

ENVIRONMENTAL AND SOCIAL MANAGEMENT FRAMEWORK

Development of Distribution Infrastructure for Loss
Reduction works covered under RDSS Programme
at seven ADB-funded districts i.e. Hooghly,
Bardhaman East, Bardhaman West, Birbhum, Nadia,
Murshidabad and Malda of West Bengal

Document No.: IISWBM/ESMF-WBSEDCL/2024/001 Version: 1.9



IISWBM

September 2024

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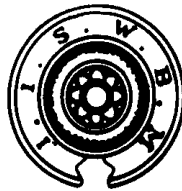
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Nadia, Murshidabad and Malda of West Bengal**

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**WEST BENGAL STATE ELECTRICITY DISTRIBUTION
COMPANY LIMITED
Vidyut Bhavan, Bidhan Nagar
Kolkata – 700 091**

Executed by



**Indian Institute of Social Welfare
& Business Management, Kolkata – 700 073**

September, 2024

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LIST OF ACRONYMS AND ABBREVIATIONS

ABC	Aerial Bunched Cabling
ADB	Asian Development Bank
AE	Assistant Engineer
CDD	Community-Driven Development
CEA	Central Electricity Authority
CGRF	Consumer Grievance Redressal Forum
CMVR	Central Motor Vehicle Rules
CO ₂	Carbon Dioxide
CPCB	Central Pollution Control Board
CPRI	Central Power Research Institute
CRZ	Coastal Regulation Zone
DC	District Collector
DE	Divisional Engineer
EE	Executive Engineer
EEE	Electrical and Electronic Equipment
EHSGs	Environmental, Health and Safety Guidelines
EIA	Environmental Impact Assessment
EPA	Environment Protection Agency
ERP	Emergency Response Plan
ESA	Environmental and Social Assessment
ESCP	Environmental and Social Commitment Plan
ESF	Environmental & Social Framework
ESIA	Environmental & Social Impact Assessment
ESMF	Environmental and Social Management Framework
EMP	Environmental Management Plan
ESMS	Environmental and Social Management System
FPIC	Free, Prior and Informed Consent
GDF	Gender Development Framework
GHG	Greenhouse Gas
GoWB	Government of West Bengal
GoI	Government of India
GIIP	Good International Industry Practice
GIS	Gas Insulated Switchyard
GRC	Grievance Redressal Cell
GRS	Grievance Redress Service
GWP	Global Warming Potential

IEE	Initial Environmental Examination
IPP	Indigenous People Plan
IR	Involuntary Resettlement
LMP	Labour Management Procedure
LTOH	Low Tension Overhead
MoEF&CC	Ministry of Environment, Forests & Climate Change
MoP	Ministry of Power
MoU	Memorandum of Understanding
MVA	The Motor Vehicles Act
NGO	Non-Governmental Organization
NOC	No Objection Certificate
O&M	Operation and Maintenance
OHS	Occupational Health and Safety
PCB	Polychlorinated Biphenyls
PCCF	Principal Chief Conservator of Forests
PESO	Petroleum and Explosives Safety Organisation
PF	Provident Fund
PIU	Project Implementation Unit
RDSS	Revamped Reforms Based and Results Linked, Distribution Sector Scheme
RHA	Risk Hazard Assessment
RPF	Resettlement Policy Framework
R&R	Rehabilitation and Resettlement
RFCTLARRA	Right to Fair Compensation and Transparency in Land Acquisition, Rehabilitation and Resettlement Act
RoW	Right of Way
SC	Scheduled Caste
SE	Superintendent Engineer
SF6	Sulfur Hexafluoride
SIA	Social Impact Assessment
SPCB	State Pollution Control Board
SPS	ADB's Safeguard Policy Statement
SEP	Stakeholder Engagement Plan
SESA	Strategic Environmental and Social Assessment
ST	Scheduled Tribe
T&D	Transmission and distribution
TPPF	Tribal Peoples Planning Framework
UGC	Underground Cabling
WBPCB	West Bengal Pollution Control Board
WBSEDCL	West Bengal State Electricity Distribution Company Limited

1.0 INTRODUCTION

1.1 BACKGROUND

West Bengal State Electricity Distribution Company Limited (WBSEDCL) is a power distribution licensee for almost the entire State of West Bengal, except for certain areas, which are catered by private distribution licensees. WBSEDCL accounts for about 80% of the power supply in the State and caters to almost 18.1 million customers.

The rapid economic growth in West Bengal has resulted in growing electricity demand at a compound annual growth rate (CAGR) of 4.5 percent during the last five years. The electricity supply has kept pace, resulting in the state's energy deficit being within a low margin of 0.3-0.4 percent during the same period.

While WBSEDCL has extended grid connectivity to almost all consumers across the state, the large consumer base of low-paying and low-consumption households has put a strain on WBSEDCL finances. The number of consumers served by WBSEDCL has more than doubled in the last six years under the 'Sabar Ghare Alo' to almost 2.07 crore consumers with the main increase coming from rural areas and the state reaching universal electricity access. WBSEDCL's consumer mix is characterized by a high proportion of low-paying domestic consumers (around 95 percent of WBSEDCL's total consumer base), contributing to only around 39 percent of WBSEDCL's total retail sales in million units.

WBSEDCL's priority has now shifted from basic access to providing improved quality and reliability of electricity supply and ensuring its financial sustainability. Although the state has adequate power capacity, the intrastate distribution network will need to be strengthened to ensure that quality power supply is adequately supplied to the large consumer base, especially in rural Bengal. The doubling of the consumer base has led to multiple operational and financial challenges mentioned below that will need to be addressed:

- Reducing aggregate technical and commercial (AT&C) losses. Due to wide distribution spread over a wide geographical area, AT&C losses steadily grew to reach around 30% in FY15. WBSEDCL has been taking several initiatives to reduce the losses, and these have come down to around 20% in FY20 but have again increased to 21.3 percent in FY21 because of COVID-19. Ideally, they should be in the 10-15% range covering the entire State.
- Improving quality and reliability of power. Again, due to the geographical spread, WBSEDCL is facing a challenge in maintaining quality and reliable supply. The network suffers from frequent outages with the distribution transformer failure rate varying



between 4 & 10 percent. Improvement of the quality and reliability of supply, by strengthening infrastructure and incorporating self-healing capability in the network through automation, will be important for retaining the existing large consumers.

- Integrating advanced operation technologies (OTs) and automation of internal business operations. Globally, the business environment of Discoms is seeing a paradigm shift with the deployment of new technologies such as electric vehicles and an increase of distributed energy resources such as solar rooftops. WBSEDCL has to upgrade its IT and OT systems to automate network operations to facilitate the integration of renewable energy and handle the growing impact of an increasing number of prosumers, electric vehicles, and other distributed energy resource applications. Automation will help WBSEDCL to monitor the reliability of supply, identify and restore network disruptions, and track consumer complaints efficiently, thus leading to improved customer satisfaction.
- Building resilience against extreme climate events. Due to its proximity to the Bay of Bengal, West Bengal is frequently affected by cyclones and strong winds, especially in the monsoon season and the frequency of severe cyclonic storms is increasing noticeably. In May 2020, Super Cyclone 'Amphan' caused significant damage to the electricity infrastructure in West Bengal. Given this context, WBSEDCL needs to consider climate and disaster risks in system expansion and modernization, through hardening of the network using aerial bunched cables (ABCs) and underground cabling and communications capabilities that can withstand the impact of extreme weather events or quickly recognize and address disruption after the event has passed.
- Securing financial sustainability. WBSEDCL had generated profits in the past and its financial performance has deteriorated in the last three years due to high AT&C losses and lack of regular tariff revisions leading to an adverse Aggregate Cost of Supply (ACS)-Aggregate Revenue Requirement (ARR) gap.

To support the low-paying lifeline consumers, in the State Budget for 2020, the State Government started providing subsidies for consumers with quarterly consumption of less than 75 kWh under the 'Hashir Alo' scheme.

Thus, the sub-optimal performance of the distribution sector is due to structural and management deficiencies and residual weaknesses in the infrastructure. WBSEDCL needs to focus on improving its operational efficiencies and financial sustainability and improve consumer services to be able to meet the desired consumer service standards. This is a universal phenomenon in the country and hence large-scale reforms are necessary to reduce losses to make them financially sustainable and operationally efficient. It was for this reason that the GoI has proposed a Revamped Reforms Based and Results Linked Distribution Sector Scheme (RDSS)



to undertake reforms and improve performance in a time-bound manner in continuation to the earlier schemes mentioned above. The scheme is expected to be completed by 31/3/2026.

The prime objectives of the RDSS Programme include:

- i. Improvement in the quality, reliability, and affordability of power supply to consumers through a financially sustainable and operationally efficient distribution sector.
- ii. Reduction of AT&C losses to pan-India levels of 12-15% by 2024-25.
- iii. Reduction of ACS-ARR gap to zero by 2024-25.

For West Bengal, the objectives are to:

- i. Reduce Aggregate Technical & Commercial (AT&C) losses from the current 21.35% in FY21 to 12-15% by FY24-25 as per the GoI target.
- ii. Reduce Aggregate Cost of Supply (ACS)-Aggregate Revenue Requirement (ARR) gap from Re1.00 in FY21 to 0 by FY24-25.

Under the RDSS Programme following activities have been identified to execute:

- I.** Bifurcation of 11 Kv feeder
- II.** Segregation of 11 Kv feeder
- III.** Conversion of LTOH by AB cable
- IV.** Augmentation of 33/11 KV Sub-Station
- V.** Augmentation of 1-Phase DTR to 3-Phase and associated work
- VI.** Augmentation of conductor size of 11 KV feeder
- VII.** Capacitor Bank Installation in substations
- VIII.** IT/OT-enabled works

Out of the above, the Project IV department of WBSEDCL¹ has been entrusted with executing the activities mentioned in Sl. No. I, II, III, VI, VII and IT department have been entrusted with the execution of the activity mentioned as Sl. No. VIII. It may be pertinent to mention that Components IV and V are being looked after by another department of WBSEDCL.

RDSS work which is under execution throughout India is being implemented following the relevant Acts, Rules and Regulations of Govt. of India and the respective guidelines of State Electricity Regulatory Commissions. In West Bengal, for all 23 districts such Acts, Rules and

¹ RE Headquarter has been renamed as Project-IV by the competent authority of WBSEDCL vide order dated 24.05.2024. Henceforth the Project-IV will represent the erstwhile RE Headquarter.



Regulations are concurrently applicable. Part of the RDSS work will be funded by an Asian Development Bank (ADB) Results Based Lending (RBL) Loan. As per the lender's (ADB) requirement, in seven districts² [namely, (i) Hooghly (ii) Bardhaman East (iii) Bardhaman West (iv) Birbhum (v) Nadia (vi) Murshidabad and (vii) Malda] certain additional requirements which are elaborated henceforth have to be observed for works to be carried out as per Appendix 1.1 while developing distribution infrastructure for loss reduction activities under RDSS Programme as approved by Government of India and GoWB.

For the implementation of the RDSS works, including ADB RBL-funded works as per Appendix 1.1 of the works covered under in RDSS Programme at seven ADB-funded districts [namely, (i) Hooghly (ii) Bardhaman East (iii) Bardhaman West (iv) Birbhum (v) Nadia (vi) Murshidabad and (vii) Malda], this Environmental and Social Management Framework (ESMF), is prepared to provide guidance and framework that will ensure alignment and compliance of activities under the programme with applicable national and state legislations/regulations on the environment, involuntary resettlement and indigenous peoples, and additionally for works per Appendix 1.1 as per the Asian Development Bank's (ADB) Safeguard Policy Statement 2009 (SPS) principles.

1.2 PURPOSE OF THE ESMF

This Environmental and Social Management Framework (ESMF) is developed as a tool/instrument for assessing, managing and monitoring the environmental and social impacts of RDSS programme. The ESMF establishes the screening processes and tools to be directly implemented by WBSEDCL in assessing the risks and impacts of the sub-activities.

The purpose of this ESMF is, therefore, to establish procedures and methodologies for environmental and social screening, assessments and review processes for planning mitigative measures for possible potential impacts of each activity/sub-activities including monitoring and institutional arrangements for the works to be carried out for RDSS works cover under RDSS Programme at seven ADB funded districts namely, (i) Hooghly (ii) Bardhaman East (iii) Bardhaman West (iv) Birbhum (v) Nadia (vi) Murshidabad and (vii) Malda, of West Bengal, as per Appendix 1.1 (Figure 1.1).

1.2.1 OBJECTIVES OF THE ESMF

This Environmental & Social Management Framework (ESMF) defines a mechanism for integrating environmental and social concerns into the planning and execution of the

² As per lender's requirement, certain additional frameworks which are elaborated in the ESMF document is applicable exclusively in seven districts i.e., (i) Hooghly (ii) Bardhaman East (iii) Bardhaman West (iv) Birbhum (v) Nadia (vi) Murshidabad and (vii) Malda of West Bengal where distribution infrastructure for loss reduction activities under RDSS Programme funded by ADB. Hence forth this will be referred as "seven ADB funded districts".



development of distribution infrastructure for loss reduction under the works covered under in RDSS Programme at seven ADB-funded districts of West Bengal under RDSS. The ESMF thus defines processes for planning and implementing the environmental and social safeguards management and lays down the management procedures and protocols for the purpose that includes the framework for identification, assessment, and management of environmental and social concerns at both organizational and programme/activity levels to avoid, reduce/minimize and/or mitigate activity-related environmental and social risks and impacts.

As a programme planning level guidance, the ESMF proposes two-stage screening frameworks to identify environmental and social sensitivities during alignment identification for conversion of LTOH to AB Cable, 11kV feeder bifurcation & segregation of 11kV agricultural feeders, augmentation of 11 kv feeders, installation of capacitor bank and related IT/OT works as given in Appendix 1.1. To facilitate this process, tools e.g. analysis of alternative alignment for distribution lines of feeder bifurcation & segregation (11 kV OH & UG cabling) and the sites for DTR, would be designed in the ESMF which would provide inputs for environmental and social sustainable design. Simultaneously as part of the processes for the implementation of environmental and social safeguards, the ESMF would also provide the triggers for conducting sub-activity-specific environmental and social assessment. As it is case-specific, the permits and clearances for the activities would be prepared, if applicable. The ESMF also defines the reference framework for WBSEDCL by identifying the provisions of the national and state level legislations, guidelines and funder requirements (e.g., Safeguard Policy Statement 2009 (SPS 2009) principles of the ADB) which have to be complied with during the lifecycle of activities under the RDSS.

Accordingly, the ESMF aims to manage environmental and social risks and the impact of the proposed distribution infrastructure development for loss reduction works covered under in RDSS Programme at Seven ADB-funded districts of West Bengal. The specific objectives include:

- To identify & assess the environmental and social risks & impact of the proposed programme activities based on the available secondary data as well as information generated during the survey;
- To screen & analyze major potential environmental and social risks & impacts associated with the programme;
- To identify and suggest measures to avoid/reduce/mitigate potential environmental and social impacts;
- To prepare appropriate environmental and social management framework, environmental and social management plan and other associated safeguard documents (as applicable) for the programme as per Gol/GoWB social and environmental legal requirements as well as the funder's requirements.



This ESMF would guide for assessing sub-activity specific E&S Risk & Impacts and also provides triggers for specialized plans and studies e.g. EMP & Biodiversity Assessment, etc. to be conducted when sub-activities encounter such issues for more focused attention/measures. Additionally, guidelines/procedures/plans to address Labour and stakeholder issues, etc. have also been included in the ESMF. The framework further elaborately describes the institutional mechanism for implementing, reporting/monitoring and evaluating the effectiveness of the E&S management for the programme during the execution and operation & maintenance of the activities under the RDSS.

1.3 BENEFITS OF THE RDSS PROGRAMME

The Revamped Reforms Based and Results Linked Distribution Sector Scheme (RDSS) in the 7 ADB funded districts namely, (i) Hooghly (ii) Bardhaman East (iii) Bardhaman West (iv) Birbhum (v) Nadia (vi) Murshidabad and (vii) Malda, of West Bengal aims to reduce AT&C losses vis-a-vis to address structural and management deficiencies in the distribution sector, improve operational efficiencies, and enhance consumer services.

Some of the benefits and positive outcomes that may result from this programme include:

- **Improved Quality, Reliability, and Affordability of Power Supply:** Consumers can expect better quality and more reliable power supply at affordable rates, leading to enhanced satisfaction and economic benefits.
- **Financial Sustainability and Operational Efficiency:** By reducing Aggregate Technical & Commercial (AT&C) losses and closing the ACS-ARR gap, the distribution sector can become financially sustainable and operationally efficient, ensuring long-term viability and service continuity.
- **Reduction in AT&C Losses:** The target to reduce AT&C losses to 12-15% by FY24-25 signifies a significant improvement in the efficiency of power distribution, which can lead to cost savings, reduced energy wastage, and better revenue realization for utilities.
- **Reduction in ACS-ARR Gap:** Achieving a zero ACS-ARR gap indicates a balanced financial situation where the cost of supplying power matches the revenue generated, ensuring financial stability and investment capability for future infrastructure enhancements.
- **Environmental Compliance:** The Environmental and Social Management Framework (ESMF) ensures alignment with national and state environmental regulations,

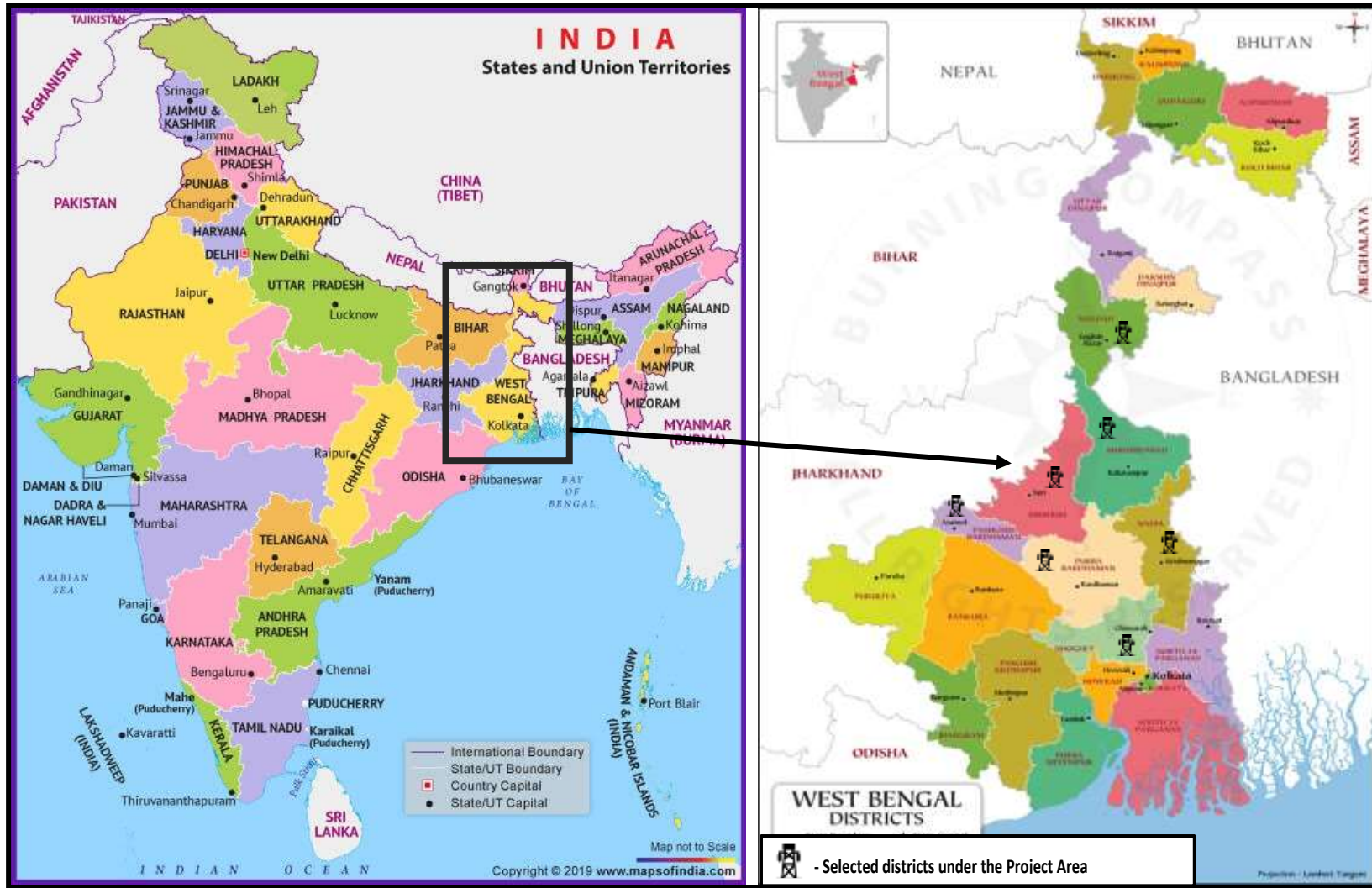


safeguarding against negative environmental impacts and promoting sustainable practices in the overall implementation.

- **Social Inclusivity:** The scheme's focus on improving services for low-paying lifeline consumers under the 'Hashir Alo' scheme demonstrates a commitment to social inclusivity and ensuring access to essential services for all segments of society.
- **Alignment with International Standards:** Compliance with international standards such as the Asian Development Bank's Safeguard Policy Statement 2009 (SPS) ensures that the activity meets global best practices in environmental and social management, enhancing credibility and potential for future collaborations and funding opportunities.



FIGURE 1.1: LOCATION OF PROGRAMME AREA



2.0 RDSS PROGRAMME

2.1 PROLOGUE

West Bengal with a population of around 99 million is the fourth most populous state of India. It has an area of 88,752 sq. km. West Bengal's nominal Gross State Domestic Product (GSDP) at current prices has risen to INR 17.13 trillion or US\$221.37 billion in the year 2022-23. West Bengal's average population in that year was 102.5 million, and per capita nominal GSDP at current prices for the economic year 2022-23 can be calculated as US\$1800. Agriculture accounts for the largest share of the labour force. The service sector has witnessed phenomenal growth in the last few years.

