

Date: October 11th, 2023

**Environmental and Social Considerations in Detailed Planning Survey
for
The project for the formulation of MIDI Master Plan
in
People's Republic of Bangladesh

(Technical Cooperation of Development Planning)**

Abbreviations

AOC	Area of Concerns
BELA	Bangladesh Environmental Lawyers Association
BEZA	Bangladesh Economic Zone Authority
CPGCBL	Coal Power Generation Company Bangladesh Ltd
DoE	Department of Environment
DoF	Department of Forest
ECA	Ecologically Critical Area
EIA	Environmental Impact Assessment
ERD	Economic Relations Division
F/S	Feasibility Study
GR	Game Reserve
IEE	Initial Environmental Examination
IUCN	International Union for Conservation of Nature
L/A	Loan Agreement
MIDI	Moheshkhali Matarbari Integrated Infrastructure Development Initiative
MIDI-CELL	Moheshkhali Matarbari Integrated Infrastructure Development Initiative Cell
MoEFCC	Ministry of Environment, Forest and Climate Change
MoWR	Ministry of Water Resources
NP	National Park
PPP	Policy, Plan and Program
RF	Reserved Forest
SEA	Strategic Environmental Assessment
WCS	Wildlife Conservation Society
WS	Wildlife Sanctuary

1. Full title of the Project

Project for the Formulation of MIDI Master Plan

(It was agreed in the Minutes of Meetings that the amendment to the title of the project from “Project for the Formulation and Acceleration of MIDI Master Plan” to “Project for the Formulation of MIDI Master Plan”)

2. Type of the study (e.g. Master Plan, Feasibility Study, Detailed Design, etc.)

Technical Cooperation of Development Planning

3. Categorization and its reason

The Project is classified as a “Category A” because of the following reasons:

The project falls into the industrial development and ports and harbors sector under the JICA Guidelines for Environmental and Social Considerations (April 2010, hereinafter referred to as “JICA Guideline”).

4. Agency or institution responsible for the implementation of the project

(1) Implementing Agency

- 1) Moheshkhali Matarbari Integrated Infrastructure Development Initiative Cell (MIDI-Cell), Prime Minister’s Office
- 2) Economic Relations Division (ERD), Ministry of Finance

(2) Other related agencies include:

- Prime Minister’s Office
- Ministry of Land;
- Power Division;
- Energy & Mineral Resources Division;
- Planning Commission;
- Ministry of Water Resources;
- Road Transport and Highways Division;
- Ministry of Shipping;
- Ministry of Industry;
- Ministry of Commerce;
- Economic Relations Division;
- Local Government Division;

- SRCC PMO;
- Bangladesh Investment Development Authority;
- Bangladesh Economic Zone Authority;
- Divisional Commissioner, Chattogram;
- Deputy Commissioner, Cox's Bazar; and
- Other persons that Bangladesh side might consider necessary (Relevant Ministries, Authorities and Organizations).

5. Outline of the Project (objectives, justification, location, proposed activities, and scope of the study)

Both Government of Bangladesh and Government of Japan sides confirmed the project site area below,

- Dhaka City, Dhaka District (The location of MIDI-Cell)
- Moheshkhali Upazila, Cox's Bazar District (Project site)
- Chakaria Upazila, Cox's Bazar District (Economic Zone development, Township development, Utilizing the infrastructure and starting point of Road and Railways).

There are following three (3) Outputs of the provisional plan of the project,

- a) To contribute to formulating MIDI Master Plan
- b) To contribute to capacity development for implementation and monitoring of MIDI Master Plan's acceleration.
- c) To contribute to establishing implementation structure and procedures for the implementation of MIDI Master Plan

Figure 1 shows the Project Site.

