

Rampal and Matarbari Power Projects: Governance Challenges in Environmental Impact Assessment and Land Acquisition

Executive Summary

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Executive Summary*

1.1 Background and Rationale

The demand for electricity is gradually increasing due to economic growth, rapid urbanization, industrialization and overall development activities. The government has set a target of 7.3% growth rate for the 2014-15 fiscal year for which adequate supply of electricity is an important prerequisite. According to the 'Power System Master Plan 2010', the government targeted to produce 24,000 megawatt electricity by 2021 through introducing short, medium and long-term projects to provide electricity to all. The government has formulated a policy to encourage private sector along with the public sector through Public-Private Partnerships (PPP), Rental Power Producer (RPP) and the Independent Power Plant (IPP).

To reduce dependency on gas in power generation, the government has planned to establish eight large-scale and 10 small-scale coal-fired thermal power projects using domestic and imported coal as fuel. The government has allocated Tk 11,540 crore in the current fiscal year for the development of power sector, which is 4.6 percent of the total national budget. The first initiative to implement a mega-scale coal-fired thermal power plant was undertaken at Rampal in Bagerhat district in 2010. Another project was initiated at Matarbari in Cox's Bazaar district in 2012. It has been reported that the Japanese government had allocated the loan for Matarbari from its climate fund.

Table 1: General information of Rampal and Matarbari Power Projects

Description	Rampal	Matarbari
Production Capacity (MW)	1320	1320
Land acquisition (acre)	1834	1414
Budget (approx.)	Tk 145.1 billion	Tk 360 billion
Allocation for compensation	Tk 625 million	Tk 2.37 billion
Implementing body	India-Bangladesh Friendship Company	CPGCBL
Financial investors	30% India-Bangladesh equal partnership, 70% loan	JICA (loan), CPGCBL, GoB
Technology	Super-critical	Ultra-super-critical
Year of production	June 2019	June 2021
EIA implementation	Centre for Environmental and Geographical Information Services	Tokyo Electric Services Co. Limited
Location	Sapmari, Rampal, Bagerhat	Matarbari, Moheshkhali, Cox's Bazar

Land acquisition is a complex issue while setting up any kind of infrastructure in densely populated countries like Bangladesh. Compensations for land acquisition in the projects stated above are riddled with irregularities and corruption charges. There are also controversies regarding consideration of environmental risks in implementation of these projects. Environmentalists have expressed objections about the accuracy of the

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environmental impact assessment for these projects. This study has been undertaken to review the processes of environmental impact assessments and to investigate the challenges, irregularities and corruptions in the land acquisition processes of these two projects.

1.2 The Objective and Scope of the Study

The main objective of this study is to investigate governance challenges in the processes of environmental impact assessment and land acquisition for Rampal and Matarbari coal-fired thermal power plants. The specific objectives of the study are:

1. To review the respective laws and regulations in environmental impact assessment and land acquisition and their application during the implementation of coal-fired thermal power plant;
2. To evaluate the process of environmental impact assessment;
3. To investigate irregularities and corruption in compensation delivery in land acquisition;
4. To provide recommendations to ensure good governance in coal-fired thermal power plant.

The scope of this study includes process of environment impact assessment and types and causes of irregularities and corruption at each level of compensation during land acquisition, from circulating notice to the delivery of compensation.

1.3 Research Methodology

This is a qualitative research. Qualitative information collection tools such as in-depth interviews, key informants interviews and group discussions were used to collect information. Information gathered from different sources was used after scrutiny and analysis. Primary information were collected from the concerned government officials involved in land acquisition, affected people, public representatives, journalists, stakeholders and experts and researchers on environmental impact assessment. Secondary information sources included EIA guidelines for industries, EIA reports on Rampal and Matarbari, land acquisition laws and regulations, relevant articles, research reports, books, and relevant website and media reports. The duration of this research was four months (November 2014 to February 2015).