At present grid connectivity has been extended in every nook and corner of the state covering 99% of villages and balance will also be covered up shortly. However, the expectation of the consumers has grown very high and everybody expects uninterrupted and quality power supply 24/7. To provide reliable and quality power at affordable prices and to meet the above objectives, the RDSS, with funding support from the Government of India and the Asian Development Bank (ADB) is being carried out by West Bengal State Electricity Distribution Company Limited (WBSEDCL), which includes the following components for the 7 ADB funded districts. The components are:

- A. Conversion of Low-Tension Overhead (LTOH) network by Aerial Bunched (AB) Cable
- B. Bifurcation of 11KV HT Feeder
- C. Segregation of 11 KV HT Agricultural Feeder
- D. Augmentation of Conductor size of 11KV Line (With ACSR DOG Conductor)
- E. Installation of 11KV Capacitor Bank in 33/11KV SS
- F. IT/OT Works

2.2 PROGRAMME DEVELOPMENT OBJECTIVES

The development objective of the proposed Programme is to improve the reliability and efficiency of electricity supply in works covered under in RDSS Programme at seven ADB funded districts of West Bengal by strengthening the distribution systems to achieve the following goals:

- (i) Reduction of Aggregate Technical and Commercial (AT & C) Losses.
- (ii) Improve quality and reliability of power supply.



2.3 PROGRAMME OUTPUT

The prime output of works covered under RDSS Programme at seven ADB funded districts envisages as follows:

Output 1: Power distribution network strengthened. The program will strengthen rural power distribution network by converting Low-Tension Over Head (LTOH) lines to aerial bundled cables and segregation of agriculture non-agriculture feeders, and installation of capacitor banks to reduce AT&C loss and improve reliability of power supply for 8.26 million customers in targeted 7 districts (namely Hoogly, Burdwan East, Burdwan West, Bhirbhum, Nadia, Murshidabad, Malda).

Output 2: Institutional capacity enhanced to sustain the results. The program will support institutional enhancement of WBSEDCL not only for overall RDSS program target achievement, but also for sustainable repairment and maintenance, an increase in renewable energy penetration, tariff rationalization, and enhanced financial management to sustain the results after RDSS completion in 2026.

Output 3: Occupational and community health and safety capacity enhanced. The program will support enhancements of occupational and community health and safety to minimize fatal accidents during the construction, operation, and maintenance of the power distribution system.

Output 4: Institutional capacities on Gender Equality and Social Inclusion (GESI) strengthened. The project will help strengthen WBSEDCL's institutional capacities on GESI.

2.4 PROGRAMME LOCATION

The locations of the proposed sub-activities are presented in Figure 1.1. The loss reduction work under RDSS is proposed to be undertaken in the Seven ADB funded districts, namely (i) Hooghly (ii) Bardhaman East (iii) Bardhaman West (iv) Birbhum (v) Nadia (vi) Murshidabad and (vii) Malda of West Bengal.

2.5 PROGRAMME BENEFICIARIES

The Programme aims to provide reliable, safe and quality power with improvement in voltage profile to the semi-urban and rural consumers of the Districts of West Bengal. The programme is expected to benefit more than 30 million people in West Bengal.



2.6 PROGRAMME DESCRIPTION

2.6.1 Implementing Agency

Under the leadership of the Director (Projects), the Project II department will act as the Nodal department for the fund of GOI budgetary support and Chief Engineer; Project II will act as the Nodal Officer for the ADB-funded RDSS project. All funds will be managed and controlled by the Project II department and the Project-IV (Erstwhile REHQ) department of WBSEDCL accordingly. After the implementation of the targeted programme concerned, PIU will execute MIRO in the SAP-ERP system and send all invoices to the Project II department for payment. All payments will be released from the Project II department. All reports & returns will be made from the Project II department in consultation with other Programme Implementing Units.

TABLE 2.1: DESCRIPTION OF PROGRAMME IMPLEMENTING UNIT

Job Description		
Loss Reduction		Programme Implementing Unit
1	Bifurcation of 11 Kv feeder	a) Project II department will implement in the districts under the Kolkata, Midnapur and Siliguri zones of WBSEDCL. b) Project IV department will implement in the seven ADB funded districts.
2	Segregation of 11 Kv feeder	
3	Conversion of LTOH to LTAB cable	
4	Installation of 11 KV Capacitor Bank	Project IV department
5	Augmentation of 11 KV feeder	
6	IT/OT-enabled works	IT cell

2.6.2 Programme Components

The programme comprises the following components/sub-activities:

Component A: Conversion of LTOH Lines into Aerial Bunched Cable

To reduce LTOH line loss of the distribution network and enhance safety, it is contemplated to convert the LTOH lines into Aerial Bunched Cable in West Bengal. The conversion of the existing LTOH line by Aerial Bunched Cable will reduce the line loss in the existing LTOH network and enhance safety from electrocution and other electrical hazards.



Certainly, the work associated with the conversion of Low-Tension Overhead (LTOH) to AB (Aerial Bunched) is:

- This involves removing the existing LTOH line with new AB cables. It may require the erection of additional number of intermediate poles.

Component B: Feeder Bifurcation (11KV HT)

In alignment with the initiative to enhance the efficiency and reliability of the electricity distribution network, Component B focuses on feeder bifurcation for existing 11 KV HT feeders which aims to address load distribution imbalances and capacity constraints by dividing the existing feeders into smaller segments. By analyzing feeder load profiles and capacity limitations, this project aims to optimize the distribution network's performance. Feeder bifurcation will facilitate better voltage regulation, mitigate power quality issues, and improve overall service reliability. Through this intervention, areas with varying load characteristics and demand patterns can be efficiently managed, ensuring equitable distribution of electricity resources. Furthermore, feeder bifurcation contributes to reducing technical losses by creating separate 11 KV feeders, thereby improving the network's efficiency and performance. This proactive approach not only enhances the operational efficiency of the distribution system but also contributes to meeting the evolving electricity needs of the communities served.

The erection work associated with feeder bifurcation (11 kV HT) includes:

- Depending on the capacity and load requirements of the bifurcated feeders, expansions of the existing substations control room may be necessary.
- UG Cabling for National Highway/Road & Railway crossing.
- The work involves the installation of new switchgear in the control rooms of the substations. The control room within the boundary of the sub-stations may be extended in some places for installation of switchgear. One switchgear is required for one 11 KV circuit segregation.
- Existing structures such as poles may be erected to accommodate the new feeder configurations, cables, and equipment.

Component C: Segregation of Agricultural Feeders (11kV HT)

Component C involves the segregation of existing 11KV HT feeders in the project area which aims to optimize load distribution and enhance the reliability of the electricity distribution network using segregating 11 KV feeders that are providing electricity to agricultural shallow tubewells (pumps driven By electricity) vis-à-vis domestic and commercial consumers. By analyzing the current load distribution and identifying high-congestion areas, the activity seeks to segregate the feeders to alleviate agricultural electricity feed to overcome overload conditions and improve



system performance. Through feeder segregation, the project endeavours to reduce instances of power outages and voltage fluctuations, thereby enhancing the quality of electricity supply to consumers. Additionally, the initiative aims to improve operational efficiency and minimize technical losses in the distribution system. Overall, feeder segregation aligns with the project's overarching goal of upgrading the electricity infrastructure in semi-urban and rural areas to meet the evolving needs of the region while ensuring reliable and sustainable power supply.

Here are some points on the work associated with the segregation of Agricultural Feeders (11 KV HT):

- Segregating agricultural feeders may involve the identification of new routes, erection of new poles, extension of conductor over new poles and commissioning of switchgear at substations to accommodate the segregated feeder configuration.
- In some places commissioning of new distribution transformers is also required to segregate the agricultural consumers completely. This requires the creation of a new double or four-pole structure, the mounting of a Distribution transformer and the extension of LT AB cables to nearby poles feeding electricity to agricultural consumers
- The work involves the installation of new switchgear in the control rooms of the substations. The control room within the boundary of the sub-stations may be extended in some places for the installation of switchgear. One switchgear is required for one 11 KV circuit segregation.
- New 11 KV cables may need to be extended through cable trenches from switchgear to the distribution points where 11 KV feeders are emanating.
- For road crossing and railway crossings, an extension of 11 KV Underground Cables is required through machine-controlled micro-tunnelling process.

Component D: Augmentation of Conductor size of 11KV Line (With ACSR DOG Conductor)

The augmentation of the conductor size of the 11KV lines, specifically utilizing ACSR DOG conductors, in alignment with the conversion of LTOH lines into Aerial Bunched Cable in selected districts of West Bengal. This augmentation initiative is designed to further optimize the efficiency and performance of the distribution network. By upgrading the conductor size to ACSR DOG, the project aims to reduce transmission losses, enhance voltage regulation, and improve the overall reliability of the electricity supply. The larger conductor size allows for increased current-carrying capacity, thereby reducing resistive losses and voltage drops along the distribution lines. This enhancement ensures a more robust and resilient distribution infrastructure, capable of meeting the evolving energy demands of the region. The deployment



of ACSR DOG conductors aligns with the project's objectives of enhancing safety and minimizing technical losses, thereby facilitating a more sustainable and efficient electricity distribution system for the benefit of consumers and stakeholders alike.

Here are some points on the work associated with the augmentation of conductor size of 11 kV lines with ACSR DOG conductor:

- Augmenting the conductor size involves replacing existing conductors with ACSR DOG conductors on the 11 kV lines. This includes removing old conductors, installing new ones, and ensuring proper connections and insulation.
- The work involves the erection of Poles and structures on the poles for replacement of existing conductors.
- For road crossing and railway crossings, an extension of 11 KV Underground Cables is required through a machine-controlled micro-tunnelling process.
- Works should include safety measures such as signage, fencing, and barriers to protect workers, the public, and the infrastructure during construction and operation.
- Once the civil works are completed, testing and commissioning of the upgraded conductor lines are essential to ensure functionality, reliability, and safety.

Component E: Installation of 11KV Capacitor Bank in 33/11KV SS

The installation of 11KV capacitor banks in 33/11KV substations has been taken up across the selected districts of West Bengal. The primary objective of this initiative is to enhance power factor correction and improve the efficiency of the distribution network. By strategically placing capacitor banks at key substations, the project aims to mitigate reactive power losses, optimize voltage levels, and reduce energy wastage. This implementation aligns with the overarching goal of modernizing the electricity infrastructure to enhance reliability and meet growing energy demands effectively. Furthermore, the installation of capacitor banks contributes to the stabilization of the distribution system, thus ensuring consistent and high-quality power supply to consumers.

Here are some points on the work associated with the installation of 11 KV Capacitor Bank in 33/11 kV SS:

- Works include the construction of foundations for the capacitor bank equipment in the 33/11 kV substation. This involves excavation, concrete pouring, reinforcement, and curing to ensure a stable and durable foundation.



- Once the foundation is ready, the capacitor bank equipment is mounted securely on the platform. This includes positioning, alignment, and securing the equipment according to manufacturer specifications and safety standards.
- Works involve making electrical connections between the capacitor bank equipment, control panels, and the substation's power distribution system through newly commissioned switchgear. This includes wiring, cabling, and ensuring proper insulation and grounding.
- After installation, works include testing and commissioning of the capacitor bank to verify functionality, performance, and compliance with regulatory requirements. This may involve conducting insulation tests, power factor correction tests, and operational tests.
- The installation of the capacitor bank should be integrated with existing substation infrastructure such as transformers, switchgear, and control systems to ensure compatibility and seamless operation.

Component F: IT/OT Works

In the IT/OT works under Loss reduction, the activities considered in the DPR can be broadly classified as follows: -

- Implementation of OMS
- Data Centre & DR Centre Refresh along with Network Upgradation
- Implementation of Enterprise Analytics tool

As a part of the IT/OT work West Bengal State Electricity Distribution Company Limited (WBSEDCL) intends to implement the outage management system (OMS) System. The OMS system implementation is intended to efficiently detect, monitor and respond to power outages to decrease the outage restoration time, increasing customer satisfaction vis-à-vis improving the reliability indices.

The following are the indicative objectives from OMS WBSEDCL intends to:

- Decreased downtime durations through expedited restoration facilitated by predictions of outage locations
- Improved performance indices and customer satisfaction
- Enhanced public relations with the media by delivering precise information regarding outages and restoration efforts.



- Reduced regulatory grievances resulting from the ability to prioritize the restoration of emergency facilities and essential customers.
- Decreased the frequency of outages by leveraging outage statistics to implement specific reliability enhancements.
- Loss Reduction
- The Application will perform incident Management, Resource Optimization, Call Management, Crew Management, Alarm Management

The detail of key elements of sub-activities under the development of distribution infrastructure for Loss Reduction at ADB-funded districts of West Bengal under RDSS is presented in **Appendix 1.1 & 2.1**.

The likely environmental and social impact due to the implementation of above components of the proposed programme in ADB Funded district primarily includes insignificant changes in air and noise quality during the construction activities along with trimming of trees, contamination of nearby surface waterbodies, generation of debris as well as impact on the local ecological setup of the programme area including the Protected Area and its Environmental Sensitive Zone. The prime social impact including IR & IP while execution of above-mentioned programme activities is as follows:

- **Loss of Privately Owned Land:** The lost land if any will be compensated at replacement value. If the land requirement for feeder segregation/bifurcation arises, the proposed land would be acquired as per the GoWB land procurement policy or negotiation basis.
- **Trees and Standing Crops:** The assistance of the Forest Department for impact on timber-yielding trees if any and Horticulture Department for loss of fruit-bearing trees if any in assessing/finalizing compensation for such trees shall be taken by the committee. The felled trees and another remnant shall also be handed over to the land owner/ user.
- **Loss of House and Other Assets:** The loss of the house, house annexure, wells, and any other structure if any will be compensated at replacement value. The value of buildings/structures would be assessed as per the current year Schedule of Rates and without depreciation by the Executive Engineer PWD, Municipal Engineering Directorate/ District Engineer/Executive Engineer, Zilla Parishad, or by such agency as the administrative department may decide.
- **Squatters and Encroachers:** Squatters and encroachers are generally not entitled to legal compensation under the Land Acquisition Act. However, to prevent them from further impoverishment and to improve their living standards the programme will give certain targeted support and replacement cost of structure as applicable.



- **Loss of Livelihood:** The loss of livelihood would be assessed based on the actual man-days loss due to construction activities likely to prevail at sites and no feasible alternatives are possible to continue his livelihood during the construction period.
- **Loss of Access to Common Properties:** The loss of access to common properties such as wells, grazing lands, worship places, etc. if any will be replaced in the adjacent areas or the cost of reconstruction or rehabilitation may be transferred in installments to ULBs/ Gram Panchayat accounts linked to the progress of works or can be built by the PMU in discussion with the community.
- **Targeted Support to Vulnerable Groups:** To prevent them from further impoverishment and to improve their living standards the project will give certain targeted support and assistance (as per assessment).
- Any sub-activities that are expected to have either positive or negative impacts on Indigenous people will not be considered.
- No land use will be altered or restricted by the Programme. The value of the land may increase as a result of the expansion of the electricity supply.

Resettlement impact will be avoided and/or minimized, however, if there are any impacts on private assets based on the screening result such as erecting poles and/or cutting trees on private land, social due diligence will be undertaken by PMU and contractor to seek the consent of landowner to support the programme and permission to place poles on privately owned land (**Appendix 2.2**). For losses that are unavoidable and unacceptable to the owners of the assets, compensation will be given commensurate to the impacts of the entitlement matrix. The social due diligence result and compensation details will be documented in a Resettlement using the format developed for the project. The DDR/RP (whichever is applicable) will be submitted to ADB for review and clearance prior to the commencement of construction works it relates to.

2.7 FINANCING

The programme will be implemented through financial assistance from the Government of India, the Asian Development Bank (ADB) and counterpart financing by the Government of West Bengal.

2.8 DETAILS OF CAPITAL EXPENDITURE

The total estimated cost for the development of distribution infrastructure for loss reduction under RDSS in ADB-funded districts is INR 2838.26 Crore. Detail of the financing plan is summarized in Table 2.2 & Table 2.3.



TABLE 2.2: SUMMARY OF INDICATIVE PROGRAM EXPENDITURE FRAMEWORK, 2024–2027

Item	Amount (\$ million)	Share of Total (%)
1. Power Distribution Network Strengthened	331.8	89.89
2. Capacity Development for Institutional and organizational enhancement activities	11.4	3.09
3. Gender Equity and Inclusion Initiatives	0.5	0.14
4. Interest and Commitment Charges	25.4	6.88
Total	369.1	100.0

Sources: WBSEDCL and Govt of West Bengal estimates.

Program financing: The government of India has requested a regular loan of \$241.3 million (65.38%) from ADB's ordinary capital resources (OCR). \$127.8 million (34.62%) will be financed by the government of West Bengal. The financing plan is summarized in Table 2.3.

TABLE 2.3: SUMMARY OF FINANCING PLAN 2023–2027

Source	Amount (\$ million)	Share of Total (%)
Asian Development Bank Ordinary Capital Resources (loan)	241.3	65.38
Government of West Bengal	127.8	34.62
Total	369.1	100.0

Note: US dollar amount based on 83.122 Indian Rupee per 1 US dollar.



3.0 POLICY & REGULATORY FRAMEWORK

India has a wide range of environmental and social policies, legislations, and regulations to handle/manage E&S issues associated with different types of projects. A review of major national and state-level laws and regulations has been undertaken to understand the applicability of these laws to the proposed activities. Additionally, the relevant guidelines prepared by the state power utilities, for planning, construction, and operations of the sub-stations and distribution lines were also reviewed. The Asian Development Bank's Safeguard Policy Statement 2009 applicability for proposed program components has been identified and national or state regulations are to be considered in the formulation of ESMF.

3.1 LEGAL & REGULATORY FRAMEWORK

RDSS work which is under execution throughout India is being implemented following the relevant Acts, Rules and Regulations of Govt. of India, Govt. of West Bengal and the respective guidelines of State Electricity Regulatory Commissions. In West Bengal, for all 22 districts such Acts, Rules, and Regulations are concurrently applicable. As per lender's (ADB) requirement, works covered under the RDSS Programme at seven ADB-funded districts namely, (i) Hooghly (ii) Bardhaman East (iii) Bardhaman West (iv) Birbhum (v) Nadia (vi) Murshidabad and (vii) Malda, of West Bengal, certain additional requirements have to be observed.

The applicable Acts, Rules, and relevant policies presently followed by WBSEDCL for the execution of any work throughout West Bengal are presented in Table 3.1. WBSEDCL will ensure that program activities implemented are consistent with provisions of such legal framework of Govt. of India as well as Govt. of West Bengal.

TABLE 3.1: LEGAL AND REGULATORY PROVISIONS – ENVIRONMENT

Sl. No.	Acts, Notifications and Policies	Relevance/	Applicability to the project
I. Constitutional Provisions (India)			
a.	Article 48 A	The State shall endeavor to protect and improve the environment and to safeguard the forests and wildlife of the country.	-
b.	Article 51 A (g)	It shall be the duty of every citizen of India to protect and improve the natural environment including forests, lakes, rivers and wildlife and to have compassion for living creatures.	-
II. Provisions Law of the Land/Rules			
1.	Electricity Act, 2003	Electricity distribution network projects are constructed under the ambit of Electricity Act,	Prior approval of the Govt. of West Bengal (GoWB) is



Sl. No.	Acts, Notifications and Policies	Relevance/	Applicability to the project
	(EA, 2003)	<p>2003 following the provisions of Section 67 & 68 of act.</p> <p>Under the provisions of Section 68(1): -Prior approval of the Govt. of West Bengal (GoWB) is a mandatory requirement to undertake any distribution project of in the State which authorizes WBSEDCL to plan and coordinate activities to commission a distribution project.</p> <p>The electricity act under Section 164 has a provision to grant licensee the power of Telegraph Authority as provided in the Indian Telegraph Act, 1885. GoWB, on request of WBSEDCL, may by order in writing/through notification authorize them for using powers of telegraph authority after fulfilling the requirement as laid down in the rules thereof. The salient features of the Electricity Act 2003 are given in Appendix 3.1.</p>	required for execution of proposed distribution system strengthening project.
2.	Environment (Protection) Act, & Rules, 1987	It is umbrella legislation for the protection and improvement of environment. This Act as such does not apply to transmission/ distribution projects of WBSEDCL. Project categories specified under the schedule of the EIA notification is provided in Appendix 3.1 . Even then some limited compliance measures notified under this EPA, 1986 are to be adhered to relevant rules and regulations under the EPA, 1986 applicable to the operations of WBSEDCL.	Not Applicable
3.	EIA Notification, 2006 & amendments up to 2016	This notification provides the regulatory framework for environmental clearances required for certain types of projects and activities.	Not Applicable
4.	Wildlife (Protection) Act, 1972	This act provides protection and conservation of rare and endangered species in protected areas (as mentioned in Sch I-Sch IV of Wild Life (Protection) Act, 1972 including IUCN Red List Categories). Detailed lists of rare and endangered species as per IUCN Red List Categories are provided in Appendix 3.1 .	Not Applicable as no forest land is involved.
5.	Forest (Conservation) Act & Rules 2003 & amendments	This Act provides for the conservation of forests and regulates the diversion of forest land to non-forestry purpose. When any transmission/distribution line traverses forest land, prior clearance is mandatorily required from Ministry of Environment, Forests & Climate	Not Applicable as no forest land is involved.



