

Samarkand I Solar PV and
BESS Project
Republic of Uzbekistan

**Environmental and Social Impact
Assessment (ESIA)**

Volume III:

Environmental and Social
Management Plan



July 2025, v1.4

DOCUMENT INFORMATION

PROJECT NAME	Samarkand I Solar PV and BESS Project
5Cs PROJECT NUMBER	1305/001/153
DOCUMENT TITLE	ESIA Volume III: Framework for Environmental and Social Management
CLIENT	ACWA Power
5Cs PROJECT MANAGER	Catherine Sarunday
5Cs PROJECT DIRECTOR	Ken Wade

DOCUMENT CONTROL

VERSION	DATE	DESCRIPTION	AUTHOR	REVIEWER	APPROVER
1.0	31/01/2024	Framework ESMP (Volume 3 of Samarkand I Solar PV and BESS Project ESIA Report)	CS	MB	KRW
1.1	08/08/2024	Framework ESMP for Disclosure	CS	MB/KRW	KRW
1.2	15/01/2025	ESMP including Mitigation and Monitoring	AYY	KRW	MB
1.3	13/05/2025	ESMP updates in line with ESIA Vol II (May 2025)	KRW	CS	MB
1.4	31/07/2025	ESMP updates in line with ESIA Vol II (May 2025)	CS	KRW	MB



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LIST OF ABBREVIATIONS

ABBREVIATION	MEANING
ADB	Asian Development Bank
BESS	Battery Energy Storage System
BMEP	Biodiversity Monitoring and Evaluation Plan
BMP	Biodiversity Management Plan
CESMP	Construction Environmental & Social Management Plan
CLOs	Community Liaison Officers
DFIs	Development Finance Institutions
EBRD	European Bank for Reconstruction and Development
EIA	Environmental Impact Assessment
EPFIs	Equator Principles Financial Institution
ESIA	Environmental and Social Impact Assessment
ESMS	Environmental and Social Management System
GBV	Potential Gender-Based Violence
HSSE	Health Safety Security and Environmental
IFIs	International Financial Institutions
LALRP	Land Acquisition and Livelihood Restoration Plan
LGA	Local Government Authorities
MEEPCC	Ministry of Ecology, Environmental Protection and Climate Change
NG	Net Gain
NGOs	Non-Governmental Organizations
NNL	No Net Loss
NTS	Non-Technical Summary
O&M	Operation and Maintenance
OESMP	Operational Environmental & Social Management Plan
OTL	Overhead Transmission Line
PAC	Project-Affected Communities
PBF	Priority Biodiversity Feature
PPA	Power Purchase Agreement
PPP	Public-Private Partnership
PSs	IFC Performance Standards
SBV	Significant Biodiversity Value
SCMP	Supply Chain Management Plan
SEA	Sexual Exploitation and Abuse
SEE	State Environmental Expertise
SEP	Stakeholder Engagement Plan
VECs	Valued Environmental Components

1 INTRODUCTION

1.1 Background

On 19 March 2023, the Ministry of Energy and National Electric Grid Joint Stock Company of Uzbekistan (NEGU) entered into a Power Purchase Agreement (PPA) with ACWA Power (hereinafter Project Developer), for the implementation of the Samarkand I Solar PV and BESS Project, which includes the development and operation of the following project facilities:

- 100 MW Photo-Voltaic (PV) power plant
- 400 MW PV power plant
- Nurobod (500 MWh) Battery Energy Storage System (BESS) with underground interconnection cable
- 4.9-km Overhead Transmission Line (OTL)
- 70km OTL
- Two 11-km OTLs constituting a Loop-In-Loop-Out (LILLO) interconnection
- Two 13-km OTLs constituting a Loop-In-Loop-Out (LILLO) interconnection

1.2 Objectives of the Framework for E&S Management

This framework has been informed by the outcomes of the ESIA and has been developed to establish structures for the management of Environmental and Social (E&S) risks, impacts, opportunities in compliance with regulatory and lender-prescribed compliance obligations during the construction, commissioning and operational phases of the Project. The Framework is intended to outline systematic structures and management programmes that will comprise the respective construction-, commissioning- and operations-phase ESMS.

In order to implement the mitigation and management measures established in the ESIA report (Volume II), specific management programmes will be developed to incorporate these mechanisms, as well as the requirements of the local regulator, Ministry of Ecology, Environmental Protection and Climate Change (MEEPCC) and the Project Lenders. Such documented information will be in the form of Project-specific Construction Environmental and Social Management Plan (CESMP) and Operation Environmental and Social Management Plan (OESMP) (and complimentary plans/procedures); to be developed prior to the commencement of construction, commissioning and operations respectively. This framework has been prepared to ensure alignment with the Project Developer's corporate E&S policy and ESMS Implementation Manual, which are intended to guide consistent and structured E&S project management across the Developer's projects.

2 REQUIREMENTS FOR PROJECT E&S MANAGEMENT

The following applicable requirements relate to the need for the Project to implement formal or structured Environmental & Social Management Systems (ESMS), or related policies, management programmes and or other E&S management processes.

These requirements are applicable during all stages of project implementation, following planning and initial permitting (i.e. construction, commissioning, operations, decommissioning and closure).

2.1 National Level

The regulatory body in Uzbekistan responsible for the regulation of the activities within the country that relate to ecology, environmental protection and use of natural resources is the Ministry of Ecology, Environmental Protection and Climate Change (MEECC).

The main Environmental Protection Law in Uzbekistan is the Law on Nature Protection, 1992 as amended in 2019. This law provides legal, economic, and organisational basis for the conservation of the environment and the rational use of natural resources. Article 25 of this law states that the State Environmental Expertise (SEE) is a mandatory measure for environmental protection, preceded to decision making process. In addition, the law prohibits the implementation of any Project without approval from MEEPCC.

In its conclusion on the National EIA Stage I Preliminary Statement of Environmental Impact for the Project, MEEPCC requires the implementation of a dedicated Environmental Management Plan and the Environmental Monitoring Plan for regulatory compliance throughout the Project's implementation.

2.2 Lenders Requirements

It is understood that the Developer is seeking project finance from the following lenders:

- Asian Development Bank
- European Bank for Reconstruction and Development
- International Finance Corporation
- Japan Bank for International Cooperation

2.2.1 ADB

The ADB Safeguard Policy Statement (SPS) requires Project Developers to implement a project-level Environmental Management Plan (EMP) and monitor its effectiveness. In addition it must document monitoring results, including the development and implementation of corrective actions, and disclose monitoring reports.

2.2.2 EBRD

EBRD's new Environmental and Social Policy (December 2024) requires the development of a programme which may consist of a combination of documented procedures, plans, practices and capital investments, collectively known as an Environmental and Social Management Plan (ESMP) which forms part of the ESMS. I

Performance Requirement 1 (PR1) on Assessment and Management of Environmental and Social Impacts and Issues, sets the requirements for Clients to establish and maintain an Environmental and Social Management System (ESMS) '*appropriate to the nature and scale of the project and commensurate with the level of its environmental and social impacts and issues in line with Good International Practice.*

The objective of such a management system is to integrate the implementation of environmental and social requirements into a streamlined and coordinated process and to embed it in the main operational activities of the client assessment of impacts and issues. In addition, projects are required to establish an overarching policy that defines the project's environmental and social objectives and the ESMP will be developed on the outcomes of the ESIA and stakeholder engagement process.

2.2.3 IFC

In accordance with IFC PS1, the project will, 'establish and maintain an ESMS appropriate to the nature and scale of the project. The ESMS will incorporate the following elements: (i) policy; (ii) identification of risks and impacts; (iii) management programs; (iv) organizational capacity and competency; (v) emergency preparedness and response; (vi) stakeholder engagement; and (vii) monitoring and review.'

2.2.4 Equator Principles

Principle 4 (Environmental and Social Management System and Equator Principles Action Plan) requires the borrower to develop or maintain an Environmental and Social Management System (ESMS). Further, an Environmental and Social Management Plan (ESMP) is required to address issues raised in the assessment process.

3 ENVIRONMENTAL & SOCIAL MANAGEMENT SYSTEM (ESMS)

The Project ESMS will provide a systematic structure and approach to enable the effective implementation and management of environmental & social risks, impacts, opportunities and related compliance.

Effective management of environmental & social issues will include the following fundamental components as part of the robust ESMS:

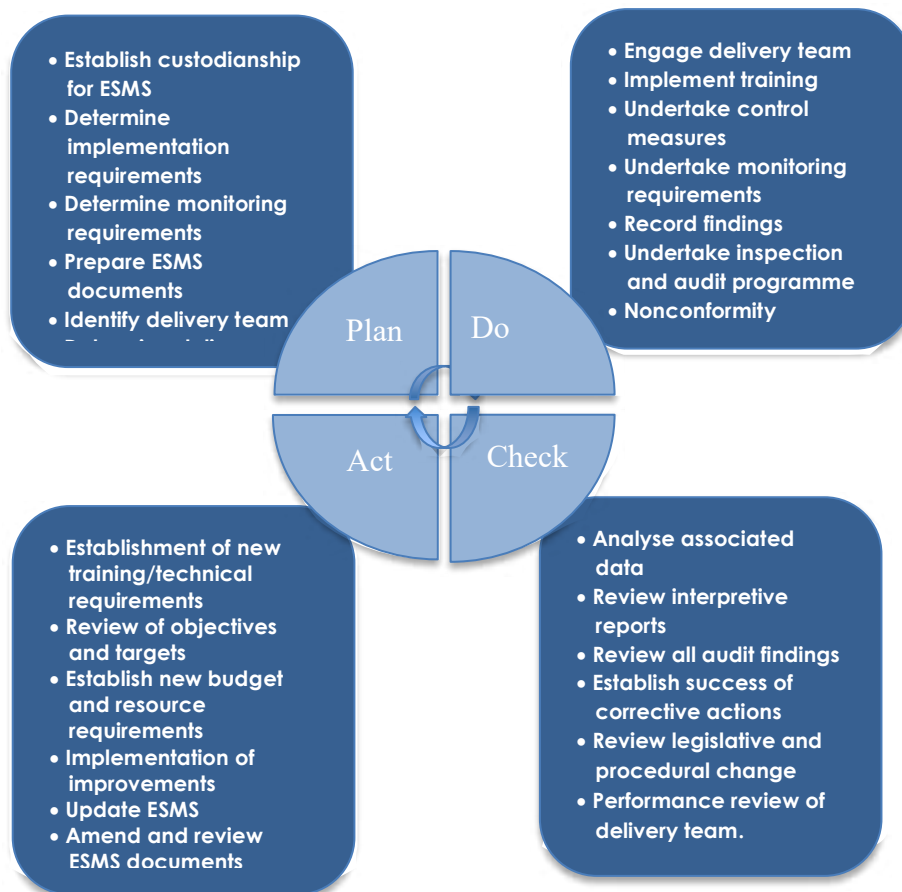
- Project specific policies related to the environmental and social considerations (including labour, HR and external stakeholders & affected communities).
- Project-based E&S Objectives, Targets & Programme.
- Applicable environmental & social legal requirements and other compliance obligations (such as those required by lenders);
- Environmental & Social aspects and potential impacts, as early as possible for construction, commissioning and operation phase planning, including the incorporation of environmental and social considerations into staffing requirements, process plans, programming, work orders, required authorisations, and site layout;
- Environmental & Social professionals, who have the experience, competence, and training necessary to assess and manage environmental impacts and risks, and carry out specialised environmental & social management functions including the preparation of Project or activity specific plans and procedures that incorporate the technical requirements presented in this document;
- Prioritisation of management programmes/ strategies with the objective of achieving an overall reduction of risk to human wellbeing and the environment, focusing on the prevention of irreversible and / or significant impacts;
- Favouring strategies (where possible) that eliminate the cause of the impact at its source, for example, by selecting less hazardous materials or processes that avoid the need for environmental controls;
- When impact avoidance is not feasible, incorporating controls to reduce or minimise the possibility and/or magnitude of undesired consequences, for example, with the application of pollution controls to reduce the levels of emitted contaminants;
- Preparing workers, informing and co-operating with nearby communities and relevant stakeholders to respond to emergencies, accidents, including providing technical and financial resources to effectively and safely control such events, and restoring workplace and community environments; and
- Improving environmental performance (i.e. for continual improvement) through a combination of ongoing monitoring of facility performance and effective accountability.

Initial implementation of the ESMS will focus on setting and reviewing requirements, determining custodianship within the project team, identifying budgets, establishing target ranges for performance and establishing appropriate data gathering techniques and controls.

Performance ranges will be refined on a regular basis as more data becomes available, in turn enabling more accurate strategy development and benchmarking. As such, the ESMS documents will be treated as living documents, to be updated within a continuous process of improvement.

An outline implementation process for ESMS is illustrated in the figure below.

Figure 3-1 Implementation Process



3.1 ESMS Scope

The Project will develop and implement ESMSs for the respective construction and operational phases. The scope will need to include:

- Physical elements of the project to set the boundaries of the ESMS scope (i.e. this will include the projects physical footprint and applicable associated facilities);

- Project related activities being undertaken (and relevant to that phase of the project e.g. for construction, commissioning, operation, decommissioning and if necessary, post closure);
- Compliance with applicable national regulation, lender requirements and loan covenants (including from the ESAP);
- Detailed mitigation and management measures required following construction, commissioning and operational impacts identified from the ESIA;
- Roles and responsibilities for appropriate management organisational units;
- Key risks and management requirements related to primary supply chains (which can reasonably be managed), and;
- Requirements for monitoring and reporting, including measures for inspection, audit, review and preventative action.

3.2 Project Company E&S Management Structures

3.2.1 Project Company E&S Policy

The Project Developer has a template E&S Policy structure for Project Companies to ensure consistent policy development across its assets. Please refer to the 'E&S Policy' chapter below for further details.

3.2.2 Project Company: ESMS Implementation Manual



Besides the aforementioned E&S Policy template, the Project Company will align its E&S management with the 'Project Company - Environmental and Social Management System: Implementation Manual'. This manual is a corporate document issued to all Project Companies.

The purpose of the document is to provide guidelines to ensure that key elements related to E&S management are implemented consistently by Project Companies operating within projects under ACWA Power ownership or partnership.

3.3 Development of Construction Phase ESMS

As the overall accountable party for E&S compliance and management, the Project Company will develop and implement the project specific E&S Policy. However, the main construction phase ESMS will be developed and implemented by the Engineering,

Procurement and Construction (EPC) Contractor. This will be contractually captured on in the EPC Contract.

The construction phase ESMS will align with the Project Company's E&S Policy requirements, this E&S Management Framework and the Project Developer's ESMS Implementation Manual for subsidiary project companies.

The EPC Contractor's ESMS will ensure coverage of all potential environmental and social risks, impacts, opportunities and related compliance associated that fall under the scope of the Project's construction phase (including potential impacts related to sub-contractors and key E&S risks in supply chains that can be influenced). This will include commissioning activities and post-construction activities such as site demobilisation, restoration of land used during construction etc.

3.4 Development of Operational Phase ESMS

The operational phase ESMS will be developed and implemented by the O&M Company and will align with the E&S Policy established by the Project Company. This will be contractually captured on in the O&M Contract.

The O&M Company's ESMS will ensure coverage of all potential environmental and social risks, impacts, opportunities, and related compliance associated that fall under the scope of the Project's operational phase (including potential impacts related to sub-contractors and/or other suppliers that can be influenced).

4 E&S POLICY

The Project will need to develop clear statements that define policy, commitments, and related objectives with regard to environmental and social issues/compliance and management which are project specific.

4.1 Project Company E&S Policy

The Project Developer has a template E&S Policy structure for Project Companies to ensure consistent policy development across its assets. It is designed to align with overarching corporate-level policies, whilst ensuring that legal and lender requirements are captured.