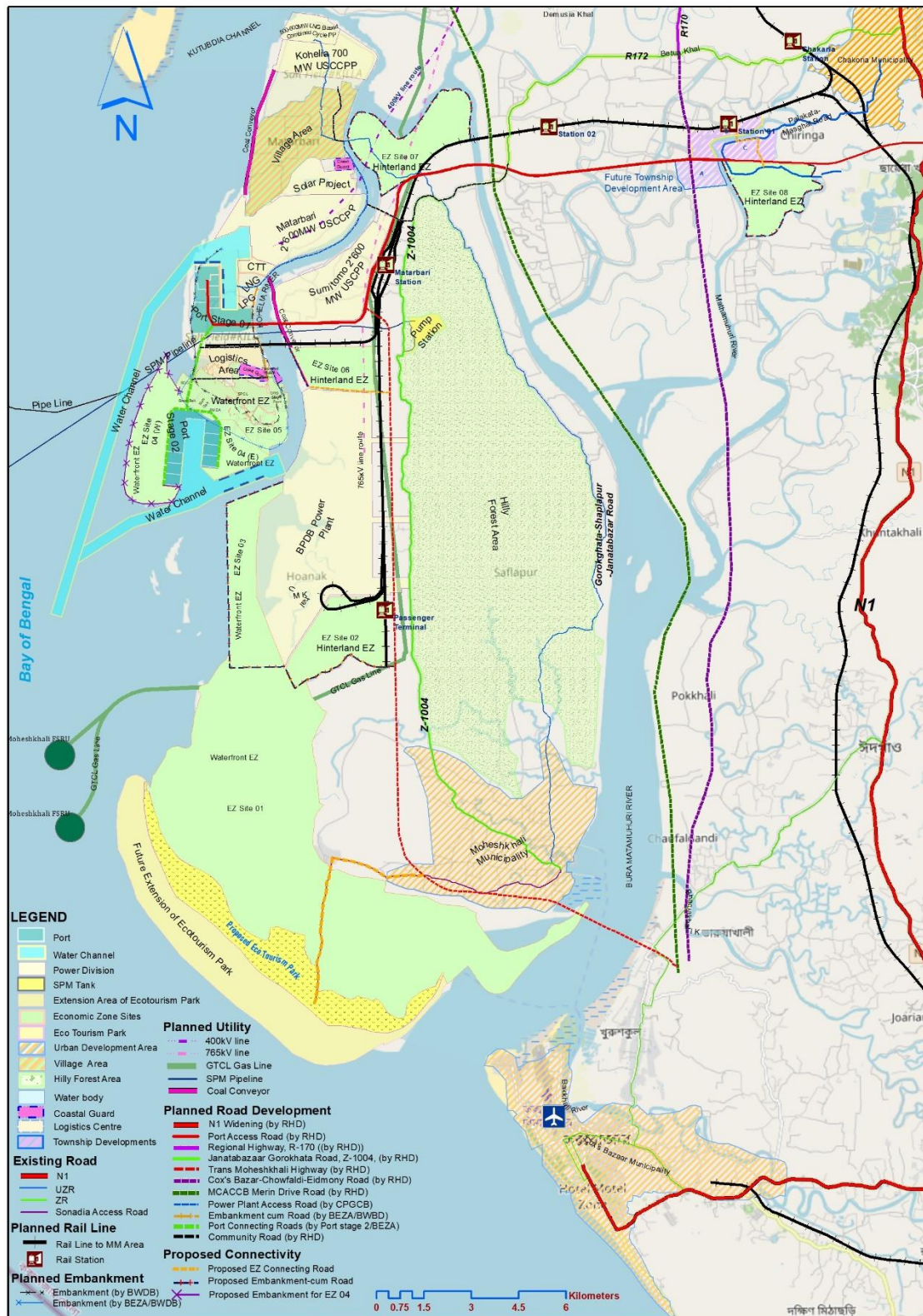


Figure 1 Project Site

6. Description of the project site (maps, environmental and social condition, current issues, etc.)

6.1 Environmental and Social Baseline of Project Site

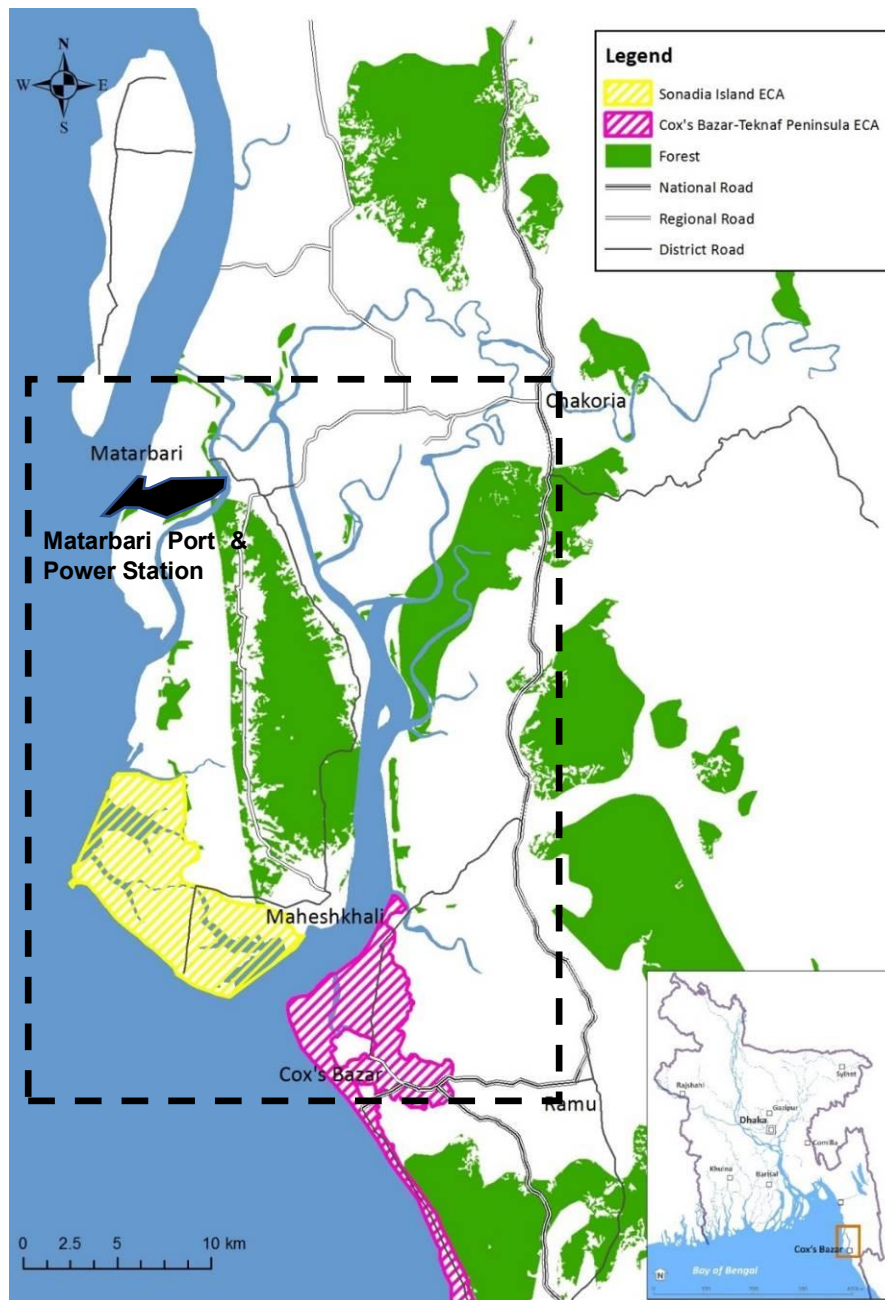
Figure 2 shows the regional vegetation and nearby environmentally protected areas around the study site. As shown in this figure, there are following two (2) important ECAs (Ecologically Critical Area) such as Sonadia Island ECA (approximately 17km to the south from both the Matarbari Port and Power Station site) and Cox's Bazar-Teknaf Peninsula ECA around the study site. Relevant management rules of those ECA are specified by Ecologically Critical Area Management Rules, 2016). Based on FAQ of JICA Guideline (April 2010, revised on 4 January 2022)¹, Sonadia Island ECA is categorized as “Critical Habitat“ since several IUCN-categorized CR and EN species such as Spoon-billed Sandpiper (CR), Hawks Bill Turtle (CR), Fishing Cat (CR), Green Turtle (EN), Olive Ridley Turtle (EN), Irrawaddy Dolphin (EN) are observed therein (confirmed through interviews with DoF, IUCN Bangladesh Office and WCS Bangladesh Office).