Sl. No.	Acts, Notifications and Policies	Relevance/	Applicability to the project
		Change (MoEF&CC), GoI under the Forest (Conservation) Act, 1980. The approval process of forest clearance in brief, as per set procedure in the guideline under the act and rules and procedure of online submission of application are provided in Appendix 3.1 .	
6.	National Green Tribunal Act, 2010	This act provides the establishment of a National Green Tribunal for the effective and expeditious disposal of cases relating to environmental protection and conservation of forests and other natural resources including enforcement of any legal right relating to environment and giving relief and compensation for damages to persons and property and for matters connected therewith or incidental thereto.	Any person's E&S grievance not being addressed by the project authority can appeal to NGT.
7.	Biological Diversity Act, & Rules 2004	This act is not directly applicable to electricity distribution projects because it deals with the conservation of biological diversity, sustainable use of its components and fair and equitable sharing of the benefits arising out of the use of biological resources, knowledge and for matters connected therewith. WBSEDCL abides by the provision of the Act wherever applicable and avoids Biosphere Reserves and other Protected Area as well as Elephant Corridors during route alignment.	Applicable in Protected Area/Eco-Sensitive Zone.
8.	Wetlands (Conservation and Management) Rules, 2017	This rule manages and maintains the ecological character of the wetlands without restricting the wise use. These rules fortify the legal framework for environmental concerns and strengthen the institutional framework through State / UT Wetland Authorities and a National Wetland Committee.	Applicable in the Wetland/Ramsar Site.
9.	West Bengal Trees (Protection and Conservation in Non-Forest Areas) Act, 2006	The Act restricts felling of trees in non-Forest Areas without permission of the Department of Forest, GoWB. WBSEDCL abides by all provisions of this Act for felling/cutting of trees in non-forest area.	Applicable if tree felling is required.
10.	The West Bengal Ground Water Resources (Management, Control and Regulation) (Amendment) Act, 2005	For extraction of ground water, permission has to be obtained from the District Level Authority / Corporation Level Authority / State Level Authority. The application in Form-I along with payment of prescribed fees to the Geologist of the State Water Investigation Directorate, Govt. of West Bengal of the district concerned or Superintendent Geologist, State Water	Not Applicable



Sl. No.	Acts, Notifications and Policies	Relevance/	Applicability to the project
		Investigation Directorate, Govt. of West Bengal depending on the amount of groundwater water extraction required. As in the proposed sub-project water requirement is proposed to be met from the recycled water. However, in case groundwater extraction is required for proposed GIS substation the applicable required clearance would be taken from the concerned authority.	
11.	MoEF&CC Guidelines for Notification of Critical Wildlife Habitats, 2018	The MoF&CC guidelines outline the process for identifying and protecting areas that are crucial for the conservation of wildlife species. For the project, these guidelines would be applicable in cases where the project might impact habitats that are designated as critical for wildlife. Compliance with these guidelines would require the project to assess the potential impact on such habitats and take measures to mitigate any adverse effects while implementing the project.	Not Applicable
12.	MoEF&CC Guideline for Declaration of Eco Sensitive Zone around National Park and Wild Life Sanctuary - 2011	As per the guideline ESZ around the protected area to be notified by the MoEF&CC (Appendix 3.3). In case where ESZ for the selected PA has not been notified 10 KM radius would be considered as ESZ till the specific ESZ is notified. ¹	Applicable
13.	MoEF&CC Notification on Extended Producer Responsibility for Used Oil, 2023	The MoEF&CC guidelines outline obligations for producers regarding the management and disposal of used oil to minimize environmental impact. It typically involves producers taking responsibility for the end-of-life management of their products, ensuring proper recycling, treatment, or disposal. The specific requirements and mechanisms outlined in the guidelines would aim to promote sustainable practices and reduce pollution associated with used oil disposal.	Not Applicable
14.	Ozone Depleting Substances (Regulation and Control) Rules,	As per the notification, certain control and regulation has been imposed on manufacturing, import, export, and use of these compounds.	Not Applicable

¹ MoEF&CC has already notified 100 m as ESZ for Ramnabagan Wild Life Sanctuary and Ballavpur Wild Life Sanctuary vide Gazetted notification no. S.O. 4891(E) Dated – 18th September 2018 & S.O 2937 (E) Dated- 28th August 2020. However, the ESZ notification for Bethuadahari Wild life Sanctuary is under finalization by MoEF&CC therefore till the Gazet notification is made 10 KM radius has been considered as ESZ. Once the ESZ notification is published for Bethuadahari the actual ESZ would be considered for Bethuadahari Wild Life Sanctuary also.



Sl. No.	Acts, Notifications and Policies	Relevance/	Applicability to the project
	2000		
15.	The Water (Prevention and Control of Pollution) Act, & Rules 1975	This act provides the prevention and control of water pollution and the maintaining or restoring of wholesomeness of water, for the establishment, to carry out the purposes aforesaid, of Boards for the prevention and control of water pollution, for conferring on and assigning to such Boards powers and functions relating thereto and for matters connected therewith.	Not Applicable
16.	The Air (Prevention and Control of Pollution) Act & Rules, 1982	This act provides for the prevention, control, and abatement of air pollution.	Applicable to ensure ambient air quality within the prescribed standard.
17.	Noise Pollution (Regulation and Control) Act, 2000 & amendments 2010	This act provides the increasing ambient noise levels in public places from various sources, inter-alia, industrial activity, construction activity, (firecrackers, sound-producing instruments), generator sets, loudspeakers, public address systems, music systems, vehicular horns and other mechanical devices have deleterious effects on human health and the psychological well being of the people, it is considered necessary to regulate and control noise producing and generating sources	Applicable to ensure ambient noise level within the prescribed standard.
18.	Hazardous & Other Wastes (Management and Transboundary Movement) Rules, 2016	As per notification, used oil is categorized as hazardous waste and requires proper handling, storage and disposed only to authorized disposal facilities (registered recyclers/ re-processors) Being a bulk user, WBSEDCL shall comply with provision of said rules. WBSEDCL, as bulk user of transformer oil which is categorized as Hazardous Waste, shall comply with the provisions of the said rules (refer Appendix 3.1 for MoEF&CC notification dated 4 th April 2016) if the practice of storing of used oil is maintained. In case it is decided to outsource the process of recycle of used oil to registered recycler as per the provisions of notification then WBSEDCL shall submit the desired return in prescribed form to concerned State Pollution Control Board at the time of disposal of used oil.	Applicable for handling the used transformer oil.
19.	Solid Waste Management Rules 2016	These rules provide a comprehensive framework for managing solid waste in various urban and semi-urban areas. The rules ensure a standardized approach to waste management.	Not Applicable



Sl. No.	Acts, Notifications and Policies	Relevance/	Applicability to the project
		They emphasize the segregation, collection, transportation, and disposal of solid waste while excluding specific hazardous wastes, which are covered under separate regulations.	
20.	The Plastic Waste Management Rules, 2016 and Amendment Rules, 2021	This rule mandates the generators of plastic waste to take steps to minimize generation of plastic waste, not to litter the plastic waste, ensure segregated storage of waste at source & hand over segregated waste under rules.	Applicable, WBSEDCL needs to ensure that the used plastic is disposed to registered recyclers, or at the designated collection centers.
21.	E-waste (Management) Rules, 2016	As per notification, bulk consumers like WBSEDCL is to dispose e-waste generated by them in environmentally sound manner by channelizing to authorized collection centers/ registered dismantler/ recyclers/return to producers. WBSEDCL, being a bulk consumer of electrical and electronics equipment shall maintain record as per Form-2 (Appendix 3.1) for scrutiny by West Bengal State Pollution Control Board.	Applicable, WBSEDCL needs to ensure that the e-waste is disposed to registered recyclers, or at the designated collection centers.
22.	Batteries (Management and Handling) Rules, 2001	As per notification, Being, a bulk consumer, WBSEDCL is to ensure that the used batteries are disposed to dealers, manufacturer, registered recycler, re-conditioners or at the designated collection centers only. A half-yearly return is to be filed as per Form-8 (Appendix 3.1) to the West Bengal State Pollution Control Board	Applicable, WBSEDCL needs to ensure that the used batteries are disposed to registered recyclers, or at the designated collection centers.
23.	Construction and Demolition Waste Management Rules, 2016	This rule addresses the growing issue of waste generated from construction, remodeling, repair, and demolition activities. The rules mandate waste generators to collect, segregate, and store construction and demolition waste properly.	Not Applicable
24.	Regulation of Polychlorinated Biphenyls (PCBs) Order, 2016	This rule is designed to address the environmental and health hazards posed by PCBs, which are harmful chemical compounds. The rules mandate that production, import, export, and use of PCBs be strictly regulated and eventually phased out. Entities handling PCBs must ensure proper storage, labeling, and disposal to prevent environmental contamination.	Applicable while installation of new transformer.
25.	The Right to Information Act, 2005	The Act provides for setting out the practical regime of right to information for citizens to secure access to information under the control of public authorities, in order to promote transparency and accountability in the working	Applicable



Sl. No.	Acts, Notifications and Policies	Relevance/	Applicability to the project
		of every public authority, the constitution of a Central Information Commission and State Information Commissions and for matters connected therewith or incidental thereto.	

TABLE 3.2: LEGAL AND REGULATORY PROVISIONS – SOCIAL

Sl. No.	Acts, Notifications and Policies	Relevance	Applicability to the project
I. Constitutional Provisions			
1.	Fifth Schedule of the Constitution	It protects the tribal on account of their economic disadvantages so that they can maintain their tribal identity without any coercion or exploitation. It also deals with the control and administration of the Schedule Areas.	Not Applicable
2.	Ancient Monuments Preservation Act 1904	This act provides preservation of Ancient Monuments and objects of archaeological, historical, or artistic interest.	Applicable
3.	Ancient Monuments and Archaeological Sites and Remains (Framing of Heritage Bye-laws and Other Functions of Competent Authority) Rules, 2011	This rule provides a regulatory framework for the protection and management of ancient monuments and archaeological sites.	Applicable
II. Provisions Law of the Land/Rules			
4.	Land Purchase Policy of GoWB, 2016	It was enacted for procurement of land required for important infrastructure projects to ensure the timely implementation of such projects where, direct land purchase from land owners may become necessary. WBSSEDCL will abide by this policy for procurement of land for GIS, if required. The salient features of the provisions of this policy are given in Appendix 3.2 .	Not Applicable
5.	The Right to Fair Compensation and Transparency in Land Acquisition, Rehabilitation and Resettlement Act, 2013	The Act provides for enhanced compensation and assistances measures and adopts a more consultative and participatory approach in dealing with the Project Affected Persons. As and when this Act becomes effective and is adopted by the State of West Bengal,	Not Applicable



Sl. No.	Acts, Notifications and Policies	Relevance	Applicability to the project
		then WBSEDCL, too shall be bound by and would need to comply with relevant provisions of the Act. The salient features of the provisions of the new RFCTLARRA, 2013 are given in Appendix 3.2.	
6.	Rights of Way (RoW) and Compensation	In case of agricultural or private land damages, Section-67 and or Section-68 (5 & 6) of the Electricity Act, 2003 and Section-10 of the Indian Telegraph Act, 1885 if vested with power under section 164 of the Electricity Act, are followed for assessment and payment of compensation towards such damage.	Applicable
7.	The Scheduled Tribes and Other Traditional Forest Dwellers (Recognition of Forest Rights) Act & Rules 2007	<p>The act recognizes and vests the forest rights and occupation in forest land to forest dwelling. Scheduled Tribes and other traditional forest dwellers who have been residing in such forests for generations but whose rights could not be recorded, and provides for a framework for recording the forest rights so vested and the nature of evidence required for such recognition and vesting in respect of forest land.</p> <p>The definitions of forest dwelling Schedule Tribes, forestland, forest rights, forest villages, etc. have been included in Section 2 of the Act. The Union Ministry of Tribal Affairs is the nodal agency for implementation of the Act while field implementation is the responsibility of the government agencies. The applicability of the act linked with forest clearance process under Forest (Conservation) Act, 1980 w.e.f. August 2009 by MoEF shall be followed by WBSEDCL if required.</p>	Not Applicable
8.	Indian Treasure Trove Act, 1878 as amended in 1949	<p>The Act provides for procedures to be followed in case of finding of any treasure, archaeological artifacts etc. during excavation.</p> <p>Possibilities of such discoveries are quite remote due to limited and shallow excavations. However, in case of such</p>	Applicable



Sl. No.	Acts, Notifications and Policies	Relevance	Applicability to the project
		findings WBSEDCL will follow the laid down procedure in the Section-4 of Act.	
9.	Ancient Monuments & Archaeological Sites and Remains Act, 1958	The act has been enacted to prevent damage to archaeological sites identified by Archaeological Survey of India. During route alignment, all possible efforts are made to avoid these areas. Wherever it becomes unavoidable, WBSEDCL will take necessary permission under this act.	Applicable
10.	The West Bengal Ancient Monuments and Records Rule, 1964	This Act prevents construction of building or carrying out any activity e.g. Excavating, blasting or any operation of a like nature inside archaeological site. WBSEDCL shall comply with the requirements of this rule.	Applicable
III. Occupational Health & Safety			
11.	The Factories Act, 1948	This act provides occupational health & safety of the workers. The Occupational Health & Safety (OHS) Code have been formulated by the Govt. of India & once the rules under this code will be framed the occupational health & safety issues would be dealt as per the new OHS Code.	Applicable
12.	The Contract Labour (Regulation and Abolition) Act, 1970	This act is a significant legislation in India that seeks to regulate the employment of contract labor in establishments that employ 20 or more workers, ensuring their rights and welfare are protected. The Act requires principal employers to register their establishments and mandates that contractors obtain licenses to hire contract labor. These contractors must provide essential facilities such as canteens, restrooms, drinking water, and ensure the timely payment of fair wages.	Applicable



Sl. No.	Acts, Notifications and Policies	Relevance	Applicability to the project
13.	The Workmen's Compensation Act, 1923	This act is an Indian law that mandates employers to compensate workers or their dependents in cases of injury, disability, or death arising from workplace accidents or occupational diseases. To ensure compliance, the Act mandates that employers in certain hazardous industries obtain a license to employ workers, which confirms that adequate safety measures are in place.	Applicable
14.	Inter-State Migrant Workmen (Regulation of Employment and Conditions of Service) Act, 1979	This act is a crucial piece of legislation in India designed to safeguard the rights and welfare of workers who migrate from one state to another for employment. It mandates that principal employers must register their establishments, while contractors are required to obtain licenses before recruiting inter-state migrant workers, ensuring that the recruitment process is transparent and regulated.	Applicable
15.	CEA (Measures Relating to Safety and Electric Supply) Regulations, 2022	It focuses on establishing comprehensive safety and operational standards for electrical systems in India, covering aspects such as installation, maintenance, and inspection. They emphasize safety protocols, training requirements for personnel, detailed guidelines for various installations, and measures for consumer protection and environmental considerations, with provisions for reporting, record-keeping, and penalties for non-compliance.	Applicable
16.	Occupational Safety, Health and Working Conditions Code, 2020	This integrates and updates various labor laws in India to create a cohesive framework for workplace safety, health, and working conditions. It applies to all establishments, including factories, mines, and service sectors, and covers both organized and unorganized sectors. The Code mandates comprehensive safety measures, including regular audits, hygiene standards, and preventive health measures.	Applicable



3.2 UNDERSTANDING THE LAWS AND POLICIES APPLICABLE TO ENVIRONMENT AND SOCIAL IMPACT ASSESSMENTS FOR WORKS COVERED UNDER RDSS PROGRAMME AT SEVEN ADB-FUNDED DISTRICTS OF WEST BENGAL

India has a wide range of environmental and social policies and regulations and many of these are not applicable due to the very nature of program activities and the absence of demonstrable E&S impacts. A review of applicable national and state-level laws and regulations has been undertaken to understand the applicability of these laws to the proposed activities. Additionally, the relevant guidelines by the state power utilities, for planning, construction and operations of the sub-stations and distribution lines were also reviewed. For all activities, WBSEDCL will comply with National and State guidelines, in addition to that WBSEDCL will comply with some ADB's safeguard principles 2009 wherever applicable for the works covered under in RDSS Programme at seven ADB-funded districts of West Bengal.

3.3 ADB's SAFEGUARD POLICY STATEMENT (2009)

ADB has defined its safeguard requirements under its Safeguard Policy Statement (2009). The prime objectives of the safeguard policy are to:

- (i) Avoid adverse impacts of activities on the environment and affected people, where possible;
- (ii) Minimize, mitigate, and/or compensate for adverse program impacts on the environment and affected people when avoidance is not possible;
- (iii) Help borrowers/clients strengthen their safeguard systems and develop the capacity to manage environmental and social risks.

This policy requires assessment, mitigation and commitment towards environmental and social protection including occupational and community health and safety. The program's policy framework aligns with ADB's Safeguard Policy Statement (2009), prioritizing the avoidance of adverse environmental and social impacts and implementing mitigation measures where avoidance is not feasible. Robust monitoring, evaluation, and compliance mechanisms ensure adherence to regulatory requirements and sustainable program outcomes.

Involuntary Resettlement Safeguards

- Screen the project early on to identify past, present, and future involuntary resettlement impacts and risks. Determine the scope of resettlement planning through a survey and/or census of displaced persons, including a gender analysis, specifically related to resettlement impacts and risks.



- Carry out meaningful consultations with affected persons, host communities, and concerned nongovernment organizations. Inform all displaced persons of their entitlements and resettlement options. Ensure their participation in planning, implementation, and monitoring and evaluation of resettlement programs. Pay particular attention to the needs of vulnerable groups, especially those below the poverty line, the landless, the elderly, women and children, and Indigenous Peoples, and those without legal title to land, and ensure their participation in consultations. Establish a grievance redress mechanism to receive and facilitate resolution of the affected persons' concerns. Support the social and cultural institutions of displaced persons and their host population. Where involuntary resettlement impacts and risks are highly complex and sensitive, compensation and resettlement decisions should be preceded by a social preparation phase.
- Improve, or at least restore, the livelihoods of all displaced persons through (i) land-based resettlement strategies when affected livelihoods are land-based where possible or cash compensation at replacement value for land when the loss of land does not undermine livelihoods, (ii) prompt replacement of assets with access to assets of equal or higher value, (iii) prompt compensation at full replacement cost for assets that cannot be restored, and (iv) additional revenues and services through benefit sharing schemes where possible.
- Provide physically and economically displaced persons with needed assistance, including the following: (i) if there is relocation, secured tenure to relocation land, better housing at resettlement sites with comparable access to employment and production opportunities, integration of resettled persons economically and socially into their host communities, and extension of project benefits to host communities; (ii) transitional support and development assistance, such as land development, credit facilities, training, or employment opportunities; and (iii) civic infrastructure and community services, as required.
- Improve the standards of living of the displaced poor and other vulnerable groups, including women, to at least national minimum standards. In rural areas provide them with legal and affordable access to land and resources, and in urban areas provide them with appropriate income sources and legal and affordable access to adequate housing.
- Develop procedures in a transparent, consistent, and equitable manner if land acquisition is through negotiated settlement to ensure that those people who enter into negotiated settlements will maintain the same or better income and livelihood status.
- Ensure that displaced persons without titles to land or any recognizable legal rights to land are eligible for resettlement assistance and compensation for loss of nonland assets.



- Prepare a resettlement plan elaborating on displaced persons' entitlements, the income and livelihood restoration strategy, institutional arrangements, monitoring and reporting framework, budget, and time-bound implementation schedule.
- Disclose a draft resettlement plan, including documentation of the consultation process on time, before project appraisal, in an accessible place and a form and language(s) understandable to affected persons and other stakeholders. Disclose the final resettlement plan and its updates to affected persons and other stakeholders.
- Conceive and execute involuntary resettlement as part of a development project or program. Include the full costs of resettlement in the presentation of the project's costs and benefits. For a project with significant involuntary resettlement impacts, consider implementing the involuntary resettlement component of the project as a stand-alone operation.
- Pay compensation and provide other resettlement entitlements before physical or economic displacement. Implement the resettlement plan under close supervision throughout project implementation.
- Monitor and assess resettlement outcomes, their impacts on the standards of living of displaced persons, and whether the objectives of the resettlement plan have been achieved by taking into account the baseline conditions and the results of resettlement monitoring. Disclose monitoring reports.

Indigenous Peoples Safeguards

- Screen early on to determine (i) whether Indigenous Peoples are present in, or have collective attachment to, the project area; and (ii) whether project impacts on Indigenous Peoples are likely.
- Undertake a culturally appropriate and gender-sensitive social impact assessment or use similar methods to assess potential project impacts, both positive and adverse, on Indigenous Peoples. Give full consideration to options the affected Indigenous Peoples prefer in relation to the provision of project benefits and the design of mitigation measures. Identify social and economic benefits for affected Indigenous Peoples that are culturally appropriate and gender and intergenerationally inclusive and develop measures to avoid, minimize, and/or mitigate adverse impacts on Indigenous Peoples.



- Undertake meaningful consultations with affected Indigenous Peoples communities and concerned Indigenous Peoples organizations to solicit their participation (i) in designing, implementing, and monitoring measures to avoid adverse impacts or, when avoidance is not possible, to minimize, mitigate, or compensate for such effects; and (ii) in tailoring project benefits for affected Indigenous Peoples communities in a culturally appropriate manner. To enhance Indigenous Peoples' active participation, projects affecting them will provide for culturally appropriate and gender inclusive capacity development. Establish a culturally appropriate and gender inclusive grievance mechanism to receive and facilitate resolution of the Indigenous Peoples' concerns.
- Ascertain the consent of affected Indigenous Peoples communities to the following project activities: (i) commercial development of the cultural resources and knowledge of Indigenous Peoples; (ii) physical displacement from traditional or customary lands; and (iii) commercial development of natural resources within customary lands under use that would impact the livelihoods or the cultural, ceremonial, or spiritual uses that define the identity and community of Indigenous Peoples. For the purposes of policy application, the consent of affected Indigenous Peoples communities refers to a collective expression by the affected Indigenous Peoples communities, through individuals and/or their recognized representatives, of broad community support for such project activities. Broad community support may exist even if some individuals or groups object to the project activities.
- Avoid, to the maximum extent possible, any restricted access to and physical displacement from protected areas and natural resources. Where avoidance is not possible, ensure that the affected Indigenous Peoples communities participate in the design, implementation, and monitoring and evaluation of management arrangements for such areas and natural resources and that their benefits are equitably shared.
- Prepare an Indigenous Peoples plan (IPP) that is based on the social impact assessment with the assistance of qualified and experienced experts and that draw on indigenous knowledge and participation by the affected Indigenous Peoples communities. The IPP includes a framework for continued consultation with the affected Indigenous Peoples communities during project implementation; specifies measures to ensure that Indigenous Peoples receive culturally appropriate benefits; identifies measures to avoid, minimize, mitigate, or compensate for any adverse project impacts; and includes culturally appropriate grievance procedures, monitoring and evaluation arrangements, and a budget and time-bound actions for implementing the planned measures.



