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Generating Power from Renewable Energy in Bangladesh: Governance Challenges and Way Forward

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Contents

List of Tables

List of Figures

List of Appendices

Accronyms

ADB	Asian Development Bank
AIIB	Asian Infrastructure Investment Bank
BCPP	Bangladesh's Climate Prosperity Plan
BPDB	Bangladesh Power Division Board
BERC	Bangladesh Energy Regulatory Commission
BSTI	Bangladesh Standards and Testing Institution
COP	Conference of the Parties
DESCO	Dhaka Electric Supply Company Limited
DPDC	Dhaka Power Distribution Company
EIA	Environmental Impact Assessment
ERD	Economic Relations Division
EPC	Engineering, Procurement, and Construction
IDCOL	Infrastructure Development Company Limited
IEE	Initial Environmental Examination
IEPMP	Integrated Energy and Power Master Plan
INDCs	Intended Nationally Determined Contributions
IPPs	Independent Power Producers
JICA	Japan International Cooperative Agency
KfW	KfW Development Bank (Kreditanstalt für Wiederaufbau)
LOI	Letter of Intent
MW	Mega Watt
NESCO	Northern Electricity Supply Company
PGB	Power Grid Bangladesh
PPP	Public Private Partnership
PPA	Power Purchase Agreement
PSMP	Power System Master Plan
RE	Renewable Energy
REB	Rural Electrification Board of Bangladesh
RPCL	Rural Power Company Limited
SDGs	Sustainable Development Goals
SEAL	Sustainable Energy & Agro-Resource Ltd.
SIA	Social Impact Assessment
SREDA	Sustainable and Renewable Energy Development Authority

Preface

Transparency International Bangladesh (TIB) works with a vision of an effectively governed Bangladesh where public affairs, business, politics, and daily lives of the people will be free from corruption and all powers exercised at all levels will be held accountable. To achieve this, TIB carries out various activities that include research and evidence-based policy advocacy on important issues, institutions and sectors of public interest, raising awareness, building the capacity of stakeholders, and actively engaging citizens, especially young people, to encourage better governance and fight corruption. To this end; energy governance, with a focus on the transition to renewable energy as a precondition for sustainable development, is one of TIB's priority sectors among others.

Although Bangladesh, as one of the most vulnerable and already worst affected countries of the world for global warming induced climate change, has made national and international commitments to climate change mitigation and renewable energy transition, the country remains heavily dependent on imported fossil fuels. In electricity generation renewable sources account for only 4.6% of the energy mix, reflecting the overwhelming dominance of fossil fuels. Varying and often mutually inconsistent government targets for renewable energy have created ambiguities in policy formulation and revealed gaps in coordination among key stakeholders. Allegations of irregularities in the planning, approval, and implementation of renewable energy-based power projects further highlight the governance challenges faced by the sector. Against this backdrop, the present study assesses relevant policies, plans, laws, and regulations and examines the planning, approval, and implementation processes of renewable energy projects through a governance lens.

The research identifies several weaknesses in policy and legal frameworks, inconsistencies in setting priorities, and a lack of institutional coordination. Ambitious electricity demand projections have often been set without adequate assessment of existing capacity, infrastructure, or practical constraints. On the other hand, strategic influence by some development partners driven by investment-related interests undermined transparency and accountability. Meanwhile, the sector continues to be shaped by fossil-fuel–oriented policies that enabled high subsidies and capacity-charge payments, resulting in wasteful use of public resources. The report also shows that political, bureaucratic and institutional biases heavily favour fossil fuels over renewables, as reflected in continued subsidies, capacity charges, and preferential policy treatment. At the same time, local and international lobbying networks reinforce fossil fuel dominance and prevent renewable energy advancement. Renewable energy development suffers from proper prioritization represented by insufficient incentives, structural barriers, and inadequate government support, particularly with respect to land allocation, grid connections, and transmission infrastructure. Weak enforcement of environmental and social safeguards has led to loss of natural resources and heightened risks to the livelihoods of affected communities. Lack of accountability for suppressing dissent, other violation of rights and normalization of intimidation and harassment reflect the impunity enjoyed by influential prof-fossil actors. These factors collectively undermine a just and effective transition to renewable energy.

This report draws on direct observations of the activities of various stages of the renewable energy power projects selected under this study and analysis of informants' insights and experiences. We extend our sincere gratitude to all individuals and institutions who contributed by providing relevant documents and information, and sharing perspectives essential to this study.

This study was conducted by Newazul Moula, Coordinator and Ashna Islam, Assistant Coordinator, Energy Governance Project of TIB. Adviser Executive Management, Professor Dr. Sumaiya Khair and Director of Research and Policy, Muhammad Badiuzzaman served as advisers for this research and provided valuable guidance in designing and implementation of the research. In addition, other concerned colleagues of other divisions including Research and Policy, Civic Engagement, and Outreach and Communication supported and assisted the study team in various ways.

We believe that the information, analyses and recommendations presented in this report will be instrumental and useful in achieving good governance and integrity in various stages of implementation of renewable energy transition in Bangladesh on the one hand and in reducing deliberately designed dependence on greenhouse gas emissions on the other. Any suggestions and comments from readers will be warmly welcomed.

Iftekharuzzaman
Executive Director

Chapter One: Introduction

1.1 Background and rationale of the study

Renewable energy (RE) has emerged as a sector of national and global significance due to its pivotal role in ensuring energy security, environmental sustainability, and climate resilience. Renewable energy refers to "net-zero carbon" energy produced from natural resources (sunlight, wind, water, biomass, biogas, etc.) that are continuously replenished. The transition to renewable energy (RE) refers to the global energy sector's pathway to shift entirely from fossil-based energy production (oil, natural gas, and coal) to renewable sources (sunlight, wind, water, etc.) by 2050, thereby achieving "net-zero carbon."[1] At the United Nations Climate Change Conference (COP-28), participating countries agreed that by 2030 they would transition away from fossil fuels, triple the share of electricity generated from renewable sources, and double energy efficiency.[2]

According to the national database of the Sustainable and Renewable Energy Development Authority (SREDA) and Bangladesh Power Developmenmt Board (BPDB), Bangladesh's current electricity installed capacity, comprising contributions from both on-grid and off-grid sources, is 28,616.48 Megawatt (MW), of which only 1,314.70 MW comes from renewable energy sources. This means the current share of renewable energy in the energy mix is only about 4.6% (Table 1). In consistent with Bangladesh's Renewable Energy Policy 2008, there was a target of getting 10% of the country's total electricity demand from renewable sources by 2020, but this target was not acheived. Only 1.24% of the total electricity demand in fiscal year 2019-2020, came from renewable sources.[3] In 2014, the government started 42 renewable power projects with a total capacity of 2,500 megawatts (MW) connected to the national grid in order to reach the terget (10%).[4] But, according to SREDA's Annual Report 2021-22, by 2020 only 38 MW of that capacity had become operational. Between 2010 and 2023, foreign investors put around $30 billion into Bangladesh's power sector. However, 96.7% of this money went to projects that used fossil fuels while only 3.3% went to projects that used renewable energy.[5] Bangladesh's carbon dioxide emissions went from 41 million tonnes in 2008 to 89 million tonnes in 2019, which is an increase

[1] What is the energy transition and why is it important? - Enel X. Retrived from: https://www.enelx.com/tw/en/question-and-answer/what-is-the-energy-transition#:~:text=The%20definition%20of%20energy%20transition,benefits%20of%20the%20energy%20transition? accessed on: 24 September 2025

[2] UN Climate Change Conference: World agrees to transition away from fossil fuels and reduce global emissions by 43% by 2030. Retrived from: https://commission.europa.eu/news-and-media/news/un-climate-change-conference-world-agrees-transition-away-fossil-fuels-and-reduce-global-emissions-2023-12-13_en#:~:text=At%20the%20end%20of%20the,on%20deforestation%2Dfree%20value%20chains accessed on: 13 December 2024

[3] Challenges in Bangladesh's renewable energy transition. Youth Policy Forum. Retrived from: https://ypfbd.org/wp-content/uploads/2024/05/Challenges-in-Bangladeshs-renewable-energy-transition_September-2023.pdf access on: 20 September 2025

[4] https://www.tbsnews.net/bangladesh/energy/many-projects-little-progress-renewable-energy-117043 access on: 20 September 2025

[5] Follow the Renewable Energy Finance: Bangladesh Perspective. Change Initiative. Retrived from: https://www.changei.earth/post/follow-the-renewable-energy-finance-bangladesh-perspective-ftref-01-2023 access on: 13 December 2024

of roughly 118%. It is worried that this could go up to 170 million tonnes by 2030, which is around 415% more compared to the situation in 2008.[6]

Table 1: Current status of power generation capacity in Bangladesh

Current Electricity Generation Mix[7]			Existing Renewable Energy Installed Capacity[8]				
Type of Fuel	**Installed Capacity (MW)**	**Share (%)**	**Type of Renewable Fuel**	**Offgrid (MW)**	**Ongrid (MW)**	**Capacity**	
						Total (MW)	**Total (%)**
Gas	12,512	43.97	**Solar**	92.23	929.4	1021.6	77.71
Coal	5,683	19.97	**Hydro**	0	230	230	17.49
Heavy Fuel Oil (HFO)	5,641	19.83	**Wind**	0	62	62	4.72
Renewable (Solar, Hydro, Wind, Biogas, Biomass)	1,314.7	4.62	**Biogas**	0.69	0	0.69	0.05
Imported	2,696	9.48	**Biomass**	0.4	0	0.4	0.03
High Speed Disel (HSD)	606	2.13					
Total	**28,616.48**	**100.00**	**Total**	**93.32**	**1,221.4**	**1,314.7**	**100.00**

Source: BPDB and SREDA Database, August 2025

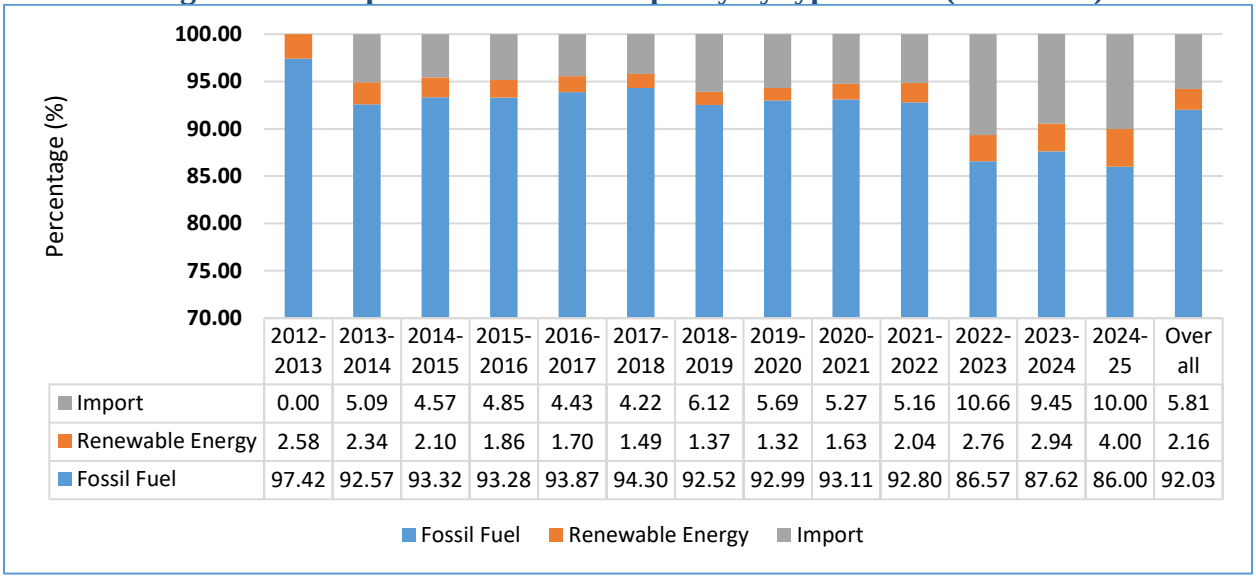
The expansion of fossil fuel-based (gas, LNG, coal, etc.,) power generation projects and the rise in carbon emissions have worried many people, both at national and international arena. This is because it goes against the Paris Agreement and the Sustainable Development Goals (SDGs). Also, the country's energy security is at risk because it relies more on imported gasoline and power **(Figure 1)**.

[6] Integrated Energy and Power Master Plan (IEPMP), Retrieved from: https://powerdivision.portal.gov.bd/sites/default/files/files/powerdivision.portal.gov.bd/page/4f81bf4d_1180_4c53_b27c_8fa0eb11e2c1/IEPMP%202023.pdf access on: 29 August 2025

[7] , Electricity Consumption Data, Bangladesh Power Developmenmt Board (BPDB), Retrieved from: https://bpdb.portal.gov.bd/sites/default/files/files/bpdb.portal.gov.bd/page/00b9f3df_752e_42bf_886f_e7282e669611/2025-09-16-04-02-785553b697c37f385fca19daa93d3e5d.pdf access on: 25 September 2025

[8] SREDA National Database, Retrived from: https://ndre.sreda.gov.bd/index.php?id=1&i=1 access on 31 August

Figure 1: Total power installation capacity by type of fuel (2012-2025)



	2012-2013	2013-2014	2014-2015	2015-2016	2016-2017	2017-2018	2018-2019	2019-2020	2020-2021	2021-2022	2022-2023	2023-2024	2024-25	Over all
Import	0.00	5.09	4.57	4.85	4.43	4.22	6.12	5.69	5.27	5.16	10.66	9.45	10.00	5.81
Renewable Energy	2.58	2.34	2.10	1.86	1.70	1.49	1.37	1.32	1.63	2.04	2.76	2.94	4.00	2.16
Fossil Fuel	97.42	92.57	93.32	93.28	93.87	94.30	92.52	92.99	93.11	92.80	86.57	87.62	86.00	92.03

The Government of Bangladesh (GoB) has put into action many plans and strategies for renewable energy from 2016 to 2025. These plans have varying goals and targets for how much clean energy would be used by 2030, 2041 and 2050. According to PSMP 2016, the highest demand for electricity in 2041 is predicted to be 61,681 MW, which was an unreasonable projection. The Bangladesh Climate Prosperity Plan (BCCP) 2022 intends to generate 30% power from renewable energy by 2030. According to Integrated Energy and Power Master Plan (IEPMP) 2023, by 2030, renewable energy is targeted to make up about 10% of total power generation, with clean energy sources accounting for the remaining 30% and by 2050, renewable energy will contribute around 40% of power generation, with the rest coming from clean sources like nuclear and hydrogen. To produce 40% of its energy from renewable or clean energy sources, Bangladesh will have to commission power projects based on renewable and clean energy sources of around 25,000 MW, which is 17 times more than the current capacity. The fact that different ministries have diverse goals and targets demonstrates that there are challenges with making and coordinating policies, as well as gaps in communication between different stakeholders.

According to SREDA's national database, Bangladesh currently has a total of 64 renewable energy–based power projects at different phases of development, including operating, under-construction, and planned. In addition, there are 3,419 net-metering installations nationwide. When combined with off-grid systems such as rooftop solar, minigrid, microgrid, and nanogrid projects, the overall number of renewable energy projects stands at 3,779, with a total installed capacity of 3,251.4 MW (**Table 2**).[9] Currently the country only has 17 utility-scale renewable energy projects that are linked to the grid. The total capacity of these projects, including net-metering, is 1,221.4 MW.[10]

[9] Sustainable and Renewable Energy Development Authority (SREDA), Retrieved from: https://ndre.sreda.gov.bd/index.php?id=4 access on: 15 September 2025

[10] SREDA | National Database of Renewable Energy, Retrived from: https://www.renewableenergy.gov.bd/ access on: 15 September 2025

Table 2: Renewable energy projects in Bangladesh

Type of Project	Number of Projects	Capacity (MW)	On-grid / Off-grid
Solar Park	39	2,224	On-grid
Wind	10	457.00	Mixed
Biogas	13	61.89	Mixed
Biomass	1	0.40	Off-grid
Hydro (Water)	1	230.00	On-grid
Total	**64**	**2,973.29**	—
Net Metering	3,419	184.14	On-grid
Rooftop Solar Systems	266	93.97	Off-grid
Solar Mini Grid	28	5.81	Off-grid
Solar Nano Grid	2	0.00	Off-grid
Total	**3,715**	**278.11**	—
Grand Total	**3,779**	**3,251.4**	

Combining existing and committed renewable power projects by 2030, based on their estimated capacity participation, the share of renewable sources in total electricity production is expected to be only about 18.6%, which remains significantly below the target outlined in the Bangladesh Climate Prosperity Plan (BCCP) **(Table 3).** This shortfall underscores the persistent gap between ambition and practical achievement in the renewable energy sector.