The Project Company's E&S Policy will be prepared based on this template, which includes commitments to:

- Comply with relevant E&S legal, contractual, financing requirements and obligations. Including applicable international treaties and protocols, national legislation, permitting conditions and our lenders requirements.
- Implement a risk-based Environmental and Social Management System (ESMS) that aligns with good international practices and conforms with the IFC Performance Standards (as a minimum) and other applicable lender requirements for ESMS.
- Implement measures to manage and reduce natural resource consumption, whilst implementing specified management measures to prevent pollution that are consistent with assessment documentation, permitting and lender conditions.
- Engage with employees and stakeholders on environmental & social issues and implement a robust Grievance Redress Mechanism process for project staff and third-party stakeholders.
- Uphold, respect, protect and fulfil human rights in accordance with the International Bill of Human Rights and any other instruments of international human rights such as those relating to the rights of women and children.
- Employ staff on the basis of equal opportunities and non-discrimination, whilst adhering to the ILO Conventions stated in IFC PS2 for worker management.
- Ensure staff receive environmental & social information, training and instructions on environmental & social leadership applicable to their activities and duties.
- Not accept or tolerate GBVH/SEA/SH in any form.
- Establish processes to identify, investigate and remedy instances of GBVH/SEA/SH. whilst encouraging reporting of such instances, providing support to those involved and ensuring their dignity, respect and confidentiality.
- Set indicators to promote and assure environmental & social performance of key supply chains and service providers.

-
- Implement systematic feedback systems to monitor, audit and report on environmental & social management and performance.
 - Annually review this environmental & social policy statement and set performance and management targets to enable continual improvement within the ESMS to be achieved.

The policy will be signed by the top management of the Project Company, displayed on site and will be circulated to Project contractors for their compliance.

4.2 Contracted Parties: E&S Policies

The EPC Contractor and O&M Company may also develop E&S Policies that align with the Project Company's overarching project specific E&S policy.

Where an E&S Policy is not developed by the Project's contracted parties, the respective construction and operational phase ESMSs (developed by the contracted parties) will be spearheaded on the overarching E&S Policy of the Project Company.

5 IDENTIFICATION OF LEGAL AND COMPLIANCE OBLIGATIONS

5.1 Identification of Legal Requirements

During the development of the ESMS, the applicable environmental and social legal requirements should be identified and documented, including:

- National legislation and regulations;
- Applicable International Treaties and Conventions signed and/or ratified by Uzbekistan;
- Lender approved ESIA Package of documents including the Environmental & Social Action Plan

5.2 Identification of ESIA Requirements

Volume II of the ESIA prescribes project- and/or site-specific mitigation, management and monitoring measures that must be incorporated into the respective construction, commissioning and operational phase of the project.

Upon approval of the ESIA by the regulatory authority and the project lenders, these stated measures will constitute the conditions of the approval.

5.3 Identification of Requirements from the Statutory Authority

The 'conclusions' (or other mandatory requirements) issued by MEEPCC to the Project EIA must be reviewed to ensure that all construction, commissioning and operational related conditions established are managed accordingly. Non-compliance with the conclusions prescribed by MEEPCC may result in a breach of legislation and permitting requirements. The conclusions shall be maintained as part of the ESMS.

5.4 Identification of Requirements from the Project Lenders

In response to the ESIA, ADB will establish an Action Plan that identifies Environmental and Social requirements for the project commensurate with or supplementary to the ESIA. This will be an Environmental and Social Action Plan (ESAP) while an Equator Principles Action Plan (EPAP) will be issued by financing institutions signatory to the Equator Principles. Requirements of the action plan will be a covenant of the Project loan.

During the development of the ESMS', the project ESAP from ADB (and EPAP from EPFIs) must be reviewed to ensure that all related conditions are included for compliance management. It is highlighted that non-compliance with the lenders' requirements could impact financial disbursement and other factors.

6 IDENTIFICATION OF RISKS, IMPACTS & OPPORTUNITIES

One of the principal stages in the development of the Project's ESMS will be the development of a Project specific aspects/risks register linking to potential environmental or social impacts associated with the relevant activities being undertaken at that phase of the project.

Once E&S aspects and associated risks have been identified and documented (i.e. specifically in accordance with the required construction methods statements or operational activities), associated controls should be developed that are commensurate to the level of anticipated severity, likelihood and any statutory or lender requirements. The identification of risks and impacts is expected to be primarily aligned with the items identified in the ESIA but may include additional items related to specific/altered working methods.

When identifying the aspects/risks and associated E&S impacts, the following will be taken into account:

- Risks, impacts and opportunities linked to the Project activities;
- Change, including planned or new development and or new/modified activities;
- Abnormal conditions and reasonably foreseeable emergency situations;
- Project timescales and potential impacts associated with seasonality;
- Stakeholder perception;
- Compliance obligations;
- Risks inherent in the supply chain in addition to those on-site; and
- Linkages with the Project's Health and Safety Management System.

The identification of aspects/risks and impacts should be documented, linked to associated proposed controls and updated as and when Project or environmental & social circumstances change.

7 E&S MANAGEMENT PLANS & PROCEDURES

Once the Project's E&S aspects and associated risks have been identified and documented, associated controls will be developed that are commensurate to the level of anticipated severity, likelihood and any statutory or lender requirements. The identification of risks and impacts is expected to be primarily aligned with the items identified in the EIA/ESIA but may differ depending on specific working methods of the EPC Contactor / O&M Company.

7.1 E&S Management Plans (CESMP and OESMP)

The key E&S management plans will be the CESMP and OESMP respective to construction and operations.

The CEMSP and OESMP will comprise a stand-alone document structured to detail how environmental and social risks, impacts, opportunities and compliance will be managed and monitored. This shall be the top-level management plan document prepared by the EPC Contractor and O&M Company respectively.

The typical content of a CESMP/OESMP has been outlined below. The format below is not prescriptive, however, the respective CESMP/OESMP scope and structure should align with the format hereunder.

- INTRODUCTION
 - Background of Environmental Permitting
 - Objectives of the CESMP/OESMP
 - Scope of the CESMP/OEMSP
 - Limitations
 - Structure of the CESMP/OESMP
- PROJECT DESCRIPTION
 - Project Rationale and Background
 - Project Location
 - Land Use and Potential Sensitive Receptors
 - Land Ownership
 - Land Use
 - Sensitive Receptors
 - Overview of Project Components
 - Overview of Associated Facilities
 - Overview of Construction/Operational Works and Workforce Requirements
 - Overview of Construction/Operational Facilities
 - Project Schedule (for CESMP)
- REGULATORY FRAMEWORK

-
- Overview of Regulatory Framework and Compliance Obligations
 - Regional and International Treaties and Conventions (the host country is a signatory of)
 - Federal Legislation
 - Lenders Requirements
 - Environmental Standards
 - ENVIRONMENTAL AND SOCIAL MANAGEMENT
 - Summary of Environmental and Social Management System (ESMS)
 - Reference to E&S Policies
 - Applicable EPC/O&M Corporate Level E&S Policies
 - Project Company E&S Policy Level
 - Statement of other supporting/complementary Plans and Procedures
 - Organisational Structure
 - Host country regulator
 - Lenders
 - Project Company
 - EPC Contractor/O&M Company
 - Sub-contractors
 - HSE Roles and Responsibilities
 - Environmental Awareness and Training
 - Environmental & Social Induction Training
 - Toolbox Talk Environmental & Social Training Sessions
 - CESMP/OESMP Training
 - Competency Needs and Records
 - Internal and External Communications
 - Internal Communication
 - External Communication
 - Liaison with Regulator
 - Inspections and Audits
 - Daily and Weekly Inspections
 - Internal Audits
 - Annual Internal Audits
 - External Audits
 - Non-conformity, Corrections and Corrective Action
 - Non-Conformity, Investigation and Response
 - Incident Definition, Reporting, Investigation and Response
 - Corrections and Corrective Actions
 - Control of Records
 - MITIGATION, MANAGEMENT AND MONITORING
 - Terrestrial Ecology
 - Air Quality
 - Noise & Vibration

-
- Soil, Geology, Groundwater and Surface Water
 - Traffic & Transportation
 - Infrastructure & Utilities
 - Archaeological and Cultural Heritage
 - Landscape and Visual Amenity
 - Socioeconomics and Livelihoods
 - Solid Waste and Wastewater Management
 - Community Health, Safety and Security
 - Labour and Working Conditions
 - Cross-cutting provisions for climate change.
- MONITORING SUMMARY
 - EMERGENCY PREPAREDNESS AND RESPONSE OVERVIEW
 - APPENDICES.

7.2 Summary ESMP Requirements

The following summary table provides an overview of impact management measures/safeguards, implementation timeframes, responsible parties and E&S performance monitoring requirements, in the Project's construction and O&M phases.

Table 7-1 Basic outline of the project ESMP

SN	E&S ASPECTS AND IMPACTS	MITIGATION MEASURES	MONITORING REQUIREMENTS
1	Geology and hydrology <ul style="list-style-type: none"> • Soil erosion and associated sedimentation • Pluvial flooding • Contamination of ambient soil, groundwater and surface water 	Provided in Section 6.5 of the ESIA report.	Provided in Section 6.6 of the ESIA report.
2	Waste and wastewater <ul style="list-style-type: none"> • Generation of solid and liquid waste 	Provided in Section 7.5 of the ESIA report.	Provided in Section 7.8 of the ESIA report.
3	Noise and vibration <ul style="list-style-type: none"> • Elevated levels of ambient noise • Elevated levels of ground borne vibration • Occupational exposure to noise and vibration 	Provided in Section 8.4 of the ESIA report.	Provided in Section 8.5 of the ESIA report.
4	Air quality <ul style="list-style-type: none"> • Elevated levels of ambient dust • Elevated levels of ambient exhaust pollutants • Occupational exposure to air pollutants 	Provided in Section 9.4 of the ESIA report.	Provided in Section 9.5 of the ESIA report.
5	Biodiversity <ul style="list-style-type: none"> • Habitat loss • Habitat fragmentation • Habitat degradation • Introduction of invasive and alien species • Induced displacement/ dispersal and lowered survivorship • Mortalities from OTL collisions • Mortalities from electrocution • Mortalities from lake effect 	Provided in Section 10.14 of the ESIA report.	Provided in the consolidated BMP and BMEP for LNTP and Construction for both Samarkand I and II (v 1.1 - 8 th January 2025).

SN	E&S ASPECTS AND IMPACTS	MITIGATION MEASURES	MONITORING REQUIREMENTS
	<ul style="list-style-type: none"> Roadkill and illegal hunting Littering 		
6	Landscape and visual amenity <ul style="list-style-type: none"> Loss of visual amenity due to alteration of landscape character Visual nuisance due to light spills Nuisance and safety hazards due to glint and glare from PV panels 	Provided in Section 11.4 of the ESIA report.	Provided in Section 11.5 of the ESIA report.
7	Cultural heritage <ul style="list-style-type: none"> Degradation and/ or loss of undiscovered tangible cultural heritage resources Disruption of local customs and intangible cultural heritage 	Provided in Section 12.4 of the ESIA report.	Provided in Section 12.5 of the ESIA report.
8	Traffic and transportation <ul style="list-style-type: none"> Increased traffic congestion along public roads 	Provided in Section 13.4 of the ESIA report.	Provided in Section 13.5 of the ESIA report.
9	Livelihoods and social services <ul style="list-style-type: none"> Physical displacement Economic displacement Accidental damage to public property and utility service interruptions Increased pressure on public infrastructure and resources Transient inflation within host communities Employment creation and capacity transfer 	Provided in Section 14.4 of the ESIA report.	Provided in Section 14.5 of the ESIA report.
10	Community health, safety and security <ul style="list-style-type: none"> Spread of communicable diseases and increased local morbidity Community health and safety incidents Criminal and abusive offences against local community members 	Provided in Section 15.4 of the ESIA report.	Provided in Section 15.5 of the ESIA report.

SN	E&S ASPECTS AND IMPACTS	MITIGATION MEASURES	MONITORING REQUIREMENTS
11	<p>Labour and working conditions</p> <ul style="list-style-type: none"> • Unequal access to employment opportunities and benefits due to discriminatory and/or exploitative recruitment practices • Poor working and living conditions • Occupational health and safety incidents • Forced labour • Child labour 	<p>Provided in Section 16.4 of the ESIA report.</p>	<p>Provided in Section 16.5 of the ESIA report.</p>
12	<p>Climate Change</p> <ul style="list-style-type: none"> • Climate change vulnerabilities • GHG emissions (scope 1 and 2) • Energy conservation measures (procurement) 	<p>Provided in Section 17.8 of the ESIA report.</p>	<p>Provided in Section 17.8 of the ESIA report.</p>

7.3 Supporting/Complimentary Plans & Procedures

In alignment with the expected Project impacts (based on ESIA Volume II), the following table provides a list of plans and procedures that are expected as a minimum to be linked to the CESMP and/or OESMP. This includes some key requirements for inclusion to each plan.

Table 7-2 ESIA Required Plans and Procedures

PLAN / PROCEDURE	PROJECT PHASE	RESPONSIBILITY	PURPOSE AND KEY REQUIREMENTS
Biodiversity Management Plan (BMP) including Biodiversity Monitoring and Evaluation Plan (BMEP)	Early Works (LNTP) and Construction An operational BMP/BMEP will be prepared by the O&M	EPC	The BMP/BMEP has been prepared by 5 Capitals for implementation by EPC. This provides practical guidance for the EPC and defines timeframes, targets, roles and responsibilities with regard to the implementation of safeguards related to the prevention, mitigation and offsetting of impacts on biodiversity. (This has superseded EPC biodiversity plan)
Biodiversity Chance Find Procedure	Early Works (LNTP) and Construction	EPC	The BCFP has been prepared by 5 Capitals for implementation by the EPC. This provides clear guidance on procedure for addressing chance finds including buffer distances and stop work protocol.
Land Access Procedure	Early Works (LNTP)	EPC	The LAP has been prepared by 5 Capitals for implementation by the EPC. This is to ensure that any predicted impacts arising from geotechnical surveys are identified and PAPs compensated in advance of the works being undertaken.
Cultural Heritage Management Plan	Early Works (LNTP) and Construction	EPC	The Plan will be prepared to include the locations of known archaeological sites nearby the project sites and transit corridors, procedures to ensure their protection, required buffer zones, reporting protocols for any damage to these sites etc.
Archaeological Chance Find Procedure	Early Works (LNTP) and Construction	EPC	To identify the process for identifying and responding to incidental archaeological finds in the construction working area. It will include the process for halting works in that area, sectioning off potential artefacts/ structures, and external communication with relevant regional authorities as set out in the relevant Chance Find Procedure.
Habitat Restoration Plan	Construction	EPC (with Project Company approval and oversight)	The EPC biodiversity management and monitoring during LNTP and construction is being implemented as per the BMP/BMEP. Upon completion they will be required to undertake habitat restoration of all temporary impact areas including laydown, site offices and construction buffer zones. This will be aligned with