2. Study Findings

2.1 Review of the Process of Environmental Impact Assessment (EIA) in Rampal and Matarbari

The EIA has to be carried out for ‘red’-listed industries according to the Environmental Conservation Regulation 1997 (ACR 1997) following the Environment Conservation Act 1995 and EIA Guideline for Industries 1997. According to the EIA Guideline for Industries 1997, EIA is implemented in three steps: (1) Screening (scrutiny), (2) Initial Environmental Examination (IEE) and (3) detailed Environment Impact Assessment. Site selection for the project, the functions of project, and estimates on the effect on environment and socio-economic conditions and environmental impact management plans must be included in the detailed EIA report.

Various parties raised their concern about the environmental risks for Rampal power project which is located nearby the Sundarbans mangrove forest. The following observations are made on the process of conducting the EIA in both the projects:

2.1.1 *Conflict of interest of the organizations in charge of conducting the EIA*

Though internationally the EIA is neutrally conducted, despite the fact that Rampal project is being implemented by Bangladesh government, the EIA of this project was conducted by the

same party (Centre environmental and Geographic Information Services – CIGIS, Bangladesh government's body). Similarly, the EIA of the Japanese-funded Matarbari project was conducted by a Japanese company (Tokyo Electric Services Co. Ltd). Due to the possibilities of conflict of interest, the respondents of this study opined that these EIAs failed to achieve the standards of neutrality.

2.1.2 Approval from the Department of Environment violating the law

According to the law, the Department of Environment (DoE) has no authority to approve such types of projects except in industrial, industrialized or empty areas. The DoE had violated the ACR 1997 by approving environmental clearance of Rampal project which is not an industrial, industrialized or empty area. The Sundarbans are a reserve forest, whose legal custody is under the Forest Department. But the DoE did not seek the opinion of the Forest Division in approving site clearance of this project. The Matarbari project is also being implemented in a place that is not industrial, industrialized or empty. Matarbari is a densely populated residential area with an approximate population density of 6,667 people per square kilometer.

2.1.3 Violation of the conditions of site clearance

Site clearance for Rampal project was given on the basis of some terms and conditions by the DoE and it was said that the clearance would be cancelled if there were any violations of these conditions. Rampal project started violating the terms and conditions by earth filling and other development activities but the DoE did not take any legal action.

2.1.4 Not ensuring public participation

In finalizing the EIA report, CIGIS was alleged for not taking any expert opinion. Respondents also alleged that conducting public hearing after finalizing the report was quite useless. During a public hearing, various parties, including the environmentalists, highlighted the negative effects of the project that were ignored in the final EIA report. The local level stakeholder meetings were not participatory because the local community was threatened by influential local political leaders that their “tongues would be torn down if the project was opposed”. Because of this threat, the local community merely participated in the stakeholder meetings without voicing any complaints. The stakeholder meetings were organized in controlled environments of the implementing organization.

Though there were terms and conditions for local and national level public consultation for the Matarbari project, there is no mention about national public consultation. Public opinion-taking process at the local level was also faulty. Two stakeholder meetings mentioned in the EIA were not held in the project area. The minutes of the meeting attached in the EIA report did not incorporate views of all participants. In these stakeholder meetings, the respective authority did not display information about the project, especially about the negative effects. Overall, EIA reports of both projects did not mention people's position against these projects in different ways after considering environmental and socio-economic risks of the project.

2.1.5 Not considering environmental and human issues in project site selection

Though the IEE indicated Labonchora of Khulna as the alternative site, Rampal was finally selected considering the comparative advantages of maritime communications with the Mongla Port and the proposed Khulna-Mongla rail line. Similarly, although the preliminarily selected two locations (Hoyanok and Matarbari) of Matarbari project had similar impacts on socio-economic condition, Matarbari was finally selected considering technical, economic and natural conveniences. According to the respondents, more importance was given to project costs and benefits of the project during site selection than the environmental or socio-economic risks.

2.1.6 Not maintaining safe distance from Environmental Critical area (ECA)

Due to environmental pollution, coal-fired thermal power plants are not approved within 15-25 km of outline of reserve forest, national park and public settlement around the world. In India, such type of power plant is not allowed within 25 km of a reserve forest. The proposed Rampal power plant is only 14 km away of Sundarbans' ECA borderline and the Matarbari plant is within 15 km of Sonadia ECA. Both these projects are around public settlement.

