policy, now private enterprises dominate the energy sector contributing a total of 54.35% in the national power generation (Karim et al. 2019). By 2041, it is envisioned that Bangladesh will require about \$35 billion in the power sector (Dhaka Tribune, 2019). In 2015, the PPP act was formulated with the description of the PPP outline, area of coverage, operational procedures, etc. (PPP law, 2015). The government cannot implement different development programs and projects without the support of partners, so the private sector's capacity needs to be amalgamated with the public sector for the successful implementation of programs and projects. In this regard, the public sector encourages the PPP program to attract private capital investment, make availability of cash liquidity, and increase the government project's efficiency.

Having recognized the first and foremost significant role of the PPP program for ensuring the country's economic development, this paper attempts to highlight the Public-private Partnership in Bangladesh. It also extensively focuses on analyzing how the emergence of PPP as a paradigm shift in development management. Furthermore, the study also explores the extent to which PPP contributed to the development, especially in the power sector in Bangladesh.

PPP as a Paradigm shift in Development Management

Thomas Kuhn used the term "paradigm" in 'The Structure of Scientific Revolutions' and meant as a universally recognized achievement (Munar& Jamal, 2016). So, the shift that comes into vague when the current paradigm is troubled with the significant anomaly is called a paradigm shift. A paradigm shift here can be from public administration to development administration and then development administration to Public-Private Partnerships. This shift into PPP came from the area of development administration. "Public administration is in many respects a chameleon: it changes its color depending on its environment." Administration generally followed the 'Blueprint' approach, designing some specific plans and actions to run a development program. This approach is replaced by a 'Learning-Process' approach that development administration follows to respond to the changing environment (Singhal, 1989). "The term 'development administration' can be used in a broad sense, to embrace the variety of approaches and points of view that mark the study of public administration in developing countries" (Rodman, 1968, pp.05). The development administration necessitates a greater public administration role to bring social transformation and transition toward urban, industrial, and advanced forms of living beings (Najjar, 1974). During the 1960s and 70s, the state's role started to the question of cynicism in development administration. Even the part of states in development faced several critiques due to unorganized production, inefficiency in implementing the development program, and authoritarian nature of public authorities. When the government attempts to carry on development activities, it becomes very hard-hitting to maintain social responsibility and priority issues (Hess, 1995). So, the government looks for partners who are willing to provide funds for development activities. A new working model has come into a trend where "the government's contribution to a PPP may take the form of capital for investment (available through tax revenue), a transfer of assets, or other commitments or in-kind contributions that support the partnership. The government also provides social responsibility, environmental awareness, local knowledge, and an ability to mobilize political support" (Felsinger, 2008, pp.01). So, PPP is a win-win relationship between the government and private partners to deliver a service by sharing the risks, resources, ownerships, and rewards of the venture through a contractual compulsion (Bangladesh Gazette, 2010). That's why PPP is considered a paradigm shift that requires such a strategic management process that has qualitative changes in management style, the mindset of public officials, and method of work.

Management Style

"As regards the skills needed, this is likely to include, at least, a mix of project management, financial, commercial, legal, operational and human resources skills (the latter because some PPP will include staff transfers from the public to the private sector) and reflecting the multi-disciplinary

Public-Private Partnership as a Paradigm Shift in Development Management

nature of PPP. It is also likely to require leadership from senior officials who are already experienced in PPP and committed to effective implementation of PPP over time. It is emphatically not a role which will be discharged successfully by a reluctant official or one viewing it as a short-term post as part of a rotation" (Burnett, 2007, pp.39).

PPP necessitates joint management of the strategic change process in which both government and private parties maintain a relationship with cooperation, negotiation, and consultation with each other. If any change is required to bring, two parties come into a joint concession. This correlation acts as a cross-agency relationship. This partnership mostly relies on the direction which is related to the decision-making process. The direction requires to bring change regarding the context. As a result, the joint direction strategy is adopted in the contractual agreement process in PPP. For instance, "a common rationale for involving the private sector in infrastructure provision is that the private sector is more efficient and effective at managing infrastructure construction projects and managing service delivery once the assets are in place" (World Bank, 2014, pp. 42).

Thus, the managerial decision will be brought through the division of power, roles, and responsibilities. Strategic experimentation is an important issue in the PPP direction. Management from both public and private sectors must attempt to operate partnerships and networking successfully. Substantial assistance in strategic direction is essential for development planning, project preparation, the delivery and management of government support for PPPs, appropriate risk-sharing arrangements between public and private sector partners, and PPP transaction advisory assignments (ADB, 2012).