- Disclose a draft IPP, including documentation of the consultation process and the results of the social impact assessment in a timely manner, before project appraisal, in an accessible place and in a form and language(s) understandable to affected Indigenous Peoples communities and other stakeholders. The final IPP and its updates will also be disclosed to the affected Indigenous Peoples communities and other stakeholders.
- Prepare an action plan for legal recognition of customary rights to lands and territories or ancestral domains when the project involves (i) activities that are contingent on establishing legally recognized rights to lands and territories that Indigenous Peoples have traditionally owned or customarily used or occupied, or (ii) involuntary acquisition of such lands.
- Monitor implementation of the IPP using qualified and experienced experts; adopt a participatory monitoring approach, wherever possible; and assess whether the IPP's objective and desired outcome have been achieved, taking into account the baseline conditions and the results of IPP monitoring. Disclose monitoring reports.

Applied Standards

The works cover under in RDSS Programme at seven ADB-funded districts [namely, (i) Hooghly (ii) Bardhaman East (iii) Bardhaman West (iv) Birbhum (v) Nadia (vi) Murshidabad and (vii) Malda, of West Bengal will follow national as well as international good practices related to environment, health and safety including those set out in the IFC EHS General Guidelines (April 30, 2007) and the guidelines on Electric Power Transmission and Distribution (April 30, 2007) and ILO Safety and Health in Construction (2022) and worker accommodation guidelines.

IFC Environmental, Health and Safety (EHS) Guidelines

Section 4 on Construction and Decommissioning of the IFC EHS General Guidelines (April 30, 2007) will be applicable for this program. In addition, the IFC EHS Guidelines for Electric Power Transmission and Distribution (April 30, 2007) also need to be considered while designing the substations and distribution line components and undertaking the environmental assessment. It requires consideration of terrestrial and aquatic habitat alteration, electric and magnetic fields, hazardous materials, occupational health and safety and community health and safety. The program is required to comply with these guidelines regarding the assessment of potential impacts and management measures, performance indicators and monitoring guidelines. WBSEDCL shall follow the IFC EHS Guidelines for works covered under the RDSS Programme at seven ADB-funded districts namely, (i) Hooghly (ii) Bardhaman East (iii) Bardhaman West (iv) Birbhum (v) Nadia (vi) Murshidabad and (vii) Malda, of West Bengal this program and shall also ensure that all appointed contractors and their subcontractors follow them.



ILO Safety and Health in Construction and Worker Accommodation Guidelines

The ILO guidelines outlined in "Safety and Health in Construction" (2022) will apply to this programme. These guidelines emphasize the employer's responsibility for OSH (Occupational Safety and Health) management systems, including risk assessment, emergency preparedness, and worker participation. Key elements include allocating resources, ensuring effective supervision, promoting communication among stakeholders, and integrating OSH with other management systems. Additionally, the guidelines specify the provision of safe, healthy, and adequate living conditions for workers, including sanitation, clean water, and proper ventilation while ensuring privacy and dignity. The programme is required to comply with these guidelines regarding the assessment of potential impacts and management measures, performance indicators, and monitoring guidelines. WBSEDCL shall follow the ILO Safety and Health in Construction guidelines for this program and shall also ensure that all appointed contractors and their subcontractors follow them.

International and Regional Treaties, Agreements and Conventions

India is a party and signatory to several international and regional environmental treaties, agreements and conventions, to which the MoEF&CC is the national focal point. A screening was carried out of these treaties regarding their applicability to this activity. Key international/regional conventions and declaration agreements that India is a signatory to and relevant to the activity are provided below:

- Convention Relative to the Preservation of Fauna and Flora in the Natural State (1933)
- International Plant Protection Convention (1951)
- Convention on Wetlands of International Importance, Especially as Waterfowl Habitat (Ramsar, 1971) – ensure potential impacts on Ramsar designated sites avoided
- Convention concerning the Protection of World Cultural and Natural Heritage (Paris, 1972) – ensure potential impacts on world cultural and natural heritage designated sites avoided
- Convention on International Trade in Endangered Species of Wild Fauna and Flora (Washington, 1973) – no direct relevance, but seeks to avoid poaching by construction workers
- Convention on Migratory Species of Wild Animals (Bonn, 1979) – ensure potential impacts on any migratory species supported by the program area of influence assessed and managed



- Convention on the Prior Informed (Consent) Procedure for Certain Hazardous Chemicals and Pesticides in International Trade (PIC or Rotterdam, 1990)
- United Nations Framework Convention on Climate Change (Rio De Janeiro, 1992)
- Convention on Biological Diversity (Rio De Janeiro, 1992)
- Protocol to the United Nations Framework Convention on Climate Change (Kyoto, 1997) - to achieve stabilization of greenhouse gas (GHG) concentrations in the atmosphere at a level low enough to prevent dangerous anthropogenic interference with the climate system, SF6 is a GHG used in gas insulated switchgear.
- Stockholm Convention of Persistent Organic Pollutants (POPs) (1972) - ensures the environmentally sound management and disposal of POPs including PCBs. India has started using PCB-free equipment, but existing equipment contaminated and cross-contaminated with PCBs is also present in significant quantities. The convention gives governments until 2025 to phase out "in-place equipment" such as electrical transformers containing PCBs, as long as the equipment is maintained in a way that prevents leaks. It grants them another three years to destroy the recovered PCBs. The recovered PCBs must be treated and eliminated by 2028.
- Basel Convention - this convention came into force on 5 May 1992 and aims to reduce the amount of waste produced by signatories and regulates the international traffic in hazardous wastes including PCBs and asbestos which may be present in existing facilities.
- International Labour Organization (ILO) conventions and protocols ratified by India (India has ratified 47 ILO conventions and 1 ILO protocol) relate to the core labor standards.
- ILO Asbestos Convention, 1986 (Convention No. C 162) – yes to be ratified by India but will be applied to the program as a measure to avoid the use of asbestos in substations. This convention applies to all activities involving the exposure of workers to asbestos in the course of work.

The interventions proposed (suggested ESMF) under the program in 7 districts namely, (i) Hooghly (ii) Bardhaman East (iii) Bardhaman West (iv) Birbhum (v) Nadia (vi) Murshidabad and (vii) Malda, of West Bengal guided by ADB shall be implemented in compliance with applicable international and regional conventions and declarations (particularly those related to PCBs as listed above) to which India is a party.



3.4 NOC & PERMITS REQUIREMENT

Implementation of various component i.e. i) Bifurcation of 11 Kv feeder, ii) Segregation of 11 Kv feeder, iii) Conversion of LTOH by AB cable, iv) Augmentation of DOG conductor, v) Capacitor Bank Installation in substations, and vi) IT/OT-enabled works under the seven ADB funded districts namely, (i) Hooghly (ii) Bardhaman East (iii) Bardhaman West (iv) Birbhum (v) Nadia (vi) Murshidabad and (vii) Malda, of West Bengal. the No Objection Certificate (NOC), authorization/permits, etc. required for competent authorities are presented in Table 3.3.

TABLE 3.3: REQUIREMENTS OF NOC & PERMITS

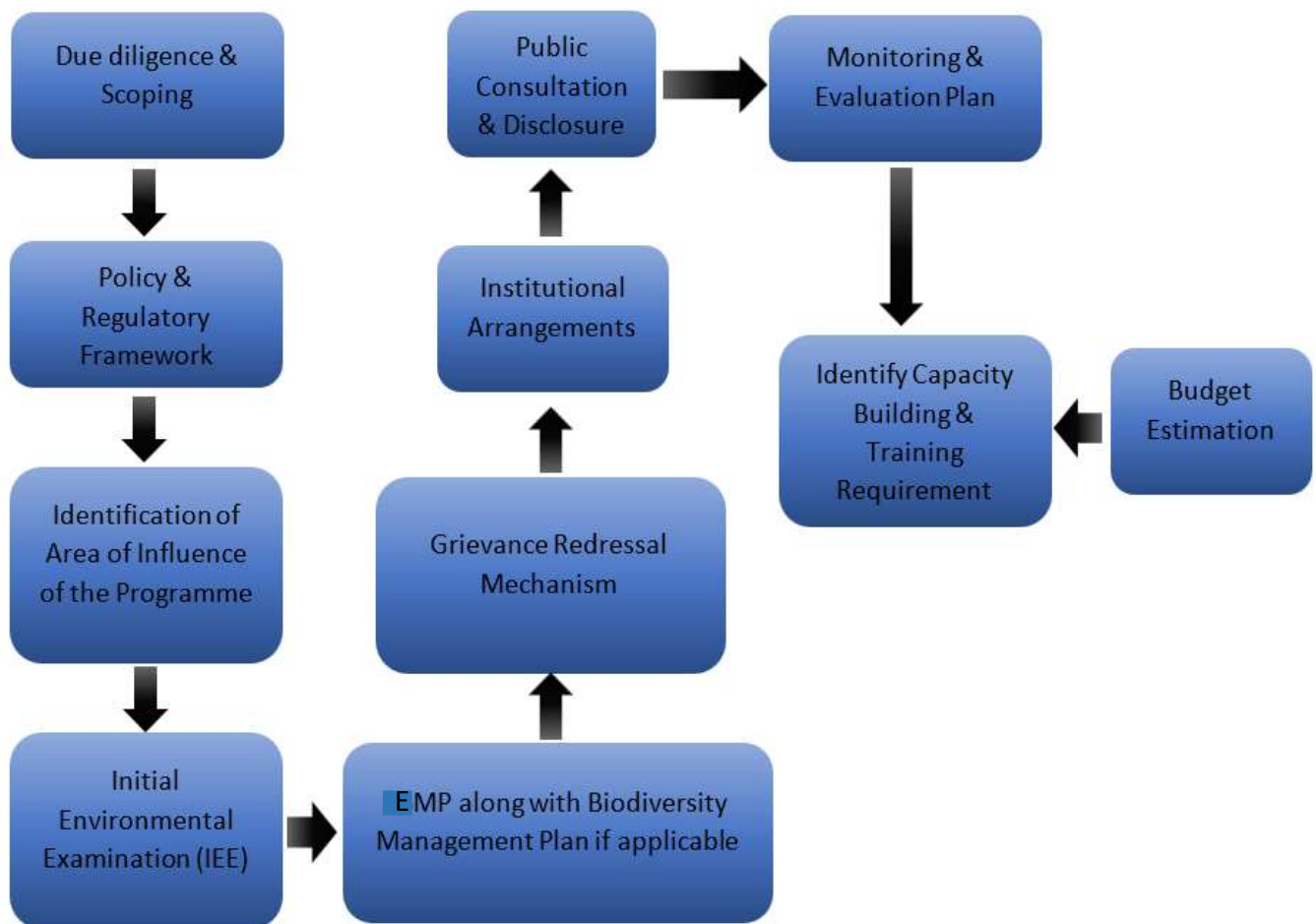
Sl. No.	Clearances/Approvals/NOCs	From
1	NOC for Tree Trimming	Local Authorities, Forest Dept.
2	NOC for working in ESZ and other environmentally sensitive areas (Annexure 3.3)	Forest & Wild Life Department, Govt. of West Bengal
3	NOC for working in buffer area (i.e. 300m) of ASI Protected Monuments	Circle office Archeological Survey of India, Kalna & Kolkata
4	UNESCO World Heritage Site	UNESCO World Heritage Site Office.
5	NOC for working in buffer area (i.e. 300m) of State Protected Monuments	Directorate of Archaeology and Museums Government of West Bengal, 33 C.R. Avenue 4 th Floor Kolkata
6	NOC for U/G rail crossing of 11 KV Electrical Line	Ministry of Railway
7	NOC for U/G road crossing of 11 KV Electrical Line	Ministry of Road Transport and Highways, GoI; NHAI; PWD
8	Access permission from Main Road (if required)	State Highway (PWD)
9	River and canal crossing of 11 KV overhead transmission line	Irrigation & Waterways Department, Govt. of West Bengal
10	Authorization for Handling Hazardous Waste under Hazardous & Other Waste (Management & Transboundary Movement) Rule, 2016 (if handling of used transformer oil is involved)	West Bengal Pollution Control Board



4.0 APPROACH & METHODOLOGY

The approach and methodology adopted for the formulation of the Environment and Social Management Framework (ESMF) for the works covered under the RDSS Programme at seven ADB-funded districts of West Bengal is presented in Figure 4.1.

FIGURE 4.1: METHODOLOGY ADOPTED FOR FORMULATION OF ESMF & PROCESS OF E&S ASSESSMENT



Due Diligence & Scoping

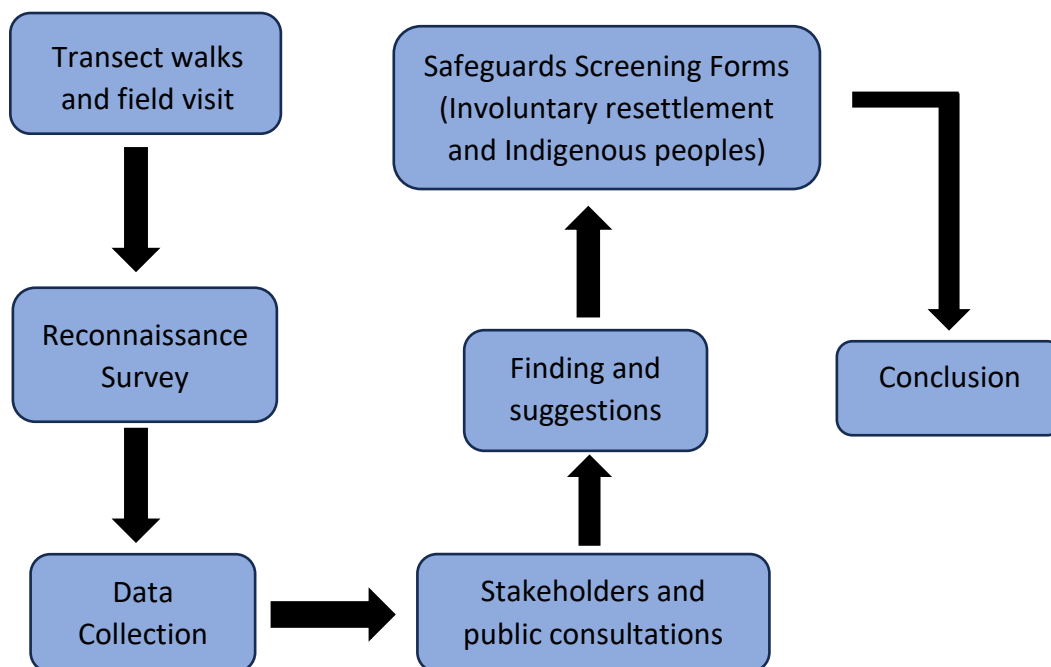
The ESMF has been prepared to generate information through both primary and secondary sources including consultations and library research. Detailed activities planned under each sub-activity were identified and listed. This information has been primarily collected from initial discussions with the identified programme implementation team of WBSEDCL along with other stakeholders. Secondary data sources such as preliminary detailed activity reports, sample site surveys and assessment sheets, identified investment planning and related activity schedule plans provided by the WBSEDCL were also used. In addition, preliminary impact assessments for sub-activities/schemes identified and environmental and social documentation for similar previous programmes undertaken by WBSEDCL have also informed the preparation of ESMF.

The basic approach broadly involved the following:

- Review of environmental & social baseline information from secondary sources;
- Review of existing national & state specific legislations and policy and guidelines and Safeguard Policy Statement 2009 principles of Asian Development Bank;
- Review of activity-related documents; and
- Stakeholders' consultations.

The detailed methodology proposed for Due Diligence is presented in Figure 4.2.

FIGURE 4.2: PROPOSED METHODOLOGY FOR DUE DILIGENCE



Process of E&S Assessment

The process of Environmental & Social (E&S) Assessment includes a detailed understanding of RDSS Programme activities and site-specific environment and social influence of the same while construction as well as operation and maintenance. The brief process of E&S assessment is presented in subsequent sections:

Identification of the Area of Influence of the Programme

The area of influence for each of the sub-activities has been identified considering the nature and type of activities proposed to be undertaken under the Loss Reduction Works cover under the RDSS Programme at seven ADB-funded districts of West Bengal.

Cut-off Date

Compensation eligibility is limited by a cut-off date. The cut-off date will be declared as the last day of the socioeconomic and census survey to cover all the affected persons in the selected area (block/district). The PIU will issue a notification on the cut-off date.

Initial Environmental Examination (IEE)

Based on a preliminary field survey and available secondary data environmental and social status in the project area shall be assessed along with the likely environmental and social impact of implementing E&S Safeguards to minimize the potential negative impact. of the RDSS programme activities. The screening of environmental and social settings along the existing distribution network has been undertaken by overlaying Vidyut Manchitra (i.e. digitised LT distribution network available with WBSEDCL) on Google Earth Pro and ArcGIS software along with forest maps of the Government of West Bengal. The separate questionnaire for IEE has been evolved for the following components of RDSS Programme at seven ADB-funded districts of West Bengal:

- Conversion of Low-Tension Overhead (LTOH) network by Aerial Bunched (AB) Cable (Appendix 4.1)
- Bifurcation of 11KV HT Feeder/ Segregation of 11 KV HT Agricultural Feeder (Appendix 4.2)
- Augmentation of Conductor size of 11KV Line (With ACSR DOG Conductor) (Appendix 4.3)
- Installation of 11KV Capacitor Bank in 33/11KV SS (Appendix 4.4)



Baseline Environmental and Social Status

Based on available secondary data as well as the primary data collected during the field survey, the environmental and social baseline of the programme area has been established. The prime parameters for baseline study:

- Climate & Air Quality
- Noise Pollution
- Water Resource/Quality
- Land Use Pattern
- Topography and Drainage
- Geology
- Soil type/ Quality
- Flora & Fauna (Bio-diversity)
- Forest & Protected Area
- Physical & Cultural Resources

The parameters for the social baseline include:

- Demography [population, age, gender, caste, literacy, religion, language, occupation, economic status, income level and employment]
- Basic amenities & infrastructure facilities

Screening of Potential Environmental & Social Impact and Mitigation Plan

Screening of potential environmental & social risks & impacts of proposed programme components would be undertaken considering the existing baseline environmental and social setting of the programme area. The methodology adopted to identify the potential environmental and social impacts is based on experience gained from the implementation of similar programmes and baseline assessments of work activities anticipated in this proposed programme. The methodology takes into account a wide range of receptors:

- Physical & chemical environment (e.g. water, soil, etc.);
- Biological environment (forest, animals, birds, etc.); and
- Communities, social groups and individuals (loss of land, loss of agricultural production, tribal, vulnerable groups (women and backward classes), socio-economic condition, health and safety risks).

The proposed sub-activities are likely to create positive as well as negative impacts on the environmental and social setting in two distinct phases during the construction phase, which may be regarded as temporary or short-term; and during the operation phase which may have long-term effects. A generic Environmental Management Plan (EMP) has been formulated for the management of potential E&S issues/impacts to be implemented during



programme execution and subsequently in the O&M stage as established during scheme-specific EMP. These covers:

Biodiversity Management Plan

During screening, if it was observed that if proposed lines are located inside any protected areas (Wildlife Sanctuaries, National Parks, Biosphere Reserves, etc.) or any notified/recognized migratory path/fly path is encountered despite utmost care/optimization, a separate biodiversity assessment study shall be carried out as part of the Environment & Social Assessment works cover under RDSS Programme at seven ADB funded districts of West Bengal to develop a detailed Biodiversity Management Plan to address such issues.

Involuntary Resettlement Safeguards

During screening, it was observed that no physical and economic displacement likely to occur as the proposed programme activities would be undertaken within the existing RoW however, for segregation or bifurcation of 11Kv HT feeders some new RoW may be required. As required new RoW would be primarily along the existing road network no additional land acquisition would be involved. If any loss of livelihood or impact on existing structures while execution of proposed programme activities is encountered despite utmost care/optimization, compensation/replacement as per the entitlement matrix of IR would be paid for works covered under RDSS Programme at seven ADB-funded districts of West Bengal.

Grievance Redressal Mechanism

The grievance redressal mechanism has evolved to provide a time-bound process to address all grievances/issues/non-compliances that will be brought to the notice of the CE, Project IV, WBSEDCL during the programme implementation stage.

Public Consultation & Disclosure

Consultations with key stakeholders including affected communities, local & state government entities and key ministries at the state level were undertaken to know views and concerns about environmental and social issues/concerns of the programme. This activity ensured appropriate participation and gathering views from the environmental and social perspectives of all the stakeholders, which is integrated with this ESMF to be adopted during different stages at different activity implementation. Once the framework for environmental and social management is finalized, the framework will be disclosed to the public including the Executive Summary in the local language.



Monitoring and Evaluation Plan

The Monitoring and Evaluation Plan has been formulated to ensure the effective implementation of provisions of ESMF while carrying out Environmental and Social Assessments and subsequently at different phases of different activity execution.

Capacity Building & Training

Training needs for the capacity building of WBSEDCL's officers & staff for the implementation of provisions of ESMF have been identified. This would facilitate effective monitoring of the environment and social issues and ensure mitigation measures are being implemented appropriately.

Budget Estimates

The costs to be incurred to implement the various requirements of the ESMF have been included in the sub-activities.