2.1.7 Not considering pollution of ash

Rampal plant will produce 750 thousand tons of fly ash and 200 thousand tons of bottom ash. According to the EIA report, 15% of the ash will be generated as a result of burning coal. The annual production of ash will be 710 thousand tons designed to fill 1834 acres of land. Similarly, according to the EIA report of Matarbari, 20% ash will be generated. To preserve this ash, a pond across 183 acres land will be dug. According to respondents, if not appropriately controlled, flying ash will pollute the environment, a complaint that was not seriously considered by the EIA. Beside this, the ash pond in the cyclone and flood prone area will pollute soil and ground water by mixing up with rain water and spreading beyond the plant area.

2.1.8 Not considering pollution caused by coal transport through the Sundarbans

According to the EIA report of Rampal, 472 thousand tons of coal will be transported through the Sundarbans every year. But the report did not assess the impact of coal transportation on plants and animals of the Sundarbans. The report also did not consider the interruption of the Sundarbans due to sound and light pollution caused by running ships and loading and unloading goods at night.

2.1.9 Not assessing the impact of water withdrawal and discharge

Rampal plant will withdraw 9,150 cubic meters of water per hour from the Pashur River which is less than 1% of the total water flow. After use in the plant, purified water will be discharged at the rate of 5,150 cubic meters of water per hour into the river. Without assessing the impact on the flow of the river due to withdrawal and discharge of the water, the EIA report only commented "hydrological features may not be changed". According to respondents, the information used to show the flow of water in the river is not updated (information of 2005). On the other hand, 'zero discharge' principle was not adopted in water discharge from power plant. According to respondents, the purification, water temperature, water discharge motion and dissolution of various elements in the water will negatively affect the Pashur and over the Sundarbans and the Bay of Bengal.

2.1.10 Un-implementable Employment Plan

Both EIA reports assured employment in the power plant projects for the local people. According to the respondents, employment facilities in coal-fired power plant are only available for the technically equipped persons. For this reason, the power plants will not be able to provide employment for a large number of unemployed people who lost their employment due to land acquisition. Not one of the affected people has been provided employment opportunities in both projects till the period of conducting this research.

2.1.11 Providing inadequate and providing inaccurate information, hiding information

Both EIA reports did not consider human health risk for power plant seriously. In addition, some important information was omitted, hidden and in some cases inaccurate information was provided.

A. Hiding information of wildlife Sanctuary: In 2010, the Bangladesh government declared through an ordinance the Pashur River a wildlife sanctuary under the Forest Department in order to protect aquatic mammals, especially the Ganges and Irrawaddy dolphins. According to respondents, the EIA of Rampal completely hid the issue and the impact of the power plant on environment and ecosystem of Sundarbans and the Pashur River did not get any attention. The EIA also provided confusing data about the wind flow. No data for wind flow was taken from the plant area and Sundarbans. Both reports did not consider the health risks seriously. The EIA of Rampal did not include comments about the impact on the environment of Sundarbans due to huge amount of carbon emissions from the plant. The EIA of Rampal also did not give a list of plants and animals in the project area and also did not mention anything about the harm caused to these animals and plants from the power plant.

B. Confusion regarding use of Flue Gas Desulfurization (FGD): According to the EIA report of Rampal, FGD will be used if the coal bears more than 0.6% sulfur. However, FGD is not included in the list of equipments that are going to be set to control environmental pollution, which creates some ambiguity regarding the use of FGD in the plant. According to respondents, the plant is less likely to use FGD because of cost implications.

2.1.11.1 Safe levels of sulfur dioxide and nitrogen dioxide gas shown

According to the ACR 1997 (Schedule II) safe levels of SO_x and NO_x in sensitive area are 30 mg/cubic meter and 80 mg/ cubic meter respectively in residential area. According to respondents, the EIA of Rampal adopted the following strategies to indicate low emission of these gases under standard of regulations.