Mind Set of Public Officials

In PPP, bureaucrats must have to be possessed with a new mindset, whereas bureaucrats in traditional administration possess an authoritative mindset in the procedures. "Bureaucratic behavior explicitly or implicitly assumes that only individuals act and make decisions; these individuals recognize their alternatives, anticipate potential although uncertain outcomes, and rationally attempt to maximize their well-being in the face of incentives and constraints; and information is scarce and costly to obtain so that the ability of citizens and their representatives to monitor and control bureaucracies is limited" (Benson, 1995, p.01). Within the partnership model, public officials should be more flexible, non-bureaucratic, and more participative to operate with partners in the particular project otherwise, the contract between two parties can in no way be well functioned. So, public officials should be habituated to the "cooperative sharing" with a partner.

In PPP, identified risk factors are shared for the successful completion of the PPP project. In this regard, the cooperative mindset is very accommodative

to allocate risk with proper handling between two parties. Another mind-set issue would be mutual support with the flexible and non-bureaucratic wave. In the PPP project, the appropriate selection is important in one hand and the support from both partners is quite urgent on another hand. Mutual support as a risk principle can reduce any conflict to be mitigated with mutual discussion and negotiation. Thus, public officials should be mutually supportive-minded in particular projects competed with the collaboration between public and private parties. They also require to collaborate and negotiate with private partners in a particular project so that two parties can trust each other in operating a particular task in the project. The public sector attempts to give assurance to a private party by public officials' approach that they are treating their selected partner as a trusted and reliable one (Hamilton & Holcomb, 2013).

Method of Work

In the PPP project, responsibility carried out by both public and private sectors must be shared. An assessment is explicitly designed on how responsibility to be shared. At the same time, there must be a shared risk commensurate with the return. If there is no repatriation of any profit, the private sector will not take any responsibility in terms of risk. So, what private-sector gains in particular PPP project is substantive. There must be a degree of specialization in the PPP project which is the key factor to divide responsibility between two partners. PPP project is adopted in the purpose for the long period. So, there is a clear agreement about the working method by mentioning clear and obvious arrangement. This contract or agreement is an indicator for the public and private sector for what task will be completed and who will be predominantly responsible for the particular arrangements. "The specific arrangement ensures efficient utilization of human, financial, natural and other resources without sacrificing the needs of the future generations; improves and ensures public security and safety, environmental safety" (Quium, 2011, p. 19).

Management Style

The Mindst of Public Officials

Area of Paradigm Shift

Method of Work

Figure1: PPP as Paradigm Shift

Source: Author's own work

Public-Private Partnership in Bangladesh

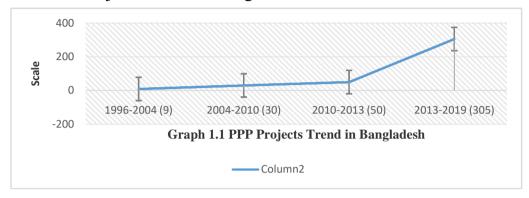
Many countries worldwide have represented remarkable progress in the implementation of PPP on social infrastructure because of their dynamic conditions in investment (Oktavianus et al. 2018). "South East Asia started attracting investments in infrastructure early and took home the lion share of USS 136.6 billion worth of investments. East Asia and South Asia were the next in line to attract private sector investment. The case is different in Central Asia and the Pacific where the private sector is small. This simply shows that PPP has a higher concentration in some countries than in others. The top six are the People Republic of China (25.3%), India (17.0%), Malaysia (15.5%), Philippines (10.9%), Thailand (10.5%) and Indonesia (8.8%), which all account for almost 90% of infrastructure in the whole Asia" (Public-Private Partnerships: Experiences of Developing Countries in Africa, Asia, and South America, 2010, pp.130). Even, the Indian government is welcoming 50% of investment from the private sector for the infrastructural development (UNESCAP, 2015).

In Bangladesh, the Infrastructure Development Company Limited and the BIFFL are playing the role as the main agents from the government side to provide support to the private sector for the successful implementation of PPP program including transport (e.g. port, airport, highway, railway, bridge); energy (e.g. power plants, transmission lines); civil accommodation (e.g. economic zones, public buildings, convention centers, sports facilities, commercial development, residential housing, education buildings); health (e.g. hospitals, health care, dialysis, and diagnostics); tourism and hospitality; water, sewerage, and waste; information technology infrastructure and agriculture (Bjornestad, 2016). "Ongoing public-private partnerships (PPPs) in which the government contracts NGOs and the private sector have enabled greater access to and coverage of health services throughout the country" (WHO, 2015, pp.05).