Besides, there are several small-scale Reserved Forests (RFs, green-coloured areas in Figure 2). Those ECAs are supervised by Department of Environment (DoE), the Ministry of Environment, Forest and Climate Change (MoEFCC) as well as RFs are by Department of Forest (DoF) of MoEFCC.

Within RFs areas, the traditional use of forest products is permitted for nearby local communities therein (note that regional office of DoF has the latest information of those RFs). It was informed that World Bank-funded mangrove plantation project was implemented at the channel between Matarbari and Moheshkhali Islands (to be completed by June 2015).

The major industries in Project Site are salt farming in the dry season (salt pans) and shrimp farming in the rainy season using low-altitude land. Agriculture is mainly upland rice cultivation in the relatively high-altitude area.

¹ https://www.jica.go.jp/environment/guideline/ei8tc50000005dzu-att/guideline_faq_202201_e.pdf



Source: Data Collection Survey on Integrated Development for Southern Chittagong Region (2015)

Figure 2 Environmentally Protected Areas around Southern Chattogram and Cox Bazar Region

Note: dotted rectangular line, shown in this figure shows the boundary of the project site. Yellow colored one shows Sonadia Island ECA and purple colored one shows Cox's Bazar-Teknaf Peninsula ECA, respectively.

6.2 Current Issues

L/A of Matarbari Ultra Super Critical Coal-Fired Power Project (Phase 1), located inside

of the project site, was signed in June, 2014, and then, its construction activities and relevant environmental and social management program (environmental monitoring included) were initiated eventually Comprehensive baseline natural and social environmental information were collected and summarized within the F/S Report of Phase 1 project. Since the project site contains the site of Phase 1 construction project, mentioned earlier, it is highly likely that the surrounding bio-physical environment would be affected continuously by on-going construction activities of Phase 1 construction project to some extents. So that, it is essential to contact Coal Power Generation Company Bangladesh Ltd (CPGCBL), the project owner of this power station construction project, scrutinize survey results of the environmental monitoring process of Phase 1 construction project and analyze those impacts qualitatively and quantitatively.

Beside this coal-fired project, there are several on-going MIDI-related infrastructure development projects such as Matarbari Access road construction (financed by JICA), super dike construction project (financed by MoWR) and/or development plan such as the eco-tourism project (financed by BEZA, F/S is completed and environmental approval was already obtained from DoE). So, considering each project feature, it is essential to establish the harmonization with those MIDI-related projects in order to develop a MIDI Master Plan development study while evaluating compound and/or accumulated impacts of each.

Regarding the eco-tourism development project, mentioned above, a relevant feasibility study was conducted by BEZA (study report, entitled “Feasibility Study for the Economic Zone Site in Sonadia, Moheshkhali, July 2020”). Upon reviewing its content, BEZA concluded that, for its long-term sustainable development, much more efforts shall be required from the aspect of the local ecosystem bio-diversity in the Sonadia Island ECA, and then, shall be incorporated into the study report. BEZA requested possible supports within MIDI-Master Plan Study (confirmed within the interview with BEZA, held in May 2023).