- a. Sundarbans area shown as ‘residential’ and ‘rural’ areas:** Previous version of EIA report showed concentration of SO_x and NO_x emission from the power plant for 24 hours 53.4 mg/ cubic meter and 51.2 mg/ cubic meter respectively in Sundarbans area which is much higher than the standard of ECR 1997 for sensitive area (30 mg/ cubic meter). To show sulfur and nitrogen gas emission under safe level, previous EIA report mentioned Sundarbans as ‘residential’ and ‘rural’ areas.
- b. Sulfur and Nitrogen emission rates shown in annual rates instead of daily rates:** SO_x and NO_x emission rates showed 58.43 mg/ cubic meter and 47.2 mg/ cubic meter respectively for 24 hour in the revised EIA which is not the safe level stipulated by the ECR 1997. To indicate gas emissions under a safe limit, EIA showed SO_x and NO_x emissions in annual averages instead of daily averages, which are 19.36 mg/ cubic meter and 23.9 mg/ cubic meter respectively.

The EIA of Matarbari mentioned that the amount of SO_x and NO_x gas emission would be kept under 820 mg/normal cubic meter and 460mg/ normal cubic meter respectively, but did not mention the specific amount of gas emissions from the power plant.

- c. Sulfur, nitrogen, and the flue-gas emissions showed in per second:** Rampal EIA showed 819 grams/per second sulfur gas emission from single unit of the plant. Every unit/second was shown to make the figure minimum. The actual calculations indicate that sulfur emissions according to 819 g/s of the two units will stand at 142 metric tons for 24 hour, 4,260 metric tons for one month and 51,430 metric tons for one year, which is a large amount. In every case, a strategy was taken to indicate lower amounts.

2.2 Response of the various parties regarding Coal-fired power plants

Protesting coal-fired thermal power plant near Sundarbans, various parties observed different programs like human chain, essay writing, memorandum submission, filing petition in court etc. Ramsar and UNESCO have already expressed their concern about setting such type of power plant near the Sundarbans. The Norwegian Ethical Group has recommended the Norwegian government to exclude NTPC from their Government Pension Fund Global (GPFG) from being a partner to this environmentally harmful project. Respondents think that establishment of coal-fired thermal power plant will weaken Bangladesh's demand for climate finance as a climate change vulnerable country. Respondents consider the agreement signed between India and Bangladesh as against the national interests of Bangladesh. The environmental risk factor was not considered in the cost-benefit analysis of both the projects. The Rampal project captured good coverage in media which was not the case for Matarbari because according to the respondents, Matarbari has less popular and sensitive area than the Sundarbans that is close to the Rampal project.

2.3 Limitation, Irregularity and Corruption in Land Acquisition and Compensation

2.3.1 Limitation in Land Acquisition and Compensation Process

2.3.1.1 Limitations in Land Acquisition Act of Bangladesh

The Acquisition and Requisition of Immovable Property Ordinance (1982) of the Government of Bangladesh does not mention any compensation for direct and indirect dependent individuals of land except the land owners. As a result, those that are dependent on land but are non-title holders are not legally recognized to receive compensation, which is contrary to the principles of international acquisition policy.

2.3.1.2 Loss of Project Affected Persons (PAP) due to assessment of compensation according to the selling price

Determining compensation according to the average selling price of previous 12 months has led to land owners getting less compensation from the actual market price of the land. Usually, people record lower than actual price while buying land in official documents to pay smaller registration fees. While considering this average price as compensation, the amount becomes lower than the actual market price.

Table 2: Compensation and actual market price of land

Mouza	Type of Land	Compensation (with 50% premium) (Tk)	Actual Market Price (Tk)
Dhalghata (40 Decimal)	Salt/Shrimp	250 thousand	500-600 thousand
	Agriculture	350 thousand	1.2 million
Matarbari (40 Decimal)	Salt/Shrimp	450 thousand	500-600 thousand
	Agriculture	1-1.2 million	1.2 million
Rampal (100 Decimal)	Agriculture/Shrimp	270 thousand	500-600 thousand

2.3.1.3 Complex and time-consuming process of compensation

The project-affected people have to face many complexities to collect necessary information/documents in order to prepare compensation file for withdrawal of compensation. In addition, due to different types of irregularities in compensation process, they do not get their compensation in due time.