PLAN / PROCEDURE	PROJECT PHASE	RESPONSIBILITY	PURPOSE AND KEY REQUIREMENTS
			requirements of the ISMP and consistent with the BAP.
Invasive Species Management Plan (ISMP)	Construction, Commissioning & Operation	EPC & O&M (overseen by Project Company)	Management and control of invasive species is mainly required by the EPC before during and after site clearance to control spread of weed species onto newly disturbed ground. This will take account of habitat restoration plan. Operational monitoring of invasive species will be undertaken.
Biodiversity Action Plan	Commissioning & Operations	ACWA Power	The BAP will be prepared by 5 Capitals with support from local and international experts to determine the measures required to achieve No Net Loss of Natural Habitat and Net Gain for Little Bustard).
Supply Chain Management Plan	Before the start of Construction	Project Company	The Project Company will develop a Supply Chain Management Plan will include: <ul style="list-style-type: none"> The requirement for Project Company's HR policy and procedures and worker Code of Conduct will be applied to all suppliers The pre-qualification assessment & process to be undertaken prior to engaging core suppliers; Monitoring/audits to be undertaken to evaluate suppliers' compliance and adequacy of implemented measures, etc.
E&S Supplier and Vendor Management Plan	Before the start of construction	ACWA Power & Project Company	ACWA Power/ Project Company will develop an E&S Supplier and Vendor Management Plan for suppliers and contractually require the EPC Contractors to undertake supplier/vendor E&S risk assessment for their suppliers and review potential supplier/vendor labour issues and risks.
Workers Accommodation Plan	Construction	EPC	This plan will outline the process and standards for the accommodation for the Project workforce. It will include accommodation areas directly managed by the Project or rented/shared to accommodate direct Project employees and/or temporary or other contract staff (dedicated to the project). Accommodation areas in use by sub-contractor companies/staff (where staff are dedicated for the Project) will also be included.
Influx Management Plan	Construction	EPC	The EPC Contractor will develop an Influx Management Plan to provide a clear set of actions that will be undertaken for the management and mitigation, monitoring and evaluation of impacts related to worker influx in the Project area.
Local Content Plan	Construction	Project Company & EPC	This plan will clearly identify the Project commitment to purchasing goods and services (where practicable without compromising on the quality and standard requirements for the Project). It will also set expectations with regards to the extent goods and services can be purchased from the local

PLAN / PROCEDURE	PROJECT PHASE	RESPONSIBILITY	PURPOSE AND KEY REQUIREMENTS
			market in order to benefit local businesses without potentially leading to higher prices for local consumers. This plan will be shared with local businesses interested in providing goods and services to the Project.
Waste Management Plan	Construction, Commissioning & Operation	EPC & O&M (overseen by Project Company)	To identify site specific requirements for waste and wastewater treatment, containment of wastes (segregation, storage area specifications and locations), collection methodologies and transport (identification of licensed contractors and the process to engage), treatment/disposal (identification of licensed treatment and disposal sites), record keeping and reporting requirements related to waste and wastewater. To include measures to limit instances of contamination to soils and groundwater.
Occupational Health & Safety Plan	Construction, Commissioning & Operation	EPC & O&M (overseen by Project Company)	Identify the required controls for worker health and safety during the construction, commissioning, and operational phases. As a minimum, this plan will include: <ul style="list-style-type: none"> • Means of identifying and minimising, so far as reasonably practicable, the causes of potential hazards to workers. • Provision of preventive and protective measures, including modification, substitution, or elimination of hazardous conditions or substances. • Provision of appropriate equipment to minimise risks, and requiring and enforcing its use. • Training of workers, and provision of appropriate incentives for them to use and comply with health and safety procedures and protective equipment. • Documentation and reporting of occupational accidents, diseases, and incidents. • Emergency prevention, preparedness, and response arrangements.
Emergency Preparedness and Response Plan	Construction, Commissioning & Operation	EPC & O&M (overseen by Project Company)	To identify the contingencies put in place for a variety of potential emergency situations relevant to the construction, commissioning, and operational phases. The plans will outline the response mechanisms, roles and responsibilities, training requirements, internal communication, equipment, and relevant engagement with external stakeholders. Requirements for on-site equipment will be established based upon the potential emergency risks, including training provisions for site personnel regarding such equipment. This plan is to include spill response and

PLAN / PROCEDURE	PROJECT PHASE	RESPONSIBILITY	PURPOSE AND KEY REQUIREMENTS
			contingency in the event of accidental leaks and spills.
Hazardous Material Storage Plan	Construction, Commissioning & Operation	EPC & O&M (overseen by Project Company)	The plan will identify locations for hazardous material storage, storage requirements (specifications of bunds and buildings/warehouses to ensure environmental and H&S protection, segregation requirements etc.) and handling procedures to minimise environmental risk. The plan will include temporary on site storage of e-waste. The plan will outline record keeping as per chain of custodies, requirements for MSDS and roles & responsibilities. Staff involved in chemical management, procurement or overseeing on-site deliveries shall be specified in the plan and provided with training for the provisions of this plan (all training to be linked to the training plan).
Environmental & Social Monitoring Plan	Construction, Commissioning & Operation	Project Company & EPC	Monitoring is required to demonstrate compliance with national E&S standards and lender requirements. The monitoring plan is to specify monitoring requirements for all ESIA parameters (as specified in ESIA Volume II – as a minimum). The plan will therefore need to include: <ul style="list-style-type: none"> • What parameters need to be monitored and measured and at what locations. • The methods for monitoring measurement, analysis, and evaluation to ensure valid results. • The criteria against which compliance and performance should be measured. • When and at what frequency monitoring needs to be performed. • How the results from monitoring and measurement should be analysed and evaluated (independent or internal).
Traffic & Transportation Management Plan	Construction, Commissioning & Operation	EPC & O&M (overseen by Project Company)	The plan will identify any specific requirements for heavy, or abnormal loads, including timings of deliveries, specific routes (to minimise disruption), engagement mechanisms with external transport authorities (as per the SEP, e.g. local government). To include measures to minimise congestion, fuel use and risks to the public and site staff. Deliveries will be guided by a Traffic Management Plan.
Working Conditions and Terms of Employment Procedure	Construction, Commissioning & Operation	EPC & O&M (overseen by Project Company)	The EPC contractor and O&M Company will provide a plan detailing how working conditions and terms of employment are compliant with national labour, social security and occupational health and safety laws.

PLAN / PROCEDURE	PROJECT PHASE	RESPONSIBILITY	PURPOSE AND KEY REQUIREMENTS
			<p>The EPC Contractor and O&M Company will ensure that the following documents are prepared prior to the employment of workers.</p> <ul style="list-style-type: none"> • Employment agreements and recruitment policies; • Equal opportunities and non-discrimination policy (incorporating maternity policies and policies associated with GBVH); and • Child and forced labour policies / procedures (covering recruitment fees and arrangements, as well as document (e.g. passport) retention).
Human Resources Policy (and related Procedures)	Construction, Commissioning & Operation	EPC & O&M (overseen by Project Company)	Human resource policies and procedures will be adapted appropriate to the size of the workforce required for operation and maintenance requirements. Policies and procedures must be prepared to demonstrate consistency with the requirements of national legislation and lenders requirements.
Stakeholder Engagement Plan (SEP)	Construction, Commissioning & Operation	Project Company	<p>To identify project stakeholders, identify communication protocols for engagement with stakeholders.</p> <p>To identify frequency or event-based communication with stakeholders (i.e. for emergencies and specific grievances).</p> <p>To detail the grievance mechanism or provide a reference to a separate grievance mechanism for external parties.</p>
Grievance Mechanism	Construction, Commissioning & Operation	Project Company (with input from EPC)	<p>To be included within or be linked to the SEP.</p> <p>To identify the procedure for external parties and all site staff to be able to raise issues, concerns and opportunities for improvement for any aspect of their employment on the project including issues relating to GBV/H and sexual exploitation.</p> <p>The mechanism shall be easily accessible (including for any vulnerable groups), non-discriminatory and provide a transparent process to raise concerns or complaints, which may be issued in an anonymous nature. The mechanism shall specify the roles and responsibilities of internal staff with regard to the grievance mechanism and the procedure for responding to received grievances, including the timeline for response, engagement mechanisms and record keeping.</p>
Human Rights Policy	Construction, Commissioning & Operation	EPC & O&M (overseen by Project Company)	<p>The statement policy will:</p> <ul style="list-style-type: none"> • Be approved at the most senior level of the company; • Informed by relevant internal and external expertise;

PLAN / PROCEDURE	PROJECT PHASE	RESPONSIBILITY	PURPOSE AND KEY REQUIREMENTS
			<ul style="list-style-type: none"> Stipulate the EPC's & O&M's human rights expectations of personnel, local communities, sub-contractors and other suppliers directly linked to the construction and operational phase of the project; Be publicly available and communicated internally and to the relevant stakeholders; Be reflected in the other policies and procedures to embed it throughout their construction and operational phase activities.
Gender Based Violence & Harassment (GBVH) Policy	Construction, Commissioning & Operation	EPC & O&M (overseen by Project Company)	The purpose of this policy will be to develop a safe, supportive, non-discriminatory workplace for all employees and create a common awareness and understanding that Gender Based Violence & Harassment, Sexual Exploitation & Abuse and Sexual Harassment have no place in this project. It will aim to create a clear system for reporting, company response and company/legal sanctions for such behaviour.
Security Plan	Construction & Operation	EPC & O&M (overseen by Project Company)	The security plan will be based on a security risk assessment of the reasonably foreseeable security risks (linked with security risks in the Emergency Preparedness and Response Plan), and tailored with the necessary management provisions, staffing requirements, equipment, training and defined processes to implement effective mitigation to manage or prevent these risks. The security plan will ensure applicable alignment to the necessary codes of conduct required by law enforcement under the United Nations principles for Law Enforcement Officers.
Local Recruitment Plan	Before start of Construction & Operation	EPC & O&M (overseen by Project Company)	This plan will provide set of actions for the recruitment of local workforce. The plan will detail the procedure for effective recruitment of local staff, the positions that could be filled by unskilled, semi-skilled and skilled local workforce, mechanisms that will be in place to ensure there is non-discrimination of women in assessing recruitment procedures and the training to be provided for each job role.
De-commissioning Plan	De-commissioning	Project Company	Decommissioning Plan will be developed 12 months prior to decommissioning, and this will include detailed methods for material re-use, recycling, and disposal of wastes.

7.3.1 Other Recommended Plans and Procedures

Besides the required ESIA plans and procedures stated above, the following plans and procedures are also recommended for development and implementation as part of the ESMS.

Table 7-3 Recommended Plans and Procedures

PLAN / PROCEDURE	PROJECT PHASE		PURPOSE AND KEY REQUIREMENTS
Pollution Prevention and Response Plan	Construction, Commissioning & Operation	EPC & O&M (overseen by Project Company)	<p>Identify site specific requirements for the prevention of pollution and how to manage pollution incidents. To include the identification of high-risk areas on a plan and the location of spill kits (and contents of spill kits).</p> <p>To identify required contact details in the event of an incident and contractors that are available on a quick response contract to assist with clean up. Where necessary this should link with the SEP for any external communications.</p> <p>To identify staff that require training in regard to the plan. The plan should include provisions for recording of any incidents in a separate register, to ensure close out and implementation of corrective and preventative actions.</p>
Site Inspection & Audit Plan & Procedure	Construction & Operation	Project Company, EPC and O&M	<p>To specify the timing and frequency of inspections (e.g. daily, weekly walkovers) and audits (including internal & external independent audits for the lenders as appropriate).</p> <p>To detail the methodology of such inspections and audits to ensure Environmental and Social Issues required in Uzbekistan required by project lenders are adequately covered.</p> <p>For internal audits, the procedure should identify the audit scope (site, laydown areas, accommodation areas, sub-contractor areas etc.), audit criteria (e.g. CESMP, OESMP, ESMS), selection process for audit evidence, reporting format and auditor competence requirements.</p> <p>The Procedure should specify definitions of non-conformance, observations and best practices, as well as detailing the mechanisms for issuance and follow up of Non-Conformance reports, including time periods for action and the implementation of corrective and/or preventative measures.</p> <p>The process to engage with the external independent lenders' auditors should also be listed and linked with the SEP as appropriate.</p>

PLAN / PROCEDURE	PROJECT PHASE		PURPOSE AND KEY REQUIREMENTS
Material handling and Storage Procedure	Construction, Commissioning & Operation	Project Company, EPC and O&M	Should identify locations for material storage, storage requirements and handling procedures to minimise environmental and H&S risks. As appropriate this plan should be linked to or inclusive of the Hazardous Material Storage Plan and H&S Plan. Specific method statements regarding the handling of materials shall be detailed, as well as training requirements for staff involved in such activities.
Fuel & Chemical Unloading Procedure	Construction, Commissioning & Operation	Project Company, EPC and O&M	To identify locations for fuel and chemical unloading, associated training requirements and associated pollution attenuation/spill response equipment that are to be in place regarding any unloading of fuel to larger tanks or chemicals to storage areas on-site. This should be linked or inclusive to the pollution prevention plan.
Environmental & Social Training Plan	Construction, Commissioning & Operation	Project Company, EPC and O&M	To identify specific staff members for training and the type (i.e. classroom, practical, toolbox talks) how/when this is to be delivered, the frequency of training and whether follow up training provisions are required. The training should be linked to the specific content of the listed plans and procedures, or key risk activities that may be identified from on-site method statements.

8 MONITORING

Environmental monitoring is required during construction, commissioning and operation to evaluate whether the project is in compliance with applicable national regulations and lender requirements.

8.1 Monitoring Requirements from the ESIA

An Environmental and Social Monitoring Plan will be developed for the Project's construction, commissioning and operational phases, with the aim of guiding the monitoring of impacts and respective avoidance, mitigation and/or offset measures described in the ESIA Volume II. Fundamental guidance for tracking the Project's E&S impacts, and related controls covers shall cover the following aspects:

- What parameters need to be monitored and measured and at what locations;
- The methods for monitoring measurement, analysis and evaluation to ensure valid results;
- The criteria against which compliance and performance should be measured;
- When and at what frequency monitoring needs to be performed;
- How the results from monitoring and measurement should be analysed and evaluated (independent or internal);

The outcomes of the monitoring regime should ensure;

- The timing of monitoring and measurement is coordinated with the need for analysis and evaluation of results;
- The results of monitoring and measurement are reliable, reproducible and traceable; and
- analysis and evaluation are reliable and reproducible and enable the project to report trends.

8.2 Monitoring Data

Monitoring results should be compared against relevant standards, permit requirements, required thresholds, received complaints, audit findings, CESMP and OESMP requirements. The Environmental and Social Management team for the EPC Contractor or O&M Company will need to define appropriate action to follow in the instance that any exceedances in monitoring limits are confirmed or adverse impacts identified, including:

- Communication protocol in the event that an exceedance is identified;
- Internal review process of recently performed maintenance and inspection;

- Review of previous monitoring data to identify any potential associated variations or trends in results;
- Recommendations for quarantine of equipment or change in work practices; and
- Review of monitoring frequency to ensure the issue does not re-occur.

The repetition of measurements is an essential part of monitoring as it detects changes over time and should alert to potentially positive or negative effects of an activity. Adverse effects should trigger a review of mitigation measures and determination of the likely source of the impact. Non-detection may demonstrate a lack of effect, success of mitigation measures or the requirement to continue monitoring over a longer period of time.

Data from the monitoring for comparison against baseline and all previous monitoring efforts to identify trends in condition and make inferences on the success of implemented mitigation measures.

9 GEOLOGY, SOILS AND HYDROLOGY

The following sub-sections provide an overview of potential impacts pertaining to geology, soils and hydrology, the principal mitigation measures, as well as relevant performance and monitoring requirements.

9.1 Potential Impacts

Potential impacts relating to geology, soils and hydrology are outlined in the table below. A full description of these impacts and relevant receptors is provided in the project ESIA.

Table 9-9-1 Overview of potential impacts relating to geology, soils, groundwater and surface water

E&S IMPACT	AREA OF INFLUENCE	POTENTIAL RECEPTORS (DIRECT & INDIRECT RECEPTORS)
PV Plant and BESS Sites		
Pluvial flooding	Construction zones within the PV plant and BESS sites	Soil
Soil erosion and associated sedimentation	Construction zones within the PV plant and BESS sites, and nearby streams/ drainage channels	Soil
		Surface water
Contamination of ambient soil, groundwater, and surface water	Construction zones within the PV plant and BESS sites, and nearby streams/ drainage channels	Soil
		Groundwater
		Surface water
OTL Sites		
Soil erosion and associated sedimentation	Construction zones for OTL foundations and access roads, and nearby streams, canals, and rivers	Soil
		Surface water
Contamination of ambient soil, groundwater, and surface water	Construction zones for OTL foundations and access roads, and nearby streams, canals, and rivers	Soil
		Groundwater
		Surface water

9.2 Principal Mitigation Measures

A list of principal mitigation measures is provided below. Detailed measures are presented in ESIA, CESMP, and OESMP.