No specific development plan is to be developed at Sonadia Island ECA within MIDI-Master Plan. The main objective of BEZA’s current eco-tourism development is to improve the welfare of future MIDI-Master Plan related residents such as engineers, workers professional and their families, to be settled down therein, through the eco-tourism development at Sonadia Island ECA. So that, it is essential to have a comprehensive review of this eco-tourism development project within MIDI-Master Plan Study while establishing the harmonization with the future land use pattern of entire Moheshkhali Island and making this eco-tourism plan more sustainable one. Table below summarizes the conditions listed within FAQ of JICA Guideline need to be fulfilled if this MIDI-Master

Plan covers such critical areas.

Table 1 Conditions, summarized within JICA Guideline FAQ

Conditions	Findings/Mitigation
<p>(1) No feasible alternative plans shall be available in areas other than the area designated as such by the country and/or local governments by laws and/or ordinances to protect nature and cultural heritage (“the Designated Area” hereinafter):</p>	<p>No feasible alternative eco-tourism plans exist since the main objective of this eco-tourism plan is to improve the welfare of future MIDI-Master Plan – related residents. Also, there are possibilities to create new local eco-system values-based business opportunities for local communities therein. Thus, it is essential to cover Sonadia island ECA within the study scope of MIDI-Master Plan Study.</p> <p>Relevant studies, based on Eco-Park Initiative, developed by UNESCO would be feasible for the sustainable development of this eco-tourism project (e.g., the current ECA Area as core zone, the forest reserve, located at the eastern half of Moheshkhali Island as buffer zone, and the remaining other island area as transition zone). Eco-tourism project shall be implemented within future buffer zone.</p>
<p>(2) Development in the Designated Area shall be legally acceptable by the host country’s domestic laws:</p>	<p>In Bangladesh, eco-tourism development is categorized as “Green Category” project (ECR (2023)), and its implementation within ECA Area is legally possible.</p> <p>BEZA already obtained relevant environmental clearance certificate (ECC) of this eco-tourism development project (confirmed within the interview with BEZA, conducted in May 2023).</p>
<p>(3) Project proponents, shall comply with the laws, ordinance concerning the Designated Area and management plan of the protected zones:</p>	<p>ECA Management Rule (2016) states ways of ECA management process. It is important to request the project proponent to comply with this rule while allocating sufficient human resources and budget for its fulfilment.</p>
<p>(4) Project proponents, shall form a consensus about project implementation with stakeholders including organizations responsible for managing the Designated Area, local communities through consultations:</p>	<p>ECA Management Rule (2016) stress out the importance of community-based ECA management</p> <p>It is essential to request the project proponent to establish good, long-term liaison with local community people and relevant stakeholders for effective and sustainable development therein.</p>
<p>(5) Project proponents, shall perform additional programmes, where necessary, to ensure that the Designated Area is effectively managed for its conservation.*</p>	<p>As mentioned above (see Finding/Mitigation of Condition 3), it is important to request the project proponent to implement additional conservation programmes where necessary to ensure that the designated critical area is</p>

	effectively managed for its conservation by conservation unit, to be set up within the project proponent.
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Source: Answers to Frequently Asked Questions About Japan International Co-operation Agency (JICA)'s Guidelines for Environmental and Social Considerations

7. Legal Framework of Environmental and Social Considerations

(1) Laws, regulations and standards related to environmental and social issues including requirements and procedures of Environmental Impact Assessment (EIA), stakeholder participation, and information disclosure.

From aspects of the environmental and social considerations, following two studies, i.e., the strategic environmental assessment (SEA) for Master Plan development, and either of the initial environmental examination/ environmental impact assessment (IEE/EIA) for projects to be formulated, shall be conducted. It is noted that no specific MIDI-related project is to be developed within this MIDI Master Plan Study. Key relevant legal framework/regulations/guideline of those studies are summarized in the table below,

SEA	<ul style="list-style-type: none"> Importance of SEA implementation within Master Plan studies is mentioned within National Environmental Policy 2018. No specific guidelines nor regulation on SEA is enacted yet. It is noted that DoE encourages to implement SEA within master plan study (confirmed within discussion between DoE and JICA Mission, held on May 14, 2023).
IEE/EIA	<ul style="list-style-type: none"> Environment Conservation Rules (ECR), 2023 National Environment Policy, 2018 Noise Pollution Control Rules (2006) Environment Court Act, 2000 and subsequent amendments in 2003 Environment Conservation Rules (ECR), 1997 National Environmental Management Action Plan (NEMAP), 1995 Environmental Conservation Act (ECA), 1995 National Environment Policy, 1992

(2) Relative agencies and institutions

SEA	DoE (Department of Environment)
IEE/EIA	DoE (Department of Environment)

It is noted that no specific decree, regulation nor guideline regarding the SEA implementation is not specified yet in Bangladesh. DoE has just initiated relevant legal code preparation of SEA (confirmed within the interview between DoE and JICA mission, held in May 2023). Thus,

no official process of SEA review nor examination by DOE exists for MIDI Master Plan study.

(3) Categorization of IEE/EIA

The Environment Conservation Rule (2023) addresses four categories of investment projects requiring environmental and social assessments (see table below).