5.0 SCREENING OF POTENTIAL ENVIRONMENTAL & SOCIAL IMPACTS

5.1 ELIGIBILITY CRITERIA

All activities may be supported under the RDSS programme, including those in PA and Forest Land if national laws and regulations are followed. Specific to the ADB RBL programme activities the applicable eligibility criteria for all sub-activities for inclusion in the works covered under the RDSS Programme at seven ADB-Funded districts are:

- New lines or related facilities resulting in the significant conversion or degradation of natural habitats as defined by ADB [Safeguard Policy Statement 2009] or any lines that occur in areas with presence of ADB Critical Habitat-qualifying biodiversity shall not be taken up.
- No lines or related facilities will be in, or pass through wildlife sanctuaries, national parks, ER, TR, Notified Wetlands, Ramsar Wetlands, Eco-Sensitive Areas, IBA or KBA¹ (that are not NP, WLS, ER, TR), UNESCO World Heritage Sites, or the protected or regulated zone of the Archaeological Survey of India or state monuments/sites².
- No lines or related facilities will be in, or pass through Eco-Sensitive Zones (ESZ)³, Reserved or Protected Forests unless they involve underground cables within a road right of way or the conversion of bare to covered conductor following the right of way of an existing alignment in a built-up area, no access track is to be constructed for the works, are carried out under ecological supervision, and, confirmation of intimation or a written no objection and, if required, a copy of the prior forest clearance has been obtained from the Forest and Environment Department of West Bengal.
- No overhead feeder segregation and bifurcation will be taken up in the ESZ or forest lands.
- Lines and related equipment must avoid or minimize damage to existing trees (avoiding cutting off government and private trees) whilst ensuring horizontal and vertical safety clearances are maintained.

¹ Not all of the important bird areas and key biodiversity areas are designated as protected areas by the Government of India

² There are no national parks, elephant reserves, tiger reserves, notified wetlands, Ramsar wetlands, or ecologically sensitive areas found in the 7 districts hence screening for these is not required

³ If an ESZ has not been gazetted for a protected area, then the ESZ is taken as a default 10 km around the protected area



- Any trees impacted will only be cut after permission from the Forest and Environment Department of WB has been secured and after an ecological walkover conducted by an ecologist confirming that the tree trimming/ cutting/ lopping is not impacting any scheduled /CR/EN/VU species' roosting or nesting areas or impacting their eggs especially within or adjacent to any PA/ESA/ESZ/IBA/KBA/Ramsar/notified wetlands.
- Lines and related equipment must avoid or minimize damage to property including structures (e.g., buildings, commercial establishments) and roads, crops, etc. whilst ensuring horizontal and vertical safety clearances are maintained.
- Lines and related equipment must avoid or minimize damage to common property resources including heritage, cultural, and historical structures, and avoid the premises of educational institutions (such lines to be rerouted or if sites unavoidable undergrounded).
- Any compensation payments for damages to private property must be undertaken by WBSEDCL as per the Government of India and Government of West Bengal requirements.
- All lines must meet all horizontal and vertical safety clearances, with minor rerouting taking place if it is required.
- Reconductored lines will follow existing right of way albeit with minor diversions to ensure safety clearances are met.
- Lines will not be laid across school compounds, playgrounds, or other areas where children as vulnerable members of the community assemble without parental supervision if adjacent guarding/net will be installed
- Lines will not be laid across areas where community groups regularly assemble such as the grounds of temples or churches unless agreed with the representatives of user groups.
- Poles or any electrical equipment shall not be installed in perennial or seasonal waterbodies/riverbeds.
- Lines and related equipment must create minimum disturbance to existing pedestrian and traffic routes in terms of blockages or diversions.
- Underground cables and related equipment must avoid damage to public utility services (water or gas pipelines, telephone lines, drainage, etc.).



- Lines and related equipment must create minimum disturbance to existing pedestrian and traffic routes in terms of blockages or diversions.
- Underground cables and related equipment must avoid damage to public utility services (water or gas pipelines, telephone lines, drainage, etc.)
- Activities shall not trigger ADB SPS 2009, Category A (activities with significant adverse environmental impacts that are irreversible, diverse, or unprecedented).
- Avoidance of significant damage to local physical and cultural resources.
- Overhead lines must not be laid across school compounds or playgrounds.
- Conversion will only be permitted if school compounds and playgrounds are not crossed, or minor rerouting takes place to avoid them being crossed.
- No new lines or related facilities will be taken within the 10 km boundary of the protected area (i.e., considering the 10 km radius as ecologically sensitive zones (ESZ) around the protected areas where it has been not specifically gazetted by MoEF&CC). However, conversion to ABC on existing poles or new poles if in already built-up areas is unlikely to trigger category A, and as ABC conversion can reduce existing risks to wildlife it should be possible to implement such works in an ESZ, under ecological supervision if needed, following ADB's SPS (2009) biodiversity policy principles. Feeder segregation and bifurcation of bare conductors within an ESZ shall not be taken up.
- Avoid flood plains, and water bodies for the erection of new poles. If existing must be rerouted to avoid such areas.

5.2 CATEGORIZATION OF PROGRAMME

The extent of assessment depends on the category of the programme. There's no category applicable for power distribution projects in the Indian regulation (EIA Notification, 2006 of MoEF&CC, GOI) so ADB's categorization will come in place for ADB-Funded districts. ADB's Safeguard Policy Statement (2009) classifies a project according to the following three categories depending on the significance of the probable environmental and social impacts:

Environment

The proposed programme is assigned to one of the following categories depending on the significance of the probable environmental impacts:



- **Category A:** A proposed project is classified as category A if it is likely to have significant adverse environmental impacts that are irreversible, diverse, or unprecedented. These impacts may affect an area larger than the sites or facilities subject to physical works. An environmental impact assessment is required.
- **Category B:** A proposed project is classified as Category B if its potential adverse environmental impacts are less adverse than those of Category A projects. These impacts are site-specific, none or very few of them are irreversible, and in most cases, mitigation measures can be designed more readily than for category A projects. An initial environmental examination is required.
- **Category C:** A proposed project is classified as category C if it is likely to have minimal or no adverse environmental impacts. No environmental assessment is required although environmental implications need to be reviewed.

Involuntary Resettlement

The proposed programme is assigned to one of the following categories depending on the significance of the probable involuntary resettlement impacts:

- **Category A:** A proposed project is classified as category A if it is likely to have significant involuntary resettlement impacts. A resettlement plan, including an assessment of social impacts, is required.
- **Category B:** A proposed project is classified as category B if it includes involuntary resettlement impacts that are not deemed significant. A resettlement plan, including an assessment of social impacts, is required.
- **Category C:** A proposed project is classified as category C if it has no involuntary resettlement impacts. No further action is required.

Indigenous Peoples

A proposed programme is assigned to one of the following categories depending on the significance of the potential impacts on Indigenous Peoples:

- **Category A:** A proposed project is classified as category A if it is likely to have significant impacts on Indigenous Peoples. An Indigenous Peoples plan (IPP), including an assessment of social impacts, is required.



- **Category B:** A proposed project is classified as category B if it is likely to have limited impacts on Indigenous Peoples. An IPP, including an assessment of social impacts, is required.
- **Category C:** A proposed project is classified as category C if it is not expected to have impacts on Indigenous Peoples. No further action is required.

The programme has been evaluated considering the outcome of the ADB SPS's 2009, screening checklist along with the outline of the planning document of a Resettlement Plan (if applicable) (Appendix 5.1 to 5.2) and matrix of the environmental sensitivity & cultural resources for the RDSS programme implementation area in seven ADB-Funded districts (Appendix 5.3). The magnitude of potential impacts and the presence of environmentally sensitive areas near substations and along the proposed alignment of new 11 kV lines have been critically analyzed to determine likely significance.

If the eligibility criteria are followed, the works covered under the RDSS Programme at seven ADB-funded districts of the programme are unlikely to cause any significant irreversible, diverse, or unprecedented adverse environmental impacts and are mostly site-specific with substations being upgraded and distribution lines generally being installed or upgraded along existing road alignments. Activities with significant adverse environmental impacts that are irreversible, diverse, or unprecedented shall not be taken up.

ADB's Safeguard Policy Statement (2009) sets out the principles for environmental safeguards that apply to all ADB-financed projects. Under ADB's Safeguard Policy Statement (2009), the RDSS programme is classified as "B" & "C" for Environment (i.e. conversion of LT OH to ABC, Segregation/Bifurcation of 11Kv feeder, augmentation of DOG conductor falls under category "B" and installation of capacitor banks and IT/OT falls under category "C" as it does not involve civil or structural works). Accordingly, IEE must be prepared to cover all components of the RDSS programme for seven ADB-funded districts of West Bengal.

The programme is classified as Category 'B' for Involuntary Resettlement and Category 'C' for Indigenous Peoples. The activities will not trigger Category 'A' under the ADB Safeguard Policy Statement (SPS) 2009 for involuntary resettlement, nor will trigger Category 'A' or 'B' for Indigenous Peoples impact.

The following activities are required to be undertaken against the programme with the assistance of ADB:

- The environmental audit checklist for the substation has to be completed and there should be no environmental, health, and safety breaches of National Laws and Regulations observed including CEA 2022 guidelines and OHS regulations before the commencement of works.



- The substation building extensions and distribution line works shall be not taken up until an IEE covering the district in which they are located has been conducted and the generic EMP has been incorporated into the contract.
- Site-specific assessment checklists and consultation proformas shall be completed by the contractor and validated by WBSEDCL and the screening criteria to be confirmed and complied with before execution.
- Site-specific biodiversity assessment shall be conducted for lines that are within, or pass through, protected areas, Eco-sensitive zones of protected areas, the protected or regulated zone of Archaeological Survey of India monuments, or Reserved or Protected Forests.
- Site-specific biodiversity assessment shall be conducted for lines that are within, or pass through, Key Biodiversity Areas (KBAs), Important Bird Areas (IBAs), or natural or critical habitats as defined in ADB's Safeguard Policy Statement.

Based on initial examination and due diligence of the activities involved in the programme viz upgradation of existing electricity distribution infrastructure, potential environmental & social risks and impacts are anticipated to be low though certain components of the programme have been assigned moderate at the beginning. Thorough screening is examined hereunder.

5.3 SCREENING OF POTENTIAL NEGATIVE ENVIRONMENTAL IMPACTS

5.3.1 Impact due to Disturbance to Soil

Impact on soil would not be significant both due to the construction of an electricity distribution network pole for feeder segregation and bifurcation as well as the conversion of existing LTOH into AB cabling network as the excavated soil would be properly stored and reuse whereas excess excavated debris of any would be disposed of in the designated area for the purpose to avoid any likely contamination/pollution.

5.3.2 Impact on Forest/ Vegetation

Major habitat alterations are not expected in electricity distribution network strengthening activities due to the avoidance of ecological sensitive areas or natural habitats. However, insignificant loss of vegetation may occur due to trimming/felling of trees within the RoW to maintain the required electric clearance between tree and conductor (applicable mostly in areas where a bare conductor is used).



5.3.3 Impact on Wildlife/Biodiversity

As the proposed conversion of LT OH to ABC, segregation/bifurcation and augmentation of feeder, RoW does not pass through National Park, Wildlife Sanctuaries, Elephant Reserve, Tiger Reserve and wildlife corridors, the disturbance to wildlife habitats as well as the biodiversity would not be significant. However, part of these activities is likely to fall in selected ESZ may pose potential risks to wildlife as well as to the biodiversity of the area if executed without appropriate protective measures.

5.3.4 Impact on Avian Fauna

In the electricity distribution network, bird deaths may be caused by collisions/electrocution. The likelihood of avian collisions is high especially when electricity distribution networks are located near migratory bird corridors, foraging grounds, or nesting and roosting sites as well as water bodies

5.3.5 Air & Noise Pollution from Construction Activity

During the construction phase of the programme i.e. feeder segregation and bifurcation and electricity distribution network including conversion of LTOH TO AB cabling and UG cabling, an insignificant amount of air pollution may be generated due to various construction activities. This would include emission from fugitive and exhaust air pollution from the movement of vehicles carrying construction material and machinery used during site clearance and leveling of the site for excavation and filling up of trenches for conversion of LTOH into AB cabling, laying UG cable, etc. However, this will also be temporary and intermittent only during the construction phase and hence will not affect the overall/existing Air Quality Index (AQI) of the programme area. During the operation stage, air or noise emissions are not expected from electricity distribution networks.

The principal source of noise during the construction of electricity distribution networks would be from the operation of the winching machine during the stringing of electricity distribution networks, and the micro tunneling machine during UG cabling. These machineries may produce noise levels of more than 70 dB (A) if not maintained properly. This can cause disturbance to the settlement if located near (within 500 m) sub-station sites.

5.3.6 Impact of Hazardous & Other Waste

As a part of routine maintenance, transformer oil would be changed every 10- 15 year. The used transformer oil is categorized as hazardous waste as per Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016 and its unscientific disposal may lead to contamination of groundwater. Further, transformer oil may contain Polychlorinated biphenyls (PCBs).



The labour camps and the fly camps may be developed at different locations for the erection of the DTRs/poles and stringing as well as the excavation of trenches/micro-tunneling for UG cabling work. These camps may generate solid and liquid waste. These wastes may contaminate the soil and the water bodies around the site if it is not properly handled.

5.3.7 Potential Impact on Emission of Green House Gas (GHG)

Sulfur hexafluoride (SF₆) is physiologically completely harmless for humans and animals. It has no ecotoxic potential. It does not deplete Ozone. However, due to its high global warming potential (23500 times CO₂ according to the 5th Assessment Report of IPCC, 2014), it may contribute to the man-made greenhouse effect if it is released into the atmosphere. However, in electrical switchgear, the SF₆ gas is always used in gas-tight compartments, greatly minimizing leakage. This makes the real impact of SF₆ emission on the environment and Global warming quite negligible.

5.3.8 Impact on Water Resources

During the construction phase of conversion of LT OH to ABC, Segregation/Bifurcation of 11Kv feeder, augmentation of DOG conductor, etc. near the water bodies (i.e. less than 3m) may lead to spillage of debris and other waste materials into these water bodies leading to pollution. Adequate preventative measures would be taken to minimize the spillage of the waste materials into the nearby water bodies.

During the construction phase of the pole, feeder segregation and bifurcation and UG cabling network, water would be required for construction work as well as for domestic purposes. Water would also be used for earthwork, leveling, concreting and curing of concrete. Recycled water for this purpose would be explored to be utilized if available. For groundwater extraction through mechanized means using a 2 HP or above pump would require permission/NOC from the State/Central Ground Water Authority (SGWA/ CGWA) as per the CGWA Public Notice September 2020 and as amended 2023.

5.3.9 Impact on Occupational Health and Safety

The occupational risk related to the construction of electricity distribution networks is primarily due to falls from heights which might cause serious injuries. Electricity distribution network poles would be of different heights and the height of the pole would be 9 m in case of 11/33 kV and 8 m in case of LT line.

5.3.10 Impact on Community Health and Safety

- a) During the construction work for feeder bifurcation and segregation, a trench for UG cabling and conversion of LTOH into AB cabling, the excavation may pose some safety concerns for the inhabitants in the locality i.e. impact of height works on the community



due to falling of loose or heavy equipment from poles while working at height, electrocution risk to the community from the poorly maintained lines. This would be more relevant when the construction is carried out near a settlement or along a foot track or existing village road.

- b) During the operation phase, the generation of the Electro Magnetic Field (EMF) from 11/33 kV lines is likely to be insignificant.

5.4 SCREENING OF POTENTIAL NEGATIVE SOCIAL IMPACTS

5.4.1 Impact on Standing Crop

The erection of DTR/poles and subsequently stringing of electricity distribution networks may involve the movement of men, machinery and equipment across agricultural fields. This may cause damage to the standing crops in agricultural fields.

5.4.2 Impact on Land Use Pattern

It is estimated that some new DTRs may be constructed under the programme. In addition, WBSEDCL may also require a right of way for segregation and bifurcation of 11 kV HT line.

It must be noted, that as per existing regulations, the acquisition of land is prohibited and, only the rights to use are available for construction/maintenance purposes. After construction is over, the original practice including agriculture activities is allowed even below the line. Therefore, the impact/loss of land is not envisaged in the proposed programme.

5.4.3 Impact on Loss of Land

There are no additional land requirements for the proposed programme. However, in case of any new RoW required for feeder segregation, the programme will try as much as possible to use non-forest government land, to minimize private land procurement. When not feasible or in the absence of government land only private land may be procured for the programme on a willing buyer willing seller basis on a negotiated rate using GoWB Land Purchase Policy, 2016 and RPF. An Independent external party will be engaged in case of a willing buyer and willing seller (a negotiated settlement) to confirm (i) it offers an adequate and fair price for land and/or other assets, (ii) where expropriation will not be the consequence in case failure of negotiation. After transfer/possession of land, the area shall be declared as a prohibited zone resulting in restricted entry to staff of WBEDCL to avoid any incidence of electrical mishaps/accidents.



5.4.4 Impact on Cultural Resources

During the construction phase of conversion of LT OH to ABC, Segregation/Bifurcation of 11Kv feeder, augmentation of DOG conductor, etc. close to the cultural resources (i.e. less than 300m of ASI/State Protected Monuments, etc.) may affect to the integrity of these cultural resources. Adequate preventative measures would be taken to minimize the impact of these waste materials on the nearby water bodies.

5.4.5 Impact on Common Property Resources

For access to pole location or electricity distribution system, the contractor would use the existing road i.e. existing National/State highway or village road. During the construction phase due to the movement of construction-related vehicles and machinery some of the roads especially village roads may get damaged.

Additionally, some village roads may not be in a condition where they can be used for movement of construction vehicles. In such conditions, the use of such roads would further lead to the deterioration of the common property resources. Some culverts or any common utilities e.g. distribution poles may also get damaged during the construction activities causing hardship to the community in general.

5.4.6 Interference with Utilities and Traffic and Blockage of Accessway

The stringing of the electricity distribution networks in some cases would cross existing roads including village and district roads, state and national highways and railways.

During the UG cabling and stringing operations when the electricity distribution network crosses any road/railway line, hindrance may be caused to the movement of traffic. In some instances, temporary closure of the road/railway line may be required to facilitate such stringing activities. This disruption in movement would cause inconvenience to the local population as access would be interrupted temporarily.

5.4.7 Women's Work Participation and Decision Making

Analysis of the workforce involvement in the Blocks of West Bengal indicates that the average female work participation in all the blocks is 18.08% (which is lower than the national rate of 25.6%). The maximum involvement of rural women is in the agricultural sector, however, the work participation of female workers in the power sector, especially electricity distribution network programmes, is considerably less.



5.4.8 Visual & Aesthetics

The conversion of existing LTOH into AB Cabling Network as well as UG cabling would enhance the visual & aesthetic landscapes of the sub-programme area. However, feeder segregation and bifurcation would not significantly change the visual and aesthetic view of the sub-programme area. The overall impact is likely to be positive to most people, bearing few places where sub-programme activities would cross natural landscapes.

5.5 DISASTER MANAGEMENT ISSUES

Due to the development of cyclonic storms in the Bay of Bengal/Indian Ocean throughout the years, the state is often facing moderate to severe damages including the electrical installations/distribution networks.

5.6 INVOLVEMENT OF ACTORS IN E&S SCREENING

District-wise programme heads from WBSEDCL are responsible for initiating and overseeing the screening process, ensuring compliance with the eligibility criteria of this ESMF and thus ADB's SPS 2009 policy principles whilst avoiding significant adverse irreversible, diverse or unprecedented impacts. Environmental and Social experts and consultants from respective TKCs are engaged to conduct thorough screenings, identifying potential impacts on ecosystems, air and water quality, and public consultation with local communities. The E&S Safeguard expert team from IISWBM will contribute by assessing potential social and environmental disruptions, such as displacement or changes in land use patterns, ensuring the programme's alignment with community needs, and providing oversight and review, ensuring that the assessment process is comprehensive and transparent. Together, these responsible actors collaborate to mitigate adverse impacts, promote sustainability, and enhance the programme's positive contributions to the environment and society.



6.0 MITIGATION MEASURES

6.1 MITIGATION STRATEGY

The key environmental and social issues associated with the installation of LT AB cabling, bifurcation, and segregation of existing 11KV HT feeders, augmentation of 11KV conductors as well as installation of capacitor bank within existing sub-stations building (i.e. without extension of sub-station building) and IT/OT -enabled work at the data centre of WBSEDCL along with corresponding preventive and/or mitigation measures are designed following the principle of mitigation hierarchy: **“Avoid, Minimise, Mitigate, and Offset”** in that order of preference. A typical Environmental Management Plan (EMP) for proposed sub-activities (component-wise) is presented in **Appendix 6.1**.

Mitigation measures include careful route selection, and avoiding sensitive areas like habitats, protected zones, and culturally significant sites. Implementing vegetation management practices, wildlife protection measures, erosion control strategies, and effective waste management practices are vital for minimizing disturbances to the environment. Engaging with local communities throughout the programme lifecycle fosters understanding, addresses concerns, and integrates community preferences into programme planning. Monitoring and reporting on mitigation efforts ensure compliance with environmental regulations and track the effectiveness of measures, contributing to the overall success of the programme.

6.1.1 Mitigation Measures for Potential Negative Environmental Impacts

6.1.1.1 Mitigation Measures to Reduce Disturbance to Soil

Mitigation measures that would be considered to reduce impacts on soil during the construction of electricity distribution networks/substations are given below:

- Excess excavated material from pole/UG cable laying has to be removed by the contractor immediately after completion of pole erection.
- Laying of UG cable and Sitting of the distribution pole should be avoided in agricultural areas and water-logged sites to the extent possible.

6.1.1.2 Mitigation Measure for Excess Soil Disposal and Restoration after UG Cabling

- Excess excavated material from UG cable laying shall be removed from the work site and disposed of in the designated area as identified in consultation with the local authority.



6.1.1.3 Mitigation Measures for Vegetation/Forest

The following measures would be adopted during the planning and construction of the electricity distribution network.