Table 3: Power installation target 2029-2030 and current status[11]

Source	Targets (2030)					Current Status*		
	IEPMP			BCPP		(MW)	(%)	Total
	(MW)	(%)	Total	(MW)	(%)			
Coal	13,203	24.18	76.4	---	---	9366.00	20.40	71.05
Gas	22,756	41.67			30%	14799.00	32.23	
Petroleum	5,948	10.89			---	6989.00	15.22	
LNG						1470.00	3.20	
Hydro	230	0.42	11.63		30%	230.00	0.50	18.60
Solar	5,159	9.45				7740.00**	16.86	
Wind	860	1.57				457.00	1.00	
Other RE	---	---				62.29	0.14	
WTE	100	0.18				50.89	0.11	
Nuclear	2,400	4.39	11.64		---	2060.00	4.49	10.36
Ammonia	1,300	2.38			---	0.00	0.00	
Import	2,656	4.86				2696.00	5.87	
Total	**54,612**	**100**		**---**	**---**	**45,920**	**100.00**	**100.00**

[11] Advancement of Power Sector. Electricity consumption data (August 2025). Bangladesh Power Development Board (BPDB), Retrived from: https://bpdb.portal.gov.bd/sites/default/files/files/bpdb.portal.gov.bd/page/00b9f3df_752e_42bf_886f_e7282e669611/2025-09-16-04-02-785553b697c37f385fca19daa93d3e5d.pdf access on 20 Spetember 2025

*Current status includes the combined capacity of the existing and committed power plants (under construction, permitted, pre-permit)
**Including 55 solar projects tendered by the interim government (5238 MW)[12] and rooftop solar power, net metering, solar mini and nano grids

Although land scarcity is frequently cited as a major obstacle to the growth of renewable energy-based electricity, specially for large-scale solar installations. However, recent studies have challenged this perception, called this idea a "myth."[13] These studies indicate that Bangladesh possesses sufficient technically feasible land area, including non-agricultural, and rooftop spaces, to generate enough solar power to meet its electricity demand. [14]

The GoB is alleged to be primarily focused on buying RE generated power from Independent Power Producers (IPPs) at higher tariffs instead of public-owned power projects. Moreover, most of the operational and under-construction renewable energy projects in Bangladesh are "unsolicited," meaning they were initiated by IPPs without competitive bidding processes. Such practices, while enabled under special legal frameworks like the Quick Enhancement of Electricity and Energy Supply (Special Provision) Act 2010, have raised governance concerns related to transparency and accountability in project selection and implementation. Since 2010, in Bangladesh's renewable energy sector, projects have predominantly been initiated through unsolicited bids, with private entities proposing solar projects for government approval, bearing full responsibility for land acquisition and obtaining the requisite permissions (**Appendix 1)**. Conversely, a minority of projects are solicited, where the government off-taker initiates the project development and orchestrates the funding and planning **(Appendix 2)**.[15]

Considering the slow pace of progress in renewable energy projects and the current situation, it is feared by all concerned that achieving the target of 100% renewable electricity generation by 2050 is uncertain. A previous study by TIB (on fossil fuel power projects) has revealed that in the case of fossil fuel-based power projects, donor-dependent policies, planning, influence of domestic and foreign investors and vested interests, and legal weaknesses have been exploited to successfully implement these projects based on import in excess of requirements.[16] Despite the huge potential of renewable energy in Bangladesh, there is a lack of practical and mature initiatives or visible steps taken by the government in this sector; on the other hand, there have been allegations that

[12] Recent Procurement Initiatives of Renewable Energy under the Public Procurement Act and Rules: Findings from Enterprise Survey on Transparency, Accountability and Efficiency (1 December 2025), CPD, Retrived from: https://cpd.org.bd/resources/2025/12/Presentation-on-Recent-Procurement-Initiatives-of-Renewable-Energy.pdf access on 10 December 2025
[13] The Business Standard, Bangladesh can meet entire electricity demand by solar energy: Study, Retrieved from: https://www.tbsnews.net/bangladesh/energy/bangladesh-can-meet-entire-electricity-demand-solar-energy-study-888581 access on: 29 August 2025
[14] Solar Power Potential from Industrial Buildings and Impact on Electricity Supply in Bangladesh, Retrieved from: https://www.mdpi.com/1996-1073/15/11/4037? access on: 3 November 2025
[15] Collusive Pricing in SolarPower in Bangladesh: Mapping Informal Processesand Corruption Risks, Retrieved from: https://ace.soas.ac.uk/wp-content/uploads/2024/03/ACE-WorkingPaper049-BangladeshCorruptionMapping.pdf access on: 29 August 2025
[16] Coal and LNG_based Power Projects in Banagladesh: Governance Challenges and the Way Ahead, Transparency International Bangladesh, Retrieved from: https://www.ti-bangladesh.org/images/2021/report/ECF_FullReport.pdf, access on: 29 August 2025

fossil fuel-based power projects are being approved despite the high risk of irregularities and corruption. Therefore, this study was conducted due to the need to review the existing policies and the roles of relevant stakeholders from a governance perspective (Appendix 3), as well as to identify institutional and financial challenges in achieving a just transition to renewable energy by 2050.

1.2 Objectives of the study

1.2.1 Main Objectives

The primary objective of this study is to identify and analyse the governance challenges of of power generation from renewable energy in Bangladesh.

1.2.2 Specific Objectives

The specific objectives of this study are to:

- To review the policies, plans, laws and regulations related to power generation from this energy;
- To identify the institutional and financial challenges in increasing renewable energy generation capacity, including the role of relevant stakeholders;
- To identify the type, extent and causes of irregularities and corruption in the planning, approval and implementation stages of selected renewable energy projects in the study; and
- To suggest recommendations to overcome the challenges

1.3 Scope of the study

The research includes analysis of renewable energy policies, plans, laws and regulations from 2008 to 2025; as well as analysis of information related to irregularities and corruption in the planning, approval and implementation stages of renewable energy-based power projects from 2012 to 2025. Besides the only hydropower plant of Bangladesh 'Kaptai Hydropower Plant' of 1962 and Bangladesh's first wind power plant in Feni 'Muhuri Wind Power Plant' on 2004, which is currently non-operational were also studied.

1.4 Research methods

This is primarily a qualitative study; however, quantitative data has been used in some cases depending on the needs of the study. The data collection method along with the type of data and source of data are mentioned in the following table **(Table 4).**

Table 4: Source of information

Type of Information	Method of Data Collection	Source of Information
Primary Information	Interviews with key informants (61)	Relevant officials (ministries, BPDB, SREDA, DoE, Land & Fisheries Department, BERC, IDCOL, District administration, government project authorities, IPP operators, DESCO); energy & EIA experts; economists; human rights activists; people representatives; media personnel; etc.
	Focus Group Discussions (FGDs) (10)	Local communities living in the project area
Secondary Information	Analysis & review	Relevant laws, rules & regulations; pertinent research reports; news published in media; environmental impact assessment (EIA) reports; relevant government and private reports; official websites

1.4.1 Sources of information

This study mainly collected and used qualitative data. However, quantitative data was also used as needed. Data was collected from direct and indirect sources and analyzed in accordance with the objectives of the study.

1.4.1.1 Sources of primary information

1.4.1.1.1 Qualitative data collection

Data collected from the field constitutes the primary source of information for this study. Both qualitative and quantitative data were gathered directly from individuals involved either directly or indirectly in the research topic, as well as from current and former government and private sector employees with relevant experience including energy experts, economists, human rights activists, and media personnel. A total of 61 Key Informant Interviews (KIIs) were conducted to collect primary data. Additionally, 10 Focus Group Discussions (FGDs) were held in large solar and wind power project areas with local communities.

Key informant interviews have been conducted to collect qualitative data on the approval and implementation quality of renewable energy projects. In the case of qualitative data, data was collected until sufficient information had been obtained. Key informant interviews were conducted to obtain detailed information about the challenges in complying with national and international commitments and related laws, policies, and regulations as a result of the implementation of renewable energy projects, the reasons for project approval, the influencers of project approval, the types, extent, and causes of irregularities and corruption in the planning, approval, and implementation of renewable energy projects, and to obtain necessary opinions. A checklist was used to interview relevant informants. Interviews were conducted with current officials of the Power Division, officials of BPDB, SREDA, Power Grid Bangladesh (PGB), officials of the Department of Environment (DoE), officials of the Land, Land and Fisheries Development Board, officials of the Water Development Board, energy and EIA experts, economists, affected local

people, human rights activists, public representatives and media personnel. Focus group discussions were conducted with the general public living in the project area. 'Purposive and snowball sampling' method was used to select key informants in the study.

1.4.1.1.2 Quantitative data collection method

Quantitative data were collected and compiled from the websites of the ministry, BPDB, SREDA, RE project authorities, and relevant organizations by reviewing policies, guidelines, reports, project information, proposals, Board decisions and minutes, etc., available online until November 2025. Based on the review, a comprehensive database on RE project activities and projects was prepared, which was then analyzed in accordance with the research objectives. Data was validated through relevant stakeholders, where necessary.

1.4.1.2 Secondary sources

The sources of secondary information for the study include relevant laws, rules and regulations, relevant research reports, news published in the media, environmental survey reports, relevant government-private reports and websites, etc. The content of the information obtained from indirect sources was also analyzed and reviewed.

1.4.2 Project selection

14 renewable energy-based power projects were selected in line with the objectives of the study **(Table 5)** and the following factors were considered in the project selection-

(a) Project location- potential and quality of renewable resources, ecologically critical areas, climate risk;
(b) Project type- renewable technology, producer (IPP/government) and financier, national grid connection, solicited;
(c) Production capacity;
(d) Project size and budget;
(e) Project implementation progress;
(f) Impact on natural resources, biodiversity, ecosystem and livelihoods of the people in the project vicinity

Table 5: Selected 14 renewable energy-based power projects

SI	Project Name	Location	Capacity (MW)	Financier	Ownership	Project Budget (BDT)	Year	Current Status
Solar Power Projects (Public– On-Grid)								
1	Kaptai 7.4 MW	Rangamati	7.4	ADB, GoB and BPDB	BPDB	104.23 crore[17]	2019	Completed and operational
2	Madarganj 100 MW	Jamalpur	100	EXIM Bank of India, RPCL	RPCL	1,511 crore[18]	-	Under implementation (Expected COD 2026)
3	Barapukuria 20 MW	Dinajpur	20	—	BPDB	—	—	Under planning
Solar Power Projects (IPP – On-Grid)								
4	Teesta 200 MW	Gaibandha	200	Beximco and China's TBEA Xinjiang Sunoasis	Beximco (Unsolicited)	1800 crore[19]	2023	Completed and operational
5	Lalmonirhat 30 MW	Rangpur	30	Local banks, IDCOL	Intraco (Unsolicited)	567 crore[20]	2022	Completed and operational
6	Mongla 100 MW	Bagerhat	100	IDCOL, Bangladesh Bank	Energon (Unsolicited)	1,702 crore[21]	2021	Completed and operational
7	Sirajganj 68 MW	Sirajganj	68	BCRCEL, and BPDB	BCRECL (Unsolicited)	947 crore[22]	2024	Completed and operational

[17] Kaptai 7.4 MW Retrived from: https://www.energytransitionbd.org/infrastructure/kaptai-7-4-mw-bpdb-solar-power-plant access on 23 August 2025

[18] The Sunbd24, Retrived from: https://en.sunbd24.com/2021/08/10/largest-solar-power-plant-in-jamalpur-at-a-cost-of-tk-1511-crore/ access on 17 August

[19] Dhaka Tribune (April 2023), Retrived from: https://www.dhakatribune.com/bangladesh/nation/308620/bangladesh%E2%80%99s-largest-solar-park-in-gaibandha-ready access on 20 September 2025

[20] Environmental and Social Impact Assessment (ESIA), 30 MW Grid-tied Solar Power Plant Project of Intraco Solar Power Limited (ISPL). (2023) Retrived from https://www.energytransitionbd.org/_files/ugd/315ccb_a93a99769fc64cf989b6a706fe47e7b0.pdf access on 10 July 2025

[21] Environmental & Social Impact Assessment (ESIA) of Energon 100 MW Solar Park Project, Retrived from: https://www.energytransitionbd.org/_files/ugd/315ccb_d4426ea6ec404bff85db1da1084654a8.pdf access on: 21 July 2025

[22] Environmental & Social Impact Assessment (ESIA) of Sirajganj 68 MW Solar Park Project, Retrived from : https://www.energytransitionbd.org/resource/eia-documents aceess on 21 July 2025

SI	Project Name	Location	Capacity (MW)	Financier	Ownership	Project Budget (BDT)	Year	Current Status
8	Manikganj 35 MW	Manikganj	35	ADB	Spectra (Unsolicited)	150 crore*[23]	2021	Completed and operational
Wind Power Projects (IPP – On-Grid)								
9	Cox's Bazar 60 MW	Khurushkul, Cox's Bazar	60	Chinese company Speak Willing Power Corporation	US-DK Green Energy BD Ltd. (Unsolicited)	900 crore[24]	2024	Completed and operational
Wind Power Projects (Government – On-Grid)								
10	Muhuri 0.9 MW	Sonagazi, Feni	0.9	BPDB	BPDB	7.5 crore[25]	2006	Completed, but now closed
Biomass Projects (Off-Grid)								
11	SEAL Biomass-based Power Project	Thakurgaon	0.4	IDCOL	SEAL Limited	—	2015	Completed and operational
Hydro Projects (On-Grid)								
12	Kaptai Hydroelectric Power Plant	Kaptai, Rangamati	230	—	BPDB	—	1962	Completed and operational
Net Metering Projects (On-Grid)								
13	20 KW Net Metering Rooftop Solar System	Gulshan, Dhaka	0.02	—	BTI Landmark	—	2019	Completed and operational
14	Walton High-Tech Rooftop Solar (MW scale)	Chandra, Gazipur	7.6	IDCOL	Walton High-Tech Industries	—	2023	Completed and operational

*The solar power plant was financed by the Asian Development Bank (ADB), KfW Development Bank, and the Canadian Climate Fund for Private Sector Development in Asia. Only ADB's investment is shown.[26]

[23] Aparajeo Bangla, Retrived from: https://www.aparajeobangla.com/news/news/5141 access on: 20 July 2025
[24] Energy and Power (2022), Retrived from: https://ep-bd.com/view/details/article/Nzc0MA%3D%3D/title?q=maiden+60mw+wind+power+plant+goes+into+operation+i access on 10 August 2025
[25] Dhaka Times (2022), Retrived from: https://www.dhakatimes24.com/2022/10/03/281492 access on 23 July 2025
[26] Aparajeo Bangla (2021), Retrived from: https://www.aparajeobangla.com/news/news/5141 access on 25 August 2025

1.5 Reliability and accuracy of data

In this study, the reliability and accuracy of the data analyzed were verified by following four general characteristics of qualitative research methods, namely data dependency, transferability, assurance and trustworthiness. Data was verified from all possible sources, including consistency in data collection from different sources, and data verification at different levels and stages.

1.6 Timeline of the study

This study has been conducted from October 2024 and November 2025. Research-related data was also collected, compiled, verified, and analysed during the period.

1.7 Analytical framework

The data required for this study were collected, verified and the data obtained in the study were analyzed in the light of following six indicators.

Table 6: Analytical Framework based on the indicators of good governance

Governance Indicator	Specific Areas of Observation
Law & Policy	• National policies, plans, laws, and regulations on electricity generation from renewable energy • International commitments and pledges related to electricity generation from renewable energy
Capacity	• Institutional & technical infrastructure • Investment framework & financial management; project progress • Coordination Across Institutions and Stakeholders
Transparency	• Disclosure of information — proactively and upon request • Website and up-to-date information management
Accountability	• Oversight & audit; complaint reception & resolution; environmental & social assessments • Procurement & bidding processes; execution of various contracts for project approval; incentive mechanisms
Participation	• Site selection; assessment of environmental & social impacts and determination of compensation • Rehabilitation of affected local communities, livelihood measures and employment
Irregulaties & Corruption	• Project approval & implementation; carrying out environmental impact assessments and issuing environmental clearances • Land acquisition / purchase, determination & distribution of compensation; interests of various stakeholders

1.8 Report structure

The first chapter of this report discusses the background and rationale of the research, objectives, scope and research methodology, etc. The second chapter discusses the shortcomings and challenges in the legal framework and enforcement. The third chapter discusses the challenges of good governance in renewable energy projects. The fourth chapter discusses the areas of corruption and irregularities in renewable energy projects, the extent and types of corruption. The fifth chapter presents the overall observations and recommendations of the research.

Chapter 2: Legal Framework

2.1 Lack of an integrated energy policy

Although it is very necessary to have an integrated energy policy to establish Bangladesh's energy sovereignty, no integrated energy policy has been formulated even after 54 years of independence. As a result, various inconsistent and incomplete plans have been adopted for the development of the energy sector. The existing energy master plan; Integrated Energy and Power Master Plan (IEPMP), 2023 has been shaped primarily by the commercial interests of foreign companies. Fossil-fuel–centred priorities are emphasized in this plan, largely due to the financial influence of international donor agencies.

Bangladesh could not prepare this energy master plan on its own, but rather, a conflict of interest has been created through agreements with some convenient institutions and there has been no opportunity for domestic experts to participate. As a result, inconsistencies and ambiguity in energy policy formulation have become evident.

2.2 Inconsistencies and ambiguity in energy policy and plan formulation

During the period from 2016 to 2025, various ministries have formulated and implemented numerous policies and plans, including visions for 2030, 2041 and 2050, with the aim of generating electricity from renewable energy **(Appendix 4)**. However, the targets for electricity generation from renewable energy in these plans vary and in many cases are inconsistent with national and international commitments, including the Paris Agreement and the Intended Nationally Determined Contributions (INDCs). In addition, there is a lack of clear coordination among different stakeholders in formulating policy and planning.

> "Only God knows who sets these targets and policies. Because we do not get the opportunity to analyze what resources we actually have or how much we are capable of doing. If someone from the high level simply says that meeting 40% of electricity demand from renewable sources is possible, and then the target is fixed at 40% without any research, how is this supposed to be implemented?"
>
> *— A key informant, 2025*

According to Power System Master Plan (PSMP) 2016, an ambitious and unrealistic projection was made for Bangladesh's electricity demand in 2041, estimating a peak demand of 61,681 MW. To achieve the target of 40% electricity generation from renewable and clean energy sources, Bangladesh would need to develop nearly 25,000 MW of renewable and clean-energy-based power projects which is around 20 times higher than the country's current power generation capacity.

2.3 Limitations and Challenges in formulating relevant laws and policies, and ensuring compliance

2.3.1 Renewable Energy Policy, 2025[27]

The Government of Bangladesh first introduced a Renewable Energy Policy in 2008, formally committing to expand renewable power generation with the goal of achieving 10% of electricity from renewables by 2020, a target that was not met. In June 2025, the government introduced (and gazetted) the Renewable Energy Policy 2025, setting a new direction for the country's renewable energy strategy.

Important elements of the policy

Some important elements of the 'Renewable Energy Policy, 2025' (with section numbers) are mentioned here as follows:

- The focus of the Renewable Energy Policy, 2025 is to accelerate the adoption of renewable energy resources, advance the RE market development in the country through resources, technologies, and capacity development, thus facilitating GoB in meeting the RE target specified in IEPMP, Delta Plan 2100, and any other Climate-related plans or milestones set thereafter (Preamble 1.1)
- "Green Energy" means energy produced from renewable sources that do not emit or close to zero emit greenhouse gases, such as solar, wind, and hydroelectric power. In addition, "Green Hydrogen" means hydrogen produced using renewable energy, with applications in energy storage, transport, and industry (Definition 1.2).
- The scope of this policy extends to all available RE resources connecting Solar, Onshore/Offshore Wind, Geothermal, Biomass, Biogas, Green Bio-fuels, Waste to Energy (WTE), Hydro, Ocean/Tidal Waves, Green Hydrogen, and all kinds of Hybrids thereof (Scope of the policy 1.3).
- To scale up RE capacity for ensuring energy security, contributing to the RE targets, and reducing the dependency on fossil fuels in the country. To safeguard the environment by increasing the share of "Green Energy" in the overall energy mix (Objectives 2.2).
- SREDA has been established under the SREDA Act 2012, as a nodal agency for the development & promotion of sustainable energy comprising renewable energy & energy efficiency. The Power Division of the MPEMR is responsible for overall policy formulation, execution, and development functions of RE through SREDA (Legal and Institutional Frameworks 4.0).
- SREDA shall develop the RE Roadmap/Implementation plan within a time frame based on this policy (General Policy Measures & Supporting Arrangements 5.1.1).
- The project developer will have to make connectivity with the distribution/transmission network (if needed) maintaining its standard subject to consent from the related transmission

[27] Renewable Energy Policy, 2025, Retrived from: https://powerdivision.portal.gov.bd/sites/default/files/files/powerdivision.portal.gov.bd/page/f6d0e100_e2d8_47e7_b7cd_e292ea6395d3/The%20Renewable%20Energy%20Policy%202025%20%28Gazette%29.pdf access on: 20 September 2025

utility, distribution utilities and connected authorities (General Policy Measures & Supporting Arrangements 5.1.8).