Table 2 Categorization of IEE/EIA Study

Green	Industries or projects in the green category have relatively little impact on the environment; However, this class of industries or projects has the opportunity to take mitigation measures.
Yellow	There is a moderate impact on the environment of the industries or projects in the yellow category. In order to avoid this environmental impact, it is necessary to take mitigation measures for this class of industries or projects.
Orange	Orange-class industries or projects have a considerable impact on the environment, which needs to be avoided in order to conserve the environment. The environmental impact of this class of industries or projects can be mitigated by taking appropriate mitigation measures
Red	Industries or projects in the red category have a severe impact on the environment, which needs to be avoided in order to preserve the environment to an appropriate extent. Significant mitigation measures are required to reduce the environmental impact of this class of industries or projects

Source: ECR2023

Schedule 1 of ECR2023, mentioned above, clarifies the environmental categorization (e.g., Green, Yellow, Orange and Red), and any industries or projects not included in the four categories mentioned in Schedule 1 shall be determined by Schedule 14 of ECR2023.

8. Alternatives to the project activities including ‘without project’ option.

Alternatives of selected development scenarios are to be formulated after more specific MIDI Master Plan features are delineated and relevant plan formulations are finalized.

9. Scoping (types and magnitudes of possible adverse impacts and mitigation measures)

Table 3 shows the preliminary scoping results prepared based on the generally expected impacts through the MIDI Master Plan development and resultant investment promotion, to be induced later. It is noted that potential impacts of MIDI Master Plan are to be identified and shared among stakeholders through the strategic environmental study to be conducted within this study.

Table 3 Scoping Results for the project

Item	Rating		Results
	Pre- /	Operation	

			construction phase	phase	
Pollution Control	1	Air Quality	✓	✓	<p>Construction phase:</p> <ul style="list-style-type: none"> - Region-wide transport pattern would be changed locally by the implementation of road-related improvement projects to be conducted based on MIDI. Production of dust is expected by land preparation and other construction work, but the impact will be temporary. - Generation of air pollutants (SOx, NOx, etc.) is predicted from the operation of heavy machinery and trucks, but the impact will be limited to only the surrounding area. <p>Operation phase:</p> <ul style="list-style-type: none"> - Vehicular emission such as NOx, PM would be worsened locally by the operation of road-related projects, but limited to nearby surrounding areas. - Local air quality around the industrial park would be worsened due to the industrial emission from factories therein.
	2	Water Quality	✓	✓	<p>Construction phase:</p> <ul style="list-style-type: none"> - Water turbidity is anticipated by construction work, but the impact will be temporary. - The impact of construction wastewater is anticipated. <p>Operation phase:</p> <ul style="list-style-type: none"> - Household effluent discharge would be increased due to the development of new townships. Besides, industrial effluent discharge would be increased due to the development of new industrial zones.
	3	Soil Quality	✓	✓	<p>Construction phase:</p> <ul style="list-style-type: none"> - Implementation of several infrastructure development projects such as highway and railway are to be planned around the Project Site. Possibility of soil pollution caused by leakage of lubricants and fuel oil from construction vehicles and machinery. <p>Operation phase:</p> <ul style="list-style-type: none"> - Possibility of soil pollution caused by leakage of lubricants and fuel oil used for those operations.
	4	Sediment	✓	✓	<p>Construction phase:</p> <ul style="list-style-type: none"> - Possibility of sediment pollution in case construction wastewater flows into nearby channels, tributaries of Matamuhuli and Kohelia Rivers. <p>Operation phase:</p> <ul style="list-style-type: none"> - Possibility of sediment pollution in case household wastewater and domestic wastewater flows into nearby channels, tributaries of Matamuhuli and

					Kohelia Rivers.
5	Noise and Vibration	✓	✓	<p>Construction phase:</p> <ul style="list-style-type: none"> - Urban transport pattern would be changed locally by the implementation of transport-related MIDI-projects. Impact of noise and vibration is predicted caused by the operation of heavy machinery and trucks, but will be limited to the surrounding area. - Besides, local noise and vibration environment around the project site would be temporally worsened due to the construction of industrial parks, economic zone, energy hub and other relevant activities. <p>Operation phase:</p> <ul style="list-style-type: none"> - Roadside noise and vibration would be worsened locally by the operation of transport-related MIDI projects but limited to nearby surrounding areas. - Besides, local noise and vibration environment around the project site would be worsened due to the operation of industrial parks, economic zone, energy hub and other relevant activities, but will be limited to the surrounding area. 	
6	Odor	✓	✓	<p>Construction phases:</p> <ul style="list-style-type: none"> - Construction wastewater to be generated within constructions of industrial parks and special economic zones, to be planned around the Project Site, as well as future township development, to be discharged into nearby channels, tributaries of Matamuhuli and Kohelia Rivers may cause foul odor. <p>Operation phases:</p> <ul style="list-style-type: none"> - Effluent due to the implementation of MIDI-related projects, to be planned around the Buffer zone, as well as future township development, to be discharged into nearby channels, tributaries of Matamuhuli and Kohelia Rivers may cause foul odor. may emanate from the rotten waste. 	
7	Wastes	✓	✓	<p>Construction phase:</p> <ul style="list-style-type: none"> - General waste and hazardous waste would generated by the construction work of MIDI-related projects, to be planned around Project Site, as well as the future township development. <p>Operation phase:</p> <ul style="list-style-type: none"> - General waste and hazardous industrial waste would be generated by the operation of MIDI-related projects, to be planned around Project Site, as well as the future township development 	
8	Subsidence	✓	✓	<p>Construction and Operation phases:</p> <ul style="list-style-type: none"> - Due to local topographic condition of Project Site, it is highly likely that alluvial plain geological 	