The background of PPP in Bangladesh can be sketched from three generations. The first generation of PPP started its journey in 1996 with independent power procedures after the Power Generation Policy of Bangladesh. The second generation started with broader aspects, including multiple sectors, when the government approved the Bangladesh Private Sector Infrastructure Guidelines in 2004. Finally, the third generation PPP commenced in 2009. The third generation of the PPP policy framework was approved by the government named PPP Policy & Strategy-2010 (Rashed et al., 2017). PPP Policy & Strategy in 2010 contributed to promoting the regulation and controlling of PPP projects and established an office of PPP to promote PPP. Finally, the PPP act was enacted in 2015 with some modifications and adjustments (ADB, 2017). The government in Bangladesh started to make a partnership with the private sector in myriad ways. The partnership program on project-based initiatives was continuinguntil 1995. After that, sectorial initiatives were taken in 1996-

2004. To make the PPP program more successful, the government opted for making program initiatives. Centrally integrated program initiative was taken in 2010 to bring institutional change & regulatory changes and this approach is continuing till now (PPP Authority, 2016). The current trend of PPP projects (see graph 1.1) in Bangladesh is expanding so fast in the last 24 years (PPP office, 2013 & PPP Authority, 2019).

Table2: PPP Projects Trend in Bangladesh



*** Data are collected from PPP Office 2013 and PPP Authority 2019) and developed by the author

Impact of PPP in the Power Sector in Bangladesh

The power sector was so vulnerable in technical and financial aspects that considered Bangladesh as deprived nations in electricity (Alam et al. 2004; Uddin &Taplin, 2008). Though Bangladesh had severe constraints in the supply of electricity that affected micro-and macro-economic progress, the PPP projects started to contribute to the power sector's development. In contrast, private sectors generated 38% of the country's demand for electricity in 2010. So, the Bangladesh government decided to offer an additional \$9 billion in power generation within 2015 were receiving \$8 billion was the government's expectation from the private sector. As a result, the government was crying need private partners in the power sector to ensure value for money, performance assurance, and access to financing(Khan et al., 2012). In that way, Bangladesh has a successful sculpture to attract foreign investment in electricity generation (Newbery 2006, pp.14).

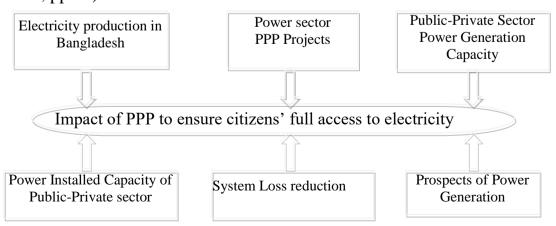


Figure3: Impact of the Shift in Power Sector in Bangladesh

Electricity production in Bangladesh

Electricity is the major source of power for most of the country's economic activities. Bangladesh has immense achievement in electricity production. The total megawatt production was 4,606 in FY 2009-10. The utility **electricity sector in Bangladesh** has one national grid with a production capacity of 12893 MW in 2019.in 2018 power production was 10958. Compare to 2009 and 2019, power production becomes around three times higher than that of 2009 and it takes 9 years. Within 9 years (2010-2019), electricity production multiplied more than 4 times. In FY 2018-19, Bangladesh witnessed massive 12,893 MW electricity production.

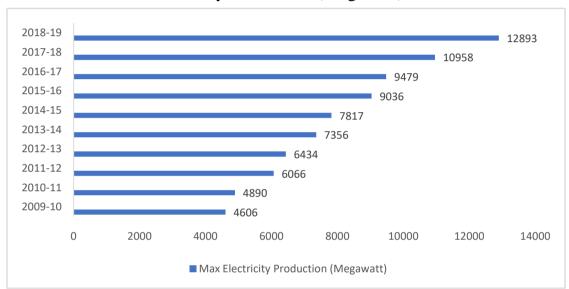


Table4: Maximum Electricity Production (Megawatt)

** Data are collected from Annual Report, FY 2018-19, Power Division, Ministry of Power, Energy and Mineral Resources and modified by the authors.