- The Government will develop RE Hub in suitable locations of the country (Promotion of Utility Scale Renewable Energy Project 5.2.2).
- In general, the Government shall select the private developer through transparent competitive bidding for developing the RE projects. In this case, in consultation with the BPDB, PGB, and SREDA shall routinely announce new capacity requirements, after confirming the interconnection commitments from the relevant entities (Promotion of Utility Scale Renewable Energy Project 5.2.3).
- The Government may develop a guideline to implement projects under Government-to-Government (G2G) frameworks, Public Private Partnership (PPP) modality, and Government-owned companies (Promotion of Utility Scale Renewable Energy Project 5.2.4).
- The government may introduce open access power transmission from remote RE projects to industry/commercial establishments subject to the availability of grid/distribution network capacity. Power Division/nominated authority will develop the necessary guidelines (including network study procedure) and maintain the open access application to clearance procedure (Promotion of Utility Scale Renewable Energy Project 5.3.8).
- The Government will promote the solarization of existing grid-connected Irrigation pumps and diesel pumps (Promotion of Solar Irrigation 5.4.1).
- SREDA will develop a business model for operating solar irrigation pumps to utilize their capacity beyond the irrigation seasons (Promotion of Solar Irrigation 5.4.2)
- RE plants for charging the EVs/Batteries can be with or without energy storage (Promotion of Renewable Energy for Charging Electric Vehicles and Battery Swapping Stations 5.5.3)
- The Government will allocate the water body on a long-term lease/rental basis for the development of Floating Solar projects and for the sale of energy to utilities or urban local bodies without compromising the growth and potentiality of the aquaculture, capture fisheries, and navigation. The non-leasable areas like Rivers, Canals, Ocean, Haour-Baor, etc. could be reviewed from time to time by the National River Conservation Commission as per national interest considering all aspects (Promotion of Floating Solar Projects 5.6.2).
- Land availability of RE project is very limited in Bangladesh. The government needs to consider the idea of doing a land study that identifies options for land use for utility scale renewable energy. The study should include the benefits of using public land, identifying land that might have no agricultural value, and understanding the advantages of designating zones for renewable energy projects (Land 6.6)
- To promote RE in the power sector, RE technology development industries and project developers, both in the public and private sectors, will be fully exempted from corporate income tax for 10 years and partially exempted for the next 5 years (3 years at 50% and the next 2 years at 25%) where the projects will be commissioned between 1st July 2025 and 30th June 2030 (Financial Incentives 8.2.2).
- Easiness' of Environmental Clearance Procedure for RE projects (Environmental Issues 14.2).
- Bangladesh plans to increase the share of renewable energy in two phases: the first phase, up to 2030, aims for 20%, and the second phase, up to 2041, targets 30% of total electricity generation (Target 17.0)

Limitations and Challenges

In 1.1, the Preamble Section mentions the fulfillment of goals under the IEPMP, Delta Plan 2100, and other climate-related plans. However, it does not refer to the commitments and targets for carbon reduction under the Intended Nationally Determined Contribution (INDC) and the Paris Agreement. As a result, there is a risk that the desired carbon emission reduction targets under the INDC and the Paris Agreement will not be achieved.
Section 1.2 (Definitions) describes 'Green Energy' as energy produced from renewable sources and 'Green Hydrogen' as hydrogen generated using renewable energy. However, Section 1.3 (Scope of the Policy) classifies Waste-to-Energy (WTE) and Green Hydrogen as renewable energy resources, even though neither waste nor green hydrogen is naturally replenished. WTE can also emit carbon and pose health risks. Such misclassification may lead to the promotion of environmentally or economically harmful projects, misallocation of resources, and public confusion.

Although in Section 2.2 'Objectives', 'RE Targets' are mentioned, they are not based on IEPMP, Bangladesh Climate Prosperity Plan (BCPP), INDC or any other specific target, and it is not clear whether 'green energy' also refers to 'nuclear energy'. As a result, there is a possibility of misinterpretation as the definition of 'RE Targets' and the issues included in it are not clearly mentioned in the policy. In addition, this section also mentions reducing electricity costs, expanding renewable technology, and ensuring energy security but does not specify implementation mechanisms, inter-ministerial coordination, or investor incentives.

Section 4.0 "Legal and Institutional Framework" states that the Power Division has the overall responsibility for formulating and implementing policies related to the power sector by coordinating with relevant agencies, authorities and utilities including SREDA to achieve policy objectives. However, no clear guidelines have been given regarding inter-institutional coordination. In such a case, in the absence of an outline of inter-institutional coordination and guidelines in this regard, there is a possibility of creating confusion and conflict in the implementation of the policy. Similarly, guidelines have been given on the responsibilities and roles of the relevant institutions, but no guidelines have been given on the main authorities responsible for 'audit', 'monitoring' and 'grievance redressal' in renewable energy related activities and their responsibilities and roles. The lack of clear authority and roles for 'audit', 'monitoring' and 'grievance redressal' may lead to weaknesses in monitoring the progress of the policy, ensuring quality and resolving complaints.

The expansion of renewable energy is mentioned in various parts of the policy including Section 5.0 "Programme and Project Development", however no definition of the term 'expansion' has been given. Moreover, no clear guidance has been given on what kind of initiatives will be taken in the production and expansion of renewable energy, what incentives will be provided, through whom and through what process. As a result, there is a risk of slowing down the pace of achieving the goal due to the ambiguity in the definition of 'expansion', the type of initiatives and the incentive process.

Section 5.1 “General Policy Measures and Supporting Arrangements” states that while a time frame has been set for the preparation of a roadmap or implementation plan, no time-bound guidance has been given on the timeframe within which it should be prepared after the final approval of the policy. As a result, there is a risk that the achievement of the renewable energy generation target will not be accelerated due to the lack of a specific time frame for the preparation of a roadmap or implementation plan. Although SREDA was given the responsibility of formulating the roadmap/implementation plan, no guidance was given on the methodology and stakeholder involvement (especially the involvement of private sector stakeholders) in this process. At the same time, there is a lack of clear guidelines on what information project developers must provide regarding their projects and power generation to ensure accountability.

Section 5.2 “Expansion of Utility Scale Renewable Energy Projects” states that although a ‘renewable energy hub’ is to be established, no time frame has been set and no guidance has been provided on private-public participation or stakeholder engagement. This may result in the possibility of delaying the establishment of the renewable energy hub and the risk of limiting investor interest and participation. In addition, although it is said that the SREDA will regularly announce new capacity requirements in coordination with BPDB and PGB, it is not clear how and through what process this will be done, which may create a risk of delay in the process of announcing new capacity. Moreover, although there is a directive to formulate a guideline on “Expansion of Utility Scale Renewable Energy Projects”, there is ambiguity about the responsible institution and the role and responsibilities of the SREDA as a nodal agency are not clearly mentioned, which may create confusion in the implementation of the policy. Section 5.3 “Projects for Residential/Commercial/Industrial Customers” mentioned ‘Open Access Power Transmission’ from renewable energy projects to industries, but no instructions have been given regarding proper research and experimental transmission before launching this process and no specific mention has been made of which government agency will work on this issue. As a result, the experimental transmission is time-consuming and there is a risk of further delay in this process due to the ambiguity about the responsible agency.

In Section 5.4 “Expansion of solar irrigation” no regulations regarding taxes, tariffs, credit facilities and management of groundwater use are mentioned. At the same time, no instructions have been given on how solar irrigation will be regulated and operated. There is a risk that the expansion of solar irrigation activities will be hampered due to the lack of regulations and administrative guidelines. Section 5.5 “Electric vehicle charging and battery replacement” mentions the establishment of electric vehicle charging and battery replacement stations using renewable energy, but no clear instructions have been given regarding taxes, tariffs, credit facilities and the regulatory institution. As a result, the risk of confusion of responsibilities and delay in implementation may arise due to the unspecified regulatory institution.

Although Section 5.6 “Expansion of Floating Solar Projects” states that water bodies are to be allocated for the construction of floating solar projects, nothing has been mentioned about the involvement, responsibilities and roles of the Department of Haor and Wetland Development and the Department of Environment as important institutions in this process. As a result, there is a possibility of environmental risks in the implementation of these projects.

In Section 6.0 “Land”, the instructions to consider social and environmental aspects in land allocation for the development of renewable energy projects have not been properly mentioned. As a result, ignoring these aspects in land allocation may create food security and environmental risks. Moreover, the use of the phrase in 6.6, ‘using public land’ has created an opportunity to legitimize government power and intervention in any land acquisition, which may increase the risk of misinterpretation and legal complications.

Although Section 8.2 “Financial Incentives” mentions various incentives for the corporate sector, including exemption from VAT, import duty and income tax on the import of renewable energy equipment and raw materials, no such benefits are mentioned at the consumer level. As a result, there is a risk of reducing investment and entrepreneurial interest in ‘net metering’ and ‘solar irrigation technology’ at the household level.

In Section 14.0 “Environmental Issues”, instructions have been given to ‘simplify the environmental clearance process for renewable energy projects’, the use of the word ‘simplification’ here may create opportunities for abuse in the environmental clearance process and may pose risks in ensuring transparency and accountability.

Section 17.0 “Targets” sets a renewable energy target of 20% by 2030 and 30% by 2041. However, this target is not based on the target of 100% renewable energy generation by 2050 or specific targets in other policies and plans such as IEPMP, BCPP and INDC. In addition, there is no guidance on the 'renewable energy mix' i.e. no estimate has been made as to what percentage of energy will be produced from which renewable energy source. As a result, there is policy ambiguity in electricity generation from renewable energy and there is a risk that the actual progress towards achieving the target of renewables in the ‘fuel mix’ remains uncertain.

2.3.2 Integrated Energy and Power Master Plan (IEPMP), 2023[28]

The Integrated Energy and Power Master Plan (IEPMP), 2023, does not clearly provide an effective plan for transition to renewable energy. Advanced technologies such as nuclear, carbon capture and storage units, hydrogen and ammonia have been given priority over renewable energy as clean energy. Such technologies (hydrogen and ammonia) are comparatively new and the efficiency level of reducing emissions has not been tested appropriately.[29] Of the 40% clean and renewable electricity generation target for 2041, only around 10% is allocated to renewable energy, whereas the remaining 30% is expected to come from other clean-energy technologies.

In Section 1.0 “Background and Purpose”, the commitment of 40 per cent from renewable energy has been shifted to up to 40 per cent from clean energy, which includes nuclear, hydrogen, ammonia, carbon capture and storage. This has resulted in a limited share of renewable energy and inconsistency with the original commitment. This type of shift in the usage of jargon and definition

[28] Integrated Power and Energy Master Plan (IEPMP) 2023, Retrived from: https://powerdivision.portal.gov.bd/sites/default/files/files/powerdivision.portal.gov.bd/npfblock/IEPMP_Report_2023.pdf access on: 11 September 2025

[29] Working paper: Advanced Technologies for Clean Energy in IEPMP, CPD, Retrived from: https://cpd.org.bd/resources/2024/08/Advanced-Technologies-for-Clean-Energy-in-IEPMP.pdf access on: 10 September 2025

confuses and weakens the RE argument.[30] In addition, the lack of specific mention of the 'renewable and clean' target may lead to confusion and lack of coordination at the implementation stage. Although liquid ammonia import and hydrogen fuel supply system are planned in Section 5.7.3 "Hydrogen/Ammonia Fuel Supply System Master Plan", no carbon-intensity criteria are mentioned.

Moreover, no proposal has been included to make green certification mandatory for the use of hydrogen and ammonia and to set carbon-intensity limits. As a result, there is a risk of environmental risks arising from the lack of carbon-intensity criteria in this sector. Section 6.2.3 "LNG Import Plan" has planned Matarbari as the LNG import terminal, which creates potential risks to energy security. The emphasis of this plan on fossil fuels and import dependence may also increase environmental risks. Section 5.3.3 "Nuclear Energy" plans to implement the expansion of nuclear energy in a phased manner and sets a target of generating 4.8-7.2 GW of electricity from nuclear energy by 2050. However, the plan does not provide clear guidance on nuclear safety and waste management, which creates the possibility of nuclear safety being compromised. Section 7.1 "Electricity System Development" shows that investment in solar and other renewable energies is relatively low compared to fossil fuels. At the same time, the allocation for renewable energy and grid modernization in the investment framework is also insufficient, which may hinder sustainable energy transition in the long term.

2.3.3 Bangladesh Climate Prosperity Plan (BCPP), 2022[31]

Section 6A "Effective use of renewable energy, increasing energy efficiency and developing energy storage infrastructure" mentions the target of generating electricity from 40% renewable energy by 2041 and 100% by 2050, but a step-by-step implementation plan or roadmap is missing. The lack of a plan or roadmap is likely to limit the implementation of the target. In addition, emphasis has been placed on on ambitious and emerging technologies such as offshore wind, Bay of Bengal Giga Array, green hydrogen, tidal power and ocean thermal energy conversion, they are technologically advanced and currently remain highly hypothetical in Bangladesh's existing infrastructure and investment context. As a result, there is a risk of increasing dependence on international financing and technology transfer. Although an investment of $10 billion has been mentioned, there is no specific plan on what its source will be or how the financing will be organized, which makes the implementation of the target risky. Although the failure to meet the targets set in the Renewable Energy Policy 2008 and the 8th Five Year Plan has been acknowledged, the reasons for this failure and how the current plan intends to overcome it have not been analyzed and specified. As a result, the lack of analysis of the reasons for the previous failure creates the possibility of repeating the same challenges.

[30] Integrated Power and Energy Master Plan (IEPMP) (Interim Report) A review from clean energy perspective, CPD, Retrived from: https://cpd.org.bd/integrated-energy-and-power-master-plan-iepmp/ access on: 11 September 2025

[31] Bangladesh Climate Prosperity Plan (BCPP) 2022, Retrived from: https://moef.portal.gov.bd/sites/default/files/files/moef.portal.gov.bd/publications/f6c2ae73_30eb_4174_9adb_022323da1f39/Mujib%20Climate%20Prosperity%20Plan%202022-2041.pdf access on: 22 September 2025

On the other hand, in Section 6B "Modernization of the grid and ancillary markets for sustainable capacity building", a plan has been made to convert fossil fuel-based power plants into biomass, waste-to-fuel and green hydrogen production plants through the "Energy Hub" without verifying and confirming the technical, economic and social feasibility. The implementation of this plan requires huge finance to convert fossil fuel-based facilities into biomass, waste-to-fuel and green hydrogen production infrastructure, which is economically risky.

2.3.4 Electricity Act, 2018[32]

Article 4 "Development of the power sector" states that the government shall take necessary measures for the reform, development, introduction of advanced technology and purchase and sale of power generation, transmission, supply and distribution systems and related works. Article 5(1) and (2) "Establishment of independent system operator" states that in order to operate the power system in an integrated manner, the government shall, in accordance with the prevailing laws and rules and regulations, establish an independent system operator by notification in the official gazette. The independent system operator shall monitor, schedule and dispatch the power flow in the prescribed manner and allocate the load on the basis of fairness as per the needs of the distribution organization or company. However, while Articles 4 and 5 of the Electricity Act, 2018 emphasize sectoral development and system operation, they do not provide any specific guidance on the generation, transmission, supply, or distribution of electricity from renewable energy sources. This regulatory gap may hinder the planned and systematic expansion of renewable energy–based power generation and grid integration.

Article 9 "Repair of broken roads, railways, underground sewers, drains, tunnels" states that if any road, railway, underground sewer, drain, drain or tunnel is broken due to any construction work, the excavated area shall be immediately filled with soil, the fragments shall be repaired and the garbage shall be removed. While the provision addresses physical restoration following construction works, it does not include any explicit requirements related to environmental protection or mandatory environmental approvals. The absence of such safeguards may create environmental risks during project approval and implementation.

Article 12 "Compensation" states that if the licensee causes any damage, harm or inconvenience during the execution of any construction work, he shall pay compensation to the affected person or to the owner of the affected land for the land used for the construction of the electric tower in the manner prescribed by the rules. Although this provision addresses financial compensation for losses, it does not incorporate obligations related to the rehabilitation or resettlement of affected communities, thereby limiting the scope for ensuring comprehensive and rights-based rehabilitation.

Article 14(1) and (2) of "Land Acquisition" states that if any land acquisition is required by the licensee for the establishment of a power plant or substation, it shall be considered necessary in the public interest and the prevailing laws and rules shall be followed in the matter of land acquisition. If a licensed private company requires any land for the construction of a power plant,

[32] Electricity Act 2018, Retrived from: https://mccibd.org/wp-content/uploads/2021/09/Electricity-Act-2018_English.pdf access on: 20 September 2025

substation or connection line to a grid substation, the licensee may purchase land from the owner of the land concerned or acquire the land by following the prevailing laws and rules and regulations for land acquisition. However, Article 14 does not provide clear guidance on safeguarding the rights of local communities or ensuring their consultation during land purchase or acquisition. Moreover, the absence of specific provisions addressing additional land requirements and dispute resolution mechanisms for renewable energy projects—such as solar parks or wind power installations—creates scope for overlooking local interests and increases the risk of irregularities in land acquisition and purchase processes.

2.3.5 Bangladesh Environment Protection Act-1995[33]

According to Article 5 "Declaration of ecologically critical area", there is no clear guideline for demarcation; that is, there is no set criteria for how any type of environmental risk will be assessed, and when it will be declared. There is no specific criterion or standard for the government to declare a "critical situation" or "risk"; as a result, there is less transparency and specificity in decision-making. On the other hand, some areas have not been fully or sufficiently declared as "environmentally critical", and therefore the related restrictions are not being implemented.

According to Article 6(e) "Restrictions related to reservoirs", there is no clear definition and conditions regarding what kind of work can be done in "essential national interest", such as changing the category or filling up the reservoirs taking into account the national interest. In addition, there is less control and monitoring over grade change and filling; transparency and participatory process in decision-making by government institutions is low.

In Article 12 "Environmental clearance", the project work has been allowed to start with a locational clearance in the case of environmental clearance. As a result, there is an opportunity to obtain clearance through faulty or incomplete environmental surveys and the project implementation continues even in areas that are risky and dangerous for the environment and biodiversity. In many cases, projects are implemented despite not complying with the EIA conditions. Moreover, the objections of the institutions responsible for the protection of the environment, rivers and reservoirs, such as the Department of Environment or the River Commission, are ignored and there is a failure in the exercise of legal powers by these institutions, which reduces the effectiveness of environmental protection.

2.3.6 Bangladesh Energy Regulatory Commission Act, 2003[34]

According to the Bangladesh Energy Regulatory Commission Act, 2003, although Chapter 7 contains provisions related to tariff determination, the Feed-in Tariff model for the generation and sale of electricity from renewable energy is not clearly mentioned. As a result, uncertainty and complexity may arise in determining the tariff for electricity generated from renewable energy, which may reduce investor interest and hinder progress in the renewable energy sector.