					structure exist, and thus risk of ground subsidence due to construction of heavy infrastructure facilities and/or over-pumping of ground water.
Natural Environment	9	Protected Area	✓	✓	Construction and Operation phases: Sonadia Island ECA exist. Several reserved forests (RFs) and relevant protected areas that serves as buffer zones of ECA exist across Project Site.
	10	Ecosystem	✓	✓	Construction and Operation phases: Same as above. BEZA (Bangladesh Economic Zone Authority) conducted F/S of eco-tourism project at Sonadia Island ECA (already approved by DoE this year), but not is satisfied with its study result. BEZA request to relevant supports/feedback from JICA regarding this ecotourism project to make it sustainable (confirmed within discussion between BEZA and JICA Mission, held on May 16, 2023).
	11	Hydrology	✓	✓	Construction and Operation phases: Regional water balance and flow patterns would be highly affected due to the construction work of MIDI-related projects, to be planned around Project Site as well as the future township development. Entire Project Site is cyclone and high-tide prone area, so that it is essential to develop appropriate disaster prevention policy within this Mater Plan study.
	12	Topography	✓	✓	Construction and Operation phases: Regional topographic condition would be affected due to the construction work of MIDI-related projects, to be planned around Project Site as well as the future township development. Severe earthquake occurred in July 22, 1999 at Moheshkhali Island (magnitude of main shock was of 5.1). So, it is essential to develop appropriate disaster prevention policy within this Mater Plan study.
Social Environment	13	Resettlement	✓	-	Pre-construction phase: Resettlement would be caused due to certain types of MIDI-related projects, to be conducted.
	14	Poor people	✓	✓	Pre-construction phase: It will be confirmed if there are any migration of poor people due to the implementation of MIDI-related projects, to be conducted, the impact and mitigation measures will be considered as needed. Operation phase: It will be confirmed whether it is possible to benefit from the livelihood restoration measures and the social services and improved accessibility to the market.
	15	Ethnic minorities and	-	-	Pre-construction phase: It was confirmed that there were no ethnic minorities

	indigenous peoples			or indigenous people community in and around the project site of Project Site. It will be confirmed if there are any migration of ethnic minorities/indigenous people due to the implementation of MIDI-related projects, the impact and mitigation measures will be considered as needed.
16	Local economy such as employment and livelihood means	✓	✓	Construction and Operation phases: Some of MIDI-related projects may cause loss of livelihood for local communities. It is essential to establish comprehensive a region-wide project consensus through a series of public consultation before/during/after construction phases.
17	Land Use and Utilization of Local Resources	✓	✓	Construction and Operation phases: It is not expected that this project will cause changes within the utilization of local resources. It is essential to establish comprehensive a region-wide project consensus through a series of public consultation before/during/after construction phases.
18	Water usage	-	-	It is expected that this project would cause some impacts within the water use due to the implementation of MIDI-related projects.
19	Existing Social Infrastructure and Services	✓	✓	Construction and Operation phases: It is expected that this project will cause changes within the existing social infrastructure and services. It is essential to establish comprehensive a region-wide project consensus through a series of public consultation before/during/after construction phases.
20	Social institutions such as social infrastructure and local decision-making institutions	✓	✓	Construction and Operation phases: It is expected that this project will cause changes within social institutions. It is essential to establish comprehensive a region-wide project consensus through a series of public consultation before/during/after construction phases.
21	Misdistribution of benefits and loss	✓	✓	Construction and Operation phases: It is expected that this project will cause misdistribution of benefits and loss. It is essential to establish comprehensive a region-wide project consensus through a series of public consultation before/during/after construction phases.
22	Local conflicts of interest	✓	✓	Construction and Operation phases: It is expected that this project will cause local conflicts of interest. It is essential to establish comprehensive a region-wide project consensus through a series of public consultation before/during/after construction phases.
23	Cultural heritage	✓	✓	Construction and Operation phases: No important cultural heritage exist across Project Site except one Hindi temple located at the summit of Moheshkhali Island.