- WBSEDCL, wherever possible, would use the existing path/access roads for the movement of man and machinery so that vegetation clearance is not required for accessing construction sites.
- Contract document for the construction of the electricity distribution network including conversion of LTOH into AB cabling, UG cabling and feeder segregation and bifurcation would include specific clauses to prevent felling of trees unless it becomes necessary. Only those trees for which tree felling permission has been obtained from the Forest Department under the West Bengal Trees (Protection and Conservation in Non-Forest Areas) Rules, 2007 would be felled.
- For any electricity distribution network passing through forest areas clearance under the Forest (Conservation) Act, 1980 would be mandatory. Construction activity would only be initiated after obtaining necessary clearance from a competent authority if required.
- Regularly clearing vegetation in RoW for an overhead line is a crucial part of routine maintenance and will be carried out by WBSEDCL-trained staff in consultation with local authorities including private tree owners on a case-to-case basis. In forests and other ecologically sensitive areas, such regular clearing may not be required due to the mandatory use of ABC which doesn't require maintaining minimum electric clearance with trees due to the presence of insulation. All trimming/pollarding (if required) shall be carried out manually and no chemical shall be applied for clearing of vegetation. Measures related to ecological walkover conducted by an ecologist confirming that the tree trimming/ cutting/ lopping is not impacting any / scheduled /Critical/Endangered/Vulnerable species' roosting or nesting areas or impacting their eggs especially within or adjacent to any Protected Area/Environment Sensitive Area/Ecological Sensitive Zone/Important Bird Area/Key Biodiversity Area/notified wetlands would be adopted.

6.1.1.4 Mitigation Measures for Wildlife/Biodiversity

WBSEDCL would make efforts to prevent the intrusion of the electricity distribution network into wildlife habitats through the optimization of route alignment. It would use modern tools like GIS/GPS and other modern techniques such as alternative route analysts to carry on the avoidance exercise. For the distribution network, if any, passing through forests, wildlife corridors, and other protected areas to prevent the death of animals in the forest areas due to electrocution by the distribution lines, the following measures would be adopted as per



MoEF&CC Notification (F. No. 6-104/2019 WL dated 29.08.2019) as well as WBSEDCL Office Order No. 1587 dated 12.03.2019 (**Appendix 3.1**):

- Right of Way for 11kV lines would be optimized keeping in view the corridor requirement for the future by adopting a suitable alternative of multi-circuit/ multi-voltage lines.
- Laying of distribution lines of 11 kV and below, passing through National Parks, Wildlife Sanctuaries, Conservation Reserves, Community Reserves, and Wildlife Corridors, underground cables or Aerial Bunched (AB) cables or insulated conductors shall be used.
- To avoid periodic trimming of trees as well as ground flora during regular movement of tractor line passing through forest/ecological sensitive areas instead of bare conductor only ABC shall be used which does not require periodic clearing of vegetation except at DTR location which is always done by forest authorities.
- A Biodiversity Management Plan shall also be implemented in case the line cannot avoid protected areas works covered under the RDSS Programme in seven ADB-funded districts of West Bengal.

6.1.1.5 Mitigation Measure for the Protection of Birds

Following prevention and control measures would be undertaken to minimize avian collisions:

- The electricity distribution networks would avoid such areas with known avian populations e.g. nesting grounds, foraging grounds, migration corridors, water bodies, etc.
- In Environmental Sensitive Areas (ESZ) only ABC shall be used after taking the required clearance/NOC from the competent authority to minimize possible disturbance. Use of ABC or insulated cable with other measures like Providing bird guards or insulation of exposed live components on electric poles to avoid perching and installation of bird diverter in identified bird habitat/flyway zone if required shall be undertaken to avoid bird collision/electrocution.

6.1.1.6 Mitigation Measures to Reduce Air & Noise Pollution

- Although significant air pollution is not likely to be caused due to Loss Reduction programmes still WBSEDCL will make efforts to further minimize it. WBSEDCL would implement measures stated in the EMP for pollution prevention. The EMP would be made part of the standard bidding document of contractors.



- To prevent air pollution the vehicle carrying construction material and machinery would move along the existing access road only. Vehicles which are having valid Pollution Under Control (PUC) Certificates would only be deployed for the purpose with regular checks.
- To prevent excessive noise during the operation of the machinery, they would be kept avoiding dense settlement areas. Regular maintenance of the micro tunneling, winching machine, etc. would be carried out to prevent excessive noise. Night-time construction activity would be prohibited in case the settlement/habitation is located within 500 m of the construction site. These measures as indicated above would also be made part of the Standard bidding document of the Contractor involved in the Loss Reduction Programme under RDSS.

6.1.1.7 Mitigation Measures for Hazardous & Other Wastes

- WBSEDCL would ensure that used transformer oil is disposed of by the Hazardous and Other Wastes (Management and Tran's Boundary Movement) Rules, 2016. WBSEDCL would also obtain the necessary authorization from the West Bengal State Pollution Control Board (WBPCB) under this regulation and comply with the responsibilities of the generator i.e. maintaining records and submitting annual returns. Similarly, e-waste generated would be governed by the provisions of the E-Waste Management Rules 2016. The procedure for handling both hazardous waste and e-waste is presented in **Appendix 3.1**.
- Modular bio-toilets would be provided at all construction camps, lay-down areas and fly camps. After the construction activities construction site would be cleared of all the leftover materials and debris to avoid any chance of pollution.

6.1.1.8 Mitigation Measures for Emission of GHG

- WBSEDCL would ensure not to use SF₆ containing circuit breakers etc.

6.1.1.9 Mitigation Measure for Water Resources

Water usage for construction work would be reduced by adopting the following best practices:

- Preference to use of recycled water for construction activity wherever feasible;
- Use of buckets etc. to wash tools instead of using running water;
- Use of auto shut-off taps in labour accommodation;
- Installation of water meters with main supply pipes/water tanks/bore well to assess the quantity of consumed water



- Use of admixture in concrete production to reduce water consumption.

6.1.1.10 Mitigation Measures for Occupational Health & Safety

- During the testing and charging of electrical lines, electricity-insulating protective equipment like footwear (ISO 20345: 2004 Part-2), and rubber gloves (IS 4770: 1991) would be provided to workers. In addition, provisions of the “Central Electricity Authority (Measures Relating to Safety and Electric Supply) Regulations 2010” would be adhered to. O&M is not in the scope of funding and will be carried out by trained staff of WBSEDCL. However, these aspects made part of EMP to avoid due importance during the O&M phase.

6.1.1.11 Mitigation Measures for Community Health & Safety

- For the foundation of feeder bifurcation and segregation, conversion of LTOH into AB cabling and trenches for UG cabling being constructed near settlement or access roads, there are chances of accidents. During the construction period, the construction areas shall be barricaded with proper/planned traffic management measures (refer to Fig. 6.1, if required). To facilitate easy identification of these areas during the night, warning lights and reflective tapes would be placed on the boundary for enhanced & clear visibility.

6.1.2 Mitigation Measures for Potential Negative Social Impacts

6.1.2.1 Mitigation Measures for Standing Crop

Mitigation measures to reduce the impact of loss of standing crops include:

- Constructions to be undertaken during the lean agricultural season after the harvest is over to the extent possible.
- Use of village roads and earth bunds between agricultural plots for movement of equipment and workers, wherever feasible.
- When damage to standing crops cannot be avoided due to the construction work, the farmer will be fully compensated for all damages as assessed by revenue authorities (Table 6.1).

6.1.2.2 Mitigation Measures for Land Use Pattern

To ensure that the landowner receives due compensation for the damages sustained by him during the construction of electricity distribution networks in the Loss Reduction Project under RDSS, the following mitigation measures will be undertaken:

- The payment of compensation for damages would be made transparent.



- Online transfer to the owner's bank account shall also be followed to avoid delay and intermediaries;
- If required, settlement may be carried out by the Revenue Committee.

6.1.2.3 Mitigation Measures for Loss of Land

Measures to mitigate the loss of land are as follows;

- Efforts may be made by WBSEDCL to utilize non-forest government land for any new RoW to the extent possible;
- There will be a complete restriction on the use of private irrigated /double-cropped agricultural land;
- When procuring private land cannot be avoided, it will be done on the principles of a willing buyer and willing seller at a negotiated rate using provisions of the Land Purchase Policy of GoWB (Table 6.1).
- The affected persons will also be compensated for the loss of standing crop, if any (Table 6.1).

6.1.2.4 Mitigation Measures for Common Property Resources

- Wherever required before using village road, minor improvement would be carried out by contractor which would also help in augmentation and strengthening of road network leading to positive impact for local people. In case of damage to the road or culvert or any common utilities during the construction activities, it would be the responsibility of the contractor to repair the same (to abide by the procedure for restoration) (Table 6.1).

TABLE 6.1: SOCIAL IMPACT & COMPENSATION MATRIX

Sl. No.	Type of loss	Eligible category	Entitlement	Implementation Guidance
1.	Private Land for Conversion of LTOH to AB Cabling, Segregation/Bifurcation of Feeder	Land-Owner	The policy involves the government purchasing land from willing sellers at negotiated rates according to the 2016 land purchase policy. This land will be transferred to WBSEDCL via a transfer deed for converting LTOH to AB Cabling. There's an incentive of up to 50% of the agreed land rate for timely registration,	The implementation of the RFCTLARR Act, 2013 in West Bengal is pending due to the absence of framed rules. However, Section 46 of the Act allows the state government or government bodies to directly purchase land based on the willing buyer-willing seller principle at negotiated rates. To facilitate this, the West Bengal government has issued a land purchase



Sl. No.	Type of loss	Eligible category	Entitlement	Implementation Guidance
			along with waivers for stamp duty and registration costs to facilitate hassle-free registration at no extra cost.	<p>policy for acquiring land for development programmes. The policy includes a transparent procedure for valuation, where the value of buildings/structures is assessed by designated agencies like the Executive Engineer, PWD, Municipal Engineering Directorate, District Engineer, or Zilla Parishad. The base price of the land is determined considering the assessed value of land or a set forth value, whichever is higher.</p> <p>Landowners have the opportunity to present their valuation of the land based on market rates and location. Once a consensus on the land rate is reached with the owners, it is notified. Additionally, there's an incentive of 50% of the notification rate provided to owners if they complete the registration within 30 days.</p>
2.	Trees and Standing Crops	Owner/user/cultivator**	<p>Compensation for trees, plants, and standing crops shall be assessed by the Committee (i.e. representative of Agriculture/Horticulture/Forest Department, local representative and representative of WBSEDCL/TKC) based on the productivity/ market rate of matured crops, whichever is higher.</p> <p>Or</p> <p>Option of harvesting existing crops before handing over possession.</p>	<p>The assistance of the Forest Dept. for timber-yielding trees and Horticulture for fruit-bearing trees in assessing /finalizing compensation for such trees shall be taken by the committee.</p> <p>The felled trees and another remnant shall also be handed over to the land owner/ user.</p>



Sl. No.	Type of loss	Eligible category	Entitlement	Implementation Guidance
3.	Workshop, work shed, cattle shed, petty shop	TH & NTH*	Replacement cost of impacted structure or Rs. 25,000/- whichever is higher.	Compensation eligibility is limited by a cut-off date. The cut-off date will be declared as the last day of the socioeconomic and census survey to cover all the affected persons in the selected area (block/district). The PIU will issue a notification on the cut-off date.
4.	Structure built on Government/Public land	NTH (Encroacher, Squatter, Vulnerable people***)	Value of structure lost at replacement cost; Provision of free transport or actual transportation cost @Rs 50000 max. in case of displaced squatter; Right to salvage affected materials.	The value of buildings/structures would be assessed as per the current year Schedule of Rates and without depreciation by the Executive Engineer PWD, Municipal Engineering Directorate/ District Engineer/Executive Engineer, Zilla Parishad, or by such agency as the administrative department may decide.
5.	Loss of Livelihood	Shopkeepers, Mobile Vendors, Farmers**	Provision of payment of minimum agricultural wage (MAW) for man-days loss due to construction activities.	The loss of livelihood would be assessed based on the actual man-days loss due to construction activities likely to prevail at sites and no feasible alternatives are possible to continue his livelihood during the construction period.
6.	Common Property Resources (CPR) like religious structures, wells, and other facilities on public land	Community**	Replacement/ augmentation of CPRs/ amenities or provisions of functional equivalence at programme cost in consultation with local communities and ULBs/ Gram Panchayat, as the case may be.	The cost of reconstruction or rehabilitation may be transferred in installments to ULBs/ Gram Panchayat accounts linked to the progress of works or can be built by the PMU in discussion with the community

* TH = Title Holder; NTH = Non-Title Holder

** Indigenous People (IP – ST): No sub-project will be considered under the Programme where an Indigenous Peoples impact is envisaged.

*** Vulnerable people are (i) below the poverty line (BPL) as per the state poverty line; (ii) female or minor (under 18 years) or elder (above 60 years) or differently-abled persons headed; (iii) scheduled caste or tribe; and households who are landless; and (vi) who are without legal title to land. The vulnerable status of persons without legal title is determined based on their socioeconomic profile.

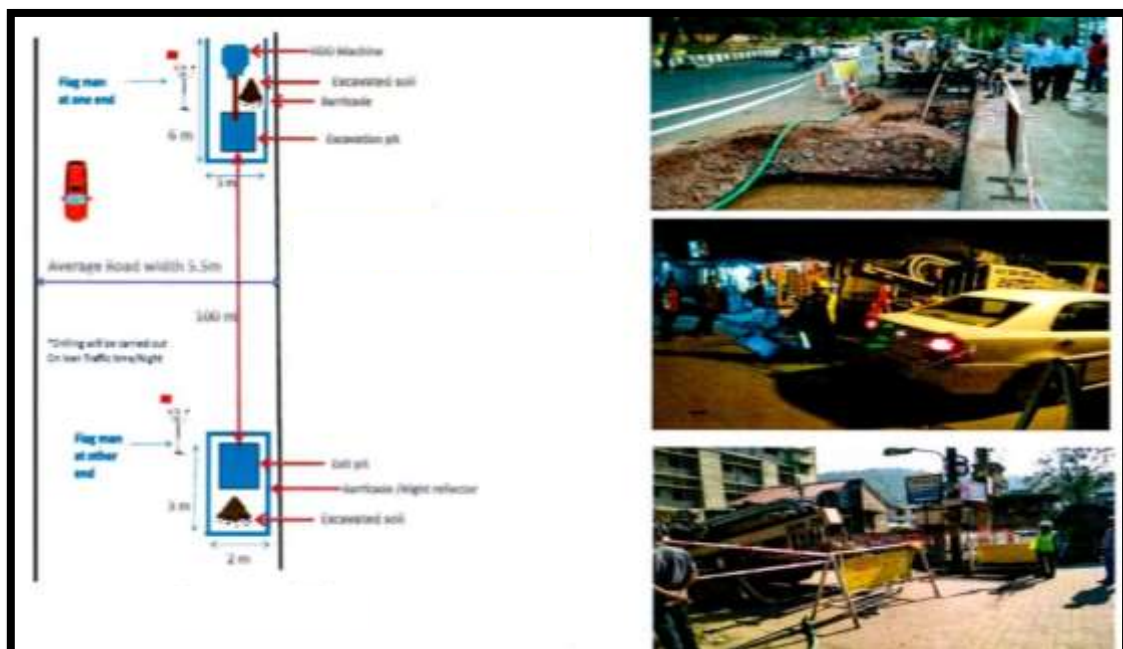


6.1.2.5 Mitigation Measures for Utilities and Traffic and Blockage of Accessway

When an electricity distribution network crosses any road/railway line, adequate care/caution would be taken so as not to cause any hindrance to the movement of traffic (Figure 6.1). UG Cabling and stringing at the stretches would be carried out during the lean traffic period in consultation with the District Administration and local office of the utilities. The proposed Traffic Management Plan for conversion of LTOH into AB cabling, feeder bifurcation & segregation and UG cabling work is presented below:

- Safety barricade with reflective stickers will be placed along the existing roads. Machinery and equipment like excavators, RMC trucks, etc. used for construction works will be operated inside the barricaded area.
- Warning sign boards will be placed before and after the construction area for easy identification of construction activities by vehicle drivers. Further, reflective stickers will be placed at a comfortable distance before the barricading area to guide the drivers.
- A flag man with a Red Flag will be present at the site during the daytime, guiding the public, when the construction activities are going on. After the work activities warning flashlights will be installed at the corners of barricaded areas.
- Due permission from PWD, NHAI, Railway, etc. shall be obtained before undertaking such activity.

FIGURE 6.1: TRAFFIC MANAGEMENT PLAN



Any vehicle going into the barricaded area and out from there shall be led by a flag man without disturbing carriageway traffic.



6.1.2.6 Mitigation Measures for Women's Work Participation and Decision Making

Adequate measures will be undertaken to safeguard gender issues in the programme area. Women's involvement will be ensured through formal and informal group consultations so that their participation is ensured during the implementation of the project. If any women labourers are employed at a construction site, separate arrangements like toilet facilities, rest areas, etc. would be made for them.

6.1.2.7 Mitigation Measures for Visual & Aesthetics

Electricity distribution networks may be routed to avoid areas having scenic beauty. Electricity distribution network routes shall be chosen to avoid areas of natural beauty. In addition, during the electricity distribution network design following measures will be adopted:

- Minimizing construction of additional poles by using natural topography/ sag curve;
- Use of PCC Poles to merge with the background.

6.1.3 Mitigation Measures for Disaster Management Issues

A detailed Disaster Management Plan is in place with WBSEDCL and provisions of same shall be implied in case of such occurrence. The Disaster Management/ Emergency Restoration Plan is annexed in **Appendix 6.2**.



7.0 PUBLIC CONSULTATION AND DISCLOSURE

Through the process of consultation and disclosures, WBSEDCL would envisage the participation of stakeholders at each stage of programme planning and implementation. WBSEDCL would be responsible not only for ensuring the participation of the community in the consultation process but to making it effective to ensure the integration of the feedback received from stakeholders into the programme plans where it deems fit.

7.1 CONSULTATION

A Consultation Framework has been prepared to ensure the involvement of stakeholders at each stage of programme planning and implementation. To ensure community participation at different stages of the programme, the Consultation framework for the development of distribution infrastructure for the loss reduction programme under RDSS for the 7 ADB funded districts has been proposed in Table 7.1.

TABLE 7.1: SUMMARY OF CONSULTATION FRAMEWORK

Programme Phase	Activity	Details	Responsible Agency	Target Stakeholders
Conceptualization	Screening Surveys	Identification of the Environmental and Social Sensitive Areas which need to be excluded	Environmental and Social Consultant	WBSEDCL CCC/Divisional Office, Forest Department, District Land Revenue Office.
	Stakeholder Mapping	Cross-section of stakeholders to be identified to facilitate their participation in the sub-activity	Environmental and Social Consultant	WBSEDCLCCC/Divisional Office, Forest Department, District Land Revenue Office.
	ESMF Disclosure	Reference Framework for Environmental & Social Sensitivities Issues and Mitigations Procedures to be Followed in Loss Reduction Programme under RDSS	Environmental and Social Consultant	WBSEDCL CCC/Divisional Office, Divisional Forest Office, District Land Revenue Office, Zila Parishad Sabhadhipati/CEO, Municipal Corporation Chairman and Public
Planning	Detailed Surveys	Identification of the Environmental and Social Sensitivities which need to be avoided	Environmental and Social Consultant	Local Land Revenue officer, Village Panchayat, Local Community people



	Stakeholder meetings	Stakeholder engagement meetings	WBSEDCL PM Level	WBSEDCL CCC/Divisional Office, Divisional Forest Office, District Land Revenue Office, Zila Parishad Sabhadhipati/CEO, Municipal Corporation Chairman
Implementation	Check Surveys	Identification of sensitivities along RoW Identification	Contractor along with the WBSEDCL PM/Divisional Office	Community People, Local Land Revenue officer, Village Panchayat
	Disclosure of Final Compensation if any	Dissemination of translated (in the local language) entitlement/compensation details along with the process of disbursement		

7.2 INFORMATION DISCLOSURE

The information disclosure would provide citizen-centric information on the policies and the details of sub-activities along with the implementation process of development of distribution infrastructure for the loss reduction works cover under RDSS Programme at seven ADB funded districts of West Bengal. It would be carried out following the provision of the Right to Information Act 2005 and policy principles of ADB's Safeguard Policy Statement 2009. The Loss Reduction Programme under RDSS Information Disclosure Procedure would ensure that information concerning safeguard documents in respect of the Loss Reduction Programme under RDSS's activities is made available to the public including Executive Summaries of all major documents in local language without any confidentiality for wider dissemination of information.

The type and timing of the disclosure, channels to be used, and frequency and duration of disclosure in the development of distribution infrastructure for loss reduction programme under RDSS are presented in Table 7.2.

TABLE 7.2: SUMMARY OF INFORMATION DISCLOSURE PLAN

Programme Phase	Documents to be disclosed	Frequency and Duration of Disclosure	Channels of Disclosure
Programme Planning	ESMF	Disclosure after finalization and approval. Will remain disclosed for the entire life of the programme	Website of WBSEDCL
	IEE, DDR & RP	Disclosure after finalization and approval. Will remain disclosed during the	Website of WBSEDCL and hard copy of the same will be available at respective district's PM at site level



Programme Phase	Documents to be disclosed	Frequency and Duration of Disclosure	Channels of Disclosure
		entire lifecycle of the programme	
Implementation	Grievance Redressal Mechanism (GRM)	Once it is set up	Website of WBSEDCL
	Information regarding Land losers, if any, and their entitlements	Once at the start of the programme and as and when demanded by the APs	Through leaflets, or other IEC materials, specially developed for the local language One-to-one consultation with programme-affected people (APs) & Community consultations
	ESMR (E&S Safeguard Implementation Monitoring Report)	At 6 month intervals	Extracts are to be forwarded to WBSEDCL. The full Report shall be available on the WBSEDCL Website.