[33] Bangladesh Environment Protection Act 1995, Retrived from: http://bdlaws.minlaw.gov.bd/act-791.html access on: 20 September 2025

[34] Bangladesh Energy Regulatory Commission Act 2003, Retrived from: http://bdlaws.minlaw.gov.bd/act-902.html access on: 20 September 2025

2.3.7 Quick Enhancement of Electricity and Energy Supply (Special Provisions) Act, 2010 (Repealed)*[35]

In the preamble of the Quick Enhancement of Electricity and Energy Supply (Special Provisions) Act, 2010, the background, rationale, and objectives behind the enactment of this law have been outlined. Under this Act, large and long-term projects that are neither environmentally friendly nor financially viable have been approved.

The Act cites the following as its background and justification: the acute shortage of electricity and energy in the country; the inability to rapidly increase power generation due to limited energy supply; disruptions to agriculture, industries, trade and commerce, and household activities caused by electricity and energy shortages; the failure to make investments as a result; and the adverse impact of inadequate power supply on economic growth, development targets, technological advancement, poverty alleviation programs, and agricultural production goals.

It is further mentioned that, considering the then-existing situation, resolving the power shortage urgently was essential, but doing so by following the regular laws was time-consuming. Ultimately, the purpose of formulating this law was to ensure uninterrupted supply of electricity and energy according to the needs of agriculture, industry, trade and commerce, and households. To that end, the law emphasized the need to take rapid and effective measures for increasing production, transmission, distribution, and marketing of electricity and energy, and, where necessary, to swiftly implement plans for electricity and energy imports and decisions related to the extraction and use of energy-related mineral resources.

Based on the above background and rationale, the Act was enacted for a period of four years to ensure quick electricity supply. Section 3 of the Act states that, nevertheless anything contained in the Public Procurement Act 2006 or any other related law, the provisions of the Quick Enhancement of Electricity and Energy Supply (Special Provisions) Act, 2010 shall prevail.

Section 9 further states that no question shall be raised in any court regarding the legality of any actions, projects, orders, or directives done or deemed to have been done under this Act.

Although the preamble and section 1(2) specify the duration of the Act, it was originally formulated in 2010 for four years to enable rapid power generation on a temporary basis. However, despite achieving surplus electricity generation, the Act has been extended three times and remains in force until 2026.

Under this Act, large and long-term projects with Independent Power Producers (IPPs) have been approved. Section 3 gives precedence to this Act over the Public Procurement Act 2006, resulting in allegations that, despite the presence of capable firms, contracts were awarded to a pre-selected group without following an open tendering process. Consequently, the risks of irregularities in procurement, contractor selection, work orders, and overall project implementation have increased.

[35] Quick Enhancement of Electricity and Energy Supply (Special Provisions) Act 2010, Retrived from: https://www.dpp.gov.bd/upload_file/gazettes/18893_67482.pdf access on: 21 September 2025
*Although this act has been repealed in 2024, however it is necessary to analyzed the loopholes of the legal framework due to maximum selected projects of this study were approved by this act.

Furthermore, the government has been compelled to pay excessive prices for purchasing electricity from unqualified companies, many of which have failed to begin generation on time, leading to increased expenditure in the energy sector and wastage of public funds.

Section 9 of the Act removes the jurisdiction of the courts, thereby barring any legal scrutiny regarding the legality of activities conducted under projects undertaken pursuant to the Act. As a result, there is no scope for legal action concerning violations of relevant laws, abuse of power, and lack of transparency and accountability in the implementation process.

Chapter Three: Governance Challenges

3.1 Challenges related to Capacity

3.1.1 Deficit in institutional capacity of BPDB

Bangladesh Power Development Board (BPDB), the sole GoB body mainly responsible for power generation, also oversees the implementation of renewable energy projects. Although BPDB implements projects through both public and independent power producers (IPPs) modalities, its institutional capacity gaps are evident in forecasting, planning, negotiating, and managing renewable energy initiatives.[36]

BPDB demonstrates institutional capacity gaps in conducting feasibility studies for government-led renewable energy projects, resulting in a heavy dependence on external consultants.[37] The organization also has limited capacity to effectively negotiate contract terms with IPPs, determine cost-reflective tariffs, and manage key aspects of project implementation.[38] As a result, BPDB has frequently entered into power purchase agreements (PPAs) with IPPs at relatively high tariffs.

Moreover, deficiencies persist in the execution and management of PPAs, including EPC contractor appointment, issuance of work orders, oversight of project implementation in accordance with contractual provisions, and assurance of the quality of completed works. BPDB further faces constraints in maintaining proper project expenditure records, submitting timely and accurate financial and technical reports, and ensuring compliance, monitoring, and follow-up actions.

> "Whether the government admits it or not, the excessive subsidies in fossil-fuel-based power generation and the massive wastage and looting of thousands of crores of *taka* in the name of 'capacity charges' have led to the institutional and financial deterioration of BPDB. The situation has worsened to the point that they have even lost the capacity to negotiate with the IPPs."
>
> — *A key informant, 2025*

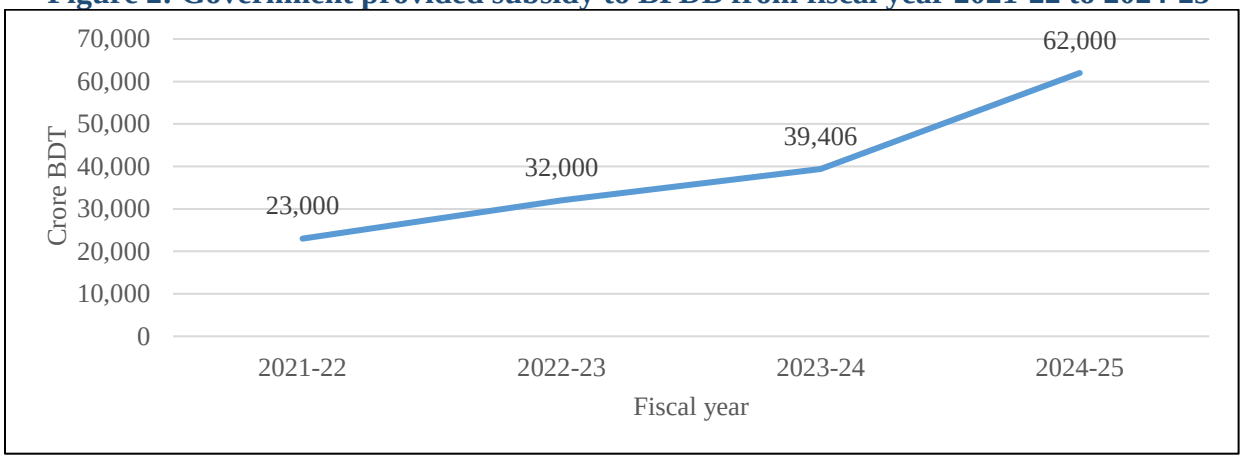
3.1.2 Deficit in financial capacity of BPDB

Due to the lack of adequate funding of BPDB, it is not possible to implement large-scale renewable energy projects in the public sector.[39] On the one hand, the financial condition of BPDB is deteriorating due to huge waste and looting in the name of 'capacity charge' in fossil fuel-based power generation and the burden of government subsidies is increasing every year, on the other

[36] Key Informant, BPDB, 22 December 2024
[37] Key Informant, BPDB, 22 December 2024
[38] Key Informant, SREDA, 13 January 2025
[39] Key Informant, BPDB, 22 December 2024

hand, there is a shortage in subsidies, incentives and financial allocation for renewable energy.[40] Moreover, the PDB's delay in paying bills to IPPs is reducing the confidence of foreign investors. In addition, considering the high risk in project implementation, investors are demanding high tariffs and tightening contract terms, which is further hindering progress in the renewable energy sector.[41]

Figure 2: Government provided subsidy to BPDB from fiscal year 2021-22 to 2024-25



3.1.3 Deficit in institutional capacity of SREDA

Despite being the nodal agency responsible for promoting renewable energy, the role of SREDA is largely confined to issuing policy directives, lacking the institutional framework, mechanisms, or capacity necessary for effective implementation.[42] SREDA lacks the necessary authority and institutional strength to influence high-level decisions effectively. In practice, the Renewable Energy Unit of the Bangladesh Power Development Board (BPDB) holds greater influence over key decisions on renewable energy development, resulting in SREDA playing a secondary role in sectoral policymaking. The agency is legally empowered to issue licenses only for small-scale power plants below 10 MW. [43]

Human resources are severely constrained. Despite the provision of a SREDA research cell, it is not possible to conduct effective research activities due to the lack of adequate manpower,[44] one member and a driver in research cell, resulting in limitations in providing policy guidance and no framework for implementation with minimal research capacity. While the policy aims for the establishment of a "Renewable Energy Hub," SREDA has no offices at divisional, district, or regional levels. Despite the nationwide implementation of renewable energy projects, the shortage of personnel has limited SREDA's operational effectiveness. Furthermore, the organization lacks

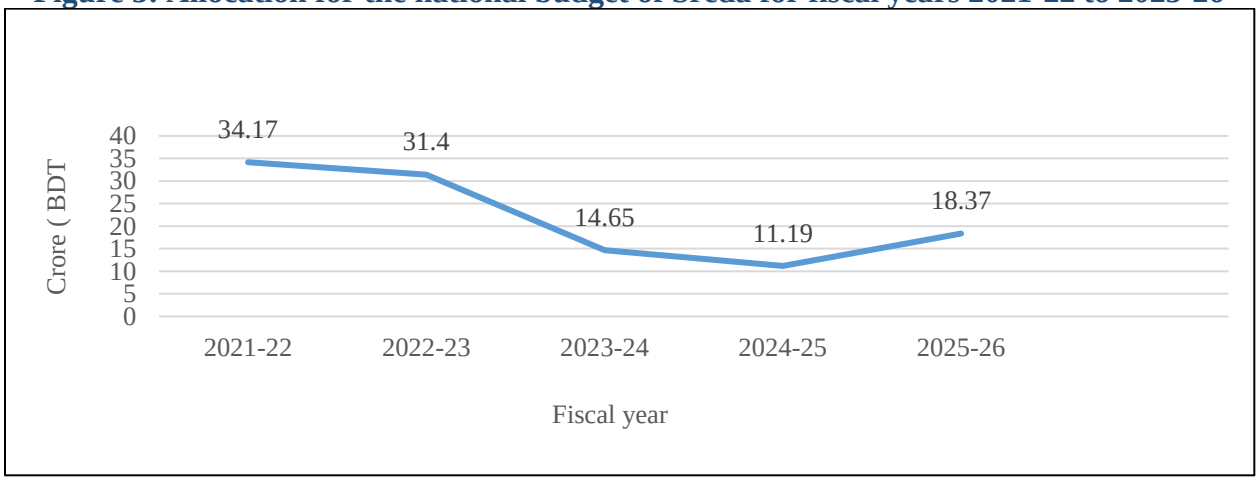
[40] Time to pull the plug on power, energy subsidies, CPD, Retrived from: https://cpd.org.bd/time-to-pull-the-plug-on-power-energy-subsidies/ access on: 8 August 2025
[41] Key Informant, Independent Power Producer, 12 January 2025
[42] Key Informant, Power Division, 16 April 2025
[43] Power and Energy Sector Reform Agenda for the Interim Government (2024), CPD, Retrived from: https://cpd.org.bd/resources/2024/08/Paper_Power-and-Energy-Sector-Reform-Agenda-for-the-Interim-Government_first-draft.pdf, access on: 19 October2025
[44] Key Informant, SREDA, 13 January 2025

the capacity to maintain a comprehensive database on the country's renewable energy potential, grid load, and environmental impacts.

3.1.4 Deficit in financial capacity of SREDA

While the government continues to make various commitments to promote renewable energy, the financial allocation for SREDA has shown a declining trend in recent years. As illustrated in Figure 4, SREDA's allocation in the national budget decreased from BDT 34.17 crore in FY 2021–22 to BDT 31.4 crore in FY 2022–23, followed by a sharp drop to BDT14.65 crore in FY 2023–24 and further down to BDT 11.19 crore in FY 2024–25. Although a slight increase is projected to BDT 18.37 crore in FY 2025–26, the overall trend indicates a significant reduction in budgetary support despite the government's stated renewable energy objectives.[45]

Figure 3: Allocation for the national budget of Sreda for fiscal years 2021-22 to 2025-26



3.1.5 Deficit of capacity of other relevant institutions

Other relevant institutions in the renewable energy sector face significant structural and operational limitations, with capacity gaps.

The 2023 amendment to the BERC Act, which introduced Section 34(A) (now repealed), significantly weakened the institutional capacity of the Bangladesh Energy Regulatory Commission (BERC).[46] Although the Bangladesh Energy Regulatory Commission (BERC) is legally mandated to regulate power sector tariffs, in practice its authority has been severely constrained during the previous government. During this period, BERC has had almost no effective control over tariff-setting for electricity generated from either fossil fuels or renewable energy. BERC was also been excluded from the setting the terms and conditions of Power Purchase Agreements (PPAs).[47] Instead, the authority to determine prices and contractual terms rested unilaterally with the Ministry of Energy.

[45] National Budget (FY 2021- FY 2025)
[46] Shampratik deshkal (2024), Retrived from: https://www.shampratikdeshkal.com/law-court/168320 access on: 24 October 2025
[47] Key Informant, Bangladesh Energy Regulatory Commission, 18 December 2024

On the other hand, due to manpower and logistical constraints at the local level, the Department of Environment (DoE) has been unable to effectively conduct EIA assessments, issue environmental clearance certificate, and ensure proper environmental monitoring in project areas.[48]

Concerns have been raised regarding the limited capacity of Bangladesh Customs officials to effectively identify and verify emerging renewable energy technologies and related products. The lack of expertise in identifying solar products and the absence of advance directives in the Bangladesh Customs also leads to delays and harassment in importing new technologies or materials.[49]

Despite the mandatory requirement for renewable energy projects to obtain insurance through the government's insurance corporation Sadharan Bima Corporation (SBC), there are allegations regarding poor service quality, delays in payment of compensation, and allegations of bribery.[50]

3.1.6 Lack of technical capacity in project implementation

Bangladesh has to rely on imported technologies to implement renewable energy projects due to the lack of its own technical capacity. Most of the essential components such as solar panels, inverters, controllers, batteries, mounting structures, wind turbine blades, towers, nacelles, and associated control systems have been imported from abroad because they are not manufactured domestically.[51] Moreover, there is no specific national code or guideline in Bangladesh for the civil foundation design required for wind turbines, which poses a significant challenge for project development. Foundation costs are also relatively high, particularly in coastal regions due to weak soil conditions. The absence of standardized codes or engineering guidelines increases the design and construction expenses during project implementation.[52]

In addition, due to the unavailability of reliable renewable energy resource mapping data, power producers have to procured data from foreign companies for solar and wind resource assessments. One of SREDA's core mandates is to assess renewable energy potential and conduct nationwide resource mapping, especially for solar and wind. In practice, however, SREDA has not been able to generate or provide adequate resource data. Due to the unavailability of reliable information from SREDA, the data had to be procured from foreign companies.[53]

In addition, smart grid and energy storage technologies, which are essential for ensuring a large contribution of renewable energy to the energy mix, have not yet been implemented in Bangladesh, which is slowing down the progress of this sector.[54]

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[48] Key Informant, Divisional Office, Department of Environment, 2 January 2025
[49] Key Informant, Independent Power Producer, 29 January 2025
[50] Key Informant, Independent Power Producer, 6 February 2025
[51] Resource Nationalism in Energy Transition: What It Means for Bangladesh , BIPSS Commentary, Retrived from: https://bipss.org.bd/pdf/Resource%20Nationalism%20in%20Energy%20Transition_Zoheb%20Ahnaf%20Tibro.pdf access on: 17 November 2025
[52] Key Informant, Independent Power Producer, 6 February 2025
[53] Key Informant, Independent Power Producer, 6 February 2025
[54] Key Informant, Independent Power Producer, 9 February 2025

3.1.7 Infrastructural deficits in the renewable energy sector

Solar power plants require significant amount of land. For instance, A 1 MW solar power plant typically requires around 3-4 acres of land.[55] Shortages in securing suitable land for renewable energy power plants create significant complications in project implementation. In particular, problems are being created due to the government not allocating the necessary land for IPPs in the implementation of ground-based solar projects as fossil power plant. For fossil power plant (like coal and gas) as per Private Power Generation Policy 2018, the plant sites will be selected by GOB in consultation with the investor/project sponsor. However, for Renewable energy projects (like solar and wind) IPPs are frequently instructed to arrange land on their own, while government support in facilitating land acquisition remains inadequate. As a result, many projects face delays, and in some instances, project agreements have been cancelled.[56] In some cases, the risk of displacement for local communities is being created.

Furthermore, the requirement to establish projects within a specified radius of designated grid substations creates additional challenges for IPPs in securing appropriate land. This situation increases land demand and prices in those areas, encourages the influence of land brokers and middlemen, and disrupts timely project implementation.[57]

Renewable Energy Sector also faces infrastructural deficits of adequate automated grids. due to the lack of adequate automated grids, cloudy weather or reduced wind flow disrupts renewable electricity production.

At the same time, urban residential buildings often have restricted or shared rooftop areas, limiting the potential size of solar installations. They also show reluctance toward adopting net metering due to restrictions on the use of building roofs, increased maintenance costs and lack of cooperation from the utility company.[58]

3.1.8 Challenges in mobilizing finance for renewable energy in line with policy

Moving the necessary finance for the renewable energy sector in line with policy remains a major challenge. As per NDC (2021), Bangladesh has committed to unconditionally reducing GHG emissions would be reduced by 27.56 Mt CO_2e (6.73 %) below business-as-usual (BAU) by 2030 in the respective sectors. In the conditional scenario, GHG emissions would be reduced by 61.9 Mt CO_2e (15.12 %) below BAU by 2030 in the respective sectors.[59] However, the progress in implementing this target is very slow. There is a gap in implementing the relevant projects and unconditional investment of an estimated US$ 2,027 million to meet the renewable energy production target set in the NDC for the purpose of reducing carbon emissions. Similarly, no clear

[55] Roadmap and Action Plan for Implementing Bangladesh NDC, Ministry of Environment, Forest and Climate Change, Retrived from: https://moef.portal.gov.bd/sites/default/files/files/moef.portal.gov.bd/page/ac0ce881_4b1d_4844_a426_1b6ee36d2453/NDC%20Roadmap%20and%20Sectoral%20Action%20%20Plan.pdf access on: 22 November 2025

[56] Key Informant, BPDB, 26 December 2024

[57] Key Informant, Independent Power Producer, 31 December 2024

[58] Key Informant, DESCO, 24 April 2025

[59] Nationally Determined Contributions 2021 Bangladesh, Retrived from: https://www.undp.org/bangladesh/publications/nationally-determined-contributions-2021-bangladesh access on: 12 August 2025

framework has been formulated to mobilize the estimated US$ 5,006.5 million for implementing renewable energy production activities subject to availability of funds.[60] In addition, no strategy or framework has been developed to mobilize the necessary funds to achieve the target set in the Renewable Energy Policy 2025, which is creating a major constraint in implementation. According to estimates, a maximum of US$980 million (approximately Tk 11,564 crore) per year will be required until 2030 and a maximum of US$1.46 billion (approximately Tk 17,280 crore) per year from 2030 to 2041.[61] However, there is a lack of specific and time-bound guidance for mobilizing this large amount of fund.