Power sector PPP projects

PPP is continuing in myriad sectors in Bangladesh, whereas the power sector is the most vibrant and promising. Bangladesh's government has taken lots of PPP projects in the power sector.

Table1.	List of Power	Sector F	PPP Project
1417161.	1 /1/51 (71 1 (7)//(7)		

SL	Project Name	PPP Model
1.	Meghna 45 MW Power Plant	ВОО
2.	Summit Power 33 MW PowerPoint	ВОО
3.	Summit Uttaranchal Power Company 44 MW Power Plant	ВОО
4.	Summit Uttaranchal Power Company 66 MW Power Plant	ВОО
5.	VERL 34 MW Power Plant at Bhola	ВОО
6.	BEDL 51 MW Plant at Sylhet	ВОО

7.	37 MW Malancha Holdings Power Plant at Dhaka EPZ	ВОО
8.	Shah Cement 11.6 MW Power Plants	ВОО
9.	Three 22 MW Doreen Power Generations & System Ltd. (2 in Tangail and 1 in Feni)	ВОО
10.	11 MW Doreen Power House and Technologies Limited at Mahipal, Feni	ВОО
11.	22 MW Regent Power Limited	ВОО
12.	Malancha Holdings Ltd. (44 MW Captive Power Plant at CEPZ)	ВОО
13.	Malancha Holdings Ltd. (35 MW Captive Power Plant at CEPZ)	ВОО
14.	34 MW Malancha Holdings Power Plant at Dhaka EPZ	ВОО
15.	Shah Cement 11.6 MW Power Plants	Captive Power Plant
16.	Haripur 360 MW Power Plant	ВОО
17.	Khulna 110 MW Power Plant	ВОО
18.	Haripur 115 MW Barge Mounted Power Plant	ВОО
19.	Westmont Bagharbari Barge Mounted PowerPoint	ВОО
20.	Ashulia 45 MW Power Plant	ВОО
21.	Narshingdi 35 MW Power Plant	ВОО
22.	Chandina 25 MW Power Plant, Comilla	ВОО
23.	Jangalia 33 MW Power Plant, Comilla	ВОО
24.	Rupganj 33 MW Power Plant, Narayanganj	ВОО
25.	Maona 33 MW Power Plant, Gazipur	ВОО
26.	IDCOL Solar Energy Program	ВОО
27.	250 KW Biomass Gasification Based Power Plant	Under License from BERC
28.	50 KW Biogas Based Power Plant	Under a License from Government

^{**} Data are collected from MoF (2009) and organized by the authors

Public-Private Sector Power Generation Capacity

Over the years, both the public and private sectors in Bangladesh have developed power generation capacity using various fuel types like Gas, HFO, HSD, FO, Diesel, and Solar. In 2018, public sector power generation capacity has been multiplied more than 5 times (1349 MW) which was 255

Public-Private Partnership as a Paradigm Shift in Development Management

MW in 2010. The private sector had not any power generation capacity in 2010 using Gas, HFO, HSD, FO, Diesel& Solar. The power generation capacity started in 2011 (520 MW) and reached in apex level (797 MW) which was more than that of the public sector.

Public-Private Power Generation Capacity 500 Public Sector Power Generation Capacity (MW) **Private Sector Power Generation Capacity** Total Capacity (MW)

Table5: Public-Private Power Generation Capacity

Power Installed Capacity of Public-Private sector

Table 1.2 shows the power installment capacity of the public and private sectors that have enhanced over the years. In 2005, the capacity of the private sector was 1290 MW (25.67%) to install power. After 13 years, the private sector achieved 40% capacity that enabled production 6,448 MW power. The public sector's capacity was diminishing due to the partnership program with private partners resulting in enhanced MW in the power sector. In 2008, the public sector's power installment capacity (28.20%) collapsed due to the fall of the water level of Kaptai Lake at Kaptai Hydroelectric power plant. From 2015, Bangladesh starts to import power approximately (4-5%) form India.