- Soil disturbance, erosion, and sedimentation will be minimized by restricting construction activities to designated zones, with erosion control buffers (e.g., 35–300 meters from rivers) established. Excavation during heavy rainfall will be avoided, and proper management of excavation, stockpiling, and backfilling will be implemented to prevent runoff and sedimentation. Silt traps, berms, and sediment barriers will be installed near sensitive

water bodies, and the discharge of solid and liquid waste into water sources will be prohibited.

- Hazardous materials and waste will be safely handled, stored, and disposed of using sealed, compatible containers and dedicated storage facilities equipped with secondary containment (e.g., bunded areas). A Hazardous Materials Register will be maintained, and waste streams will be tracked. Hazardous waste will be promptly transferred to licensed facilities. Spill prevention strategies will include regular maintenance of vehicles, designated refuelling and washing areas, and the provision of spill kits. Emergency response protocols will be in place for spills, both on land and in water.
- Site rehabilitation will be carried out after construction activities, including the backfilling of excavations, removal of stockpiles, and re-vegetation of disturbed areas. Erosion and sedimentation control measures, such as grading and vegetative contouring, will be applied, particularly in areas located within 60 meters of sensitive watercourses. The long-term restoration of soil and habitat will be ensured through the proper handling of topsoil and the segregation of native seedbanks for use in rehabilitation.
- Regular environmental monitoring of soil, water, and air quality will be conducted to ensure compliance with mitigation measures. A Waste Transfer Log, Hazardous Materials Register, and incident logs will be maintained to track waste management activities, hazardous materials use, and spill response actions. Local communities will be informed about the grievance redress mechanism (GRM) to allow for the easy reporting of environmental concerns, with all grievances addressed transparently and without interference.
- Emergency Preparedness and Response Plan, Erosion Control Plan, Water Management Plan and Reinstatement and Landscape Management Plan will be prepared to guide the implementation of mitigation measures.

9.3 Monitoring Requirements

The table below provides an overview of the key monitoring arrangements for evaluating the management of impacts relating to geology, soils, groundwater and surface water.

Unless otherwise indicated hereunder, the EPC Contractor's HSES team is primarily responsible for monitoring relevant impacts and implementing control measures, under the oversight of the Project Company's HSES team.

Table 9-9-2 Monitoring arrangements relating to geology, soils, groundwater and surface water

E&S IMPACT	KEY PERFORMANCE INDICATOR/ PARAMETER	TARGETS AND STANDARDS	MONITORING LOCATION / MEANS OF VERIFICATION	MONITORING FREQUENCY	IMPLEMENTATION	SUPERVISION
Early Works (LNTP) and Construction Phase						
Soil erosion and associated sedimentation	Gully erosion	- No evidence of gully erosion (i.e., observations or community grievances)	- All construction zones on steep slopes or along drainage channels/ streams	Weekly, or daily during wet season	EPC Contractor Environmental Officer	Project Company
Contamination of resident soil, groundwater and surface water	Percentage of chemical spills investigated and addressed through remedial and preventative actions within the shortest practicable duration	- Spills	- Re-fuelling and maintenance bays within project sites. - Chemical and waste storage areas within project sites.	Daily	EPC Contractor Environmental Officer	Project Company
		- 100% of chemical spills investigated and managed through remedial and preventative actions within the shortest practicable duration	- Environmental inspection and incident logs.	Ongoing	EPC Contractor Environmental Officer	Project Company
Construction Phase Only						
Soil erosion and associated sedimentation	Grievances concerning siltation within third party	- All related grievances are closed out within the shortest	- Community Grievance Log	Ongoing	EPC Contractor CLOs	Project Company

E&S IMPACT	KEY PERFORMANCE INDICATOR/ PARAMETER	TARGETS AND STANDARDS	MONITORING LOCATION / MEANS OF VERIFICATION	MONITORING FREQUENCY	IMPLEMENTATION	SUPERVISION
	drainage/irrigation channels	practicable duration				
Pluvial flooding	Grievances concerning flooding	- All related grievances are closed out within the shortest practicable duration	- Community Grievance Log	Ongoing	EPC Contractor CLOs	Project Company
	Ponding or overflows	- No evidence of ponding or overflow of runoff	- Drainage channels within project sites	Weekly, or daily during wet season	EPC Contractor Environmental Officer	Project Company
Contamination of ambient soil, groundwater, and surface water	Soil and groundwater quality	- Uzbekistan Ecological Guidelines – Maximum Allowable Concentrations of Pollutants in Surface Water Bodies - SanPiN No.0191-05 - ESIA-stage groundwater quality baseline results	- Soil and groundwater sampling locations targeted for ESIA baseline survey	Upon the occurrence of a spill exceeding 25 Litres	EPC Contractor Environmental Officer	Project Company
Operational Phase						
Contamination of ambient soil, groundwater and surface water	Frequency of drills for spill response preparedness	- One annual drill for spill response preparedness has been delivered to relevant O&M workers	- HSSE Training report	Annually	O&M Contractor HSSE Trainer O&M Contractor Environmental/HSSE Officer	Project Company

E&S IMPACT	KEY PERFORMANCE INDICATOR/ PARAMETER	TARGETS AND STANDARDS	MONITORING LOCATION / MEANS OF VERIFICATION	MONITORING FREQUENCY	IMPLEMENTATION	SUPERVISION
	Zero significant environmental incidents (i.e., a spill exceeding 25 Litres). All spillages investigated through root cause analysis, training and remedial and preventative actions	<ul style="list-style-type: none"> - 100% of all environmental incidents investigated and addressed through corrective (remedial and preventative) actions: 1 week for significant incidents, 1 month for all other spills 	<ul style="list-style-type: none"> - Environmental Incidents Log 	Daily	O&M Contractor Environmental/ HSSE Officer	Project Company
	Soil and groundwater quality	<ul style="list-style-type: none"> - Uzbekistan Ecological Guidelines – Maximum Allowable Concentrations of Pollutants in Surface Water Bodies - SanPiN No.0191-05 - ESIA-stage groundwater quality baseline results 	<ul style="list-style-type: none"> - Soil and groundwater sampling locations targeted for ESIA baseline survey - Environmental Monitoring Log 	Upon the occurrence of a spill exceeding 25 Litres (on permeable soils)	O&M Contractor Environmental/ HSSE Officer	Project Company

10 WASTE & WASTEWATER MANAGEMENT

The following sub-sections provide an overview of potential impacts pertaining to the management of solid and liquid waste, the principal mitigation measures, as well as relevant performance and monitoring requirements.

10.1 Potential Impacts

Potential impacts relating to waste management are outlined in the table below. A full description of these impacts and relevant receptors is provided in the project ESIA.

Table 10-10-1 Overview of potential impacts relating to waste management

E&S IMPACT	AREA OF INFLUENCE	POTENTIAL RECEPTORS (DIRECT & INDIRECT RECEPTORS)
Contamination of resident soil, groundwater, and surface water (with particular reference to sanitary wastewater and hazardous waste liquids including fuel, oils, paints, solvents and acids/alkalis).	Please refer to Section 9 of this Plan and Sections 7.3 and 7.4 of the ESIA	
Increased pressure on utility and community infrastructure	Please refer to Section 17 of this Plan and Sections 7.4 to 7.7 of the ESIA	
Occupational health and safety incidents	Please refer to Section 20 of this Plan and references throughout the ESIA	
Community health and safety incidents	Please refer to Section 19 of this Plan and Sections 15.2 to 15.4 of the ESIA	

10.2 Principal Mitigation Measures

An overview of preventative and mitigation measures for potential impacts relating to waste management is provided below.

- Preventive measures, such as maintaining sealed wastewater tanks, providing rain shelters, and locating hazardous waste storage away from ignition sources and drainage systems, will be implemented to minimize environmental risks.
- All waste will be segregated into designated containers or skips. Containers will be clearly labelled in Russian and Uzbek, ensuring proper handling, recycling, and disposal. Storage areas with impermeable surfaces, appropriate containment structures, and sufficient capacity will be allocated for various waste types. Measures such as drainage systems and spill kits will be in place to prevent environmental contamination.
- Only licensed contractors will be engaged for the handling of hazardous, medical, and septic waste. Recycling and reuse of packaging, wood, metals, and other non-hazardous waste will be prioritized. Recycling companies will be engaged to reduce

waste to the extent practicable before disposal. Temporary storage of e-waste on site until suitable contractors are identified for collection and material recovery.

- Comprehensive waste inventories will be maintained to document and track the generation and management of waste. Completed waste manifests will ensure the chain of custody and compliance with regulatory requirements.
- Sanitary wastewater will be stored in septic tanks located on impervious hard standing areas with a bund capacity to hold 110% of the maximum volume stored. This will be collected by licensed waste contractors for treatment at Municipality wastewater treatment plants.
- Frequent site inspections will be conducted to monitor waste and wastewater management practices. Immediate spill containment and cleanup procedures will be implemented in case of leaks, spills, or overflows.
- Mandatory training will be provided to construction personnel to enhance awareness of waste management protocols, water conservation, and spill response procedures. Specific waste types, such as medical waste and sludge residues from concrete washout, will be handled by trained personnel following strict protocols.
- During construction, concrete washout from “Ready Mix” lorries will be undertaken in a designated area that is impervious to prevent contamination of groundwater or on surrounding soils. Any solid waste residue will be removed from site by a licensed contractor. Should batching plants be required they will be subject to separate approvals/permits from the Municipality and include water recovery and recycling within the plant to minimise water use.
- Project-specific management plans will be developed and implemented for construction waste, hazardous waste, wastewater, concrete washout, and medical waste. These plans will align with ESIA commitments, CESMP provisions, and relevant guidelines to ensure compliance and effective management

10.3 Monitoring Requirements

The table below provides an overview of the key monitoring arrangements for evaluating the management of impacts relating to the management of waste.

Unless otherwise indicated hereunder, the EPC Contractor’s HSSE team will be primarily responsible for monitoring relevant impacts and implementing impact control measures, under the oversight of the Project Company’s E&S Manager. During operations this will be undertaken by O&M HSSE Team.

Table 10-2 Monitoring arrangements relating to the management of waste (including wastewater)

E&S IMPACT	KEY PERFORMANCE INDICATOR/ PARAMETER	TARGETS AND STANDARDS	MONITORING LOCATION / MEANS OF VERIFICATION	MONITORING FREQUENCY	IMPLEMENTATION	SUPERVISION
Early Works (LNTP), Construction Phase, and Operational Phase						
Contamination of resident soil, groundwater, and surface water	All solid wastes and wastewater to be collected by contractors with valid licenses/permits	<ul style="list-style-type: none"> - No collection of wastes by contractors without valid licenses/ permits - No odour from solid waste storage (general, food, hazardous) or from wastewater storage - No overflow from wastewater septic tanks - No overflow from concrete washout facilities 	<ul style="list-style-type: none"> - Permit register - Waste transfer log - Waste and wastewater storage locations - EPC washing and toilet facilities 	Prior to waste transfer/ export Daily checks following a non-compliance)	EPC Contractor Environmental Officer (O&M for operations)	Project Company
	Inspection and monitoring of handling and storage of waste materials	<ul style="list-style-type: none"> - Inspection and monitoring of waste management according to CESMP/OESMP procedures - No vermin such as rats, cockroaches or flies due to solid waste or wastewater storage 	<ul style="list-style-type: none"> - Inspection log - Daily, weekly checks by HSE team 	Weekly	EPC Contractor Environmental Officer (O&M for operations)	Project Company
	Records for waste transfers	<ul style="list-style-type: none"> - Consistent records of waste consignments 	<ul style="list-style-type: none"> - Waste transfer log 	Monthly	EPC Contractor Environmental Officer	Project Company

E&S IMPACT	KEY PERFORMANCE INDICATOR/ PARAMETER	TARGETS AND STANDARDS	MONITORING LOCATION / MEANS OF VERIFICATION	MONITORING FREQUENCY	IMPLEMENTATION	SUPERVISION
		<ul style="list-style-type: none"> Monthly HSE reporting by EPC and O&M to Project Company to demonstrate compliant records 	<ul style="list-style-type: none"> Reporting in monthly HSE meetings 		(O&M for operations)	

11 BIODIVERSITY

The following sub-sections provide an overview of potential impacts pertaining to biodiversity and ecosystem services, the principal mitigation measures, as well as relevant performance and monitoring requirements. For the comprehensive requirements for biodiversity management and monitoring during construction, (BMP/BMEP, BCFP, HRP and ISMP) refer to Table 7-2 and also for actions required during operations including No Net Loss of Natural Habitat and Net Gain for species triggering criticality also refer to BAP (table 7-2),

11.1 Potential Impacts

Potential impacts relating to terrestrial and aquatic ecology are outlined in the table below. A full description of the relevant receptors and impacts is provided in the project ESIA.

Table 11-1 Overview of potential impacts relating to biodiversity

E&S IMPACT	AREA OF INFLUENCE	POTENTIAL RECEPTORS
<p>Habitat loss and degradation</p>	<ul style="list-style-type: none"> - <u>Habitat loss</u> Project footprint and surrounding buffers (i.e., 10-metre maximum buffer around PV power plant and BESS sites, and 3-metre buffer along access roads and OTL routes). - <u>Habitat degradation</u> 1-kilometre (maximum) buffer around the project footprint. 	<ul style="list-style-type: none"> - An area of critical habitat has been identified for the Little bustard (<i>Tetrax tetrax</i>), along the broad EAAA encompassing the entire project corridor, based on the CH IFC PS 6 criterion 3 and EBRD PR criterion 4. - Based on the observed congregation of the Little bustard (<i>Tetrax tetrax</i>) within a section of the Mubarek State Wildlife Sanctuary, which overlaps the Project's Aol and EAAA for the species, the state sanctuary is precautionarily recognized as a broader area of CH, in line with the ADB SPS. - Natural habitats (dry grassland and seasonal stream beds identified on 400MW PV site). - Modified habitats (arable and fallow land, drainage canals, and roadside. hedgerows and ecotones.

E&S IMPACT	AREA OF INFLUENCE	POTENTIAL RECEPTORS
Direct mortality from earthworks and roadkill	<ul style="list-style-type: none"> - <u>Earthworks</u> Project footprint (land clearance, excavation, grading and compaction zones). 	<ul style="list-style-type: none"> - Herptiles (particularly low-mobility and burrowing/hibernating species). - Mammals (particularly burrowing species, and roosting bats). - Native and non-native flora.
	<ul style="list-style-type: none"> - <u>Roadkill</u> Project access roads and internal roads within project sites. 	<ul style="list-style-type: none"> - Herptiles (particularly low-mobility species). - Mammals (particularly low-mobility and nocturnal mammals).
Direct mortality from illegal hunting and harvesting (take)	<ul style="list-style-type: none"> - Project footprint and 10-metre buffer 	<ul style="list-style-type: none"> - Herptiles (particularly rare/ threatened reptile species). - Avifauna (particularly bustards and threatened raptors). - Mammals (particularly low-mobility and nocturnal mammals). - Flora.
Induced displacement/dispersal and lowered survivorship	<ul style="list-style-type: none"> - Project footprint and surrounding buffers (i.e., buffer width ranging from 0.5 to 20 km) 	<ul style="list-style-type: none"> - Herptiles (particularly burrowing and nocturnal species). - Mammals (particularly burrowing, nocturnal and predatory species). - Avifauna (particularly Little Bustard and threatened raptors). - Bats (particularly threatened species).
Introduction and proliferation of invasive and alien species	<ul style="list-style-type: none"> - Project footprint and temporary laydown areas and temporary access roads 	<ul style="list-style-type: none"> - Flora (particularly native floral species within natural and riparian habitats).
Collision impacts with OTLs	<ul style="list-style-type: none"> - Project footprint close to OTLs. Birds that collide with the lines often breed, forage, or migrate some distance away from the OTLs. 	<ul style="list-style-type: none"> - Migrating birds particularly Little Bustard - Migrating raptors - Bats

11.2 Principal Mitigation Measures

A set of principal mitigation measures for potential impacts relating to biodiversity and ecosystem services is provided below. Full-on avoidance and mitigation commitments for biodiversity-related impacts are presented in the project BMP /BMEP, BCFP, BAP, HRP and ISMP.