3.1.9 Lack of investment in renewable energy projects

Bangladesh continues to face significant challenges in expanding renewable energy due to the absence of a robust financing and investment framework. Although national plans and policies highlight commitments to renewable energy, there is no dedicated long-term financial mechanism to support large-scale renewable energy development. Unlike fossil-fuel projects, renewable IPPs do not have a dedicated tariff-setting framework. There is no Feed-in Tariff (FiT) mechanism for renewable energy projects, and in the absence of a structured policy, tariffs are determined through case-by-case negotiation. This creates uncertainty for investors and limits transparency and predictability in pricing.

In several cases, international development partners such as the Asian Development Bank (ADB) and the World Bank have invested considerable time in feasibility studies, consultancy processes, and research on renewable energy projects; however, effective government initiatives to accelerate financing and implementation remain limited.[62] The role of the public sector has been limited as international development partners are more interested in investing in the private sector than in the public sector. On the other hand, although the government's plan is focused on IPP-based projects, an attractive incentive package for RE projects has not been created to attract them.[63] Fossil fuel-based power plant enjoys much more fiscal incentives than RE. Any fossil fuel-based power plant shall be exempted from corporate income tax for a period of 15 years and exemption from income tax in Bangladesh for foreign lenders to such companies. The companies will be allowed to import plant and equipment and spare parts up to a maximum of 10% of the original value of total plant and equipment within a period of 12 years of Commercial Operation without payment of customs duties, VAT (Value Added Tax) and any other surcharges as well as import permit fee except for indigenously produced equipment manufactured according to international standards.[64] In contrary, before FY 2025-26, the customs duties imposed on solar accessories are significantly

[60] Nationally Determined Contributions 2021 Bangladesh, Retrived from: https://www.undp.org/bangladesh/publications/nationally-determined-contributions-2021-bangladesh access on: 12 August 2025
[61] Private investment key to unlocking Bangladesh's renewable energy ambitions, Retrived from: https://ieefa.org/articles/private-investment-key-unlocking-bangladeshs-renewable-energy-ambitions?utm access on 20 October 2025
[62] Key Informant, BPDB, 26 December 2024
[63] Key Informant, IDCOL, 22 April 2025
[64] CPD's Recommendations for the National Budget FY2025-26, Retrived from: https://cpd.org.bd/resources/2025/03/IRBD-FY25-2nd-Reading-Paper.pdf access on: 20 September 2025

higher. For example, inverters were subject to around 38% customs duty, and mounting structures face approximately 58.6%, which substantially increases the overall cost of solar projects.[65]

Although, interim government has expanded the tax exemption from 10 years to 15 years for RE based power plant, the government's decision to discontinue issuing sovereign guarantees for privately-owned power plants has reduced investor confidence and discourage foreign direct investment (FDI) in the power generation sector, particularly in renewable energy projects where perceived risks are already high.[66] The situation became more complicated when the interim government canceled the 'Letter of Intent (LOI)' of 31 unsolicited renewable energy projects with a capacity of 3,287 MW with foreign investment of about $6 billion, although in 15 of these projects, non-refundable investments including land purchase, tax payment had already been made and in 4 projects there was direct investment from foreign company, of which 2 were 100% owned by foreign companies.[67] These incidents have created a crisis of confidence among investors. Later, tenders were invited for 55 new projects, but foreign investors did not show interest due to the lack of a 'state guarantee'.[68] Absence of the Implementation Agreement (IA) and sovereign guarantees is the main hurdle to financing. Without IA, the power purchase agreements (PPA) lose bankability. The total number of tender submissions is very low compared to the number of tender documents sold. Out of a total of 55 packages, 22 packages received only a single bid, and 13 power plant packages did not receive any bids.[69]

In addition, although Bangladesh Bank has a 'refinancing' scheme, its practical use has been extremely limited due to the lengthy and complex process, and for extensive documentation.[70]

Despite the availability of an opportunity to install approximately 500 MW of floating solar power by utilizing the extensive infrastructure and reservoir area of the country's only hydropower plant, the initiative has not been implemented due to bureaucratic complexities and a lack of investment.[71]

[65] Key Informant, Independent Power Producer, 29 April 2025
[66] The financial express (January 2025), Retrived from: https://thefinancialexpress.com.bd/trade/policy-shift-likely-to-deter-foreign-investment-in-pvt-power-plants access on: 25 September 2025
[67] The Business Standard, Retrived from: https://www.tbsnews.net/bangladesh/energy/govt-cancellation-31-renewable-power-projects-ignored-hc-verdict-1056976 access on: 10 August, 2025
[68] The Business Standard, Retrived from: https://www.tbsnews.net/bangla/Economy/news-details-351456 access on: 10 August 2025
[69] Centre for Policy Dialogue (CPD). (2025). *Recent Procurement Initiatives of Renewable Energy under the Public Procurement Act and Rules: Findings from Enterprise Survey on Transparency, Accountability and Efficiency*. Retrieved December 2, 2025, from https://cpd.org.bd/resources/2025/12/Presentation-on-Recent-Procurement-Initiatives-of-Renewable-Energy.pdf
[70] Driving Bangladesh Bank's low-cost green refinance schemes (February 2025), Institute for Energy Economics and Financial Analysis (IEEFA), Retrived from: https://ieefa.org/resources/driving-bangladesh-banks-low-cost-green-refinance-schemes access on 10 October 2025
[71] Key Informant, Power Producer, 11 February 2025

3.1.10 Delays in renewable energy projects

Procrastination and bureaucratic complexity have become major obstacles in the approval and implementation process of renewable energy projects. The Power Division has consistently prioritized fossil fuel-based projects over renewable energy initiatives, reflecting an institutional mindset that remains heavily fossil-centric. According to experts and stakeholders, this bias is not merely procedural but also cultural and perceptual.[72] They often perceive fossil fuel generation as more reliable, profitable, and easier to manage compared to renewable sources. As a result, renewable energy projects are frequently delayed, underfunded, or given lower priority. In many cases, RE project approval takes 2 to 5 years and even after approval, the project cannot be implemented on time.[73] Approved projects frequently fail to be implemented on schedule, resulting in delays ranging from a minimum of 113 days to a maximum of 1,402 days, with an average delay of 908 days beyond the initial commercial operation date (COD) **(Table 7)**.[74]

Meanwhile, the interim government, canceled the 31 unsolicited renewable energy projects after a minimum of 120 days to a maximum of 1,760 days from the issuance of LOI.[75] Moreover, a total of 34 LOIs issued under the Quick Enhancement of Electricity and Energy Supply (Special Provisions) Act, 2010 have been cancelled, of which 31 were renewable energy projects and 3 were fossil fuel–based projects.[76]

In addition, the tender period of 55 new projects invited in the renewable sector has been extended from 1 to 5 times in each package, which more clearly reflects the complexity and delay in the implementation process.[77]

Table 7: Extension of renewable energy project duration (from COD)

Project Status	Days		
	Minimum	Maximum	Average
Ongoing Projects	**113**	**1402**	**908**

3.1.11 Lack of coordination across institutions and stakeholders

Lack of inter-institution coordination remains a significant barrier to the effective implementation of renewable energy projects in Bangladesh. Lack of alignment between key institutions such as SREDA, BSTI, the Power Division, BPDB, and other government bodies creates procedural confusion and slow decision-making. Power producers have expressed concern regarding weak coordination among SREDA and the Bangladesh Standards and Testing Institution (BSTI) in equipment certification combined with the absence of an online tracking system and lengthy

[72] The Business Standard (2020), Retrived from: https://www.tbsnews.net/bangladesh/energy/many-projects-little-progress-renewable-energy-117043 access on 16 September 2025
[73] Key Informant, BPDB, 22 December 2024
[74] Advancement of Power Sector, BPDB, Retrived from: https://bpdb.gov.bd/site/page/64a3fade-c8c4-4dc1-a76a-c42065a849d2/- access on: 18 October 2025
[75] Key Informant, BPDB, 31 August 2025
[76] Key Informant, BPDB, 31 August 2025
[77] The Business Standard (2025), Retrived from: https://www.tbsnews.net/bangladesh/energy/low-bids-persist-second-phase-solar-tender-1168441 access on 21 September 2025

manual procedures which delays project implementation.[78] In addition, local administrations and regional offices often operate with limited information-sharing mechanisms, resulting in poor synchronization.[79] Project developers also report challenges in coordination with distribution utilities and land management authorities, leading to delays in grid connectivity and land acquisition.

3.2 Challenges related to Transparency

It has been observed that none of the selected projects has disclosed various project related information, either pro-activity or on demand (see **Table 8**).

Table 8: Disclosure of information on demand or on its own initiative

Voluntary or Demand-Based Information Disclosure	Solar Projects								Wind Projects	
	Public			IPP					Public	IPP
	7.4 MW	100 MW	20 MW	200 MW	30 MW	100 MW	68 MW	35 MW	0.9 MW	60 MW
Publish the project DPP	X	X	-	X	X	X	X	X	X	X
ESIA/IEE Report	√	X	-	√	√	√	√	√	X	X
Information on Contract and Procurement Process	X	X	-	X	X	X	X	X	X	X
Information on Loan Rates and Terms	X	X	-	X	X	X	X	X	X	X
Profit Distribution and Income Tax on Profit	X	X	-	X	X	X	X	X	X	X
Providing accurate and complete information to local communities regarding land purchase/acquisition/lease	-	√	-	X	√	√	√	X	-	X
Audit reports including financial transactions	X	X	-	X	X	X	X	X	X	X
Regularly update project related information on information management and website	P	P	-	X	X	X	X	X	X	X

*Net metering solar power systems, private off-grid biomass projects and hydropower projects are not shown**.** "√=" Yes; "X" =No; "P" = Partial; "-"= Not Applicable

[78] Key Informant, Independent Power Producer, 29 April 2025
[79] Key Informant, Chittagong Hill Tracts Regional Council, 12 February 2025

3.3 Challenges related to Accountability

3.3.1 Lack of monitoring

During project implementation, there is a lack of adequate monitoring mechanisms and planning to address potential damage caused by construction activities. Waste management and environmental damages are not adequately monitored by the Department of Environment (DoE) at the field level. There is no effective oversight mechanism for monitoring environmental impacts related to dam construction, land filling, or river dredging. Monitoring remains largely limited to document review and consultancy reports, rather than direct measurement or on-site observation. Many projects begin construction with only site clearance, often without obtaining environmental clearance, yet no effective oversee exists to prevent such violations.

In numerous instances, implementing agencies occupy excessive public and private land in the name of project requirements. These activities are neither properly controlled nor monitored by the responsible authorities, including local land offices.

Additionally, objections raised by key regulatory bodies such as the National River Conservation Commission, the DoE, and the Water Development Board are frequently ignored by project authorities.

In the case of urban residential solar rooftop installations, weak monitoring and supervision by utility authorities have resulted in extremely low operational output. Although 48,000 rooftop solar systems were approved in Dhaka with an estimated generation capacity of 67 MW, only about 4-5 MW is currently active due to lack of oversight and performance tracking.

3.3.2 Deficits in auditing

The audit reports are not regularly updated on the website, which is creating problems in transparency and access to information. In some cases, the same organization is reappointed for annual audits, which raises questions of impartiality. For instance, in violation of Bangladesh Securities and Exchange Commission (BSEC) regulations prohibiting the continuous appointment of the same firm for more than three consecutive years, the same audit firm has been appointed for annual audits of a project for the past six years. Besides, this company raised Tk 2,138.85 crore to finance solar power plants by issuing asset-backed convertible bond but failed to comply with IFRS 9. In violation of regulations, an interest-free loan was provided from the project to a subsidiary company (contrary to IFRS 9 and the 2006 BSEC directive), but the fair value of the loan was not determined. This non-compliance was also not reflected in the audit report. Moreover, rental expenses related to a project were not reflected in the audited financial statements.[80] In addition, during the audit, explanations are not sought from the relevant authorities on how the allocated funds were spent. Although it is stated that annual audits of on-grid projects are conducted, the audit reports are not regularly updated or published on the website.

[80] The Business Standard (2024), Retrived from: https://www.tbsnews.net/economy/stocks/bsec-smells-irregularities-beximco-sukuk-1020271 access on 25 October 2025

3.3.3 Deficits in redressing complaint and resolution system

Local offices show reluctance to receive and resolve complaints from the affected people, deliberately delay and show non-cooperation, and harass the complainants. At the same time, there are allegations of intimidation and harassment of complainants against the local administration. There are allegations of patronage of corruption and irregularities committed by the project authorities from various levels of local public representatives and administration, and influence of influential people in influencing the judicial process. In addition, although land owners were harassed or sued in the case of land acquisition, no effective action was taken against these irregularities.

3.3.4 Challenge related to accountability in conducting environmental and social assessments

There are allegations that environmental and social surveys are not conducted by qualified subject-matter specialists; instead, a single individual often carries out the entire assessment, undermining both quality and objectivity. In some cases, feasibility studies are conducted hastily at the field level without sufficient time, resources, or methodological rigor, and are sometimes completed entirely through desk-based assessments without on-site verification.

The findings of Environmental and Social Impact Assessments (ESIA) are also not properly reflected in the conditions attached to environmental clearance. As a result, key risks, mitigation measures, and compliance requirements remain unaddressed. Furthermore, there are allegations that fabricated, incomplete, or company-aligned information is submitted in ESIA reports, yet these are still approved by the Department of Environment (DoE) without proper verification.

3.3.5 Lack of accountability in executing various contracts for project approvals

BERC has not been involved in the terms of the power purchase agreement (PPA) for the last 10 years. Although the purchase agreements for all public and private projects with BPDB are made in dollars, there is a lack of transparent and controlled mechanisms regarding pricing and exchange rates. Although the commercial operation date (COD) of power plants has been repeatedly extended, penalties provided for delays have not been imposed.[81] In addition, the interim government has canceled the letters of intent for 31 renewable energy projects that were approved without following the tendering process; however, investors have filed a writ petition in the High Court because the cancellation process is unclear.[82]

[81] Key Informant, Independent Power Producer, 31 December 2024

[82] The Business Standard (2025), Retrived from: https://www.tbsnews.net/bangla/%E0%A6%AC%E0%A6%BE%E0%A6%82%E0%A6%B2%E0%A6%BE%E0%A6%A6%E0%A7%87%E0%A6%B6/news-details-306686 access on 23 September 2025

"The corruption that has taken place in the power sector has been completely unchecked. There are also several examples of irregularities and lack of accountability in renewable energy projects. Every project has a COD date, and if the work is not completed within that date, the project is supposed to be cancelled. But in such cases, the project authorities approach the minister to get the project period extended. In return, financial benefits or other favors are offered to the minister. The minister then extends the project timeline for that specific project."

— A key informant associated with IPPs, 2024

3.3.6 Procurement and tendering process

Table 9: Procurement and tendering process

Types	Solar Projects							Wind Project
	Public		IPP					IPP
	7.4 MW	100 MW	200 MW	30 MW	100 MW	68 MW	35 MW	60 MW
Approval under Quick Enhancement of Electricity and Energy Supply (Special Provisions) Act, 2010	√	√	√	√	√	√	√	√
Project approval through agreement following the Standard Agreement Process	√	√	X	X	X	X	X	X
Project approval by preparing a complete DPP	√	√	X	X	X	X	X	X
Conclusion of various contracts as per the Public Procurement Act, 2008	X	X	X	X	X	X	X	X

*Net metering solar power systems, private off-grid biomass projects and hydropower projects are not shown. "√=" Yes; "X" =No

3.4 Challenges in ensuring Participation

3.4.1 Exclusion of experts and stakeholders in preparation of policy and planning

It has been observed that local experts were excluded from the preparation of the energy master plan. In addition, stakeholder engagement in the formulation of Renewable Energy Policy 2025 was insufficient. While draft policies typically provide 60 to 90 days for receiving public comments, stakeholders were given only 21 days to review the draft Renewable Energy Policy 2025 which had been under preparation for four years. Furthermore, no consultation meetings were organized after receiving stakeholder feedback, and the inputs provided by stakeholders were only minimally reflected in the final policy.

3.4.2 Not taking into account the opinions of local communities and stakeholders in the selection of project sites

Incorrect and misleading information about the project has been provided without any consultation with the local community before the project implementation. In addition, the appointment of local influential people as intermediaries in the purchase of land has led to the emergence of brokers and middlemen and the opinions of the local community have been ignored.

3.4.3 Lack of involvement of local communities in the environmental and social impact assessment studies (IEE, EIA and SIA)

In addition, there is a lack of involvement of local communities in environmental and social impact assessment studies (IEE, EIA, and SIA). The assessments did not capture the perspectives of local communities regarding environmental risks, damages, livelihoods, and resettlement resulting from the projects.

3.4.4 Failure to ensure the involvement of local communities and other stakeholders in determining compensation

In some cases, the determination of compensation for certain projects did not ensure the involvement of local communities, representatives of local government, and other stakeholders.