Table2: Public-Private Power Installation Capacity

Year	Public Sector	Public Sector Installed capacity	Private Sector	Private Sector Installed capacity	Power Import	MW Installed capacity
2018	56%	8,845 MW	40%	6,448 MW	4%	660 MW
2017	56%	7,582 MW	40%	5,373 MW	4%	600 MW
2016	53%	6,512 MW	42%	5,253 MW	5%	600 MW
2015	52%	6,020 MW	44%	5,012 MW	4%	500 MW

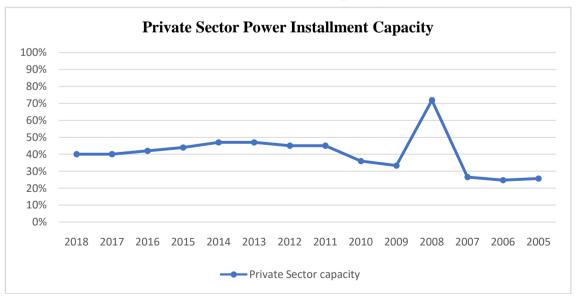
^{*} Data are collected from the Annual Report, 2018-19, and presented by the authors.

2014	53%	5,230 MW	47%	4,091 MW	00	
2013	53%		47%		00	
2012	55%		45%		00	
2011	55%		45%		00	
2010	64%	3,719 MW	36%	2,104 MW	00	
2009	66.66 %	3,812 MW	33.34%	1,907 MW	00	
2008	28.20 %	3,809 MW	71.80%	1,496 MW	00	
2007	73.49 %	3,872 MW	26.51%	1,397 MW	00	
2006	75.23 %	3,918 MW	24.77%	1,290 MW	00	
2005	74.23 %	3,735 MW	25.67%	1,290 MW	00	

^{*}Data are collected from Bangladesh Economic Review, 2005-2018 and organized by the authors

According to table 1.6, the private sector seems a significant partner in developing the power sector in Bangladesh. The highest capacity (71.80%) of private sectors was in 2008 and then 2nd highest capacity (47%) was in 2014. Thus, the tendency of the growing ability of the public-private sector is contributing to the promotion of power sector development in Bangladesh.

Table 6:Private Sector Power Installment Capacity



^{*}Data are collected from Bangladesh Economic Review, 2005-2018 and organized by the authors

System Loss reduction

System loss helps to understand the performance of ongoing projects or programs. Table 1.5 shows how PPP contributed to reducing system loss (11.96% is in FY 2018-19 which was 18.45% in FY 2007-08) in the power sector in Bangladesh. Because of the reduction of systematic loss, our government has enabled us to save 3000 crore taka per year. To reduce the system loss, the government took initiatives with private partners which include "Implementation of AMI and smart prepaid meter for electricity consumers, inter-phase metering for utilities for purchasing bulk power, standardization and renovation of distribution and transmission line, upgradation of network, substation, feeders, and implementation of GIS, replacement of overload transformers, improvement of billing & collection efficiency of utilities, installing underground cables and underground substation". Power Division of Bangladesh has taken initiatives to start a prepaid metering system to ensure a hundred percent bill payment. The power division has already installed 12.89 lakh prepaid meters till June 2018. To attain this initiative successfully, few projects have been taken for smart prepaid meter under the control of BREB, BPDB, DESCO, WZPDCL, and NESCO. In this way, all-analog meters will be replaced within 5 years (Bangladesh Economic Review, 2018, pp145).

Table3: Historical system loss data in Power Sector

FY	Total Loss (T&D)
2007-08	18.45%
2008-09	16.85%
2009-10	15.73%
2010-11	14.73%
2011-12	14.61%
2012-13	14.36%
2013-14	14.13%
2014-15	13.54%
2015-16	13.10%
2016-17	12.19%
2017-18	11.87%
2018-19	11.96%

^{*} Data are collected from ERD (2019).

Prospects of Power Generation

Access to electricity will be 100% all over Bangladesh by 2021. As the demand for electricity is increasing over the years, the government has a plan to enhance the capacity of power installation. By 2041, Bangladesh will have the capacity to meet 52,000 MW electricity.

Table4: Power Sector Future Plan

SL	Description	2021	2030	2041
1	Installed capacity (MW)	24,000	40,000	60,000
2	Electricity Demand (MW)	19,000	33,000	52,000
3	Access to Electricity (%)	100	100	100

^{*} Data are collected from Bangladesh Economic Review (2017-18) and modified by the authors

To fulfill the future target, 56 power projects having 14,134 MW power generation capacity is ongoing with the contribution of the public (16 projects) and private sector (40 projects) as mentioned a few in below:

<u> </u>	<u> </u>	
No	Public Sector Projects	
1.	Siddirganj 335 MW CCPP	
2.	Ghorasal Repowering 4th Unit	
3.	Bibiana South 383 MW CCPP	
4.	Sirajganj 225 MW CCPP (3rd Unit)	
5.	Bibiana number 3 CCPP	
6.	Ghorasal Repowering 3rd Unit	
7.	Ashuganj 400 MW CCPP (East)	