7.3 FRAMEWORK FOR STAKEHOLDER ENGAGEMENT PLAN

Stakeholder engagement is an inclusive process conducted throughout the programme life cycle. Stakeholder engagement is most effective when initiated at an early stage of the programme development process. For implementation of the proposed distribution infrastructure development programme, it is not only mandatory to comply with applicable national and state legislations/regulatory framework on environmental and social issues but to carry out due diligence on such issues as per the provisions of ADB's SPS 2009 to meet the overall requirement of sustainable development. Effective stakeholder engagement can improve the environmental and social sustainability of programmes, enhance programme acceptance, and make a significant contribution to successful programme design and implementation.

Accordingly, SEP for the RDSS programme has been formulated considering the following:

- Stakeholder identification and analysis;
- Mechanism for disclosure of information;
- Consultation with stakeholders;
- Addressing and responding to grievances; and
- Reporting to stakeholders.

The detail of the Stakeholder Engagement Plan is presented in **Appendix 7.1**.



8.0 IMPLEMENTATION MECHANISM & INSTITUTIONAL ARRANGEMENT

The process of integration of Safeguard Policy Statement 2009 (SPS 2009) policy principles throughout the programme cycle & organizational structure for Safeguard Policy Statement 2009 implementation at the development of distribution infrastructure for loss reduction programme under RDSS at seven ADB-funded districts of West Bengal including the mechanism for monitoring, supervision and reporting of the Safeguard Policy Statement 2009 implementation is described in the subsequent sections.

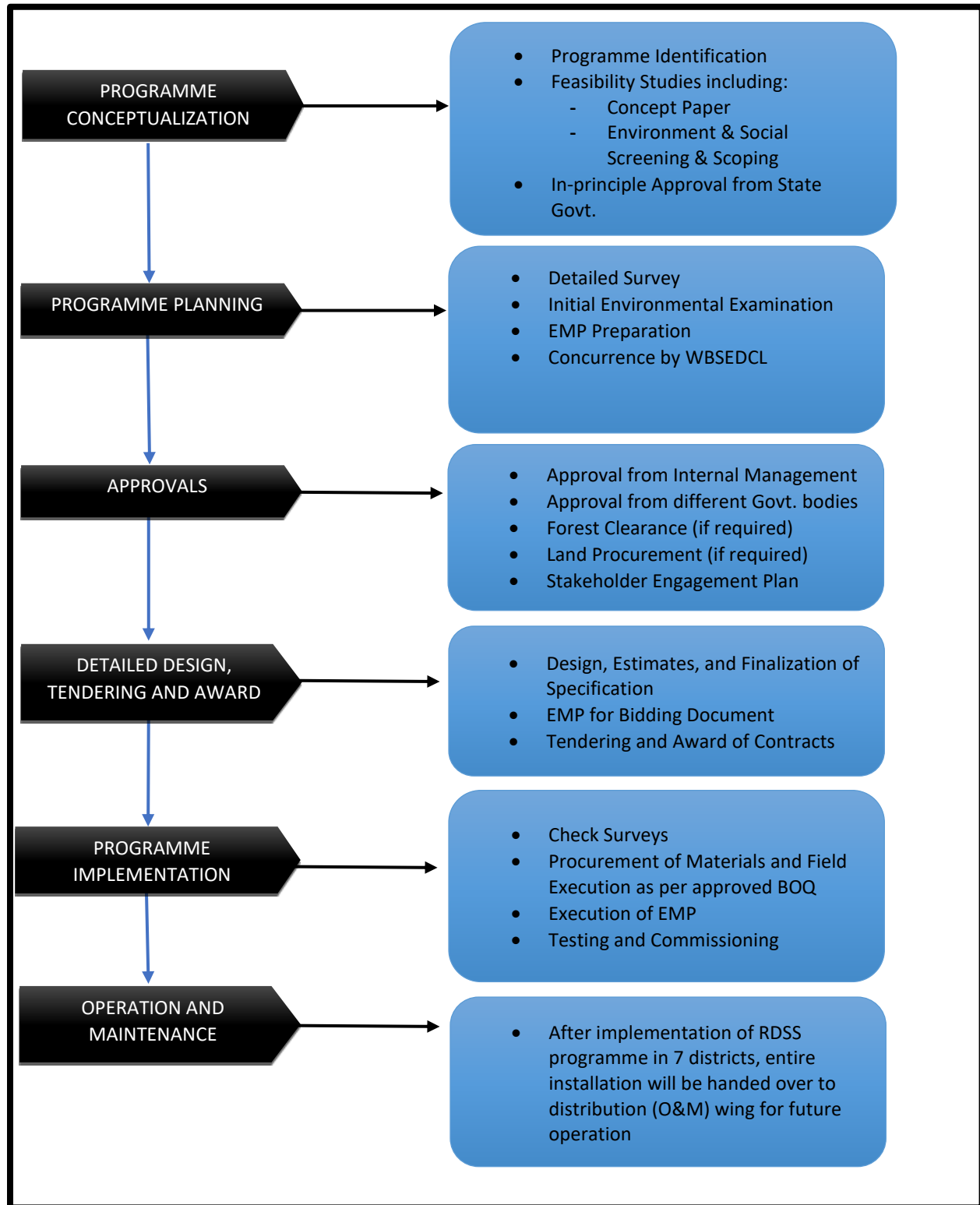
8.1 PROGRAMME CYCLE AND E&S SAFEGUARDS

The stages of the development of distribution infrastructure for loss reduction at selected districts of West Bengal under the RDSS programme cycle for conversion of LTOH into AB cabling network and with DOG conductor, feeder segregation and bifurcation of 11 KV HT Feeders, capacitor bank installation at sub-stations as well as IT/OT work of proposed programme include:

- Programme conceptualization;
- Programme planning;
- Approval and clearances;
- Detail designing, tendering & award;
- Programme implementation; and
- Operation & maintenance.

As part of each of the processes, SPS 2009 has been dovetailed in the programme cycle to ensure its proper and timely compliance. Such SPS 2009 provisions have been described in the subsequent sections and illustrated in **Figure 8.1**.



FIGURE 8.1: PROGRAMME CYCLE OF DISTRIBUTION PROGRAMME AND E&S SAFEGUARD

8.1.1 Programme Conceptualization

A Loss Reduction Programme under RDSS in the state is identified considering the load centres /centres of consumption of electricity e.g. (industrial region, and domestic/commercial centres). To identify the need for system strengthening and augmentation of distribution infrastructure in West Bengal, a detailed load profile & Growth Pattern and distribution system study was carried out by WBSEDCL. Following the same, the sub-activities listed in **Appendix 1.1 & 2.1** have been identified.

After the identification of the sub-activity, a Feasibility Study would be carried out. The feasibility study, besides analysing the technical/engineering and financial and economic aspects would essentially include environmental and social considerations. The feasibility study would consider technical justifications, economic and financial performance and environmental and social constraints mapping for analysing each of the sub-activities. The sub-activities would then be prioritized based on the demand of consumers (in this case 24x7 Power for All), business needs, external environment factors and environmental and social complexities involved.

As a part of the Feasibility study for each sub-activity, WBSEDCL (through its E&S Consultant) would screen for “Significant Environmentally and Socially Sensitive Areas” or “Exclusion Zones” e.g. National Parks, Wildlife sanctuaries, Eco-Sensitive Zones, etc. These would be identified from secondary literature and using Survey of India Maps/Google Earth and Forest Atlas and communicated to the Technical Consultant of WBSEDCL. Through the screening process efforts would be made to avoid these “Significant Environmentally and Socially Sensitive Areas” or “Exclusion Zones”.

Subsequently, a preliminary survey/walkover survey would be conducted to identify forests, sacred groves, archaeological sites, historical and cultural places etc. In case additional environmentally or socially sensitive areas are identified during the survey the same would be informed to the WBSEDCL and the (respective site offices of WBSEDCL) for initiating actions for avoidance or necessary corrective actions. Using the information gathered from the preliminary survey, an analysis of alternative alignment would be carried by the E&S Consultant out as per the format provided in **Appendix 8.1** for identification of the best-suited alternative route for feeder segregation and bifurcation. Installation and commissioning of the capacitor bank will be completed within the premises of the existing 33/11 KV substation. However, for the conversion of LTOH line by AB cabling and augmentation of 11 KV HTOH line by DOG conductor, no new alignment is proposed as the existing network would be used for the purpose.



8.1.2 Programme Planning & Approvals

The programme planning stage would include all activities related to the preparation of a Detailed Programme Report (DPR) for all sub-activities under the Loss Reduction Programme under RDSS. The environmental and social impact assessment of each sub-activity's location will also be carried out during this stage.

During this stage of the programme, the Technical Consultant would assess the proposed/existing alignment identified from the Analysis of Alternatives during the Programme Conceptualization for the optimum location of DTRs as well as HT/LT AB & UG cabling network.

As part of the environmental and social (E&S) studies a second-level screening of the proposed/existing alignment/locations, would be conducted to identify environmental and social hotspots. The hot spots on the alignment would then be communicated to the Technical Consultants for avoidance through realignment and/or alternative considerations.

Screening of potential environmental and social impact and, for category B activities, IEE for each sub-activity would be carried out to ascertain whether specialized studies [e.g., Resettlement Plan, Biodiversity Assessment, etc.] need to be conducted. A generic Terms of Reference for the IEE and formulation of EMP is presented in **Appendix 8.2**. Considering the scope of studies for each sub-activities under the Loss Reduction Programme under RDSS, baseline information would be collected from surveys, field studies and secondary sources. This baseline information would be utilized for carrying out environmental and social assessments and for the preparation of environmental and social management plans as needed. In case any specialized studies are required the following actions will be undertaken;

- **Resettlement Action Plan:** Generally, RAP under SPS 2009 Category 'A' shall not apply to the RBL programme. No land is proposed to be acquired for the proposed programme sub-components. However, in case any land requirement for feeder segregation/bifurcation arises, the proposed land would be acquired as per the GoWB land procurement policy for infrastructure programmes through the concerned Zilla Parishad. In the case where private ownership land is required to be acquired and resettlement cannot be avoided, a Resettlement Action Plan (RAP) would be prepared as per the provisions of ADB's SPS as well as GoWB. The plan would identify all people affected by the activities and justify their displacement after consideration of alternatives that would avoid or minimize displacement. It would also present the entitlements for each of the activity-affected persons.
- **Biodiversity Assessment/Management Plan:** Such assessment would aim at identifying potential impacts on flora and fauna if the line traverses through locations meeting the criteria but



in ecologically sensitive zones, forest land, or routes with potential for natural and/or critical habitats to be supported or other ecologically sensitive areas including notified migratory path /flyway etc. to develop a detailed & comprehensive Biodiversity Management Plan listing mitigation measure to protect /conserve biodiversity of such areas. Terms of reference for the biodiversity assessment study are provided in **Appendix 8.3**. The biodiversity assessment/management plan would be conducted before any works on site commence and be undertaken by a qualified and experienced ecologist, including species experts where relevant.

If forest land is unavoidable for Bifurcation/Segregation of 11KV HT Feeders, or conversion of LTOH line by AB Cabling or augmentation of 11 KV HTOH line by DOG conductor, the process of forest clearance as per the provisions of the Forest Conservation Act 1980 would be initiated. As part of the forest proposal, WBSEDCL would provide an undertaking to bear the cost of compensatory afforestation, etc., as per the guidelines of MoEF&CC.

8.1.3 Detailed Design, Tendering & Award

WBSEDCL completed the tendering process after approval from internal management. The contracts are being awarded (Component/package-wise) to competent contractors through a bidding process. The sub-activity-specific EMP would be part of the contract document for implementation by the contractors/subcontractors executing the sub-activities.

8.1.4 Programme Implementation

The construction phase would begin with the check survey being carried out by the contractor. Through the check survey, the contractor would verify the site profile and the DTR (location) and make necessary changes/ (modifications) wherever required. Once the locations/alignment are finalised, the contractor will approach the local authority for required clearances to start construction work.

In case there are any grievances regarding the location of the pole, consultation would be held between local people and the Contractor with the involvement of the respective Regional/Project Office of WBSEDCL. However, in case even after all these efforts there is a failure to come to a consensus, then the pole locations may be shifted after meeting all technical requirements.

During construction work, due care would be taken by the Contractor to implement the Environmental Management Plan (EMP) to minimize/mitigate environmental and social impacts. Occupational and community health & safety aspects would also be given due importance by the Contractor during construction work. WBSEDCL would also have oversight on the implementation of all these activities. Implementation of the Resettlement Action Plan and the Tribal Development Plan, if applicable would be taken up before the initiation of the civil works.



The Contractor would be responsible for carrying out regular reporting to the Project Office of WBSEDCL for the implementation of the EMP in the format specified in **Appendix 8.4**. In turn, the Project Office would report to WBSEDCL PIU.

8.1.5 Programme Operation & Maintenance

PIU will continuously monitor the implementation of the EMP and other requirements during the Bifurcation/Segregation of 11 KV HT Feeders and conversion of the LTOH line to AB cabling and augmentation of 11 KV HTOH line by DOG conductor including the encumbrance if any on the RoW. Any encumbrance on the RoW e.g. trees etc. would be lopped to maintain requisite safety distance as per guidelines (IS 5613/MoEF&CC, GoI Circular 7-25/2012-FC dated 24th October 2016). The Project Manager of the concerned contractor will carry out monitoring of the sub-activities under the supervision and guidance of WBSEDCL.

8.2 INSTITUTIONAL ARRANGEMENT

For the implementation of the Loss Reduction Programme under RDSS, West Bengal State Electricity Distribution Company Limited has developed a Programme Implementation Unit (PIU). The PIU will be located at the WBSEDCL headquarters in Bidyut Bhavan, Bidhannagar, Kolkata, and is headed by the Chief Engineer of Rural Electrification. The detail of PIU is presented in **Appendix 8.5**. The PIU would also be responsible for driving the implementation of the ADB's SPS 2009 in the Loss Reduction Programme under RDSS. At the field level, the Project Manager of WBSEDCL who would be responsible for implementing the technical aspects of the Loss Reduction Programme under RDSS would also be responsible for the implementation of the SPS 2009. In addition, the Contractor for implementation of the sub-activities would also have Environment, Health & Safety personnel to carry out the implementation of E&S safeguards as per the ESMF and EMP on the ground.

For the implementation of the E&S provisions of works covered under RDSS Programme at seven ADB-funded districts of West Bengal, the PIU would be additionally supported by an EHS Consultant having requisite qualifications and experiences (Appendix 8.2). However, at the field level, the implementation would be supervised by the designated officers of the Contractors, responsible for implementing the sub-activity as per the EMP document of the bid.

The designated officers of PIU would be trained on E&S aspects and the implementation requirements of the ESMF in the Loss Reduction Programme under RDSS. The responsibilities of said officers with the assistance of a consultant shall be as follows:

- Shall be responsible for providing PIU with E&S inputs on the planning and implementation of the programme;
- Shall coordinate with the Project Offices of WBSEDCL in case of private land procurement, if any.



- Shall be responsible for supervising the implementation of the Environmental and Social Management Plans including the Biodiversity Management Plan will be formulated if required; Shall be responsible for coordinating training sessions and awareness campaigns for improving awareness on E&S Issues in the organizations i.e. WBSEDCL;
- Shall formulate training modules and impart training to staff;
- Shall be responsible for coordinating between different departments i.e. the Land Revenue Department and the Forest Department for land procurement and forest clearance respectively;
- Shall implement the Grievance Redresses Mechanism of Loss Reduction Programme under RDSS and maintain the process of grievance redressal. They shall maintain the records of all the grievance and action taken;
- Shall coordinate with the different authorities for implementation of the Loss Reduction Programme.

The Environmental, Health & Safety Officer of the contractor who is implementing the programme would be responsible for the implementation of the provisions of EMP as provided in the contract document and also coordinating with the respective Department for necessary statutory clearances if required. The responsibilities of said officers shall be as follows:

- Shall be responsible for planning and implementation of the EMP;
- Supporting the Project Office of WBSEDCL to coordinate with different government bodies for statutory clearances.
- Reporting the EMP Implementation to the WBSEDCL Project Office;
- Coordinate with the External Agency, if any the process and progress of the implementation of the EMP.

8.3 CAPACITY BUILDING & TRAINING

The institutional capacity building would be undertaken based on the assessment of the need to address IR and IP risks concerning the SPS requirements at various levels including the local level.

The capacity building for implementation of the Loss Reduction Programme under RDSS would include both augmentation of the present institutional structure of PIU as well as carrying out



training of the personnel to be involved in the programme implementation on E&S issues in the Loss Reduction Programme under RDSS at the seven ADB funded districts of West Bengal.

Training and development of employees is an integral part of the implementation of E&S Safeguard. Training needs identification has been carried out at the Corporate and Field levels, based on which focused training modules have been developed for

- Strengthening in-house corporate-level capacity to implement the provision of ESMF;
- Creating Awareness, providing the tools for implementation of Environmental and Social Management Framework, and accompanying set of management procedures to all departments;
- Developing competence within key employees to provide training in their respective departments.

Based on skill requirements/improvement at all levels for proper implementation of E&S Safeguard, a training programme focusing on personnel from all technical/engineering staff including women staff from the corporate as well as seven ADB RBL districts of West Bengal, and is developed which will be implemented in phase manner commensurating with the project implementation schedule by the WBSEDCL. The prime focus of the capacity building program would be to achieve the environment safeguards related to DLIs.

- Adoption of enhanced corporate safety policy and procedures (DLI 7a)
- Behavioral safety and the updated safety policy and manual requirements (DLI 7b)
- Understanding of safety manual and posters, fully stocked first aid kit, firefighting and electrical safety equipment and insulated PPE kits which are to be made available at all 28 substations in the seven ADB-funded districts of West Bengal with full compliance to CEA requirements (2022); H&S code requirements (2020) and PCB regulation requirements (2006) (DLI 7c)
- Community awareness on electrical safety enhancement with special emphasis on divisions in which new bare conductors have been installed under ADB RBL (DLI 7d)

These training programmes are to be conducted with the help of local and national training institutions and experts who have substantial experience in the environmental and social management in the distribution sector including a good understanding of the Asian Development Bank's Safeguard Policy Statement 2009 principles, shall conduct classroom training sessions for all staff likely to be involved in sub activity planning & implementation.



9.0 GRIEVANCE REDRESSAL MECHANISM

The Grievance Redressal Mechanism (GRM) can be an effective tool for identifying and resolving complaints on sub-activities. Under the programme, it is required that an efficient consultation and GRM be established to assist affected persons in resolving queries and complaints, if any, on time. The guidelines on GRM will be applied at the programme and sub-activity level to ensure that adequate resources are made available for the programme GRM to function effectively.

ADB's Safeguard Policy Statement (2009) principle requires the establishment of a responsive, readily accessible and culturally appropriate GRM capable of receiving and facilitating the resolution of affected persons' concerns and grievances about the physical, social and economic impacts of the programme. The GRM aims to

- (i) reduce conflict, risk of undue delay and complication in Programme implementation;
- (ii) improve the quality of Programme activities and outputs;
- (iii) ensure that the rights of affected persons are respected;
- (iv) help identify and respond to unintended impacts of the Programme on individuals; and
- (v) maximize participation, support and benefits to local communities.

The fundamental objectives of the GRM are:

- i. To reach mutually agreed solutions satisfactory to both, the Programme and the affected persons, and to resolve any Programme-related grievance locally, in consultation with the aggrieved parties;
- ii. To facilitate the smooth implementation of the EMPs and prevent delay in sub-activity implementation;
- iii. To democratize the development process at the local level, while maintaining transparency as well as to establish accountability to the affected people;
- iv. To facilitate an effective dialogue and open communication between the Programme and affected persons; and
- v. To have a clear definition of the roles and responsibilities of the various parties involved in the consideration and resolution of grievances.



9.1 GRIEVANCE REDRESS MECHANISM

This section deals with the Grievance Redressal Mechanism, the Grievance Redressal Cell and the legal options available to the various stakeholders. The grievance redressal process is illustrated in Figure 9.1.

9.1.1 Grievance Redressal System at Programme Level

A systematic Grievance Redress Mechanism (GRM) has been evolved for the Loss Reduction Programme under RDSS which would help in resolving grievances/disputes related to the environmental and social performance of the programme. The system can be used by the stakeholders including affected persons to flag off any concerns/grievances/disputes in the programme and seek redressal of the same thereby ensuring effective participation.

The proposed GRM at the Loss Reduction Programme under RDSS and sub-activity level is presented in Table 9.1.

The proposed GRM, which will handle both environmental and social grievances, includes grievance redress committees (GRCs) to be set up by WBSEDCL at respective district Project Offices and Programme Headquarters to provide the means for the effective resolution of complaints and issues on each sub-activity. The GRCs will be convened by WBSEDCL or grievance focal person (GFP) and, in addition, include a representative of the affected person, a representative of women groups, the relevant Village Panchayet Pradhan (headman/woman)/Chairperson of concerned Municipality, a nominated divisional forest officer or equivalent for environment safeguards grievances or nominated district revenue officer as nodal officer for social safeguards grievances, and, the designated GFP of the contractor dealing with the environmental or social safeguards as applicable. The GRCs will meet as and when a major grievance (i.e. grievance that cannot be resolved at the contractor level arises).