Chapter Four

Types, Extent and Causes of Irregularities and Corruption in Power Generation from Renewable Energy

4.1 Corruption in Project Approval

In Bangladesh's renewable energy sector, projects have predominantly been initiated as unsolicited bids (procurement process) since 2010, with private entities proposing solar projects for government approval, bearing full responsibility for land acquisition and obtaining the requisite permissions. Conversely, a minority of projects are solicited, where the government off-taker initiates the project development and arranges the funding and planning.[83] The majority of the solar IPP plants were approved through unsolicited processes. Both public and private companies obtained approval through this mechanism. The Act enables unsolicited bids and direct negotiations without competitive tendering, which has elevated contracted electricity prices, imposing a substantial burden on taxpayers and electricity consumers. No international standards were followed in determining tarrif. By misusing the Special Provisions Act, 2010, power purchase agreements were made at high tariffs, violating the 'merit order' based on personal relationships.[84] Moreover, power purchase agreements (PPAs) were set in U.S. dollars instead of local currency. As the value of the dollar rose, the cost of payments increased proportionally, placing additional financial burden on the government and consumers. **Table 10** shows the high tarrif rate of selected project. The average electricity tariff of the selected renewable energy projects in this study is $0.124 per kWh. In comparison, the average tariff in neighboring countries is significantly lower, $0.03 in India, $0.032 in Pakistan, and $0.045 in China **(Table 11)**. Thus, the tariff in Bangladesh is nearly four times higher than in these countries.[85]

As agricultural land is legally restricted for such development, in some cases collusion between project developers and local land administration officials, the land class changed to non agricultural though they are 3 crop-land.[86] In several cases, project developers also allegedly colluded with land office officials to inflate land valuation and register land at artificially high prices. Since the electricity tariff per unit is linked to overall project cost, overstated expenditures were used to justify abnormally high tariffs. Objections raised by the National River Conservation Commission, Department of Environment (DoE), and Water Development Board were ignored in case of several projects' approval. DoE officer of a project area reported that, despite the objections to illegal sand extraction for land filling, the project reportedly received approval following high-level political intervention.[87]

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[83] ACE (Anti-Corruption Evidence), SOAS. (2024). *Collusive Pricing in Solar Power in Bangladesh: Mapping Informal Processes and Corruption Risks (ACE Working Paper 049).* Retrieved from https://ace.soas.ac.uk/wp-content/uploads/2024/03/ACE-WorkingPaper049-BangladeshCorruptionMapping.pdf access on 25 August, 2025

[84] Key Informant, Power Division, 16 April 2025

[85] Bonik Barta (2024), Retrived from: https://www.bonikbarta.com/home/news_description/401461/BDT-3-to-4-in-India-Pakistan-about-BDT-11-in-Bangladesh access on 20 september 2025

[86] The Daily Observer (2018), Retrived from: Power plant being built on cropland in Manikganj access on 17 August 2025

[87] Key Informant, DoE, Divisional office, 2 January 2025

In another case, a project claimed to be jointly financed and implemented by Dubai- and China-based companies was found to have included the personal driver of the IPP's managing director as a fraudulent shareholder solely to secure approval and access financing.[88]

Table 10: Per unit electricity price of selected projects (dollar)

Types	Solar Projects						Wind Projects
	Public	IPP					IPP
	7.4 MW Project	200 MW Project	30 MW Project	100 MW Project	68 MW Project	35 MW Project	60 MW Project
Electricity price per unit (dollars)	**0.065**[89]	**0.15**[90]	**0.16**[91]	**0.138**[92]	**0.102**[93]	**0.13**[94]	**0.12**[95]

Table 11: Purchase price of solar power in different countries (dollar)

Country	Per unit (kWh) electricity price (dollar)
India	0.030
Pakistan	0.032
China	0.045
Bangladesh (average)	0.124

4.2 Irregularities related to Environmental Clearance

4.2.1 Public solar power project

100 MW Project

The 100 MW solar project in madarganj, Jamalpur by Rural Power Company Limited (RPCL) is currently under construction and is scheduled to begin operation in 2026 as per the Commercial Operation Date (COD). There has been no public disclosure of the Environmental Impact Assessment (EIA) report, despite the project being developed on 248 acres of *khas* land. Moreover, although the project site comprises three-crop agricultural land,[96] the Department of Environment

[88] The Country Today (2024), Retrived from: https://www.dailycountrytodaybd.com/story/massive-corruption-of-orion-group-in-power-sector-%3A-obaidul-karim-laundered-tk-4000-cr%2C-tk-5000-cr-taken-as-capacity-charge-without-generating-electricity?utm access on 13 August 2025
[89] PV Magazine (2019), Retrived from: https://www.pv-magazine.com/2019/03/20/bangladesh-to-complete-7-4-mw-of-solar-capacity-in-april/ access on 13 August 2025
[90] Daily Sun (2017), Retrived from: https://www.daily-sun.com/printversion/details/264318 access on 19 August 2025
[91] Key Informant, Independent Power Producer, 31 December 2024
[92] Key Informant, Independent Power Producer, 6 February 2025
[93] The Business Standard (2023), Retrived from: https://www.tbsnews.net/bangladesh/energy/bangladesh-china-power-company-ink-deal-68mw-solar-park-sirajganj-564974 access on: 19 August 2025
[94] The Prothom Alo (2021), retrived from: https://en.prothomalo.com/bangladesh/solar-power-plant-in-manikganj-starts-commercial-operation access on: 13 August 2025
[95] Key Informant, Independent Power Producer, 30 January 2025
[96] The Rising BD (2024), Retrived from: https://www.risingbd.com/bangladesh/news/578501 access on 10 September 2025

issued site clearance for the project. In addition, construction activities commenced prior to obtaining environmental clearance, only with site clearance.

4.2.2 IPP solar power projects

200 MW Project

The largest solar power project, Teesta Solar Power Limited, was developed on the Teesta river char area in Latshal under Pirgachha Upazila, Rangpur. The project was established by blocking the natural flow of the Teesta River and without conducting a proper river survey, which reportedly intensified riverbank erosion in the area. The project, covering approximately 1,000 acres of land.

Despite objections from the Bangladesh Water Development Board and without obtaining necessary approvals or expert hydrological assessments, construction began in 2017. The project was developed by leasing 650 acres of government land and purchasing around 950 acres of privately owned land. Furthermore, a 29-kilometre high-voltage transmission line was constructed from the project site to Rangpur city across privately owned lands. This was reportedly executed using administrative and police pressure.[97]

The environmental clearance certificate of the project was initially provided in the 'red category' due to damn construction, but later it was classified in the 'orange category'.

30 MW Project

The 30 MW solar project by intraco solar power limited is situated in kaliganj upazila of Lalmonirhat. The assessment of the risk of obstruction of water flow, river erosion and loss of resources due to the construction of a 2 km road inside the river has not been included in the EIA report.[98] The Department of Environment has granted the EIA approval despite the objections of the Water Development Board.[99] Due to the failure of the local administration and the Water Development Board to properly demarcate the river boundary with the project, the environmental clearance was later approved with conditions under pressure from higher levels of the government.[100] Despite the risk to the river and the environment, the environmental clearance has been granted in the 'yellow category.'

100 MW Project

The project is in Mongla Upazila in Bagerhat District developed by Energon Renewables Bangladesh Limited (ERBL). Despite a faulty EIA report, the Department of Environment has approved the EIA. Despite the existence of agricultural land in the project area, most of the land has been shown as 'bilan' or aquacultural land and the actual information on the rehabilitation of the affected people has not been included in the EIA report.

[97] The Jugantor, Retrieved from: https://www.jugantor.com/tp-lastpage/850762 , access on: 24 July 2025
[98] The Daily Star (2021), Retrived from: https://www.thedailystar.net/environment/natural-resources/water-resources/news/running-ramshod-across-the-river-2137126 access on 13 August 2025
[99] The Jugantor, Retrieved from: https://www.jugantor.com/tp-firstpage/454636 access on: 25 July 2025
[100] Key Informant, Department of Environment, Divisional Office, 2 January 2025

68 MW Project

The project is in Sirajganj Sadar Upazila in Sirajganj District developed by Bangladesh-China Renewable Energy Company Private Limited (BCRECL). It is alleged that despite the submission of a faulty EIA report, ECC has been issued by DoE. The EIA report shows the project area as barren and fallow land despite the existence of 3 crop agricultural land.[101]

35 MW Project

The solar project is situated in Shibalaya upazila, Manikganj district. Hundreds of bighas of land have been dredged and filled with sand before the EIA was completed and this activity has been started without the approval of the Land Department. Despite clear violations of the site clearance conditions resulting in environmental damage and increased riverbank erosion, the Department of Environment did not take any corrective action. In addition, the three-crop agricultural land has been mentioned as one-crop land in the EIA report. The environmental clearance has been given in the 'yellow category' ignoring the dredging activities and the risk of river erosion and the DoE has given the clearance despite the faulty EIA report.[102]

4.2.3 Public wind power project

0.9 MW Project (closed stage)

This project is situated in Muhuri, Feni. The project was not sustainable due to lack of sufficient wind. Without conducting a proper environmental feasibility study, DoE has given clearance to set up the project in an area with low wind flow.[103]

4.2.4 IPP wind power project

60 MW Project

The wind power project is situated in Khurushkul, Cox's Bazar. Initially, the Environmental Clearance Certificate (ECC) was issued under the Red Category, but it was later reclassified as Orange Category. During the construction of the power plant, there appears to be a lack of clarity regarding the potential environmental impact on the surrounding area. The Environmental Impact Assessment (EIA/IEE) was not publicly disclosed. Despite the absence of a no-objection certificate (NOC) from the Water Development Board, the Department of Environment granted clearance for project construction adjacent to the embankment. Furthermore, several conditions of the EIA approval were violated, including land filling for the project through illegal sand extraction.[104]

4.3 Additional Project Cost Estimates

Since the determination of the price of electricity per unit is related to the overall cost of the project, the irregularities in showing additional costs compared to the actual costs are clearly evident. According to BPDB, the average cost of setting up a solar power plant is typically 8 crore BDT per megawatt. Based on this estimate, the average cost of the six solar power plants covered by this study should have been 4,043 crore 20 lakh BDT. However, the actual total cost of these

[101] Sirajganj 68 MW (BCRECL) Solar ESIA report, Retrived from: https://www.energytransitionbd.org/resource/eia-documents Access on 25 August 2025
[102] The Daily Observer, Retrieved from: https://www.observerbd.com/news/166370?utm, access on 24 July 2025
[103] The Newsg 24, Retrievd from https://www.newsg24.com/bangladesh-news/141678//, access on 24 July 2025
[104] Key Informant, Department of Environment, Divisional Office, 30 January 2025

projects was 6,970 crore 8 lakh BDT **(Table 12**). The six projects incurred an average of 13.8 crore BDT per megawatt, more than 1.5 times the projected cost; collectively, these projects involved an excess expenditure of 2,926 crore 88 lakh BDT over the required amount. For public solar power plants, the average cost per MW was 15.04 crore BDT, while for IPP solar plants it was 13.46 crore BDT.

Even in some cases, despite the government projects being set up on its own land where there is no issue of land acquisition or lease the cost of setting up per megawatt has been shown to be 14.08 crore taka (1.81 million US dollars), which is significantly more expensive than other solar projects in the country.[105]

Table 12: Additional project cost estimates for the selected project

Type	Project	Required Fund (Tk)	Project Cost (Tk)	Additional Cost (Tk)
Solar Project (Public)	100 MW Project (Under implementation)	800 Crore	1511 Crore	711 Crore
	7.4 MW Project	59 Crore 20 Lakh	104 Crore 23 Lakh	45 Crore 3 Lakh
Solar Project (IPP)	68 MW Project	544 Crore	947 Crore	403 Crore
	200 MW Project	1600 Crore	2138 Crore 85 Lakh	538 Crore 85 Lakh
	30 MW Project	240 Crore	567 Crore	327 Crore
	100 MW Project	800 Crore	1702 Crore	902 Crore
Total	**505.4 MW**	**4043 Crore 20 lakh**	**6970 Crore 8 Lakh**	**2926 Crore 88 Lakh**

*** Estimated additional costs are presented in full figures**

4.4 Purchase/Acquisition of Excess Land

It is generally estimated that a solar power plant requires approximately 3-4 acres of land per megawatt. However, evidence shows that several private projects have acquired significantly more land than necessary for their installed capacity. For example, the 200 MW solar project of Gaibandha acquired around 1,000 acres of land, although its actual requirement is approximately 650 acres.[106]

Similarly, while the 30 MW Lalmonirhat solar power plant officially claimed 120 acres, in reality more than 200 acres have been enclosed for the project.[107]

[105]Energy Transition (2024), Retrived from: https://www.energytransitionbd.org/infrastructure/kaptai-7-4-mw-bpdb-solar-power-plant access on 10 October 2025

[106] Focus Group Discussion, Local victims, 30 December 2024

[107] The Jugantor (2021), Retrived from: https://www.jugantor.com/todays-paper/first-page/454636/%E0%A6%A4%E0%A6%BF%E0%A6%B8%E0%A7%8D%E0%A6%A4%E0%A6%BE-%E0%A6%A6%E0%A6%96%E0%A6%B2%E0%A7%87-%E0%A6%B8%E0%A7%8C%E0%A6%B0%E0%A6%AC%E0%A6%BF%E0%A6%A6%E0%A7%8D%E0%A6%AF%E0%A7%81%E0%A7%8E-%E0%A6%95%E0%A7%87%E0%A6%A8%E0%A7%8D%E0%A6%A6%E0%A7%8D%E0%A6%B0 access on: 13 August 2025

In another case, the 35 MW Manikganj solar power plant has encroached on over 1,000 bighas of land, whereas only 141 acres (around 423 bighas) were required and formally designated for the project.[108] This large-scale land acquisition appears excessive and disproportionate to the actual infrastructure needs.

In the case of the 60 MW wind power project of Khuruskul, although 16 acres of land were reported as required, the official land documents submitted to DoE is only 2.8 acres, indicating a significant discrepancy in land acquisition records.[109]

4.5 Irregularities and Corruption in Land Purchase/Lease/Acquisition

4.5.1 Public solar power project

100 MW project

There are allegations that, in collusion with certain local Members of Parliament (MPs) and administrative officials, privately owned land was forcibly taken by falsely presenting it as *khas* (government-owned) land. 325 acres of land has been acquired for the project.[110] According to local residents and affected landowners, they were misinformed that their land was officially designated as *khas*, after which individuals linked to the local MP occupied the land under the pretext of obtaining a lease.[111] Affected landowners were deprived of their legal rights to rehabilitation and compensation. This alleged manipulation of land classification and misuse of administrative authority enabled the project to bypass mandatory acquisition procedures and exploit local communities. As a result, affected landowners were deprived of their legal rights to compensation and resettlement.

4.5.2 IPP solar power projects

200 MW Project

According to the complaints of local victims, land purchase for the Teesta 200 MW solar power project was marred by extensive irregularities, coercion, and conflicts involving intermediaries, administration, and law enforcement. Despite the project's officially stated requirement of approximately 650 acres of land, local community alleged that more than 1,000 acres of agricultural land including *khas* land were effectively brought under project control through a combination of coercive and irregular procedures. According to the local victims, land purchase was mediated through a powerful local broker, who allegedly acted as an intermediary between landowners and the project's interests. Several respondents stated that landowners were pressured into selling their land at extremely low prices, sometimes as little as BDT 1,000 per decimal, while others were paid inconsistent amounts such as BDT 20,000 per acre, indicating severe price manipulation and multiple rounds of land reselling with increasing profit margins. Local broker

[108] The Daily Observer (2018), Retrieved from: https://www.observerbd.com/news/166370?utm, access on 24 July 2025
[109] Key Informant, Department of Environment, 30 January 2025
[110] Sun BD24 (2021), Retrived from: https://en.sunbd24.com/2021/08/10/largest-solar-power-plant-in-jamalpur-at-a-cost-of-tk-1511-crore/ access on 10 August 2025
[111] Key Informant, Journalist, 14 January 2025

himself is alleged to have acquired approximately 75 acres, later converting part of it into a private theme park, by personal profiteering and informal land speculation linked to the project.[112]

Victims reported that those unwilling to sell their land, faced multiple lawsuits, with some individuals facing up to 4 cases, including one elderly man aged 94. It is also alleged that police pressure and administrative influence were used to coerce landowners, creating an environment in which many felt they had no alternative but to give up their property. Local groups also accused that, in extreme accounts, the farmers were threatened at gunpoint.[113]

30 MW Project

There are allegations of land grabbing more than the purchased land and in some cases, forcible land grabbing without purchasing the land. There are also allegations of land grabbing through 'no claim' agreements, grabbing *khas* and private land by creating fake documents and fake owners, registering land by showing a high price in the documents by paying less money to the landowners while hiding the real value, and cheating the landowners by forcibly collecting commission in collusion with intermediaries (brokers) and a section of project officials.[114]

68 MW Project

Approximately 214 acres of land were leased for the project from Bangladesh Bridge Authority. However, project activities commenced on agricultural land cultivated by local residents without prior public announcement. The initiation of work disrupted farming operations, and compensation for crop losses was not provided at prevailing market rates. It has been alleged that the land acquisition and related dealings were conducted through intermediaries or brokers. These brokers, in turn, negotiated with parties of their choosing, often bypassing direct engagement with affected landowners.[115]

35 MW Project

There are allegations of illegal grabbing of over 330 acres of agricultural land in the name of land acquisition despite the fact that 141 acres of land was purchased in the project documents by Spectra Solar. The land was acquired by providing false information to the locals and on the pretext of taking *khas* land lease, the locals were forced to vacate the land by threatening them. In addition, land was purchased by creating suspicion and pressure among the land owners and there were also allegations of land being filled up by destroying the cultivated crops and building roads by filling the land.[116]

[112] Focus Group Discussion, Local victims, 30 December 2024
[113] The Business Standard (2024), Retrived from: https://www.tbsnews.net/bangladesh/beximco-writes-ca-urging-security-countrys-largest-solar-plant-936851 access on: 10 August 2025
[114] Focus Group Discussion, Local victims, 31 December 2024
[115] Focus Group Discussion, Local victims, 29 January 2025
[116] Focus Group Discussion, Local victims, 9 February 2025

4.5.3 IPP wind power project

60 MW Project

Although it was said that 16 acres of land would be used for the project, only 2.8 acres of land was provided to the local land office. There are also allegations of land grabbing through encroachment on private land, intimidation, land filling and damage to salt cultivation.[117]

4.6 Irregularities in Payment of Compensation

4.6.1 Public solar power project

100 MW Project (under implementation)

Despite the damage to more than a thousand families, only 50-60 families have been partially rehabilitated and compensated. Many landowners have not received their money.

4.6.2 IPP solar power projects

200 MW Project

There are allegations that landowners were forced to sell their land at a low price by building a dam around the project area before land purchase. Many landowners were not given the promised compensation. Several respondents stated that landowners were pressured into selling their land at extremely low prices, sometimes as little as BDT 1,000 per decimal, while others were paid inconsistent amounts such as BDT 20,000 per acre. Many landowners did not get their money.

30 MW Project

There have been allegations that compensation has not been given based on the actual market value or cultivability of the land and that land has been acquired without paying compensation. Although a promise of 10 lakh taka per acre has been made, in reality less money has been received and in some cases no money has been paid at all.[118] Thousands of bighas of land, previously used for maize and paddy cultivation by local farmers, have been seized for project development. The agricultural activities were disrupted, and the land was acquired at prices significantly below market value. In many cases, the land was cultivated again after being excavated, indicating a lack of long-term planning and disregard for sustainable land use.

100 MW Project

Compensation was provided through brokers instead of directly. In many cases, there was delay in providing compensation or it was not received at all.[119] In addition, there are allegations of receiving compensation by bribery as '20% service charge' in the office of the District Commissioner.[120]

[117] Somoyer Khobor (2023), Retrived from: https://skhobor.com/news/67098?utm access on: 10 August 2025
[118] The Jugantor, Retrieved from: https://www.jugantor.com/tp-firstpage/454636, Access on 24 July 2025
[119] Focus Group Discussion, Local victims, 29 January 2025
[120] Key Informant, Human rights activist, 30 January 2025

68 MW Project

Despite the promise of providing compensation in exchange for irrigation equipment used in agricultural land of the affected people, it was not effectively provided.[121]

35 MW Project

There are allegations that land acquisition and site development were carried out in a highly coercive and irregular manner, causing direct losses to farmers. Local residents report that vehicles drove directly onto agricultural fields, destroying standing crops. Subsequently, heavy machinery, including excavators, was used to cut through cultivated land to build access roads, and in some areas a soil embankment or "counter" structure was constructed without consent.[122] At the time of these activities, the affected plots were fully cultivated with crops such as mustard, paddy, cauliflower, brinjal, sweet pumpkin, chilli, and garlic. Farmers claim they were not allowed to harvest these crops; instead, the land was bulldozed and filled with sand, causing complete loss of seasonal produce. There are allegations that landowners were paid only 1,000–2,000 taka as compensation. Although project representatives had initially promised full and fair compensation, many affected households report that these commitments were not honored.