- The construction footprint will be minimized, including temporary areas and access roads. Construction buffers will be used (e.g., 10 meters for PV and BESS sites, 3 meters for access roads).
- Construction zones and access roads will avoid wooded vegetation, riparian areas, and biodiverse habitats, with strict buffer zones around sensitive areas. A speed limit of 20km/hr will be displayed on signs and enforced within construction sites and will use GPS trackers on project vehicles should voluntary measures be ineffective.
- A small area of the 400MW PV site will be protected during construction, where feasible. There will be designated crossing locations for construction plant (see BMP). Natural habitat restoration within the PV sites will be a 5-year project to monitor recovery of biodiversity across the PV sites.
- Tortoise translocation from the 400MW and 100MW sites was completed in Spring and Autumn 2024 and tortoises translocated to an area north west of the sites. Prior to site clearance there will be a check for any burrows in use to allow removal prior to construction works.
- Important vegetation will be protected, (e.g 400MW PV site) , or used for seed collection. The chance-find procedure will be implemented for any sensitive species, including the Central Asian tortoise.
- Proper waste management will be implemented to prevent pollution and also to avoid pests such as rats, cockroaches and flies. Prohibited activities include dumping waste into water bodies or using herbicides/pesticides. On-site bins will be provided for proper waste segregation, waste collection and noise and light pollution will be minimized.
- Biodiversity monitoring and reporting will be conducted. Any fatalities or injuries to fauna will be reported within 24 hours, with corrective actions implemented.
- Gathering, poaching, or disturbing flora and fauna on-site will be prohibited. Public access will be restricted to prevent unauthorized activities, and construction work will be limited to daylight hours to minimize wildlife disruption.
- Measures will be taken to prevent the introduction of invasive species, including use of clean imported soil and aggregates from local quarry when required, and inspection of any trees to be used for landscaping. A checklist for common invasive "weed" species will guide the project as these are already present on disturbed ground (see ISMP for details)
- A Habitat Restoration Plan will guide post-construction restoration efforts for temporary laydown areas and buffer zones used during construction), including replanting with native species and/or use of locally collected seed. Raptor-safe design of transmission line towers and cable insulation and configuration will be undertaken on all lines to minimise the risk of electrocution
- To minimise collision impacts with OTLs:

- Using existing infrastructure corridors such as road and railway Rights of Way (RoW), existing powerline transmission corridors, and other disturbed areas that naturally deter bird activity.
 - Staggering placement of OTL towers/ pylons with those of existing (non-project) lines to make them more visible.
 - Applying bird flight diverters (BFDs) which will be placed on OTLs along potentially impacted PBF and critical habitats. Markers must be robust to ensure durability.
 - Post-Construction Fatality Monitoring (PCFM) will be undertaken for a minimum period of three years, with independent oversight.
 - Monitoring existing power lines in high risk areas that can be considered for undergrounding, subject to agreement with the government and line operators, to achieve Net Gains for Little Bustard and Great Bustard.
- A Decommissioning Plan will be prepared at least 18 months prior to planned decommissioning and submitted to the Regulator for review and approval.

11.3 Monitoring Requirements

The table below provides an overview of the key monitoring arrangements for evaluating the management of impacts relating to biodiversity and ecosystem services.

Unless otherwise indicated hereunder, the EPC Contractor's HSSE team is primarily responsible for monitoring relevant impacts and implementing control measures, under the oversight of the Project Company's E&S Manager.

Full-on monitoring arrangements for biodiversity-related impacts and safeguards are presented in the project BMP and BMEP.

Table 11-11-2 Monitoring arrangements relating to terrestrial ecology

E&S IMPACT	KEY PERFORMANCE INDICATOR/ PARAMETER	TARGETS AND STANDARDS	MONITORING LOCATION / MEANS OF VERIFICATION	MONITORING FREQUENCY	IMPLEMENTATION	SUPERVISION
Early Works (LNTP) and Construction Phase						
Designated (Biodiversity) Staff	Availability of expert project ecologists	<ul style="list-style-type: none"> - Suitably qualified Project Company Ecologist designated - Suitably qualified EPC Contractor Ecologist/ Environmental Officer designated 	<ul style="list-style-type: none"> - E&S team organization chart 	Monthly audits and quarterly audits	<ul style="list-style-type: none"> - EPC Contractor E&S Manager and Ecologist - Training of site and geotechnical teams 	Project Company E&S Manager and Ecologist
Biodiversity Management Plan (BMP)	Logs recording implementation of the BMP	<ul style="list-style-type: none"> - BMP completed prior to the start of LNTP (early construction works) 	<ul style="list-style-type: none"> - Final, approved BMP - ESMS Manual 	As per BMP/BMEP	<ul style="list-style-type: none"> - EPC Contractor E&S Manager and Ecologist - Pre-clearance checks for tortoises and PBFs 	Project Company E&S Manager and Ecologist
Biodiversity Chance Find Procedure (BCFP)	Logs recording implementation of the BCFP	<ul style="list-style-type: none"> - BCFP completed prior to the start of LNTP mobilization/ early works 	<ul style="list-style-type: none"> - Final, approved BCFP - ESMS Manual 	As per BMP/BMEP	<ul style="list-style-type: none"> - EPC Contractor E&S Manager and Ecologist 	Project Company E&S Manager and Ecologist
Loss of vegetation and habitat	Encroachment of vegetated areas outside of demarcated construction zones	<ul style="list-style-type: none"> - No incidents of encroachment of vegetated areas outside of demarcated construction zones 	<ul style="list-style-type: none"> - Inspection log 	Weekly	<ul style="list-style-type: none"> - EPC Contractor Environmental Officer/ Ecologist 	Project Company E&S Manager and Ecologist

E&S IMPACT	KEY PERFORMANCE INDICATOR/ PARAMETER	TARGETS AND STANDARDS	MONITORING LOCATION / MEANS OF VERIFICATION	MONITORING FREQUENCY	IMPLEMENTATION	SUPERVISION
Direct mortality of resident fauna	Incidence of roadkill (particularly Central Asian tortoise)	- No roadkill incidents	- Walkover checklist	Daily	- EPC Contractor Environmental Officer/ Ecologist	Project Company E&S Manager and Ecologist
Lighting impact on fauna	No visual sky glow, glare or light spill from outside the working areas	All lighting with shields and facing inwards, angled downwards as per dark Skies guidance No light spill outside of 10m buffers	Boundary of PV site buffers and OHTL easement corridor	Weekly	EPC Contractor Environmental Officer/ Ecologist	Project Company E&S Manager and Ecologist
Construction Phase Only						
Introduction of invasive and alien species	Growth of invasive floral species	- No growth of invasive floral species following site clearance	- Inspection log	Weekly	- EPC Contractor Environmental Officer/ Ecologist	Project Company E&S Manager and Ecologist
Habitat restoration post construction	Completion of the Habitat Restoration Plan (HRP)	- - 100% completion of the Habitat Restoration Plan (HRP), which includes the temporary laydown areas, site offices, accommodation and construction buffer zones.	- Habitat Restoration Plan - Habitat Restoration Report - Site inspections and audits	Weekly inspections and Monthly audits	- EPC Contractor Environmental Officer/ Ecologist	Project Company E&S Manager and Ecologist

E&S IMPACT	KEY PERFORMANCE INDICATOR/ PARAMETER	TARGETS AND STANDARDS	MONITORING LOCATION / MEANS OF VERIFICATION	MONITORING FREQUENCY	IMPLEMENTATION	SUPERVISION
Operational Phase						
Loss of Natural Habitat 400MW site	Maintain and restore Flora species richness and improved Habitat Quality	<ul style="list-style-type: none"> - No Net Loss of NH - Habitat Quality and area to be calculated quarterly (each season) by designated ecologist 	<ul style="list-style-type: none"> - Record species richness and habitat quality on each of the 3 PV sites as per the Habitat NNL Plan 	Quarterly during first 5-year cycle	O&M Contractor to appoint botanical specialist to monitor habitat quality on each of the sites as per the designated zones	Project Company
Dominance of invasive and alien species	Maintain and restore Flora species richness and improved Habitat Quality	No excessive growth of invasive floral species	Inspection log	Quarterly	O&M Contractor Environmental Officer/ Ecologist	Project Company E&S Manager and Ecologist
Biodiversity Chance Find Procedure (BCFP)	Safe removal of fauna from any hazardous location	Zero fauna fatalities on site due to vehicles, equipment or entrapment	Each of the three PV sites to be checked for fauna on site during the active season	Quarterly	O&M Contractor E&S Manager and Ecologist	Project Company E&S Manager and Ecologist
Great Bustard and Little Bustard OHTL fatal collision	Implementation of Bustard Offset	Achievement of Net Gain	220kV and 500kV OHTLs	As per BAP/Offset Plan and PCFMP	O&M Contractor E&S Manager and Ecologist	Project Company E&S Manager and Ecologist
Impacts on PBFs and SBVs by PV sites and /or OHTLs	Implementation of the Biodiversity Action Plan	Achievement of NNL	220kV and 500kV OHTLs, PV sites and BESS sites	As per BAP and PCFMP	O&M Contractor E&S Manager and Ecologist	Project Company E&S Manager and Ecologist

12 NOISE AND VIBRATION

The following sub-sections provide an overview of potential impacts pertaining to ambient noise and vibration, the principal mitigation measures, as well as relevant performance and monitoring requirements.

12.1 Potential Impacts

Potential impacts relating to ambient noise and vibration are outlined in the table below. A full description of these impacts and relevant receptors is provided in the project ESIA.

Table 12-1 Overview of potential impacts relating to ambient noise and vibration

E&S IMPACT	AREA OF INFLUENCE	POTENTIAL RECEPTORS (DIRECT AND INDIRECT RECEPTORS)
PV Plant and BESS Sites		
Elevated levels of ambient noise	Project sites and the surrounding vicinity (audible influence potentially extending between 500 m and 1 km from on-site sources and transit corridor/ access routes)	Residential and institutional establishments
		Commercial and industrial establishments
		Ecological receptors
Elevated levels of ground borne vibration	Project sites, transit corridors, and the surrounding vicinity (audible influence potentially extending between 500 m and 1 km from on-site sources and transit corridor/ access routes)	Residential and institutional establishments
		Commercial and industrial establishments
		Ecological receptors
Occupational exposure to noise and vibration	Construction zones and adjacent labour facilities within the project sites	Construction workers
OTL Sites		
Elevated levels of ambient noise	Project sites and the surrounding vicinity (audible influence potentially extending between 500 metres and 1 kilometre from on-site sources and transit corridor/ access routes)	Residential establishments
		Commercial and industrial establishments
		Ecological receptors

12.2 Principal Mitigation Measures

An overview of preventative and mitigation measures for potential impacts relating to ambient noise and vibration is provided below.

- Prior to start of construction, the EPC Contractor will undertake a follow-up survey of noise-sensitive receptors nearby the PV plant, BESS and OTL sites (including locations where temporary access roads will be constructed for OTLs).
- Noise-generating activities will be sequenced or phased where possible (rather than simultaneous execution) as to keep any disturbance from noise to a minimum.
- Speed limits established in the Traffic Management Plan will be adhered to.
- Risk assessments, phasing, and acoustic barriers will be implemented to minimize noise and vibration impacts. Night-time construction work will be avoided, and ground vibration-generating activities will be restricted near the project boundary. Noise limits will be adhered to through noise management plans.
- Noisy equipment will be sited away from sensitive receptors. Noise control components (mufflers, silencers) will be installed on machinery, and electrically powered equipment will be preferred where practical. Machines will be turned off when not in use. Traffic and noise management plans will be followed, and deliveries will comply with noise limits.
- Workers who may be exposed to elevated noise levels (equal to or exceeding 80dB(A)) will be identified and briefed on occupational risks from noise exposure. They will be provided with noise reduction PPE if the noise source cannot be moved or screened.
- Communities will be informed of noisy activities, and a grievance mechanism will be maintained. Workers exposed to high noise will be identified with PPE provision, and hearing tests will be conducted where necessary.
- Vehicles and mechanical plant will be maintained in good condition to minimise excessive vibration.
- Use hierarchy of control related to noise to reduce impact on workers (in the order of physical removal of noise source, replace with quieter options, isolate workers from the high-noise source, change the work methodology, and use of PPE).

12.3 Monitoring Requirements

The table below provides an overview of the key monitoring arrangements for evaluating the management of impacts relating to ambient noise and vibration. Noise monitoring locations at receptors are shown in the ESIA.

Unless otherwise indicated hereunder, the EPC Contractor's HSSE team is primarily responsible for monitoring relevant impacts and implementing impact control measures, under the oversight of the Project Company's E&S Manager.

Table 12-12-2 Monitoring arrangements relating to ambient noise and vibration

E&S IMPACT	KEY PERFORMANCE INDICATOR/ PARAMETER	TARGETS AND STANDARDS	MONITORING LOCATION / MEANS OF VERIFICATION	MONITORING FREQUENCY	IMPLEMENTATION	SUPERVISION
Early Works (LNTP) and Construction Phase						
Elevated levels of ambient noise	A-weighted, equivalent continuous sound level – daytime noise (7am to 11pm)	- 55dB(A)	<ul style="list-style-type: none"> - Pre-construction noise survey will be undertaken at sensitive receptor locations identified in the ESIA. - Pre-construction noise survey will also be at one central location in the PV and BESS sites. 	<p>Weekly during LNTP</p> <p>Thereafter, monthly for 15 minutes per location using a Class 1 or 2 meter</p>	- EPC Contractor HSE officer	- Project Company
	A-weighted, equivalent continuous sound level night-time noise (11pm to 7am)	- 45dB(A) where construction work is restricted to daytime	<ul style="list-style-type: none"> - Pre-construction noise survey will be undertaken at sensitive receptor locations identified in the ESIA. - Pre-construction noise survey will also be at one central location in the PV and BESS sites. 	<p>Weekly during Month 4 of LNTP and Month 1 of NTP to establish pattern of noise impacts.</p> <p>Thereafter, monthly for 15 minutes per location.</p>	- EPC Contractor HSE officer	- Project Company

E&S IMPACT	KEY PERFORMANCE INDICATOR/ PARAMETER	TARGETS AND STANDARDS	MONITORING LOCATION / MEANS OF VERIFICATION	MONITORING FREQUENCY	IMPLEMENTATION	SUPERVISION
	Grievances concerning elevated construction noise	- All related grievances are closed out within the shortest practicable duration	- Community Grievance Log	Ongoing	- EPC Contractor CLOs	- Project Company
Construction Phase Only						
Occupational exposure to noise and vibration	Use of hearing protection PPE within noisy construction zones	- No cases of workers operating without appropriate PPE close to sources of intense noise.	- EHS inspection logs.	Weekly	- EPC Contractor HSE officer	Project Company
	A-weighted, equivalent continuous sound level – daytime noise (7am to 11pm)	85dB(A)	- Noise monitoring locations targeting locations of receptors nearest to sources of noise	Quarterly for 15 minutes per location	- EPC Contractor HSE officer	Project Company
	Grievances concerning noise exposure and/or shortage of PPE	All related grievances are closed out within the shortest	- Worker Grievance Log	Ongoing	- EPC Contractor HR/ H&S Officer	Project Company

E&S IMPACT	KEY PERFORMANCE INDICATOR/ PARAMETER	TARGETS AND STANDARDS	MONITORING LOCATION / MEANS OF VERIFICATION	MONITORING FREQUENCY	IMPLEMENTATION	SUPERVISION
		practicable duration				
Operational Phase – No monitoring required (unless community or labour grievance registered)						
Exposure to occupational noise	Grievance by site workers	- - 85dB(A)	- Worker Grievance Log	Six monthly	O&M Contractor	Project Company
Community ambient noise due to PV, BESS or OTLs	Grievance raised by community	70dBA (daytime 45dBA (night time)	- Survey to be undertaken at receptor and at source of noise	As required	O&M Contractor	Project Company

13 AIR QUALITY AND CARBON FOOTPRINT

The following sub-sections provide an overview of potential impacts pertaining to ambient air quality and carbon emissions, the principal mitigation measures, as well as relevant performance and monitoring requirements.