FIGURE 9.1: CHART VIEW OF GRIEVANCE REDRESSAL PROCESS

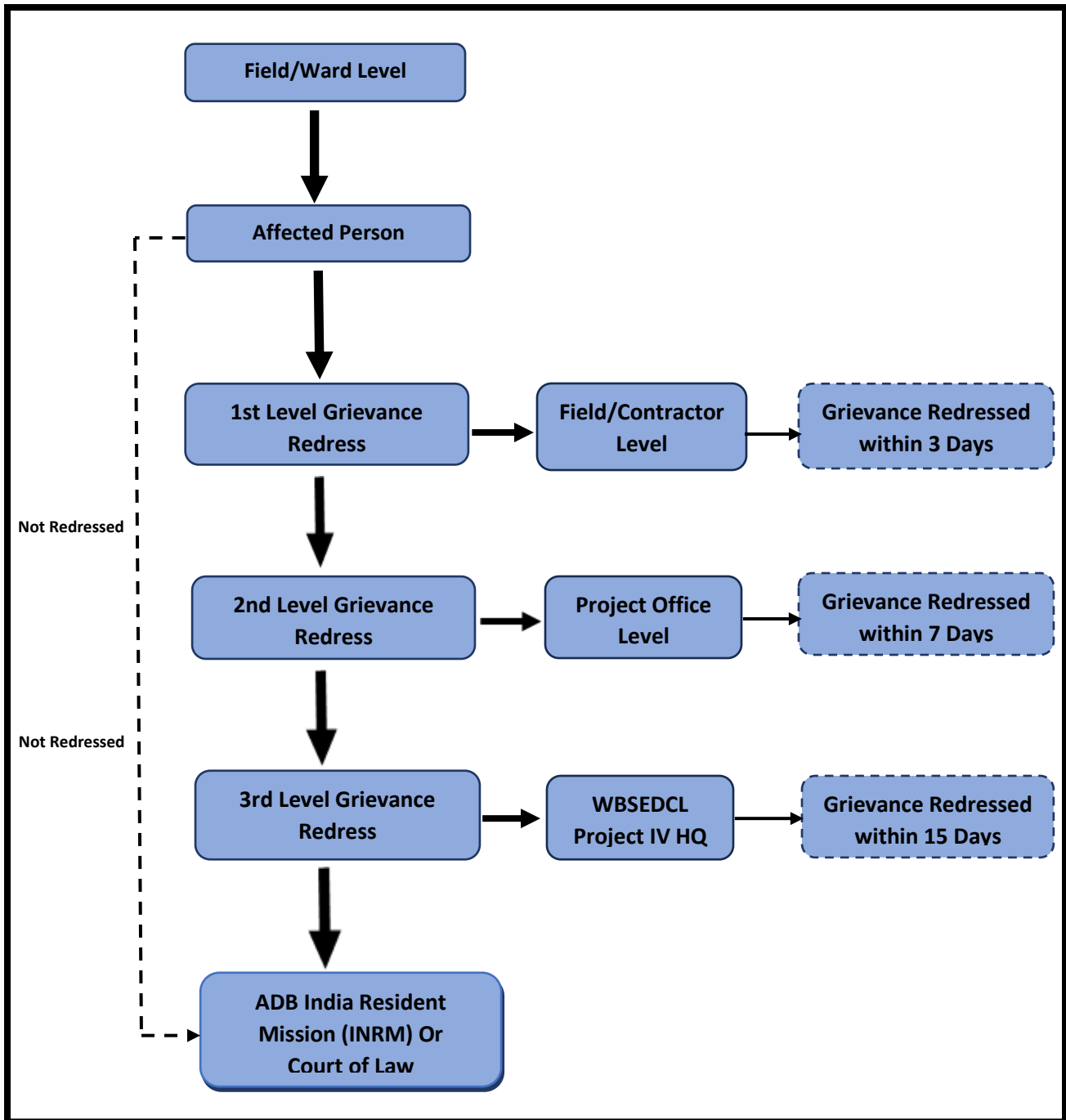


TABLE 9.1: GRIEVANCE HANDLING PROCESS

Level	Name of Level	Description	Time frame
1	Field level (by contractor)	<p>One Grievance Focal Person (GFP) will be assigned by each contractor to receive and handle grievances. Complaints can be registered by the contractor.</p> <p>The contractor's GFP should receive the complaint (written or verbal) and provide an acknowledgement letter to the complainer within 3 days after receipt of the complaint.</p> <p>Contractor's GFP should maintain data from the Grievance Logbook and submit/update all necessary data related to the registered grievances to the Project Office grievance cell weekly.</p> <p>Upon resolution, the Contractor's GFP should convey the solution to the affected person and seek their concurrence (written or verbal) that it is acceptable to them.</p> <p>If the grievance cannot be solved within 3 working days, then the Contractor's GFP should submit information to the next level (WBSEDCL GFP at Project Office level) and provide updated information to the complainant regarding the grievance resolution process being followed.</p>	3 working days
2	District Project Office	<p>The WBSEDCL GFP (District Project Office) for each subactivity should review the grievance with the support of the environment and social safeguards officers and resolve it within 7 working days.</p> <p>If the case is complex and requires investigation (experts' opinion) expertise or confirmations from the state bodies, the resolution period can be extended up to 15 calendar days.</p> <p>Upon resolution the District Project Office GFP should convey the solution to the affected person and seek their concurrence (written or verbal) that it is acceptable to them.</p> <p>If the grievance cannot be resolved still, or the complaining party does not agree with the offered solution, then the District Project Office GFP should submit information to the next level (Project IV GRC)</p>	7 working days



		and provide updated information to the complainant regarding the grievance resolution process being followed.	
3	PIU GRC Level	<p>The GFP will request the Project IV GRC to review the grievance and resolve it within 15 calendar days. If the grievance is found invalid (after investigation of the GRC) a written response should be given to the complaining party explaining the reasons for its rejection. Otherwise, a written response explaining the resolution should be provided to the complaining party and their concurrence (written/verbal) sought by the GFP to confirm that it is acceptable to them.</p> <p>If the grievance cannot be resolved still, or the complaining party does not agree with the offered solution, then the GFP should submit information to the next level (Project IV GRC) and provide updated information to the complainant regarding the grievance resolution process being followed.</p>	15 working days
4	Court or INRM	<p>If the affected person is still not satisfied with the GRC decision, the affected person can submit his/her complaint to the appropriate court of law in India for its resolution. The GRM does not impede access to the country's judicial or administrative remedies, so the project-affected persons can file the case to the court of law regardless of the GRM stage and process. In addition, the affected person may raise the concern with ADB Operations Department through INRM for resolution.</p> <p>Project-affected people can also submit complaints to ADB's Accountability Mechanism provides an independent forum and process whereby people adversely affected by ADB-financed projects can voice and seek a resolution of their problems, as well as report alleged violations of ADB's operational policies and procedures.</p>	Depends on nature of the complaint

9.1.2 Accountability Mechanism of the ADB

In addition, the affected person may raise concerns about the works covered under the RDSS Programme at seven ADB-funded districts of West Bengal with the ADB Energy Sector Group through the ADB India Resident Mission (INRM) for resolution. Programme-affected people can



also submit complaints to ADB's Accountability Mechanism through its Complaint Receiving Officer. The Accountability Mechanism provides an independent forum and process whereby people adversely affected by ADB-financed programmes can voice, and seek a resolution of their ADB programme-related problems, as well as report alleged violations of ADB's operational policies and procedures.

9.2 PROCEDURE FOR GRIEVANCE REDRESSAL

Processing of grievances received at the different GRM levels will follow the steps outlined below.

Receiving grievances: All the received grievances should be registered by the GFPs of the contractor. Submitting grievances and registration should be a straightforward process, and the affected persons should be able to submit their grievances and questions directly or through a third party. This process requires the availability of (i) the responsible person to receive and register the complaints (GFP); (ii) a single point (at the field) for receiving grievances; (iii) a procedure for acknowledging the receipt (registered and signed) and informing the complaining party about the expected time frame for the review and resolution; and (iv) grievance logbook about the complaints and their status.

The complaining party should be able to submit the grievance in person, by phone call, letter to the GFP assigned by the contractor or Project Offices of WBSEDCL. Receipt of grievance lodged in person or via phone should be acknowledged immediately by a paper issued by the GFP. Any documentation relating to submitting and feeding back on grievances should be in English or Bengali (and other appropriate).

All the grievances, however minor, and regardless of their nature and eligibility, should be recorded in a grievance logbook in detail. Upon receipt of grievances, the contractor's GFP in coordination with the WBSEDCL GFP should sort them into the following categories to define if the complaint is eligible for the Programme established GRM. The procedure should establish clear parameters (if the complaint is caused by the Programme activities) for qualifying the grievance as eligible or ineligible for the Programme established GRM. The following types of grievances are not eligible for resolution by the Programme established by GRM:

- Grievances that are not related to the Programme, or
- Grievances that should be reviewed by separate, more appropriate procedures (e.g. issues of fraud and corruption).



TABLE 9.2: GRIEVANCE REGISTRATION FORM

Sl. No.	Date Received	Name of complainant	Contact Details	Summary of Complaint	Action taken	Status Open/Closed

Note: If any unsolved grievances are kept pending, it has to be brought forward to the next month.

Feedback provision: After receiving the grievance, the GFP should:

- Provide acknowledgement of the grievance receipt, with response/recommendations to complainant;
- Provide the complainant with information about the status of grievance resolution in each of the grievance resolution levels;
- If the resolution is not reached or seems to be unreachable at a given level, the grievance should be passed on to the next level and the complainant should be informed accordingly. Information to the complainant shall include the date when the case was passed on to the next level the date by which the resolution is expected; and
- The resolution proposed at each level should be informed to the complainant.

At all levels, the parties involved in resolving the grievance should closely discuss the issue and resolution alternatives with the complainant to come to a resolution that is reasonable and acceptable for all parties.

Reporting: The WBSEDCL is responsible for monitoring the implementation of the programme-established GRM and reflects the outcomes in the safeguard monitoring reports.

- The GFP of the contractor should document and monitor the grievance status in a grievance logbook. All grievances, no matter how minor, and regardless of immediately resolved by the Contractor, will be logged.
- The GFP of the contractor should report to the GFP of WBSEDCL on GRM weekly and immediately inform them on receipt of any grievance.



The GFP of the WBSEDCL will record all grievances, no matter how minor, and regardless of immediately resolved by the contractor, in a tracking table (provided by ADB–Table 15) and report monthly to WBSEDCL GFP and ADB on a semi-annual basis through the safeguard monitoring reports and immediately inform them of any grievance which reaches level 3 of the GRM. Besides, all grievances and their status along with details of the grievance and their resolution should be reflected in the safeguard monitoring reports.

9.2.1 Feedback Mechanism

The feedback of the programme activity affected persons/citizens would be captured through the PM offices of WBSEDCL and conveyed to WBSEDCL PIU for necessary action. The feedback mechanism as discussed in the Grievance Redresses Mechanism would be used.



10.0 MONITORING & EVALUATION

10.1 MONITORING AND REPORTING

The WBSEDCL PIU through the respective PM Offices would monitor the implementation of the environmental and social safeguards in all the sub-activities to ensure conformity to the requirements of the ESMF, IEE, and EMP. The monitoring would be carried out through the sub-activity-wise Monthly Progress Reports (MPR) submitted by the PM Offices of WBSEDCL implementing the sub-activity. The designated Officer/Consultant of the WBSEDCL PIU would also visit the site regularly for monitoring and supervision. The reporting would capture information from the Contractors/Implementing Agency to PM Offices and through a graduated process of consolidations, analysis and assessment, a monthly progress report will be sent by the PM Office to the designated Officers/Consultants at WBSEDCL PIU.

The WBSEDCL PIU would review these monthly reports and identify technical, managerial, or regulatory and safeguard issues about the compliance of the IEE, and EMP provisions. A corrective action plan would be developed by the WBSEDCL PIU and debated internally to determine the appropriate interventions. These interventions would be conveyed to the WBSEDCL Management through a Quarterly report for approval and subsequently implemented by WBSEDCL PIU. The PIU would prepare a quarterly progress report (QPR) with EMP compliance status and a Semi-annual monitoring report and present it to the Asian Development Bank for works covered under RDSS Programme at seven ADB-funded districts of West Bengal

The monthly reports will use a set of progress and output indicators to compare the progress of the programme to targets set up at the commencement of the programme. Table 10.1 presents the Monitoring framework, frequency and Responsibility for Environmental and Social Monitoring.

The set of checklists and formats have been evolved for the supervision of effective implementation and monitoring of E&S Safeguard and the same are presented in Appendix 10.1 and shall be considered an integral part of this ESMF document.



FIGURE 10.1: MECHANISM FOR IMPLEMENTATION AND MONITORING OF E&S SAFEGUARD IN RDSS PROGRAMME UNDER ADB-FUNDED DISTRICTS

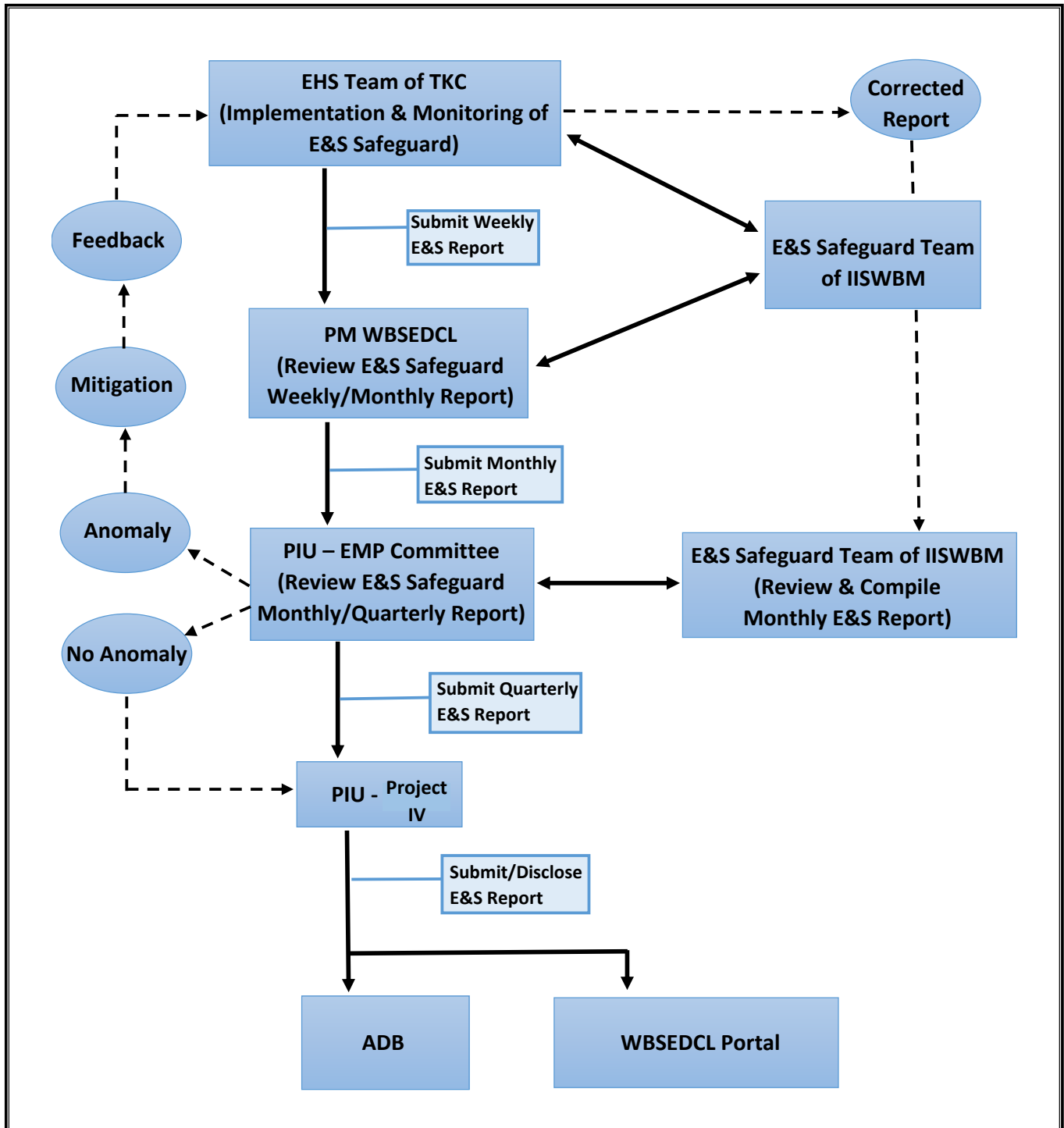


TABLE 10.1: MONITORING FRAMEWORK

SN	Programme Activity / Stage	Monitoring Indicator	Frequency	Responsibility
1	Pre-Construction	Pole Location and Line/UG alignment w.r.t. Distances from; <ul style="list-style-type: none"> a. Set back from nearest dwellings or social institutions b. Water bodies c. Environmental Sensitive area (PA/ESZ/IBK/KBA/Ramsar Site) d. Cultural Resources (ASI/ State Protected/ UNESCO) e. Flood Zone 	Once - at the time of detailed siting and alignment survey and design	WBSEDCL PIU
		Exclusion of PCB in DTR	Once – As part of tender specification	WBSEDCL PIU
		Exclusion of CFC in electrical or other equipment	Once – As part of tender specification	WBSEDCL PIU
		EMF strength	Once – part of detailed alignment survey	WBSEDCL PIU
		Noise level from substation	Once – built in design criteria and specified in tender	WBSEDCL PIU
		Noise during construction	Once – during construction machinery specification	WBSEDCL PIU and assigned contractor
		Compensation plan for temporary or permanent loss of productive land, trees, and crops.	Once a quarter – Based on consultation with PAP	WBSEDCL PIU
2.	Construction	Government Clearances if applicable	Once for each sub-activity	WBSEDCL



SN	Programme Activity / Stage	Monitoring Indicator	Frequency	Responsibility
		Drainage system	Once – in tender specification	WBSEDCL PIU
		Fire prevention and fire protection equipment monitoring	Once – in tender specification	WBSEDCL PIU
		Crop disturbance during construction	Periodically when required	WBSEDCL PIU assigned contractor
		BMP Implementation	Prior to start of any work in protected areas.	WBSEDCL PIU
		Air borne dust emissions during construction	Every two weeks	WBSEDCL PIU assigned contractor
		Vegetation marking and clearance	Every two weeks – strictly limited to target vegetation	WBSEDCL PIU assigned contractor
		Trimming and cutting of trees in ROW	Once per site – Identification of presence of target species with height following vegetation clearance plan	WBSEDCL PIU assigned contractor
		Disposal of cleared vegetation	Once per site – as approved by statutory authorities	WBSEDCL PIU assigned contractor
		Disposal of excess excavated soil	Every 2 weeks	WBSEDCL PIU assigned contractor

10.2 INSTITUTIONAL FRAMEWORK FOR IMPLEMENTATION & SUPERVISION OF E&S SAFEGUARDS

The robust institutional setup exists with WBSEDCL as per the requirement of national and state regulatory requirements for implementation and supervision of EHS Safeguard which will be followed in the RDSS Programme. However, the following institutional framework has been evolved for implementation and supervision of E&S Safeguards in the works covered under RDSS Programme at 7 ADB-funded districts.



- At the WBSEDCL Headquarter level, Project IV will be the head of implementation of the RDSS Programme in seven ADB-funded districts of West Bengal. He would be supervising the implementation and monitoring of E&S Safeguard through the EMP Committee of Project IV Headquarter appointed for the purpose as well as the external expert panel of EHS (IISWBM). The EMP Committee of Project IV Headquarter in turn, will consult with IISWBM to verify and compile monthly reports (in the format of quarterly/half yearly) with the assistance of an external EHS expert panel (IISWBM) regarding the status of implementation of EHS in selected Package(s)/District and submit to Head, PIU [Project IV] for final review and disclosure.
- At the field level, the project manager of WBSEDCL would be extending all required administrative support to IISWBM for supervising, implementing and monitoring of E&S Safeguard by Contractors, and EHS personnel. The concerned PM WBSEDCL would also be responsible for compiling and submitting regular reports (in the form monthly) to the Head, PIU (Project IV) in consultation with the in-charge of the external EHS expert panel (IISWBM) regarding the status of implementation of EHS in the concerned Package(s)/District.
- At the project site level, EHS experts of Contractors of respective packages would be responsible for the implementation and monitoring of EHS Safeguard as per guidelines, checklists and formats provided by IISWBM. They would also be responsible for submitting weekly reports to the concerned PM of WBSEDCL regarding the status and the gaps (if any) for the implementation of EHS in respective packages. The PM of WBSEDCL would consult with the external EHS expert panel (IISWBM) to mitigate the gaps (if any) and advise the contractors to strictly adhere to the instructions of PM to fill the gaps as identified by IISWBM. IISWBM would also be responsible for regularly visiting the project site to assess/supervise the status of implementation of EHS in the concerned Package(s)/District.

The details of E&S experts of Contractor and IISWBM deputed at the site/field office and WBSEDCL Office are annexed in Appendix 10.2.

10.3 BUDGET FOR ESMF IMPLEMENTATION

The cost of ESMF implementation of the RDSS programme of the 7 ADB-funded districts has been estimated as presented in Table 10.2 depending on the ecological sensitivity of the sub-activity area as well as required mitigative measures for offsetting likely potential adverse environmental and social impacts.



TABLE 10.2: ESMF BUDGET*

Sl. No.	Particulars	Amount in Cr.
A.	E&S Safeguard Implementation & Monitoring by Contractor	
1	EHS Personnel Engagement by Contractors (TKC) @ 30,000.00 per man month × 96 man month × 7 districts	2.016
2	E&S Safeguard Implementation & Monitoring expenses by Contractor Lumpsum @ 1,00,000 per month × 24 × 7	1.680
3	Health & Safety Measures Implementation & Monitoring expenses by Contractor Lumpsum @ 2,00,000 per month × 24 × 7	3.360
4	Public Consultation & Disclosure, GRM expenses by Contractor Lumpsum @ 50,000 per month × 24 × 7	0.840
5	Other E&S Safeguard including transportation expenses by Contractor Lumpsum @ 50,000 per month × 24 × 7	0.840
	Sub-Total	8.736
B.	E&S Safeguard Implementation Supervision & Monitoring by IISWBM	
1	ESMF, IEE, EMP study by IISWBM Lumpsum	1.00
2	EHS Experts @ 1,00,000 per man month × 288 man-month	2.88
3	Travel, Lodging, boarding, transportation & other miscellaneous expenses Lumpsum	0.80
	Sub-Total	4.680
C.	E&S Safeguard Implementation Supervision & Monitoring by WBSEDCL	
1	Capacity Building & Information, Education and Communication (IEC) expenses Lumpsum	0.50
2	Travel, Lodging, boarding, transportation & other miscellaneous expenses Lumpsum	0.80
	Sub-Total	1.30
D.	Independent Verification Agency (IVA)	
	Sub-Total	3.83
	Grand Total	18.546

*Indicative Budgeting





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