One affected farmer stated that the company verbally offered BDT 40,000 as compensation for the damage to his crop fields because he protested during the destruction. However, this payment was never delivered, and subsequent attempts to contact the company reportedly yielded no response.

Community members further allege that the Union Parishad Chairman, who is also associated with the company, played a direct role in land collection and financial transactions. According to locals, land was acquired "through his hands".[123]

4.6.3 IPP wind power project

60 MW Project

There are allegations of forcing the locals to sell their land by putting pressure and intimidation and buying it at a low price.

4.7 Estimation of the Amount of Corruption in Land Purchase and Compensation

A total corruption of BDT 249 crore 15 lakh 59 thousands has been estimated for the land acquisition and compensation payment in the 5 IPP solar projects covered by the study. A partial estimate of the corruption in amount is presentated in **Table 13**.

[121] Focus Group Discussion, Local victims, 12 January 2025
[122] The Daily Observer, Retrieved from: https://www.observerbd.com/news/166370?utm, access on 24 July 2025
[123] Focus Group Discussion, 09 February 2025

Table 13: Estimated amount of corruption in land purchase and the process of providing compensation in the selected projects

Type	Projects	Areas of corruption in land purchase and compensation payment Estimated amount of corruption (Taka)*		Recipient of Money**
		Embracement of Money from Purchase of Privately Owned Land Compensation	Embracement of Money from Purchase of Privately Owned Land Compensation	
Solar Projects (IPP)	68 MW	-	1 crore 99 lakh 73 thousand	A portion of IPP officials; A portion of local land registration, union and upazila land office staff; Local public representatives and politicians including members of parliament; Middlemen
	200 MW	32 crore 50 lakh	-	
	30 MW	5 crore 73 lakh 86 thousand	-	
	35 MW	174 crore 72 lakh 40 thousand	-	
	100 MW	34 crore 19 lakh 60 thousand	-	
Total		**247 crore 15 lakh 86 thousand**	**1 crore 99 lakh 73 thousand**	

* Partial estimates of corruption are presented in full figures; -- Specific information was not available

** The information provided is not equally applicable to all posts, employees and all periods

4.8 Irregularities in Rehabilitation and Employment of Affected People

4.8.1 Public solar power project

100 MW Project

No meaningful rehabilitation measures or alternative livelihood opportunities were provided during the land acquisition process. Although several farmers who protested were forcibly displaced, there were no minimum arrangements to support their relocation or income recovery. The project documents and field accounts indicate no commitments regarding employment or inclusion of local workers in construction or operational phases.

Rehabilitation initiatives were reportedly limited to a very small number of households—approximately 50 to 60 families leaving the majority of affected landowners and cultivators without support.[124]

[124] Key Informant, Journalist, 14 January 2025

4.8.2 IPP solar power projects

200 MW Project

Despite initial promises, serious allegations have emerged regarding the failure to provide employment to those affected by the project. The rehabilitation of local residents has faced widespread issues, prompting protests and public outcry. During these demonstrations, several individuals were arrested and later jailed in connection with the cases filed at the time.[125]

30 MW Project

Despite assurances made during the planning stages of the Intraco project, the reality on the ground has been different for the affected local communities. Outsiders have been appointed to most positions, effectively excluding the very people whose lives and livelihoods were disrupted by the project. Although a small number of locals were hired as security personnel, allegations have surfaced that middlemen were involved in the recruitment process, reportedly demanding commissions from applicants. The situation has been particularly terrible for farmers who lost their land. No rehabilitation measures or alternative income opportunities have been provided to them, leaving many in economic distress.[126]

68 MW Project

There have been allegations of bribery in the recruitment trade and recruitment process for providing work to locals. In the first phase, jobs were provided with bribes of 5-7 thousand taka, later 20-30 thousand taka. In some cases, the workers did not receive their remuneration despite working hard.[127]

35 MW Project

Employment of the affected people was not ensured. A small number of people were given employment at very low wages. There is no information about any initiative to rehabilitate or create alternative livelihoods for the affected farmers. Rather, their only source of livelihood, three crop lands, has been destroyed**.**[128]

4.9 Human Rights Violations including Harassment of Victims

Various allegations have been made against human rights violation and harassment of victims during the process of land acquisition and project implementation.

For 100 MW Madarganj Solar Park, there are allegations of threats and harassment by politically connected groups for the suppression of the movement for the rights of the local people. Many affected individuals were reportedly unable to speak openly due to fear, as earlier incidents included threats, coercion, and forcible land grabbing. According to local victims, residents felt incapable of protesting the project because any objection was met with warnings of legal action and potential criminal charges.[129] During this period, there were frequent incidents of violence that were framed as political unrest, enabling authorities and influential actors to justify action against the community. This strategy effectively suppressed dissent and discouraged the formation of any

[125] Key Informant, District Corrrespondent, Somoyer Alo, 5 January 2025
[126] The Jugantor, Retrieved from: https://www.jugantor.com/tp-firstpage/454636 , Access on 24 July 2025
[127] Focus Group Discussion, 12 January 2025
[128] Focus Group Discussion, 09 February 2025
[129] Key Informant, Journalist, Somoy tv, 14 January 2025

organized movement in defense of local rights, ultimately weakening the community's ability to negotiate or resist the project.[130]

In 200 MW Teesta Solar Park, affected communities report that hundreds of victims were named in false or fabricated legal cases, which were allegedly used as tools to discourage collective action and weaken local demands for fair treatment. In addition, project representatives and associated actors were accused of issuing threats, intimidation, and physical mistreatment against individuals who attempted to protest. Local victims further alleged that the authorities subjected them to police harassment, including the filing of cases. It was also reported incidents where camps were set on fire creating an environment of fear and insecurity among the local population.
In Sirajganj 68 MW solar park, local farmers reported being threatened through public announcements (miking) and other forms of intimidation aimed at preventing them from cultivating their fields, thereby accelerating the transfer of land for project use. [131]

There are allegations of intimidation, threats and pressure to keep quiet during land grabbing of manikganj 35 MW solar project of Spectra. Farmers and their families have been subjected to false cases, beatings, intimidation, and harassment for protesting to protect their land.[132]

4.10 Collusion among different Stakeholders

Collusion in the energy sector appears as a systemic and multi-stage phenomenon, embedded across the project lifecycle and involving a network of interlinked stakeholders. At the Policy Formulation and Planning stage, collusion is rooted in policy-making and strategy formulation processes. By gaining influence over selected policymakers through various forms of benefits, vested interests shape strategy formulation and target-setting in ways that align with their priorities. This influence extends to the structuring of laws, policies, and strategic documents through the selective addition, removal, or amendment of favorable clauses, thereby institutionalizing bias at the policy level. Fossil fuel lobbyists and influential business groups play a central role at this stage, enabling early-stage policy capture those conditions subsequent decisions.

At the Project Approval stage, collusion becomes operationalized through approvals granted under the Quick Enhancement of Electricity and Energy Supply (Special Provision) Act, 2010. The use of non-competitive and opaque approval mechanisms allows certain developers to receive preferential treatment, effectively narrowing market access and undermining fair competition. Political bureaucrats and influential business groups facilitate and benefit from these arrangements, reinforcing a pattern, where discretion overrides transparency.

During the Financing and Investment stage, collusion shifts to financial structuring, particularly in relation to loans, sovereign guarantees, and tariff fixation. Control over debt and bond management, combined with project cost inflation through estimated expenditures, distorts tariff determination and transfers financial risk to the public. These practices weaken financial

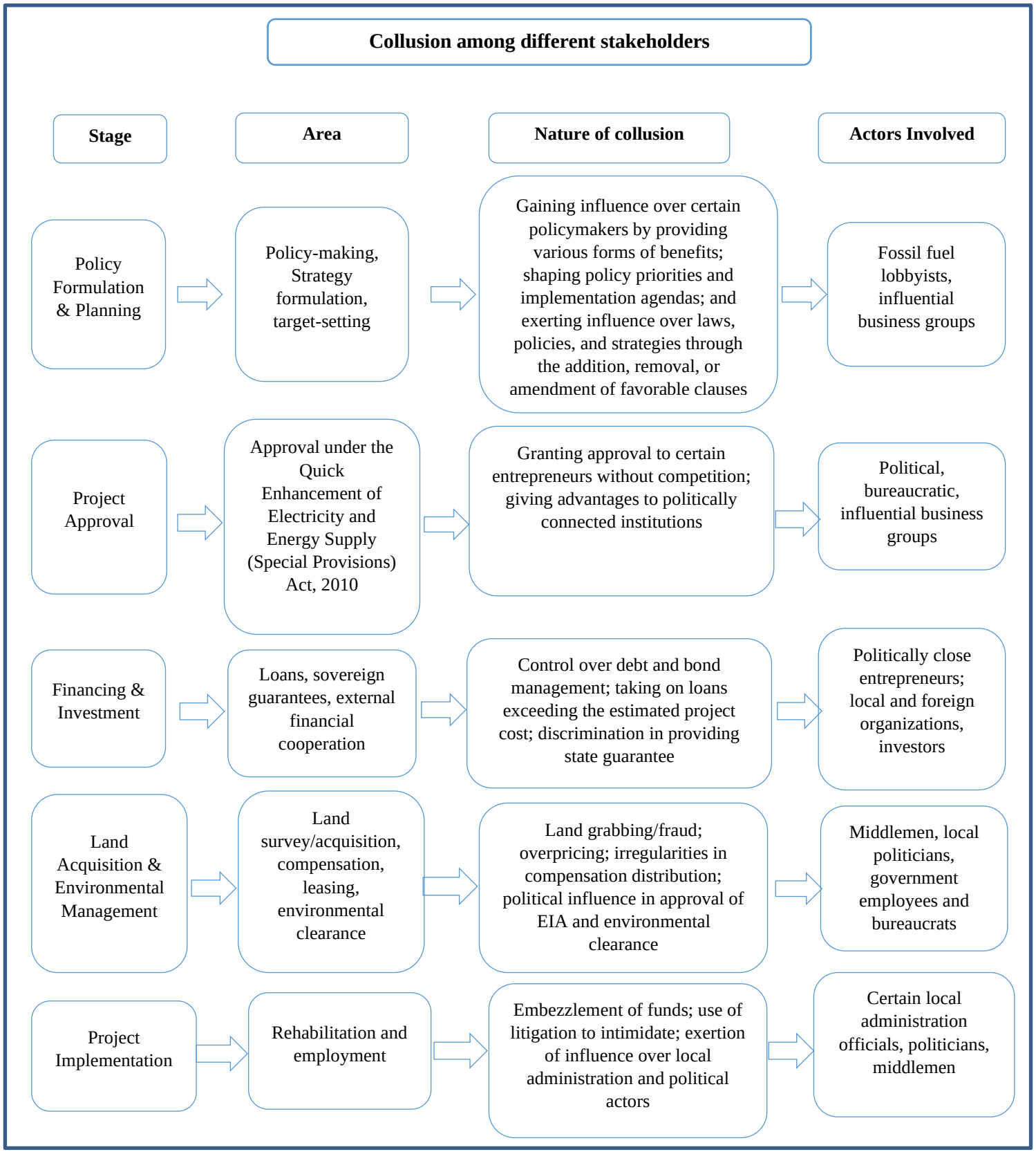
[130] Key Informant, Social Activist, 15 January 2025
[131] Focus Group Discussion, 12 January 2025
[132] Focus Group Discussion, 09 February 2025

sustainability and entrench rent-seeking behavior, with politically connected entrepreneurs and central agencies acting as key enablers.

At the Land Acquisition and Environmental Clearance stage, collusion manifests through coordinated manipulation of land acquisition, compensation, leasing, and environmental approval processes. Practices such as land grabbing, overpricing, fraudulent transactions, and irregular compensation distribution are reinforced by political influence over Environmental Impact Assessments (EIA) and clearance decisions. Middlemen, local politicians, government employees, and project owners collectively sustain these practices, resulting in localized governance failures and social grievances.

Finally, at the project implementation stage, collusion persists in rehabilitation and employment-related processes. The embellishment of needs, use of fake identities, and exertion of influence over local administration and political actors enable continued extraction of undue benefits during implementation. Central and local administrations, political elites, and subcontractors remain actively involved, allowing earlier-stage collusive arrangements to translate into concrete implementation outcomes.

Figure 4: Collusion among different stakeholders



4.11 Lack of Policy Priority

Bangladesh's power sector exhibits a structural preference for fossil fuel-based energy across multiple dimensions, creating systemic barriers for renewable energy development. In terms of policy and planning, it has been observed that, electricity demand has been overestimated to justify large-scale fossil fuel projects, with the Quick Enhancement of Electricity and Energy Supply (Special Provisions) Act, 2010. However, despite achieving surplus electricity generation, the act has been repeatedly extended to override standard procurement regulations and favor fossil fuel-based power generation. Besides, IEPMP 2023 prioritize fossil fuel and import-dependent projects, while renewable energy targets remain inconsistent and lack realistic transition roadmaps, and "clean energy" alternatives like nuclear, hydrogen, and carbon capture technologies receive more policy attention than renewables. In the financial and investment domain, fossil fuel projects attract the vast majority of foreign capital over 96% supported by clear tariff structures and loan guarantees, whereas renewable energy receives only a small fraction (3.3%) of foreign investment. Unlike fossil-fuel projects, renewable IPPs do not have a dedicated tariff-setting framework which creates uncertainty for investors. Although the LOIs for 31 renewable energy projects, including foreign-invested projects, were cancelled by interim government, the reasons for their cancellation remain unclear. The disparity is equally visible in fiscal incentives, where fossil fuel developers benefit from generous tax and VAT exemptions on capital equipment, production-related tax relief, and various state guarantees. Renewable energy projects receive far fewer incentives, making them comparatively less attractive to investors. In terms of infrastructure support, the government actively facilitates land acquisition and plant siting for fossil fuel projects under the Private Sector Power Generation Policy, 1996, whereas renewable energy developers must secure land independently, often facing complex land markets, local contestations, and bureaucratic hurdles. Grid preparedness also lags behind: insufficient smart grid development and inadequate substation capacity limit the integration of variable renewable energy.

Bureaucratic preferences further entrench this imbalance. Key government institutions consistently prioritize fossil fuel expansion, reflected in the steady rise of coal, LNG, and oil imports. Private fossil-fuel IPPs receive capacity payments even when plants remain idle for extended periods, ensuring guaranteed profits irrespective of actual generation. Meanwhile, influential business groups benefit from favorable policy decisions and opaque contracting processes that reinforce their dominance in the fossil fuel sector. In contrast, SREDA's institutional mandate remains restricted, political commitment to renewables is weak, and utilities show little interest in expanding net metering, limiting distributed solar adoption. Transparency deficits persist, as procurement documents, financial information, and audit reports are often withheld from the public.

Local and international lobbying dynamics significantly reinforce fossil fuel supremacy. Powerful global fossil fuel companies actively influence policy decisions, often obstructing measures aimed at reducing carbon emissions. Developed countries continue planning new financing for fossil fuel projects, shaping Bangladesh's investment priorities. Despite allegations of corruption and irregularities, unsolicited fossil fuel projects remain largely untouched, whereas renewable project approvals face bureaucratic delays and, in some cases, deliberate reluctance. Policy frameworks have also begun prioritizing controversial and commercially unproven options such as hydrogen

and ammonia promoted by foreign corporate interests over established renewable solutions. The cancellation of 31 renewable project LOIs has further derailed progress toward national renewable energy targets, widening the gap between policy aspirations and actual implementation.

Table 14: Lack of policy priorities

Indicator	Priority on fossil fuels	Deficit on renewable energy
Policy formulation and decision-making	○ Estimatation of excess power demand and formulatation of new policies and laws (Special Provisions Act, 2010) to approve projects - The validity of the Act was repeatedly extended, effectively allowing it to override provisions of the *Public Procurement Act, 2006* ○ Formulation of Fossil Fuel-Centric and Import-Dependent Master Plan ○ Access to legal and policy strategies in decision-making, including the insertion and amendment of favorable clauses	○ Inconsistency in renewable energy generation targets in policies and plans and lack of clear renewable energy transition plans ○ Lack of a realistic roadmap to achieve the target of generating electricity from renewable sources ○ The master plan prioritizes clean energy (nuclear, carbon capture, hydrogen, and ammonia) over renewable energy
Financing and Investments	○ 96.7% of foreign investment in the power sector is used in fossil fuel-based projects ○ A structered framework exists for determining tariffs	○ Only 3.3% of foreign investment in the power sector is used in the renewable energy sector ○ LOIs for foreign-invested renewable energy projects were cancelled without clear procedural justification ○ Absence of a feed-in-tariff model and policy bias in tariff setting, leading to high tariffs
Incentive	○ Providing attractive incentives (tax and VAT exemption on import of capital equipment for projects, production tax and VAT concessions for IPPs, loan repayment guarantees, etc.)	○ Fewer incentives compared to fossil fuels (including tax incentives, duty and VAT exemptions, insurance facilities, and state guarantees)

Indicator	Priority on fossil fuels	Deficit on renewable energy
Infrastructure Support	○ Government assistance in land acquisition for the project ○ Under the Private Sector Power Generation Policy, 1996, plant site selection is conducted by the government in consultation with the investor or project sponsor	○ Lack of government support in land acquisition/allocation for renewable energy projects ○ IPPs are required to acquire land independently ○ Lack of smart grids and adequate automated sub-stations
Bureaucratic Support	○ Relevant institutions demonstrate strong interest in fossil fuels ○ Continued growth in fossil fuel imports ○ Paying capacity charges to private power plants even when they remain idle for most of the year. ○ Supporting influential business groups and providing them with unfair advantages to establish monopolistic control	○ Limiting and centralizing the power of the SREDA ○ Lack of commitment and initiative in policy formulation and decision-making ○ Reluctance of utility companies to expand net metering ○ Contract and procurement process information, financial transactions and audit reports are not publicly disclosed
Influence of Local and International Lobbying	○ Attempts by global fossil fuel companies to influence and obstruct decision-making on carbon emission reductions ○ Plans by developed countries to provide new financing for the fossil fuel sector ○ Unsolicited fossil fuel projects were not cancelled despite allegations of irregularities and corruption. ○ In some cases, plans have been made to restart fossil fuel projects that were previously cancelled	○ Delays and reluctance in approving renewable energy projects in certain cases. ○ Policies prioritize relatively new and untested technologies (such as controversial hydrogen and ammonia) over renewable energy to accommodate the business expansion of foreign companies ○ Cancellation of Letters of Intent (LOIs) for 31 renewable energy projects has created a shortfall in achieving time-bound targets

Chapter Five

Overall Observations and Recommnedations

5.1 Overall Observations

Renewable energy does not receive adequate priority in energy policies and plans of the government. Variations, inconsistencies, and lack of coordination in setting targets for electricity generation from renewable energy pose significant challenges to achieving timely sectoral goals. Without sufficient analysis and assessment of realities, capacities, and existing frameworks, ambitious targets of electricity demand have been set in the energy master plan, but targets for electricity generation from renewable sources have not been aligned with national and international commitments and pledges. Due to investment-related interests of development partners, there is a risk of strategic influence over government policy-making and planning.