13.1 Potential Impacts

Potential impacts relating to ambient air quality and carbon emissions are outlined in the table below. A full description of these impacts and relevant receptors is provided in the project ESIA.

Table 13-1 Overview of potential impacts relating to ambient air quality and carbon emissions

E&S IMPACT	AREA OF INFLUENCE	POTENTIAL RECEPTORS (DIRECT AND INDIRECT RECEPTORS)
PV Plant and BESS Sites		
Elevated levels of ambient dust	Vicinity of the PV plant, BESS, and access road sites (discernible influence potentially extending to 350 metres from sources, as indicated in UK IAQN guidelines ¹)	Residential establishments
		Commercial and industrial establishments
		Flora (including standing crops)
Elevated levels of ambient exhaust pollutants and GHGs	Vicinity of the PV plant, BESS, and access road sites (discernible influence potentially extending to 200 metres from sources, as indicated in UK DMRB guidelines ²)	Residential establishments
		Commercial and industrial establishments
Occupational exposure to air pollutants	Construction zones within the PV plant and BESS, and access road sites	Construction workers
	Indoor and confined spaces for handling and storage of Volatile Organic Compounds (VOCs)	
	Vicinity of portable toilets and storage facilities for domestic and putrescible waste within the PV plant and BESS sites (discernible influence potentially extending up to 100 metres from sources)	
OTL Sites		
Elevated levels of ambient dust	Vicinity of the OTL tower sites and access roads (discernible influence potentially	Residential establishments

¹ United Kingdom Institute of Air Quality Management

² United Kingdom Design Manual for Roads and Bridges.

E&S IMPACT	AREA OF INFLUENCE	POTENTIAL RECEPTORS (DIRECT AND INDIRECT RECEPTORS)
	extending to 350 metres from sources, as indicated in UK IAQN guidelines ³)	Commercial and industrial establishments
Elevated levels of ambient exhaust pollutants and GHGs	Vicinity of the OTL tower sites and access roads (discernible influence potentially extending to 200 metres from sources, as indicated in UK DMRB guidelines ⁴)	Residential establishments
		Commercial and industrial establishments
Occupational exposure to air pollutants and offensive odours	Vicinity of the OTL tower sites	Construction workers
	Vicinity of portable toilets at OTL sites (discernible influence potentially extending up to 100 metres from sources)	

13.2 Principal Mitigation Measures

An overview of preventative and mitigation measures for potential impacts relating to ambient air quality is provided below.

- Prior to start of construction, the EPC Contractor will undertake a follow-up survey of dust/fume-sensitive receptors nearby the PV plant, BESS and OTL sites (including locations where temporary access roads will be constructed for OTLs).
- Weather forecasts will be monitored to adapt dust suppression measures to arid, windy conditions, and land grading or excavation will be avoided during adverse weather. Ground wetting, installation of dust protection nets, and use of barriers or vegetation screens will be implemented to minimize dust dispersal during earthworks. Stockpiles of aggregate materials will be damped or enclosed, and the height of soil unloading will be minimized. Vehicle speed on site roads will be restricted to 20 km/hour, and unpaved access roads will be compacted or damped to control dust.
- Vehicle emissions will be minimized by using well-maintained vehicles and restricting the entry of non-compliant vehicles. Heavy vehicle idling will be avoided, and public transport or carpooling for workers will be encouraged to reduce emissions. Low-sulfur diesel and electrically powered machinery will be used where feasible.
- Hazardous materials, including volatile organic compounds, will be stored in secure, ventilated areas away from sensitive receptors and transport routes. Sealed containers will be used for fuels and chemicals, avoiding prolonged exposure to heat and sun. Open burning of waste or vegetation will be prohibited, and adequate chemical storage and logging procedures will be maintained.
- Adequate sanitary facilities with sealed and maintained septic tanks will be provided, with waste managed by licensed contractors. Organic and domestic waste will be

³ United Kingdom Institute of Air Quality Management

⁴ United Kingdom Design Manual for Roads and Bridges.

segregated, stored in designated areas away from receptors, and regularly collected by licensed waste management providers.

- Workers exposed to dust will be provided with dust masks and trained in minimizing dust and exhaust exposure. PPE, including masks and goggles, will be supplied where needed, and workers will be trained in their effective use. Monitoring of air quality and worker exposure will be conducted, with risk assessments used to refine measures.
- Communities will be informed in advance of intensive earthworks or potential dust, odour, or emissions impacts. Grievance mechanisms will be established to collect and address community concerns.
- Stationary, fuelled machinery/ plants, such as diesel generators, will be placed as far away as possible from sensitive receptors around the project sites (i.e., residential housing, schools, medical centres etc).
- The EPC contractor will prepare and implement Air Quality and Emissions Management Plans, Soil Management and Erosion Control Plans, and Traffic Management Plans, integrating these into relevant method statements.

In addition, the EPC Contractor will implement resource efficiency measures to reduce scope 1 and scope 2 GHG emissions during the Project's construction phase. These measures generally include, but are not limited to the following:

- The procurement of equipment for the Project's construction work will give priority consideration to power efficiency and water conservation (based on operating technology and power efficiency).
- During construction, the EPC Contractor will promote energy conservation measures for electricity-powered equipment through the project E&S Policy and trainings, and monitor power consumption.
- During construction, the EPC Contractor will promote the economical use of fuel-powered equipment through the project E&S Policy and trainings, and monitor fuel consumption.
- During construction, use of electricity and electrically powered equipment, wherever possible.
- Generators will be turned off when not in use (i.e., where multiple generators are operated on site and this will not cause power outage during construction activities).
- Unnecessary idling of vehicles will be avoided.
- Deliveries of equipment/plant to the site will be efficiently managed to reduce the number of trips.
- Exhaust emissions from trucks and vehicles will be minimised by ensuring the use of good condition vehicles (e.g., compliant to vehicle emission requirements).
- Heavy goods/ haulage vehicle engines will be turned off during drop-off and pick-up waiting time, to minimize gaseous emissions.

13.3 Monitoring Requirements

The table below provides an overview of the key monitoring arrangements for evaluating performance against applicable standards relating to ambient air quality and carbon emissions. The targets for Key Performance Indicators (KPIs) are subject to change based on the subsequent formulation of relevant (thematic) management plans and procedures,

Unless otherwise indicated hereunder, the EPC Contractor's HSSE team is primarily responsible for monitoring relevant impacts and implementing control measures, under the oversight of the Project Company's E&S Manager.

Table 13-13-2 Monitoring arrangements relating to ambient air quality and carbon emissions

E&S IMPACT	KEY PERFORMANCE INDICATOR/ PARAMETER	TARGET	MONITORING LOCATION / MEANS OF VERIFICATION	MONITORING FREQUENCY	IMPLEMENTATION	SUPERVISION
- Early Works (LNTP) and Construction Phase						
Elevated levels of ambient dust	Level of PM _{2.5}	15 µg/m ³	<ul style="list-style-type: none"> - Air quality monitoring at sensitive receptor locations identified in the ESIA and follow-up (pre-construction survey) at all project (construction) sites 	Monthly for 15 - 20 minutes per location	<ul style="list-style-type: none"> - EPC Contractor HSE officer 	<ul style="list-style-type: none"> - Project Company
	Level of PM ₁₀	45 µg/m ³				
	Dust suppression measures	Evidence of dust suppression by speed limits and covering of hauled aggregate loads	<ul style="list-style-type: none"> - Grading, excavation and compaction sites, laydown areas, dirt access tracks 	Weekly during earth moving activities.	<ul style="list-style-type: none"> - EPC Contractor HSE officer 	<ul style="list-style-type: none"> - Project Company
	Evidence of dust suppression by damping down	<ul style="list-style-type: none"> - Dirt access tracks - Residential communities 	In the event of a community grievance	<ul style="list-style-type: none"> - EPC Contractor HSE officer 	<ul style="list-style-type: none"> - Project Company 	

E&S IMPACT	KEY PERFORMANCE INDICATOR/ PARAMETER	TARGET	MONITORING LOCATION / MEANS OF VERIFICATION	MONITORING FREQUENCY	IMPLEMENTATION	SUPERVISION
			nearby the PV power plant, BESS and OTL sites -	regarding dust generation		
	Community grievances concerning dust conditions	All related grievances are closed out within the shortest practicable duration	- Community Grievance Logs	Ongoing	- EPC Contractor CLO	- Project Company
Occupational exposure to air pollution	Use of dust masks in construction zones with high/visible levels of dust	No cases of workers operating without dust masks in construction zones with high/ visible levels of dust	- H&S inspection logs.	Weekly	- EPC Contractor HSE Officer	- Project Company
	Worker grievances concerning offensive odours (i.e., VOCs etc.)	All related grievances are closed out within the shortest practicable duration	- Worker Grievance Logs	Ongoing	- EPC Contractor HSE Officer	- Project Company
Construction Phase Only						
Elevated levels of ambient dust	Level of PM ₁₀	45 µg/m ³	- Air quality monitoring at sensitive receptor locations identified in the ESIA and	Monthly for 15 - 20 minutes per location	- EPC Contractor HSE officer	- Project Company

E&S IMPACT	KEY PERFORMANCE INDICATOR/ PARAMETER	TARGET	MONITORING LOCATION / MEANS OF VERIFICATION	MONITORING FREQUENCY	IMPLEMENTATION	SUPERVISION
			follow-up (pre-construction survey) at all project (construction) sites			
Occupational exposure to air pollution	Visible smoke in exhaust from operational vehicles and machinery (including diesel generators)	No visual observation of persistent, thick smoke from machinery exhaust	<ul style="list-style-type: none"> - Construction areas within project site. - Service roads within the project 	Weekly	- EPC Contractor HSE Officer	- Project Company
	Third-party inspection of vehicles, including inspection during the initial acceptance criteria of such vehicles to site	Records of periodic inspection and maintenance	<ul style="list-style-type: none"> - All non-road vehicles 	Annually	- EPC Contractor HSE Officer	- Project Company
	Level of PM _{2.5}	15 µg/m ³	<ul style="list-style-type: none"> - Air quality monitoring at sensitive receptor locations identified in 	Monthly for 15-20 minutes per location	- EPC Contractor HSE Officer	- Project Company
	Level of PM ₁₀	45 µg/m ³			- EPC Contractor HSE Officer	- Project Company

E&S IMPACT	KEY PERFORMANCE INDICATOR/ PARAMETER	TARGET	MONITORING LOCATION / MEANS OF VERIFICATION	MONITORING FREQUENCY	IMPLEMENTATION	SUPERVISION
	Level of carbon monoxide (CO)	5 – 10 mg/m ³	the ESIA and follow-up (pre-construction survey) at all project (construction) sites			
	Level of sulphur dioxide (SO ₂)	0.35 – 0.5 mg/m ³				
	Level of nitrogen dioxide (NO ₂)	0.085 – 0.2 mg/m ³				
Operation Phase – No monitoring required (unless community or labour grievance registered) .						

14 LANDSCAPE AND VISUAL AMENITY

The following sub-sections provide an overview of potential impacts pertaining to landscapes and visual amenity, the principal mitigation measures, as well as relevant performance and monitoring requirements.

14.1 Potential Impacts

Potential impacts relating to landscapes and visual amenity are outlined in the table below. A full description of these impacts and relevant receptors is provided in the project ESIA.

Table 14-1 Overview of potential impacts relating to landscapes and visual amenity

E&S IMPACT	AREA OF INFLUENCE	POTENTIAL RECEPTORS (DIRECT AND INDIRECT RECEPTORS)
Loss of visual amenity due to alteration of landscape character	Zone of visibility of pre-existing vegetation, construction establishments and construction scars	Residences and other establishments located nearby the project sites
Visual nuisance due to light spills	Project sites and the immediate vicinity	Residences and other establishments located nearby the project sites

14.2 Principal Mitigation Measures

An overview of preventative and mitigation measures for potential impacts relating to landscapes and visual amenity is provided below.

- Visual screens, such as site fences, vegetation buffers, or hedgerows, will be established or maintained around construction areas, stockpile zones, and parking spaces to reduce visual blight for nearby receptors. Idle machinery and equipment will be restricted to designated parking areas, and unorganized parking near access roads or project sites will be prohibited.
- Vegetation removal will be limited to demarcated construction zones and transit corridors. Upon completion of construction, all temporary structures and waste will be removed, excavations will be backfilled, and vegetative cover will be re-established in areas outside permanent clearance zones.
- Existing quarry sites will be used for sourcing construction materials. A Soil Management and Erosion Control Plan, Waste Management Plan, and Traffic Management Plan will be developed and implemented to manage resources and waste effectively.
- Night-time construction will be minimized, conducted only with prior approval, and notices provided to communities within 500 meters of the project sites. Floodlights and other construction lighting will be oriented towards the site interior, fixed at angles no

greater than 30°, and mounted at minimal heights. Shields and LED lamps will be used to minimize light spill and glare.

- Temporary structures, stockpiles, and equipment will be demobilized, and waste will be transferred to designated management facilities following project completion.

14.3 Monitoring Requirements

The table below provides an overview of the key monitoring arrangements for evaluating the management of impacts relating to landscapes and visual amenity.

Unless otherwise indicated hereunder, the EPC Contractor's HSSE team is primarily responsible for monitoring relevant impacts and implementing control measures, under the oversight of the Project Company's E&S Manager.

Table 14-2 Monitoring arrangements relating to visual impacts

E&S IMPACT	KEY PERFORMANCE INDICATOR/ PARAMETER	TARGET	MONITORING LOCATION / MEANS OF VERIFICATION	MONITORING FREQUENCY	IMPLEMENTATION	SUPERVISION
Construction Phase						
Visual nuisance due to light spills	Community grievances concerning light spills	- All related grievances are closed out within the shortest practicable duration	- Community Grievance Log	Ongoing	- EPC Contractor CLOs	- Project Company
Loss of visual amenity due to alteration of landscape character	Percentage of site-specific rehabilitation activities completed in line with the Site Rehabilitation Plan	- 100% of site-specific rehabilitation activities have been completed in line with the Site Rehabilitation Plan	- Disturbed areas outside of permanent footprint within projects sites	Weekly during demobilization	- Project Company Environmental Officer - EPC Contractor Environmental Officer	- Project Company

15 CULTURAL HERITAGE

The following sub-sections provide an overview of potential impacts pertaining to cultural heritage, the principal mitigation measures, as well as relevant performance and monitoring requirements.