2.3.2 Irregularity and corruption in Land Acquisition and Compensation Process

2.3.2.1 Not ensuring public participation in the compensation and rehabilitation Planning process

In both the projects, people's participation was not ensured in land acquisition and resettlement plans. People of both project areas were not informed about the coal-fired thermal power project at the beginning of the project planning. They first learned about the project after receiving land acquisition notice under section 3. In Matarbari plant, the common people were not invited to join stakeholder meetings. There were a very few people who attended the meetings, though they claimed that their comments were not written in meeting minutes which were attached with the report. The EIA report of Rampal claimed to have 10 consultations meeting with stakeholders. The people who attended those stakeholders meetings had been threatened by influential political leaders to not oppose the power plant.

In addition, in both projects, powerful political party leaders and administration had threatened to file cases and take legal actions against those who opposed the power plant. In Rampal, cases were filed on different issues against those who were involved in the movement against the project. Many people are now hiding for fear of the police and live outside the project area. Many among them were physically assaulted and tortured.

2.3.2.2 Not resolving people's objections

People opposed land acquisitions from the beginning of both the projects. After receiving notice under section 3 of land acquisition act, people raised their objections in different ways. Respondents think that their objections were not considered and resolved seriously.

2.3.2.3 Land acquisition without following prescribed procedures

In both projects, EIA was conducted after finalizing site selection and land acquisition. Especially for Rampal, land acquisition and investment agreement were completed before acquiring site clearance. The Matarbari EIA report was submitted for approval to the DoE 5 days after the approval of 'terms of reference (ToR)'. Similarly, the first stakeholder meeting for Matarbari EIA was held before the approval of ToR. According to the respondents, it was pre-decided that the power projects would be established in these places and rest of the procedures were mere formality.

2.3.2.4 Possession of the land before payment of compensation

In both projects, land acquisition was completed and handed over to the implementing agencies by evicting land and shrimp field owners without giving prior notice as required under section 6 and 7 of the Land Acquisition Act 1982. In Rampal, police and political activists were used to evict people from their land and shrimp field.

2.3.2.5 Project activities started without disposal of petition

A number of petitions were filed challenging the legality of these two power plant projects. After preliminary hearing, the court issued rules to different departments of the government asking "why will the coal-fired power plant not be cancelled". But the development works commenced without disposing off the petitions.

2.3.2.6 Arbitration-related harassment

While solving arbitration, the affected people faced harassment from appointment of lawyer, repeated changes of trial date or absence of magistrate. In some cases, arbitration was used to harass them. Besides this, some employees of DC office put fraudulent arbitration claims with an aim to demand undue payment from the affected people. When undue payment was given, the fraudulent arbitration applications were removed from the file.

2.3.2.7 Corruption in determining compensation of shrimp project in Matarbari

Through collusion of administration officials and local influential, compensations for shrimp projects were overestimated. Shrimp project compensations were calculated considering 1 kg

shrimp production per decimal piece of land. Per kg shrimp price was calculated at Tk 800 (1335 acres X 288.65 kg shrimp production X Tk 800 per kg = Tk 30,82,88,880). All shrimp fields were compensated according to the above calculation although not all the shrimp fields cultivate shrimp. Through collusion with administration, local influential people gained widespread benefits by forming a syndicate.

2.3.2.8 Not disclosing information

The project implementing organizations did not take any initiatives to inform the affected people about the projects. They do not even know from where information on the project can be obtained.

2.3.2.9 Corruption in the land acquisition and compensation disbursement process

It was found that people had to pay unauthorized payments at every stage of compensation disbursement. According to the respondents, they paid unauthorized payment generally at two tiers, firstly at union parishad to collect varieties of certificates and secondly at land acquisition section of DC office. The following table shows the scenarios of unauthorized payments at different stages of compensation disbursement (Table 3).