No	Private Sector Projects
1.	Kodda 149 MW Power Plant
2.	PangaoKeraniganj 300 MW Power Plant
3.	Rupsha, Khulna 105 MW Power Plant
4.	Teknaf, Cox's Bazar 20 MW
5.	Ashuganj 150 MW Power Plant
6.	Chadpur 200 MW Power Plant
7.	Julda, Chattogram 100 MW Power Plant
8.	Bogura 113 MW Power Plant
9.	Sirajganj 400±10 MW Power Plant
10.	Rangpur 113 MW Power Plant
11.	Potia, Chattogram 116 MW Power Plant
12.	Tangail 22 MW Power Plant
13.	Anowara, Chattogram 300 MW Power Plant
14.	Potiya, Chattogram 50 MW Power Plant

Conclusion

PPP has emerged as a major shift from development administration to the areas of management style, the mindset of public officials, and method of work. The public sector has usually been characterized by bureaucratic attitude and reluctant to change. So, PPP's managerial body requires multiskills, cooperation, and negotiation of the meta-strategy framework through a joint concession between two parties. This cross-agency relation guides to bring needed change which consequently leads to the efficient allocation of public assets. As government officials inherently possess inertia to unfreeze the statuesque, they require to break the ice and possess flexibility, mutual trustworthiness, non-bureaucratic behavior, cooperative risk sharing, and participatory orientation. To attain success in PPP projects, the degree of specialization is aligned with task distribution through an obvious agreement between partners for ensuring proper utilization of human, financial, natural, and other resources.

Once the power sector of Bangladesh had to undergo vulnerability, technical, and financial crisis. Over the period, private sectors grew up as a reliable partner of the government for power development using their skills, technical support, and resource. Progressively, the performance of electricity production in Bangladesh multiplied 4 times (12,893 MW in FY 2018-19) compared to 4606 MW in FY 2009-10. The public sector's power generation capacity has reached 1349 MW in 2018 compared to 255 MW in 2010. Private sector power generation peaked in 797 MW in 2016 which is the highest contribution of private partners in the last 8 years (2010-2018). The public sector experienced Whilst, power installment capacity of the public and private sector raised into 56% and 44% in FY 2017-18, but a massive collapse (28.20%) in power installment capacity in 2008 due to the fall of water level at Kaptai Hydroelectric power plant. Correspondingly, the private sector as a significant partner has stretched its power generation capacity to 71.80% in 2008, 47% in 2014, and 40% in 2018. In the power sector, annual system loss started to diminish that saved 3000 crore takas annually due to the appropriate initiatives with private partners likely smart prepaid meter for electricity consumers, standardization and renovation of transmission line. up-gradation of the network, distribution and improvement of billing & collection and efficiency of utilities, etc. Thus, Bangladesh had a success story in PPPs in the power sector and is looking ahead to ensure full access to electricity (Yong, 2010). Apart from that, Bangladesh has lots of challenges to go-ahead for the upcoming future, likely allocating risk in power. PPPs are designed to deal with cynicism in the private sector over creditworthiness and the ability of government counterparties to meet payments. Many power infrastructural projects have reached financial closure depending on the government recognizing government counterparties' payment obligations in project agreements (ADB 2017).

Even, frequent irregularities in nutrition programs and programmatic weaknesses brought the least output of the partnership program (Osman, 2008). Finally, the major macroeconomics challenge for Bangladesh in the 7th five-year plan (2016-2020) is "continued stagnation of domestic private sector investment, failure on the part of the government to launch major projects under the Public-Private Partnership (PPP), and inability to attract foreign direct investment into the country". (Planning Commission, 2015, pp.55). Last but not least, access to information is important to promote governance. The Website of the PPP of GoB is not systematically organized to get the PPP project database from 1996-2020. In that case, the promotion of e-governance is helpful to ensure access to information. "E-governance can contribute towards promoting "good governance" by ensuring greater civic involvement in the government decision-making process. Every single citizen of the country will be able to get citizen service from the government through digital devices and websites" (Rahman, 2019, pp.2)