15.1 Potential Impacts

Potential impacts relating to cultural heritage are outlined in the table below. A full description of these impacts and relevant receptors is provided in the project ESIA.

Table 15-15-1 Overview of potential impacts relating to cultural heritage

E&S IMPACT	AREA OF INFLUENCE	POTENTIAL RECEPTORS (DIRECT AND INDIRECT RECEPTORS)
Degradation and/ or loss of tangible cultural heritage resources	Project sites and access roads, particularly those within Samarkand Region	Undiscovered tangible cultural heritage resources
Disruption of local customs	Project-affected communities, and wider districts within Samarkand Region	Local customs

15.2 Principal Mitigation Measures

An overview of preventative and mitigation measures for potential impacts relating to cultural heritage is provided below.

- Construction activities, including land clearance, excavation, and movement of machinery, will be confined to clearly demarcated zones within project sites and designated transit corridors. Temporary fences and barricades will ensure proper delineation of work areas.
- An archaeological Chance Find Procedure will be developed and approved by relevant authorities. A designated archaeologist will oversee construction activities and respond to chance finds as necessary.
- Induction and refresher training for construction workers will be provided, covering awareness of tangible and intangible cultural heritage, the Chance Find Procedure, and the importance of cultural sensitivity. This will include measures to avoid impacts on local customs and heritage.
- A project-level code of conduct will outline prohibitions against vandalism, theft, and inappropriate behavior, with zero-tolerance policies and disciplinary actions for non-compliance. Peer-led initiatives and local recruitment will be used to promote awareness of local cultural practices.

- Stockpiling zones, laydown areas, and access roads will be demarcated and used exclusively for project activities. Off-roading and haphazard parking outside designated zones will be prohibited to minimize disruptions to cultural sites and the surrounding environment.
- Local communities and authorities will be familiarized with the Project's community grievance mechanism (GRM). Grievances related to cultural heritage will be addressed through these platforms.
- Dedicated residential facilities for the workforce will be established, and construction workers will be restricted to the project sites during designated working hours to minimize community interaction and potential cultural conflicts. An Influx Management Plan will ensure adherence to these measures.
- Sensitization campaigns led by Community Liaison Officers (CLOs) will inform local communities about the influx of foreign workers, potential cultural differences, and measures to mitigate impacts on local sensitivities.
- Engagement with cultural heritage authorities and local institutions will be conducted to ensure compliance with national regulations and to facilitate the preservation of cultural heritage resources.
- Plans, including a Traffic Management Plan and Influx Management Plan, will be implemented to manage worker and vehicle movement, promote cultural awareness, and prevent adverse impacts on local communities and their heritage.

15.3 Monitoring Requirements

The table below provides an overview of the key monitoring arrangements for evaluating the management of impacts relating to cultural heritage, .

Unless otherwise indicated hereunder, the EPC Contractor's HSSE team is primarily responsible for monitoring relevant impacts and implementing control measures, under the oversight of the Project Company's E&S Manager.

Table 15-2 Monitoring arrangements relating to cultural heritage

E&S IMPACT	KEY PERFORMANCE INDICATOR/ PARAMETER	TARGET	MONITORING LOCATION / MEANS OF VERIFICATION	MONITORING FREQUENCY	IMPLEMENTATION	SUPERVISION
Early Works (LNTP), Construction Phase, and Operational Phase						
Degradation and/ or loss of tangible cultural heritage resources	Implementation of Cultural Heritage Management Plan and Archaeological Chance Find Procedure	- 100% of construction (earthworks) workers in the identification of tangible cultural heritage resources and the archaeological Chance Finds Procedure	- HSSE Training Report	Monthly	- Designated Archaeologist (from Institute of Archaeology) - EPC external appointment for Watching Brief	- Project Company
	Vigilance of workers to potential cultural chance finds during earthworks	- Daily toolbox talks and on-site supervision for workers engaged in earthworks	- Earthworks sites	Daily during earthworks	- Designated Archaeologist EPC external appointment for Watching Brief	- Project Company
Disruption of local customs	Community grievances concerning project-related disruption of local customs intangible cultural heritage	- All related grievances are closed out within the shortest practicable duration	- Community Grievance Log	Ongoing	- EPC Contractor CLOs	- Project Company

16 TRAFFIC AND TRANSPORTATION

The following sub-sections provide an overview of potential impacts pertaining to traffic and transportation, the principal mitigation measures, as well as relevant performance and monitoring requirements.

16.1 Potential Impacts

Potential impacts relating to traffic and transportation are outlined in the table below. A full description of these impacts and relevant receptors is provided in the project ESIA.

Table 16-1 Overview of potential impacts relating to traffic and transportation

E&S IMPACT	AREA OF INFLUENCE	POTENTIAL RECEPTORS (DIRECT AND INDIRECT RECEPTORS)
Increased traffic congestion along public roads	Feeder and community roads connecting to project-dedicated access roads	Households and establishments within project-affected communities
		Commercial and industrial establishments within project-affected communities

16.2 Principal Mitigation Measures

An overview of preventative and mitigation measures for potential impacts relating to traffic and transportation is provided below.

- A traffic and transportation constraints study will be conducted prior to construction mobilization to identify transportation constraints, including congestion hotspots and road inadequacies, and inform transit route planning to reduce traffic impacts.
- Dedicated access roads within the project transit corridor will be established where feasible to minimize the interaction of project traffic with public roads, and by-passes and traffic control measures will be implemented for road upgrading or maintenance works, in consultation with relevant authorities.
- Project traffic will be organized to avoid peak traffic hours and congestion hotspots. Construction vehicle convoys will be maximized in load capacity to reduce delivery trips, and transit services for workers will be provided to limit project traffic volumes.
- Permits for the transportation of bulky or heavy cargo will be secured from relevant highway and road safety authorities, ensuring compliance with local regulations for road usage.
- Parking of project vehicles will be confined to designated bays within project sites, and a vehicle breakdown response plan will be developed to promptly address vehicle immobility along public and access roads.

- Engagement with transportation and traffic safety authorities will be undertaken to address project-related risks, develop emergency response plans, and ensure the safe operation of project traffic.
- Damage or obstruction to roads immediately outside project sites and along internal roads will be addressed promptly to maintain traffic flow and ease project operations.
- A comprehensive Traffic and Transportation Management Plan will be developed and implemented, incorporating the above measures, to ensure safe, organized, and minimal-impact project traffic operations.

16.3 Monitoring Requirements

The table below provides an overview of the key monitoring arrangements for evaluating the management of impacts relating to traffic and transportation, .

Unless otherwise indicated hereunder, the EPC Contractor's HSSE team is primarily responsible for monitoring relevant impacts and implementing control measures, under the oversight of the Project Company's E&S Manager.

Table 16-16-2 Monitoring arrangements relating to traffic and transportation

E&S IMPACT	KEY PERFORMANCE INDICATOR/ PARAMETER	TARGET	MONITORING LOCATION / MEANS OF VERIFICATION	MONITORING FREQUENCY	IMPLEMENTATION	SUPERVISION
Construction Phase						
Increased traffic congestion along public roads	Implementation of Traffic and Transportation Management Plan and Installation of traffic signage and signposts along all project access roads	- Traffic signage and signposts have been installed along all project access roads	- All project access roads	Weekly during mobilization	- EPC Contractor H&S Officer	- Project Company
	Community grievances concerning project-related vehicular traffic along public roads	- All related grievances are closed out within the shortest practicable duration	- Community Grievance Log	Ongoing	- EPC Contractor CLOs	- Project Company

17 SOCIOECONOMICS – GENERAL

The following sub-sections provide an overview of potential impacts pertaining to local livelihoods and communal infrastructure, the principal mitigation measures, as well as relevant performance and monitoring requirements.

17.1 Potential Impacts

Potential impacts relating to local livelihoods and communal infrastructure are outlined in the table below. A full description of these impacts and relevant receptors is provided in the project ESIA.

Table 17-1 Overview of impacts on local livelihoods and communal infrastructure

E&S IMPACT	AREA OF INFLUENCE	POTENTIAL RECEPTORS (DIRECT AND INDIRECT RECEPTORS)
Economic displacement	PV power plant, BESS and OTL sites within the project-affected communities	Affected herders, crop farmers, and fish farmers
Accidental damage to third-party property and utility service interruptions	Affected communities located nearby the PV power plant, BESS, OTL corridor, underground cable, and (new) access road sites	Affected residents within project-affected communities
		Affected utilities
Increased pressure on public infrastructure and resources	Affected communities located nearby the PV power plant, BESS, OTL corridor, underground cable, and (new) access road sites	Residents within project-affected communities, districts, and broader Samarkand Region
		Utilities and social service providers
Transient inflation within host communities	Affected communities located nearby the PV power plant, and BESS sites	Local communities
Employment creation and capacity transfer	Affected communities, wider districts and Uzbekistan at large	Local labour force

17.2 Principal Mitigation Measures

An overview of preventative and mitigation measures for potential impacts relating to local livelihoods and infrastructure is provided below. Please refer to the project Land Acquisition and Livelihood Restoration Plan (LRP) and Section 18 of this Plan, for further information on the management of impacts related to land-take, eviction and economic displacement.

- The E&S Consultant, Project Company, and EPC Contractor's E&S teams will maintain ongoing engagement with affected communities, displaced entities, and local

leadership to raise awareness on early works, construction schedules, health and safety hazards, and safeguards, as well as disclosure and consultation on the ESIA, SEP, and LALRP drafts and LALRP implementation.

- Construction-phase recruitment will involve equal-opportunity eligibility criteria based around inherent job requirements (e.g., educational attainment, professional experience, fitness for work etc.), with priority consideration for Uzbekistan nationals. The recruitment process will be free of discrimination on the grounds of gender, ethnicity, religion, income status and other attributes of no bearing on inherent job requirements.
- A minimum (threshold) set of employment vacancies will be reserved for female job candidates from local communities, based on feedback recorded in the project SEP, and these opportunities will be publicized within the project-affected communities such that women are encouraged to apply for suitable jobs under the Project.
- Early works will be confined to clearly demarcated zones within the project sites, with existing dirt roads utilized where feasible during the first two months for survey activities.
- Property damage outside of LNTP working areas will be avoided, alongside avoiding disruption to stock routes and community access roads used for agricultural activities.
- Traffic safeguards will be implemented to minimize roadkill risks involving herded livestock in grazing areas near the site.
- The project sites will be sectioned for phased LNTP works to minimize impacts on herding activities within the 100 MW and 400 MW PV plant sites, to the extent feasible.
- Compensation and/or upfront monetary assistance will be provided to land users (PAPs) impacted by temporary and permanent land and asset loss before any eviction or access restrictions occur (see final LALRP May 2025).
- Site restoration will be carried out following LNTP work within privately held or used land parcels.
- Local recruitment will be leveraged (for semi-skilled labour in particular) to minimize the pressure on local accommodation, healthcare, water and power supply facilities.
- Follow-up engagement will be carried out with resident district khokimiyats and utilities to ensure that utility and communal infrastructure utilized for the Project's construction phase (i.e., including medical service centres, water supply utilities, waste management service providers and law enforcement agencies) have sufficient capacity to address the Project's demand for social and utility services.
- Medical service facilities (i.e., project clinics) will be established to provide basic medical services to construction workers, prior to ad-hoc referral to well-equipped and nearby hospitals.

17.3 Monitoring Requirements

The table below provides an overview of the key monitoring arrangements for evaluating the management of impacts relating to local livelihoods and infrastructure, .

Unless otherwise indicated hereunder, the EPC Contractor's HSSE team will be primarily responsible for implementing the monitoring of relevant impacts and impact control measures, under the oversight of the Project Company's E&S Manager.

Table 17-17-2 Monitoring arrangements relating to local livelihoods and infrastructure

E&S IMPACT	KEY PERFORMANCE INDICATOR/ PARAMETER	TARGET	MONITORING LOCATION / MEANS OF VERIFICATION	MONITORING FREQUENCY	IMPLEMENTATION	SUPERVISION
Early Works (LNTP) and Construction Phase						
Economic displacement	Please refer to the Land Access Procedure (months 1 & 2 of LNTP), Project Land Acquisition and Livelihood Restoration Plan (LALRP) and Section 18 of this Plan, for relevant monitoring requirements.					- Project Company
Incidental damage to third party property	Grievances concerning incidental damage to public or private (third party) property	- All related grievances are closed out within the shortest practicable duration	- Community Grievance Log	Ongoing	- EPC Contractor CLOs	- Project Company
Employment creation and capacity transfer	Completion of Local Content Plan (LCP)	- LCP completed before the start of main construction work	- Final, approved LCP	Prior to start of construction	- Project Company E&S Manager - EPC Contractor HR department - Project Lenders - LESA	- Project Company
Construction Phase Only						
Increased pressure on public infrastructure and resources	Grievances concerning project-related burden on utility and communal infrastructure and resources	- All related grievances are closed out within the shortest	- Community Grievance Log	Ongoing	- EPC Contractor CLOs	- Project Company

E&S IMPACT	KEY PERFORMANCE INDICATOR/ PARAMETER	TARGET	MONITORING LOCATION / MEANS OF VERIFICATION	MONITORING FREQUENCY	IMPLEMENTATION	SUPERVISION
		practicable duration				
Operational Phase						
Loss of livelihood due to land take by the Project	PAPs no worse off as result of the Project	- 100% with no loss of income compared with pre-project	- PAPs within Affected communities	Needs based but 6-monthly minimum	Project Company	Project Company Independent Consultant

18 SOCIOECONOMICS – ECONOMIC DISPLACEMENT

The following sub-sections provide an overview of potential impacts pertaining to land expropriation and land-use interruption, associated livelihood impacts, the principal mitigation measures, as well as relevant performance and monitoring requirements.

18.1 Potential Impacts

Potential impacts relating to land-take and livelihood losses for Project-Affected Persons (PAPs) are outlined in the table below.

A full description of these impacts and relevant receptors is provided in the project LALRP.

Table 18-1 Magnitude of displacement impacts associated with the Project

PROJECT-AFFECTED ENTITIES	DISPLACEMENT STATISTICS	PERCENTAGE OF TOTAL
Total number of project-affected entities	203	N/A
Sub-total for 100 MW PV power plant	31	15%
Sub-total for 400 MW PV power plant	3	1%
Sub-total for Nurobod BESS	3	1%
Sub-total for 4.9-km OTL	5	2%
Sub-total for 70-km OTL	79	39%
Sub-total for LILO OTLs	82	40%
Impacted Entities		
Project-Affected Households (PAHs)	169	83%
Project-Affected Businesses (PABs)	7	3%
Project-affected governmental/ utility entities	18	9%
Project-Affected Persons (PAPs)	904	N/A
Impacts		
Physically displaced PAHs and enterprises	0	0%
Physically displaced PAPs	0	0%
Economically displaced PAHs, enterprises and governmental entities	203	100%
Economically displaced PAPs	904	100%
Vulnerable PAHs	44	22%
Percentage of Productive Assets Impacted		
PAHs, PABs and governmental entities losing 10% or more of productive assets (both permanently and temporarily)	85	42%

PROJECT-AFFECTED ENTITIES	DISPLACEMENT STATISTICS	PERCENTAGE OF TOTAL
PAPs losing 10% or more of productive assets (both permanently and temporarily)	267	30%
Registration/ Legitimacy of Land Tenure and Employment		
Land users with formal land rights (titles)	176	87%
Land users without formal land rights (non-titled)	13	6%
Project-affected workers (not land rights holders)	14	7%
Premature Displacement		
Land users who were displaced prematurely (before compensation and land-take for construction)	20	9%

18.2 Principal Mitigation Measures

This section outlines the safeguards for mitigating impacts related to the onset of economic displacement impacts due to land expropriation and/ or temporary interruption of land use.

The following key safeguards will be applied as priority actions.