Table 3: Unauthorized payment at different stages of compensation disbursement

Level	Activities	Amount of unauthorized payment (Tk)	
		Matarbari	Rampal
Union Parishad	1. Notice under section 7	200-300	
	2. inherent certificate	120	
	3. Birth certificate	120	
	4. Payment of tax	460 (40 decimal)	
	5. No Objection Certificate	5%*	
District Land Acquisition Office	6. Compensation Application submission	100-500	The total process is completed under a contract to pay 3%-10% of total compensation
	7. Certificate of surveyor	500-3000**	
	8. Certificate of Kanungo	500-3000**	
	9. Taking date for arbitration resolve	100-200	
	10. Taking advice in check	10% of total compensation	
	11. Taking signature of accounts officer	2000-7000	

* Almost 5% of the affected people received No Objection authorization by giving the said unauthorized money.

** Some had to take surveyor and Kanungo report for several times and pay unauthorized money every time.

They had to pay unauthorized payments to retake a date to arbitration resolution.

Case: Corruption to compensate shrimp field leasers in Matarbari

Research showed that total 10 shrimp fields existed in the project area. But showing 25 shrimp fields, 114 fraud owners of those field misappropriated compensation of approximately Tk 23 crore. The respondents claimed that this happened in collusion with some staffs of district office, fisheries department, CPGCBL and local influential persons after forming a syndicate. Most of the compensated persons were not actual leasers of shrimp fields. Though all shrimp fields did not cultivate shrimp, all were compensated for shrimp. According to the respondent, this corruption happened due to collusion with administration and local influential persons.

2.4 Social impacts caused by land acquisition

A. Displacement of significant number of family: A few hundred families will be displaced due to land acquisition in Matarbari and Rampal projects. Land is the main means of livelihood for surrounding people. If the land is acquired, these families will lose the sources of earning, which will force them to move elsewhere in search of living.

B. Increase of poverty: Due to land acquisition directly and indirectly dependent people of that land will lose means of living and will become unemployed. This will increase poverty among the people of the locality which will negatively affect their personal and social lives.

C. Risk of mass protest against the power plant: Due to eviction from the land, unfair compensation, procedural complications of compensation delivery process, unauthorized payment to get compensation, insensitive behavior of the respective authority towards the affected people, and incidences like threat and physical torture are creating anti-project emotions in the project areas. This outbreak may create long-term risks for the projects.

3. Recommendations

A. Related to Rampal and Matarbari project

1. The EIA reports of Rampal and Matarbari projects should be evaluated by efficient institutes or individuals who are internationally recognized and do not have conflicts of interest. On the basis of the re-assessment, the next steps for these projects should be determined.
2. The writ petitions filed on the Matarbari and Rampal projects should be settled as early as possible.
3. The compensation for the affected people of Rampal should be re-assessed after forming a property valuation advisory team and resettlement advisory committees according to the land acquisition and resettlement action plan.
4. A list of all affected people (land owners and leaseholders, as well as directly or indirectly dependent on the land) should be made after conducting a survey by an independent consultant. This list should be displayed in an open place and should include the amount of compensation.
5. The compensation for land acquisition should be delivered within a short period of time through 'one stop service' at the project area.
6. These projects should have a complaint raising and a complaint redress mechanism regarding land acquisition and rehabilitation.
7. Disciplinary actions should be taken after investigating against those who are proven to have been involved in corruption in land acquisition and compensation delivery process.

B. Related to industrial projects and land acquisition in future

8. The planned power plants should be established in such places following the Environment Conservation Rules 1997. For this, following issues have to be ensured:
 - EIA should be carried out by experts selected in transparent process who do not have any conflicts of interest.
 - People's participation should be ensured while conducting the EIA.
9. The Acquisition and Requisition of Immovable Property Ordinance (1982) should be amended to include the following issues:
 - A. Compensation and rehabilitation of the affected people must be ensured in order to restore at least their previous standard of living.
 - B. Provision to ensure public participation in compensation and rehabilitation planning.
 - C. Inclusion of both titleholder and non-titleholder of land for compensation.

10. Specific EIA guidelines for coal-based thermal power project should be formulated.
11. The agreement on the partnership and loan with regard to the coal-fired projects should be publicly disclosed.
12. Through formation of a law, a portion of the profits from the project should be allocated for the development of the project area and permanent financial benefit should be provided to the project affected people.

C. Overall

13. It can be said that considering the pollution of environment, coal-based power production should be stopped gradually. Emphasis should be given to solar or wind based renewable power production.