References

- Alam, Dr. Md. B. (2015). Welcome to PPP Capacity Building Activities: Bangladesh Experience. pp-03. https://www.unescap.org/sites/default/files/Day%202%20-%20Session%205.1b%20-%20Bangladesh.pdf
- Alam, M. S., Kabir, E., Rahman, M. M., & Chowdhury, M. A. K. (2004). Power sector reform in Bangladesh: Electricity distribution system. *Energy*, 29(11), 1773-1783.
- Annual Report, (FY 2018-19). Power Division, Ministry of Power, Energy and Mineral, Resources. https://powerdivision.gov.bd/sites/default/files/files/powerdivision.portal.g ov.bd/annual reports/4f965519 5bd4 4980 be93 b3ac230f19f2/Annual% 20Report% 202018-2019% 20(4).pdf
- Annual Report, (2018-19). Bangladesh Power Development Board. 27-34. https://www.bpdb.gov.bd/bpdb_new/resourcefile/annualreports/annualreport_1574325376_Annual_Report_2018-19.pdf
- Asian Development Bank. (2012). Public-private Partnership Operational Plan 2012-2020: Realizing the Vision for Strategy 2020: the Transformation Role of Public-private Partnerships in Asian Development Bank Operations. Asian Development Bank. 16.
- Asian Development Bank. (2017). Asian Development Outlook 2017 Update: Sustaining Development Through Public-Private Partnership. Lightning Source Incorporated.
- Asian Development Bank. (2017). Public Private Partnership Monitor, http://dx.doi.org/10.22617/TCS179134-2.1.

- Public-Private Partnership as a Paradigm Shift in Development Management
- Bangladesh Economic Review, (2005-2018). Finance Division, Ministry of Finance, Bangladesh.
- Bangladesh Economic Review, (2018),. Finance Division, Ministry of Finance, Bangladesh. 145.
- Bangladesh National Report. (2015). Mid-Term Review of the Implementation of the Istanbul Programme of Action for the LDCs for the Decade 2011-2020.

 18. http://www.ipoareview.org/wp-content/uploads/2016/04/Bangladesh-National-Report.pdf
- Bangladesh Gazette. (2010). Policy and Strategy for Public Private Partnership-2010. https://www.pppo.gov.bd/download/ppp_office/Policy-Strategy-for-PPP-Aug2010.pdf
- Benson, B. L. (1995). Understanding bureaucratic behavior: Implications from the public choice literature. *Journal of Public Finance and Public Choice*, 13(2-3), 89-117.
- Bjornestad, L. (2016). Strengthening finance for the 7th Five Year Plan and SDGs in Bangladesh: Findings from an independent development finance assessment. UNDP. 45.
- Burnett, M. (2007). *Public-private partnerships (PPP): a decision maker's guide*. European Institute of Public Administration. 39.
- Dhaka Tribune, (2019). Transforming the power sector of Bangladesh. https://www.dhakatribune.com/opinion/op-ed/2019/06/21/transforming-the-power-sector-of-bangladesh
- Felsinger, K. (2008). *Public-private partnership handbook*. Asian Development Bank (ADB). 1-3.
- Financial Express, (2019). BD's economic growth hits record 8.15pc in FY19. https://thefinancialexpress.com.bd/economy/bangladesh/bds-economic-growth-hits-record-815pc-in-fy19-1575976234
- Hamilton, G., & Holcomb, V. (2013). Public-Private Partnerships for Sustainable Development. *Commonwealth Ministers*. Online:< http://www.commonwealthministers. com/articles/publicprivate_partnerships_for_sustainable_development
- Hess, M. (1995). Development administration, human resources and public sector reform. *Indian Journal of Industrial Relations*, 386-407. www.jstor.org/stable/27767379
- Karim, M. E., Karim, R., Islam, M., Muhammad-Sukki, F., Bani, N. A., &Muhtazaruddin, M. N. (2019). Renewable Energy for Sustainable Growth and Development: An Evaluation of Law and Policy of Bangladesh. Sustainability, 11(20), 5774.
- Khan, M., Riley, T., &Wescott, C. G. (2012). Public-Private Partnerships in Bangladesh's Power Sector: Risks and Opportunities. *Available at SSRN* 2186468. 04-05.
- MoF. (2009). Invigorating Investment Initiative Through Public Private Partnership A Position Paper .3-7.