Bangladesh's energy sector is heavily influenced by fossil fuel-based policies, leading to inefficient use of public resources through subsidies and capacity charges. At the same time, the lack of incentives for renewable energy generation and the policy of privatization collectively creates the risk of the sector being dominated by corporate entrepreneurs. Transparency deficits exist in the procurement and tendering processes for renewable energy projects. Irregularities in project approvals, various contracts, and electricity pricing influence tariffs and increase overall project costs. The absence of competitive mechanisms in electricity procurement, coupled with the requirement for investors to assume multiple risks during project approval and implementation, and to independently conduct time and resource intensive feasibility assessments, has undermined investor confidence. This lack of competition and high entry barriers discourages private investment, creating uncertainty and mistrust in the sector's governance and regulatory environment.

Dependence on foreign technology for renewable energy, insufficient government investment in the sector, various bureaucratic complexities, and the weakening of SREDA pose major challenges to sectoral growth. Lack of government support for adequate infrastructure, such as land and transmission lines, for renewable power projects not only increases project costs and tariffs but also creates long-term uncertainties regarding land use beyond the contract period.

Although project implementation increases environmental pollution and threatens the livelihoods of affected communities, failure by relevant agencies to effectively enforce existing laws and regulations is causing long-term damage to natural resources, including forests, rivers, and *khas* land, as well as to local communities. During project implementation, especially in land acquisition, human rights violations occur through lawsuits, intimidation, and harassment of affected communities, and perpetrators often go unpunished, which encourages renewable project developers to engage in irregularities and corruption similar to actors in fossil fuel projects.

Overall, renewable energy receives comparatively lower policy priority than fossil fuels, and even where policies and legal provisions exist for its transition and expansion, weaknesses remain in the policy framework. In addition, gaps in institutional capacity, failure of relevant state agencies

and stakeholders to perform their roles effectively, and various deficiencies in investment and financing present significant governance challenges, which collectively pose major obstacles to the just and timely transition to renewable energy in line with set targets.

5.2 Recommendations

1. The existing fossil fuel–dependent energy master plan, the Integrated Energy and Power Master Plan (IEPMP-2023), should be revoked, and a new master plan should be formulated and implemented based on the core principles of reducing fossil fuel use and increasing the share of renewable energy in the energy mix. In this regard—
   - The master plan should be prepared under the leadership of Bangladeshi experts free from conflicts of interest and based on the views of civil society, ensuring alignment with national policies and international commitments.
   - Time-bound targets should be set to gradually reduce financing for and use of fossil fuel–based projects.
   - The master plan should prioritize climate change mitigation and the protection of livelihoods, natural resources, and the environment.
   - Short, medium, and long term time-bound targets should be established for the expansion of renewable energy.
   - Based on feasibility assessments, source-specific targets (solar, wind, hydropower, and waste-to-energy) should be determined for renewable energy generation.
2. All existing policies and plans including Renewable Energy Policy 2025 should set a common target for electricity generation from renewable sources.
3. In line with the commitments and pledges under NDC 3.0, an inclusive roadmap should be formulated to achieve sector-specific mitigation targets, incorporating the views of all relevant stakeholders.
4. The Electricity Act, 2018 should be amended to provide a legal basis for electricity generation from renewable energy, and to set out clear guidelines for the transmission, supply, and distribution of the generated electricity through the national grid and/or alternative grids.
5. Measures should be taken to simplify net metering for industrial and residential consumers, ensure the effective implementation of feed-in tariffs, and provide incentives to promote their adoption of solar power systems.
6. An independent monitoring and control authority should be formed consisting of relevant experts and civil society representatives to ensure accountability in the decision-making process related to this sector, including preventing conflicts of interest and ending policy capture in the energy sector.
7. Ensure that all energy and power projects are monitored and verified in accordance with the Environmental Law, and that transparent and appropriate procedures are followed in issuing environmental clearances and monitoring pollution and environmental issues.
8. The Sustainable and Renewable Energy Development Authority (SREDA) should be given the status of an autonomous institution to lead the transition to renewable energy and its technical, human and infrastructural capacity should be enhanced.
9. Renewable energy generation should be given priority in the operations of the Bangladesh Power Development Board (BPDB), and project approvals and contract execution should be carried out free from conflicts of interest.

10. Necessary reforms should be made to enhance the legal and institutional capacity of the Bangladesh Energy Regulatory Commission (BERC) to ensure transparency and create a competitive market for public and private institutions; the institution should be given the power to work independently according to its mandate, including determining the price of renewable energy.
11. Dependence on foreign technologies in the renewable energy sector should be reduced, and the capacities of both government and private sector actors should be strengthened to promote sectoral development.
12. To implement international commitments and achieve renewable energy targets, renewable energy projects including solar should be developed on land acquired for already cancelled coal and LNG power projects, as well as on *khas* land and unused or abandoned government land.
13. All project proposals and contract documents in the energy sector executed with international, regional and domestic organizations should be published.
14. National procurement laws and policies should be fully complied with, including the use of open procedures in project implementation and procurement.
15. To implement the NDC commitment, renewable energy projects, including solar, must be implemented on land acquired for coal and LNG power projects that have already been canceled.
16. Project planning, determination of contract terms, approval, and implementation should be carried out by ensuring transparency, accountability, and public participation.
17. Adequate funding should be allocated for research and development of renewable energy technologies, and the involvement of local communities in the renewable energy transition process should be strengthened.
18. An inclusive decision must be taken, excluding those involved in conflicts of interest in the fossil fuel sector, to achieve the net-zero target by 2050, including transition to renewable energy.
19. Supportive policies must be formulated and implemented to increase local and international investment in the expansion of renewable energy.
20. Active participation and advocacy in support of renewable energy should be strongly pursued.

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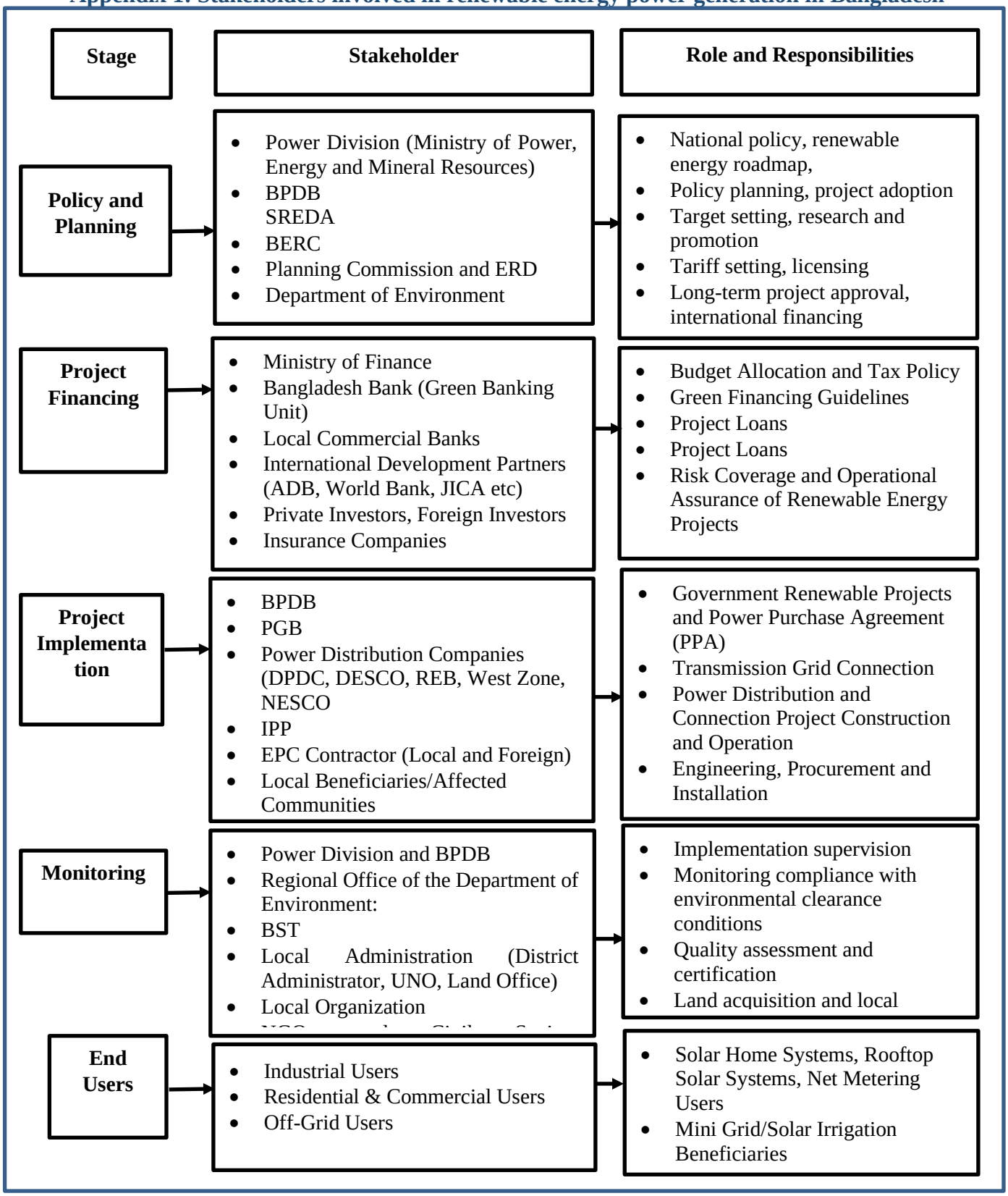
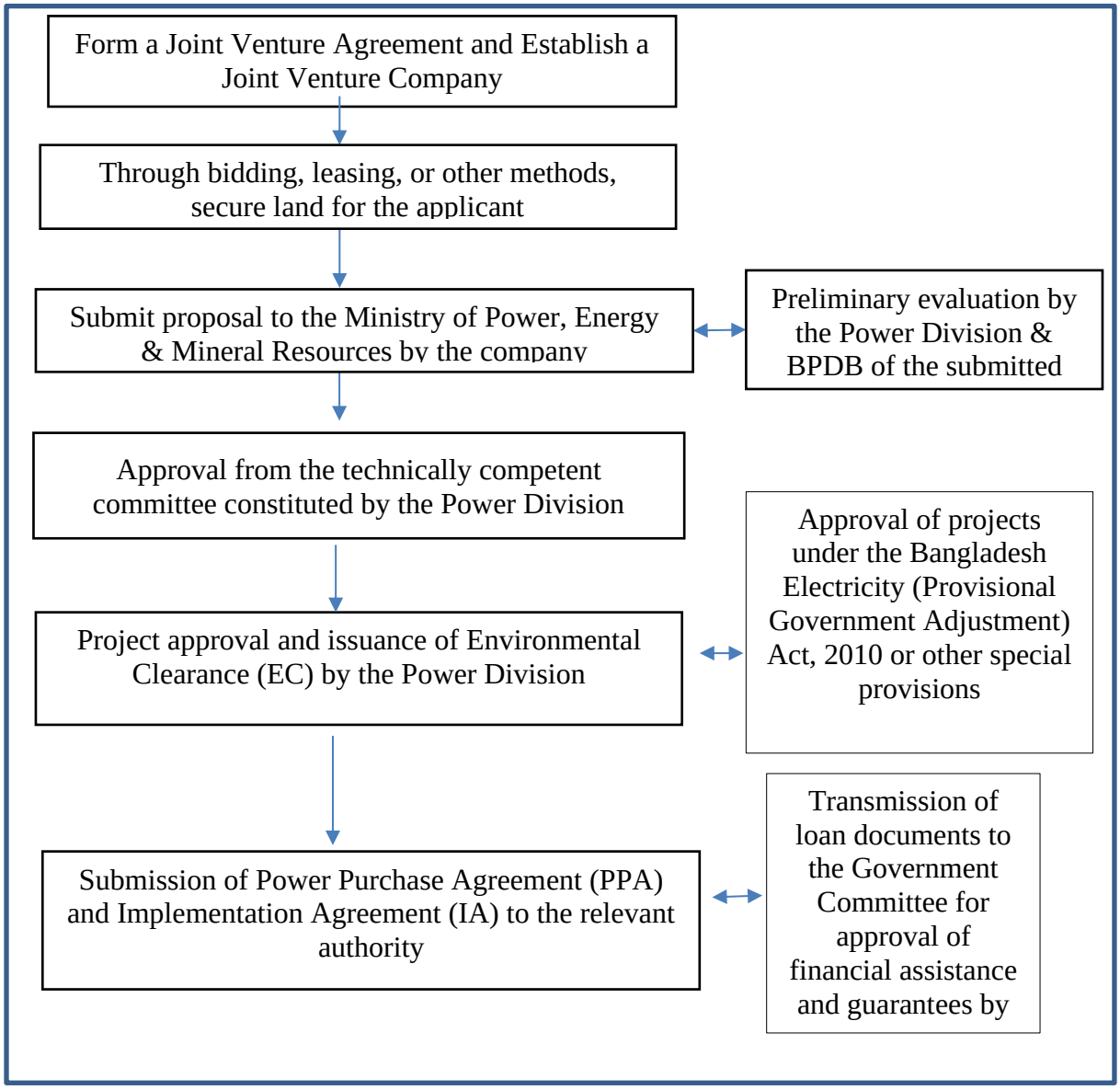
Appendices

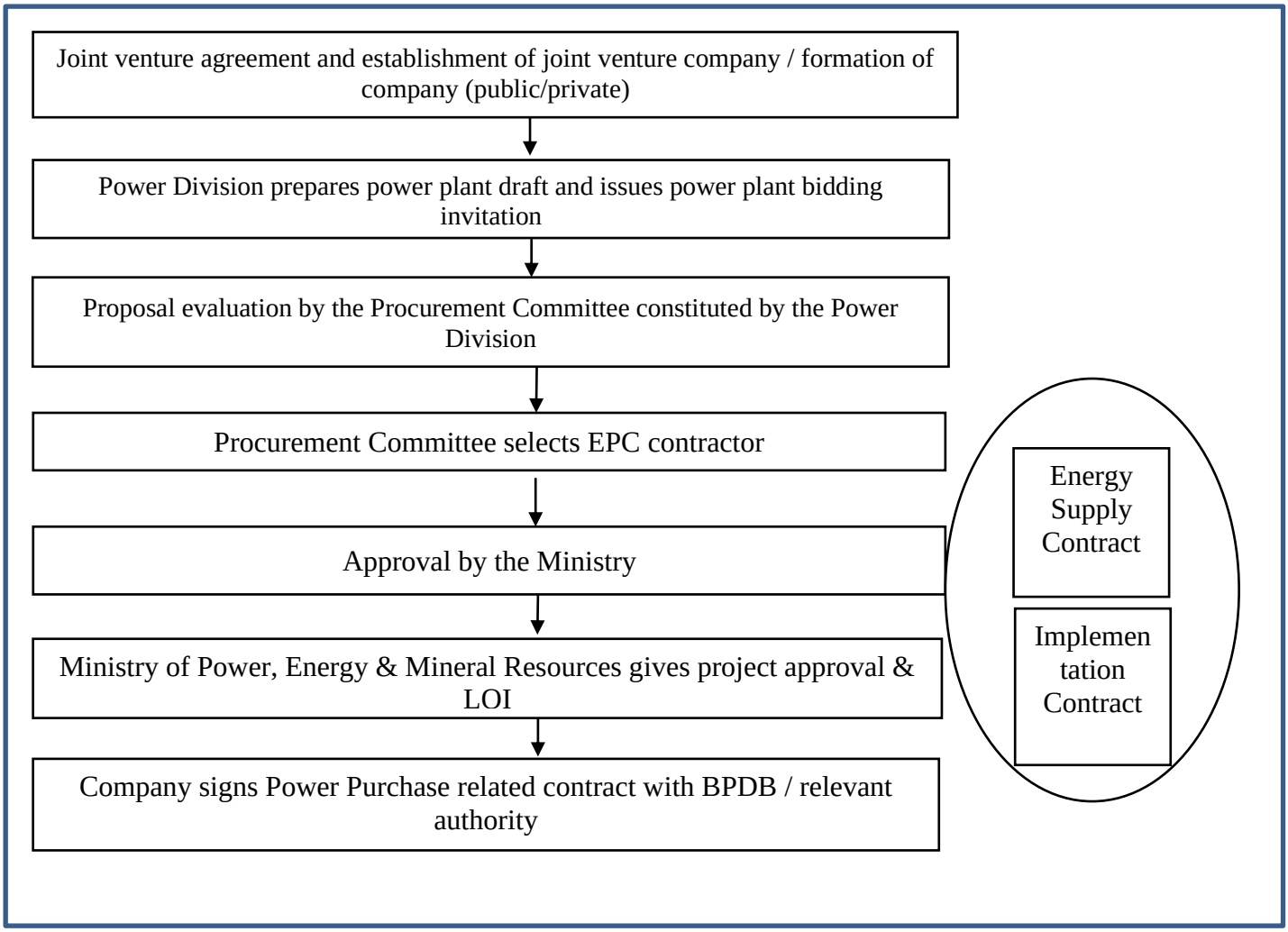
Appendix 1: Stakeholders involved in renewable energy power generation in Bangladesh



Appendix 2: Project approval process: Unsolicited project



Appendix 3: Project approval process: Solicited project



Appendix 4: Power generation targets from RE in different national plans

National Plan	Year				
	2025	2030	2035	2041	2050
Renewable Energy Policy, 2025	–	20%	–	30%	–
Integrated Energy and Power Master Plan (IEPMP), 2023 *with clean energy	–	10%	–	40%	–
Bangladesh Climate Prosperity Plan (BCPP), 2022	–	30%	–	80%	100%
Nationally Determined Contribution (NDC), 2025	–	–	25%	–	–
Bangladesh Perspective Plan (2021–2041) / Vision 2041	–	10,888 MW	–	–	–
8th Five-Year Plan, 2020	10%	–	–	–	–
Bangladesh Delta Plan 2100	–	–	–	–	30%

Appendix 5: Images of different projects areas

Figure: 200 MW Teesta Solar Park, Gaibandha

Figure: 60 MW US-DK Wind Power Plant, Khurushkul

Figure: 7.4 Kaptai Solar Park, Rangamati

Figure: 30 MW Intraco Solar Park, Lalmonirhat

Figure: SEAL Biomass Off-grid Project

Figure: Net Metering Rooftop Solar

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