	24	Landscape	✓	✓	Construction and Operation phases: Vast mangrove vegetation, occurred around the coastal area of MIDI, is one of important landscape factors. MIDI master plan study shall be implemented while establishing good liaison with DoF, DoE and other relevant agencies and/or organizations (e.g., WCS, IUCN) in order to implement appropriate landscape conservation of entire Project Site.
	25	Gender	✓	✓	Construction and Operation phases: It is not expected that this project will cause any gender-related issues. It is essential to establish comprehensive a region-wide project consensus through a series of public consultation before/during/after construction phases.
	26	Children's Rights	✓	✓	Construction and Operation phases: It is not expected that this project will cause any children's right-related issues. It is essential to establish comprehensive a region-wide project consensus through a series of public consultation before/during/after construction phases.
	27	Infectious diseases such as HIV/AIDS	✓	-	Construction and Operation phases: It is possible that infectious diseases and infectious diseases spread due to the influx of construction workers and tourists.
	28	Work environment (including work safety)	✓	✓	Construction phase: There is a possibility of occupational accidents during construction work. Operation phase: There is a possibility of occupational accidents for workers.
Other	29	Accidents	✓	✓	Construction phase: There is a possibility of accidents during construction work, traffic accidents of construction vehicles on surrounding roads, and accidents of vessels related to construction of MIDI-related projects. Operation phase: There is a possibility of accidents in power plant operation and maintenance activities, fires, and traffic accidents on surrounding roads.
	30	Cross-boundary Impact and Climate Change	✓	✓	Construction phase: - Effluents to be discharged into nearby water bodies (final destination is Bay of Bengal) may cause some problems at coastal neighboring countries. - CO ₂ will be generated by construction work of MIDI-related projects. Impact during construction work is temporary. Operation phase: - Effluents to be discharged into nearby water bodies

					(final destination is Bay of Bengal) may cause some problems at coastal neighboring countries. - CO ₂ to be generated by transport is temporary, but is recommended to be estimated.
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Note: '✓' is attached to items that are expected to be affected by the project or that cannot be determined at the scoping stage before / during construction and during operation. '-' is attached to items for which no impact is expected.

10. Terms of Reference for Environmental and Social Considerations

10.1 SEA of the project for the formulation and acceleration of MIDI Master Plan

The Project conducts Strategic Environmental Assessment (SEA) in accordance with JICA Guideline (April, 2010). It is noted that EU-Directive-based the 1st SEA study was conducted within the project, entitled "Strategic Environmental Assessment (SEA) of the South-West Region of Bangladesh for conserving outstanding universal value of the Sundarbans" (Jan/2020 – June 2022). The master plan owner is DoF, financed by UNESCO. 2nd SEA study is conducted within the project, entitled "Preparing of the strategic environmental assessment (SEA) for Payra-Kuakata Comprehensive Development Plan focusing Ecotourism Project".

The Project conducts SEA in accordance with the JICA Guideline (April, 2010) as follows:

- 1) Examination of objectives of development policies and plans.
- 2) Analysis of alternatives for achieving the goals of the Project.
- 3) Consideration of contents (Development forecasts, list of countermeasures, routes and maps of future development areas and others).
- 4) Scoping (Clarify extremely important items on environmental and social impacts, and define the method of evaluation at the time of decision making of the Project)
- 5) Confirmation of a baseline data of existing environmental and social conditions of the proposed area in the Project (land utilization, natural environment, culture and lifestyle of indigenous people and their communities, local economy and socio-cultural environment and others).
- 6) Confirmation of legal framework and institution on environmental and social considerations, and examination of the experiences of SEA study in Bangladesh.
 - a. Laws, regulations, and standards related to environmental and social considerations (EIA, Resettlement, Public participation, Information disclosure and others).

b. Gaps between the “JICA Guideline (April, 2010)” and legal framework on environmental and social considerations in Bangladesh.

c. Outlines of relative/related agencies and institutions responsible for the implementation of the projects.

7) Prediction of likely impacts of proposed projects in the Project.

8) Evaluation of likely impacts of the projects above and comparative analysis of alternatives of proposed projects, including ‘without project’ option.

9) Examination of the mitigation measures (Avoidance, Minimization and Compensation).

10) Consideration of the surveillance (Items, Frequencies and Methods).

11) Support to hold stakeholder meetings.

Specific ToR of SEA to be required for this MIDI Master Plan Study shall be developed based on both JICA Guideline (April, 2010) and National Environmental Policy (2018) of Bangladesh.

10.2 EIA/IEE of Pilot Project

No specific MIDI-related pilot project is to be developed within this MIDI Master Plan Study.

11. Result of investigations for Environmental and Social Considerations

Based on technical site visit and interviews with relevant agencies/organizations, conducted in May 2023, it is found that continuous conservation activities such as long-term monitoring activities of local flora/fauna as well as environmental awareness campaigns for local communities are taken at the Sonadia Island ECA. Legal framework to protect that ECA is already established. However, its implementation quality, in particular, sustainable, long-term measures of ECA conservation, paying attentions to the uniqueness of local biodiversity of Sonadia Island ECA is not good enough and resultant outputs would not meet the expectation of IUCN, WCS and other relevant environmental NGOs due to lack of coordination among Government of Bangladesh side and its surrounding communities. Appropriate environmental and social safeguards shall be delineated through a discussion with MIDI-Cell, BEZA, DoE, DoF as well as IUCN, WCS and other agencies/organization and/or institutes.