- https://mof.portal.gov.bd/sites/default/files/files/mof.portal.gov.bd/page/03 58502b_6f8e_4139_aee1_7b7accee1799/ppp_09_10_en.pdf
- MoF. (2009). Invigorating Investment Initiative Through Public Private Partnership A Position Paper .17-19. https://mof.portal.gov.bd/sites/default/files/files/mof.portal.gov.bd/page/03 58502b 6f8e 4139 aee1 7b7accee1799/ppp 09 10 en.pdf
- Munar, A. M., & Jamal, T. (2016). What are paradigms for. *Tourism research paradigms: Critical and emergent knowledges*, 1-16.
- Najjar, G. K. (1974). Development Administration and New Public Administration: A Convergence of Perspectives? *Public Administration Review*, 34(6), 584-587. Doi: 10.2307/974354.
- Newbery, D. (2006). Power sector reform, private investment and regional cooperation. 14.
- Oktavianus, A. Mahani I. & Meifrinaldi. (2018). A Global Review of Public Private Partnerships Trends and Challenges for Social Infrastructure. *In MATEC Web of Conferences*, (147), 3-7, EDP Sciences. https://doi.org/10.1051/matecconf/201814706001
- Osman, F. A. (2008). Public-private partnership in health service delivery: lessons from Bangladesh. 19. https://core.ac.uk/download/pdf/33413116.pdf
- Paul, R. K. (2012). Risk Mitigation in PPPs: Lessons from Bangladesh Experience (Doctoral dissertation, Asian Institute of Technology).
- Planning Commission, (2015). 7th Five Year Plan, FY2016–FY2020: Accelerating Growth, Empowering Citizens. Dhaka, Bangladesh. http://www. plancomm. gov.bd/7th-fiveyear-plan-2. 55,103. https://www.unicef.org/bangladesh/sites/unicef.org.bangladesh/files/2018-10/7th_FYP_18_02_2016.pdf.
- Public Private Partnerships: Experiences of Developing Countries in Africa, Asia and South America. (2010). *European Public Private Partnership Law Review*, 5(3), 125-131. www.jstor.org/stable/26696169
- PPP Authority. (2016). Japan -Bangladesh Public Private Joint Dialogue. 5-6. https://www.jetro.go.jp/ext_images/world/asia/bd/seminar_reports/201604 <a href="https://www.jetro.go.jp/ext_images/world/asia/bd/seminar_reports
- PPP Authority. (2019). Overview of the PPP Programme of Bangladesh. 4-5. https://bdcgtoronto.ca/wp-content/uploads/2019/07/PPP.pdf
- PPP Office. (2013). Your Guide to Public Private Partnership in Bangladesh. 02, 04. http://www.pppo.gov.bd/download/ppp_office/Your-Guide-to-PPP-in-Bangladesh.pdf
- Quium, A. (2011). A guidebook on public–private partnership in infrastructure. *Economic and Social Commission for Asia and The Pacific*.(ESCAP) United Nations. 19.

- Public-Private Partnership as a Paradigm Shift in Development Management
- Rahman, A. (2019). E-Governance in Bangladesh. *In Global Encyclopedia of Public Administration, Public Policy, and Governance (pp. 1-8). Springer*, Cham. 02. https://doi.org/10.1007/978-3-319-31816-5 3227-1
- Rashed, M., Alam, M., & Faisal, F. (2014). The performances and challenges of public-private partnership (PPP) projects in Bangladesh. *Journal of Bangladesh Studies*. 15 (2). 62-71.
- Rodman, P. W. (1968). Development Administration: Obstacles, Theories and Implications for Planning. IIEP Occasional Papers No. 2. 05. https://files.eric.ed.gov/fulltext/ED058624.pdf
- Singhal, A. (1989). Evolution of Development and Development Administration Theory. Indian Institute of Public Administration. 847.
- Uddin, S. N., & Taplin, R. (2008). Toward sustainable energy development in Bangladesh. *The Journal of Environment & Development*, 17(3), 292-315.
- UNESCAP. (2015). PPP trends and initiatives in South Asian Countries Policy Dialogue on PPP for Infrastructure Development in South Asia Organized.

 09. https://www.unescap.org/sites/default/files/Day%201%20-%20South%20Asia%20-%20EY.pdf
- World Bank. (2014). Public-Private Partnerships Reference Guide: Version 2.0. 42.
- World Health Organization. (2015). Success factors for women's and children's health: Bangladesh. 05.
- World Bank. (2018). Bangladesh: Reducing Poverty and Sharing Prosperity. https://www.worldbank.org/en/results/2018/11/15/bangladesh-reducing-poverty-and-sharing-prosperity
- Yong, H. K. (Ed.). (2010). Public-private partnerships policy and practice: a reference guide. Commonwealth Secretariat. 98.