Also, it is found that the strategic environmental assessment (SEA) shall be conducted since this is MIDI Master Plan study. Although no relevant specific SEA-related legal framework is not established yet, one SEA study was conducted across Sundarbans

(financed by UNESCO and C/P agency is DoF), and another SEA study is on-going at Pyra – Kurukata by the local city corporation since some government planners begin to recognize the importance and usefulness of SEA within regional planning process. DoE also expressed their concerns that more SEA experiences would contribute the establishment of proper legal SEA framework, to be conducted by themselves.

12. Impact Assessment

No specific MIDI-related pilot project is to be developed within this MIDI Master Plan Study. It is noted that potential impacts of MIDI Master Plan are to be identified and shared among stakeholders through the strategic environmental study to be conducted within this study.

13. Environmental Management Plan (Mitigation measures for adverse impact)

No specific MIDI-related pilot project is to be developed within this MIDI Master Plan Study. It is noted that potential impacts of MIDI Master Plan are to be identified and shared among stakeholders through the strategic environmental study to be conducted within this study.

14. Environmental Monitoring Plan

No specific MIDI-related pilot project is to be developed within this MIDI Master Plan Study. It is noted that potential impacts of MIDI Master Plan are to be identified and shared among stakeholders through the strategic environmental study to be conducted within this study.

15. Result of the consultation with recipient government on environmental and social consideration including roles and responsibilities.

Both DoE and DoF are key environmental governmental organizations in Bangladesh and continuous improvement and updating of its relevant environmental legal framework are conducted.

Current MIDI-Cell's function is the coordination among line ministries and/or organizations, and no section, unit nor full-time personnel in charge of the environmental and social safeguard implementation is staffed therein.

To guarantee the environmental governance and accountability of JICA-financed study,

it should be considered to establish authorized environmental section within MIDI-Cell and/or implementing agency to be set up in order to nurture the ownership of Government of Bangladesh as both the MIDI Master Plan owner while conducting appropriate capacity development program regarding the implementation of SEA and environmental and social safeguard of relevant MIDI projects at least therein.

16. Other relevant information

AOC covers the Sonadia Island ECA, designated by Government of Bangladesh, and several renowned environmental NGOs such as WCS and IUCN are doing their continuous conservation activities therein while keeping liaisons with regional/international conservation groups/academics. Both IUCN/WCS have expressed their positive concerns for MIDI Master Plan Study, provided that appropriate environmental governance and accountability are to be taken within MIDI Master Plan study, offered to provide supports if necessary.

BELA (Bangladesh Environmental Lawyers Association) became also another key players after the construction of Matarbari Ultra Super Critical Coal-Fired Power Project (Phase 1) has been initiated.

It is essential to establish proper liaison with IUCN WCS as well as BELA at the early stage of entire master plan study.

[DRAFT] TERMS OF REFERENCE OF ENVIRONMENTAL AND SOCIAL CONSIDERATIONS STUDIES

1. In the environmental and social considerations study of this Project, the concept of Strategic Environmental Assessment (hereinafter referred to as "SEA") shall be applied, based on JICA Guidelines for Environmental and Social Considerations (April 2010) and Bangladesh environmental law and regulations.
2. This draft terms of reference for SEA for the Project is tentative and subject to change. The details of the SEA shall be discussed through the process of Project implementation.
3. The SEA is environmental assessment at Policy (P), Planning (P), and Program (P), (PPP) level. It has a profound significance in the plans for proactive environmental and social considerations into the higher levels of decision-making processes by early warning on environmental and social impacts, broad and long-term perspective.
4. Main items of the environmental and social considerations study shall include, but not limited to, the followings:
 - (1) Review the goals/objectives and contents of the existing policies/plans/programs and examine the issues on environmental and social aspects for urban development planning;
 - (2) Conduct comparative analysis of alternatives to realize the goals/objectives including the "without project" scenario;
 - (3) Conduct scoping (clarify extremely important items on environmental and social impacts and its evaluation methods at the time of decision making such as policy, plan, and program levels);
 - (4) Conduct baseline survey on existing environmental and social conditions of the target area (e.g. land use, environmental pollution, natural environment, socio-economic situation, socio-cultural environment, lifestyle of indigenous people and communities);
 - (5) Identify legal framework and institutions of Bangladesh on environmental and social considerations, including:
 - 1) Laws, regulations, and standards related to environmental and social considerations (e.g. those related to EIA, SEA, resettlement, public participation, information disclosure);

- 2) Gaps between the JICA Guidelines and the legal framework of Bangladesh on environmental and social considerations and how they will be filled in the Project;
- 3) Organizations responsible for implementation of environmental and social considerations including EIA and SEA and division of their roles;
- (6) Predict likely environmental and social impacts of each alternative based on the results of scoping;
- (7) Evaluate likely impacts and compare alternatives at policy, plan, and program level. Options including “without project option” from technical, financial, and impacts of environmental and social points of view, and select the optimal plan;
- (8) Identify measures to mitigate the impacts in the optional plan (i.e. measures to avoid, minimize, or compensate the negative impacts);
- (9) Identify monitoring methods based on the mitigation measures; and
- (10) Conduct scoping of environmental and social impacts of pilot projects (i.e. identify important environmental and social impacts and how they will be predicted and evaluated); and,
- (11) Stakeholder meetings should be organized based on stakeholder analysis and results of consultations should be reflected in the project design.