Additional compensation and LRP measures are presented in the project LALRP (final, May 2025) and Land Access Procedure.

- The assessment of impacts associated with project-related land acquisition and involuntary resettlement, and due livelihood restoration planning, will be carried out by means of a Land Acquisition and Livelihood Restoration Plan (LALRP).
- The assessment of the Project's resettlement (physical and economic) impacts and provisions for livelihood restoration will be based on a full-scale PAP census, socio-economic and asset surveys.
- The above-mentioned LALRP surveys will seek to identify all permanent, seasonal, formal, semi-formal, informal, private and communal/public land-use within the full extent of potentially acquired land.
- The LALRP census and asset inventory surveys will be implemented with a widely publicized cut-off date to minimize potential livelihood impacts on any subsequent opportunistic settlers or claimants who will not be considered eligible for compensation based on spurious claims.
- Based on the full inventory of potentially impacted land rights holders, the LALRP will make adequate provisions for compensation entitlements and supplementary livelihood restoration initiatives.
- All PAHs and PABs who incurred early displacement between July 2023 and March 2025 will receive additional compensation and livelihood restoration support, based on a retrospective analysis of premature displacement impacts.
- While economically displaced entities will be offered both cash and in-kind compensation, vulnerable PAPs and PAPs whose affected livelihoods are centrally

dependent on land and natural resources will be offered in-kind compensation by default.

- Livelihood restoration measures will include all practicable means to ensure full and equitable delivery of LALRP benefits to married men and women residing in joint households.
- LALRP provisions will be needs-based and gender-informed, to ensure that the living conditions, income status and overall welfare of entities subject to economic displacement are enhanced, or at least sustained to an equivalent extent, relative to pre-project levels.
- Compensation and/or transitional support for potentially impacted physical assets, ecosystem services (common resources) and income streams will be provided prior to the onset of impacts and at full replacement value.
- Any communal property potentially displaced by the Project will be re-established at suitably situated locations, in close consultation with affected residents and local administration within affected makhallas and districts.
- The LALRP will further provide for the monitoring and evaluation of livelihood restoration commitments, to ensure that any shortfalls in implementation outputs, outcomes and impacts relative to pre-set Key Performance Indicator (KPI) targets are identified and remediated.
- The Stakeholder Engagement Plan (SEP) for the project will be aligned with the LALRP to inform potentially project-affected households and communities about the land acquisition and livelihood restoration process.
- The Project Developer will liaise with district khokimiyats within project-affected districts to ensure that early (premature) displacement does not occur in relation to the construction of the OTLs until relevant compensation arrangements have been completed by the Project Developer.
- The Project's community GRM and relevant sensitization efforts should also be aligned with the LALRP to enable the collection of grievances pertaining to land access and livelihood restoration on platforms that are accessible to all local constituencies and free of manipulation, interference, intimidation, service charges and restrictions on arbitration, judicial recourse and choice of confidentiality. The GRM will include at least one female CLO to enable dedicated channels for reporting gender-sensitive issues.

18.3 Monitoring Requirements

The table below provides an overview of the key monitoring arrangements for evaluating the management of impacts relating to land-take and livelihoods.

Unless otherwise indicated hereunder, the EPC Contractor's HSSE team is primarily responsible for implementing the monitoring of relevant impacts and impact control measures, under the oversight of the Project Company's E&S Manager.

Table 18-18-2 Monitoring arrangements relating to land-take and livelihood impacts

KPI No.	KEY PERFORMANCE INDICATORS (KPIs)	TARGETS	TARGET TIMEFRAME	MEANS OF VERIFICATION (MOV)	M&E FREQUENCY	IMPLEMENTATION	SUPERVISION
1.	Number of full-time LALRP implementation staff	≥2	Continuously up to the completion of the LALRP	Project Company staff records; Monthly E&S Monitoring Report	Monthly	• Project Company	• Project Company • Independent E&S Consultant
2.	Percentage of PAHs that have received full compensation	100%	Before site handover to EPC Contractor	Project Company financial records; Monthly E&S Monitoring Report	Monthly	• Project Company	• Project Company • Independent E&S Consultant
3.	Percentage of PAHs that have received financial literacy trainings	100%	Before site handover to EPC Contractor	Timesheets of SME finance expert; Monthly E&S Monitoring Report	Monthly	• Project Company	• Project Company • Independent E&S Consultant
4.	Percentage of crop-farming (agrarian) PAPs with a permanent loss of >10% of arable land, who have received agronomy trainings	100%	6 months from start of construction	Timesheets of certified agronomy expert; Livelihood restoration progress report; Quarterly E&S Monitoring Report	Quarterly	• Project Company	• Project Company • Independent E&S Consultant
5.	Percentage of crop-farming (agrarian) PAPs with a loss of standing trees within GSZ who have received agronomy trainings	100%	6 months from start of construction	Timesheets of certified agronomy expert; Livelihood restoration progress report; Quarterly E&S Monitoring Report	Quarterly	• Project Company	• Project Company • Independent E&S Consultant

KPI No.	KEY PERFORMANCE INDICATORS (KPIs)	TARGETS	TARGET TIMEFRAME	MEANS OF VERIFICATION (MOV)	M&E FREQUENCY	IMPLEMENTATION	SUPERVISION
6.	Percentage of informal herders in Olga and Chorvador communities, who have secured a leasehold on alternative pastoral land	100%	6 months from start of construction	Minutes of meeting with SWID Committee and Nurobod District Khokimiyat; Livelihood restoration progress report; Quarterly E&S Monitoring Report	Quarterly	<ul style="list-style-type: none"> Project Company 	<ul style="list-style-type: none"> Project Company Independent E&S Consultant
7.	Percentage of informal herders in Olga and Chorvador communities, who have received trainings in livestock husbandry	100%	6 months from start of construction	Timesheets of livestock farming/ SME expert; Livelihood restoration progress report; Quarterly E&S Monitoring Report	Quarterly	<ul style="list-style-type: none"> Project Company 	<ul style="list-style-type: none"> Project Company Independent E&S Consultant
8.	Percentage of female participants in Livelihood Restoration Initiatives	≥50%	Continuously up to completion of livelihood restoration initiatives	Livelihood Restoration Initiatives progress/ mid-term report; Quarterly E&S Monitoring Report	Quarterly	<ul style="list-style-type: none"> Project Company 	<ul style="list-style-type: none"> Project Company Independent E&S Consultant
9.	Percentage of grievances closed out (resolved) within the timeframe specified in the Grievance Redress Mechanism (GRM)	>90%	Continuously up to the completion of the LALRP program	Grievance logs; Monthly E&S Monitoring Report	Monthly	<ul style="list-style-type: none"> Project Company 	<ul style="list-style-type: none"> Project Company Independent E&S Consultant
10.	Percentage of vulnerable PAHs	<5%	Continuously up to completion of	Livelihood restoration	Quarterly	<ul style="list-style-type: none"> Project Company 	<ul style="list-style-type: none"> Project Company

KPI No.	KEY PERFORMANCE INDICATORS (KPIs)	TARGETS	TARGET TIMEFRAME	MEANS OF VERIFICATION (MOV)	M&E FREQUENCY	IMPLEMENTATION	SUPERVISION
	registered on the community Iron Registers six months after construction		livelihood restoration initiatives	progress report; Quarterly E&S Monitoring Report			<ul style="list-style-type: none"> Independent E&S Consultant
11.	Number of PAPs who have registered for E-Auction system bids	Increased participation in land auctions	Continuously up to the completion of the LALRP program	Electronic auction reports; Continuous FGDs with PAPs during E&S monitoring	Monthly	<ul style="list-style-type: none"> Project Company 	<ul style="list-style-type: none"> Project Company Independent E&S Consultant
12.	Number of PAPs who have successfully acquired landholdings on the E-Auction system	Increased participation in land auctions	Continuously up to the completion of the LALRP program	Electronic auction reports; Continuous FGDs with PAPs during E&S monitoring	Monthly	<ul style="list-style-type: none"> Project Company 	<ul style="list-style-type: none"> Project Company Independent E&S Consultant
13.	Performance of alternative livelihood strategies established through agronomy and SME research and training,	Positive feedback from PAPs enrolled in specific programs and the development of new income streams	Continuously up to the completion of the LALRP program	Continuous FGDs with PAPs during E&S monitoring	Quarterly	<ul style="list-style-type: none"> Project Company 	<ul style="list-style-type: none"> Project Company Independent E&S Consultant
14.	PAHs' satisfaction with transitional support and livelihood restoration initiatives	High	Upon the completion of the LALRP implementation	Completion Audit Report	Once-off; Upon completion of LALRP implementation	<ul style="list-style-type: none"> Project Company 	<ul style="list-style-type: none"> Project Company Independent E&S Consultant

KPI No.	KEY PERFORMANCE INDICATORS (KPIs)	TARGETS	TARGET TIMEFRAME	MEANS OF VERIFICATION (MOV)	M&E FREQUENCY	IMPLEMENTATION	SUPERVISION
15.	Household livelihoods, income status and living conditions have been improved, or restored, in relation to pre-project conditions.	100% of affected households agree	Upon the completion of the LALRP implementation	Completion Audit Report	Once-off; Upon completion of LALRP implementation	<ul style="list-style-type: none"> Project Company 	<ul style="list-style-type: none"> Project Company Independent E&S Consultant

19 COMMUNITY HEALTH, SAFETY AND SECURITY

The following sub-sections provide an overview of potential impacts pertaining to community health, safety and security, the principal mitigation measures, as well as relevant performance and monitoring requirements.

19.1 Potential Impacts

Potential impacts relating to community health, safety and security are outlined in the table below. A full description of these impacts and relevant receptors is provided in the project ESIA.

Table 19-1 Overview of potential impacts relating to community health, safety and security

E&S IMPACT	AREA OF INFLUENCE	POTENTIAL RECEPTORS (DIRECT AND INDIRECT RECEPTORS)
Spread of communicable diseases and increased local morbidity	Affected communities located nearby the PV power plant, BESS, OTL corridor, underground cable, and (new) access road sites	Local communities and general public
Community health and safety incidents	Affected communities located nearby the PV power plant, BESS, OTL corridor, underground cable, and (new) access road sites	Local communities and general public
Criminal and abusive offences against local community members	Affected communities located nearby the PV power plant, BESS, OTL corridor, underground cable, and (new) access road sites	Local communities and general public

19.2 Principal Mitigation Measures

An overview of preventative and mitigation measures for potential impacts relating to community health, safety and security is provided below.

- Ongoing engagement with affected communities, displaced entities, and local leadership will be maintained to raise awareness about construction schedules, health and safety (H&S) hazards, and the ESIA, SEP, and LALRP drafts.
- Induction training on communicable diseases, including STIs, and periodic wellness campaigns will be provided to the workforce and local communities, with measures for sick workers and respiratory disease cases.
- Construction activities will be confined to demarcated areas, with restricted access to public roads, and speed limits will be enforced. Traffic safeguards will minimize risks to livestock and surrounding communities.

- Affected land-users will receive compensation and assistance prior to eviction, with site restoration following LNTP work on impacted land parcels.
- Proper facilities for waste collection, hazardous material storage, and spill response will be established, with waste managed by licensed contractors.
- Regular monitoring and inspections will ensure implementation of H&S safeguards, and the community GRM will facilitate the reporting of health and safety incidents.
- A gender policy will be implemented, with training for the workforce and support for victims of GBV, including medical, psychological, and legal assistance.
- Security personnel will be vetted for human rights standards, and collaboration with local law enforcement will ensure proper response to incidents and maintain safety standards.
- The O&M Company will employ 20-30 workers for site operations that will be housed in the Nurobod or Pstdargom district centres, or the nearby towns (e.g., Samarkand, Juma) and they will be subject to a professional codes of conduct at all times.

19.3 Monitoring Requirements

The table below provides an overview of the key monitoring arrangements for evaluating the management of impacts relating to community health, safety and security .

Unless otherwise indicated hereunder, the EPC Contractor's HSSE team is primarily responsible for monitoring relevant impacts and implementing control measures, under the oversight of the Project Company's E&S Manager.

Table 19-2 Monitoring arrangements relating to community health, safety and security

E&S IMPACT	KEY PERFORMANCE INDICATOR/ PARAMETER	TARGET	MONITORING LOCATION / MEANS OF VERIFICATION	MONITORING FREQUENCY	IMPLEMENTATION	SUPERVISION
Early Works (LNTP) and Construction Phase						
Community health and safety incidents	Percentage of local sensitization engagements on construction-related health and safety for local communities completed in line with Stakeholder Engagement Plan (SEP) and Community Health and Safety Plan (CHSP)	- 100% of local sensitization engagements on construction-related health and safety for local communities, completed in line with SEP/ CHSP	- Stakeholder Engagement Log/ Meeting Minutes	Monthly	- EPC Contractor CLOs	Project Company
	Number of significant H&S accidents involving third parties	- Zero significant H&S accidents involving third parties	- H&S Accidents Log	Ongoing	- EPC Contractor H&S Officer	Project Company
Criminal and abusive offences against local community members	Percentage of direct and/or contracted who have received induction training in Gender Based Violence and Harassment (GBVH)	- 100% of direct and/or contracted workers have received induction training in GBVH	- HSSE Training Report	Upon recruitment	- EPC Contractor HR Officer	Project Company
	Grievances concerning project-related crimes	- Related grievances are closed out within the	- Community Grievance Log	Ongoing	- EPC Contractor CLOs	Project Company

E&S IMPACT	KEY PERFORMANCE INDICATOR/ PARAMETER	TARGET	MONITORING LOCATION / MEANS OF VERIFICATION	MONITORING FREQUENCY	IMPLEMENTATION	SUPERVISION
	and/or violation of human rights	shortest practicable duration				
Construction Phase Only						
Spread of communicable diseases	Implementation of worker health screening program	- 100% of contracted workers have undergone voluntary health screening upon recruitment	- Project clinic/ occupational health reports	Upon recruitment	- EPC Contractor HR and H&S officers	Project Company
Criminal and abusive offences against local community members	Percentage of direct and/or contracted security personnel who have been screened for past implications in inappropriate use of force and/or abuse of power	- 100% of direct and/or contracted security personnel have been screened for past implications in inappropriate use of force and/or abuse of power	- HR records	Upon recruitment	- EPC Contractor HR Officer	Project Company
Operational Phase						
Community health and safety incidents	Percentage of H&S accidents involving third parties (e.g., local communities) investigated and addressed through corrective (remedial	- 100% of accidents involving third parties (e.g., local communities) have been	- H&S Accidents Log - Police Report - Medical Report - Significant Accident	Upon occurrence	- O&M Contractor H&S Officer	Project Company

E&S IMPACT	KEY PERFORMANCE INDICATOR/ PARAMETER	TARGET	MONITORING LOCATION / MEANS OF VERIFICATION	MONITORING FREQUENCY	IMPLEMENTATION	SUPERVISION
	and preventative) actions within the shortest practicable duration	investigated and addressed through corrective (remedial and preventative) actions, within the shortest practicable duration	Notification Report - Significant Accident Investigation Report - Corrective Action Plan (CAP)			

20 LABOUR AND WORKING CONDITIONS

The following sub-sections provide an overview of potential impacts pertaining to labour and working conditions, the principal mitigation measures, as well as relevant performance and monitoring requirements.

20.1 Potential Impacts

Potential impacts relating to labour and working conditions are outlined in the table below. A full description of these impacts and relevant receptors is provided in the project ESIA.

Table 20-1 Overview of potential impacts on labour rights

E&S IMPACT	AREA OF INFLUENCE	POTENTIAL RECEPTORS (DIRECT AND INDIRECT RECEPTORS)
Unequal access to employment opportunities and benefits due to discriminatory and/or exploitative recruitment practices	Project-affected communities, districts, and wider Uzbekistan; Foreign labour markets	Job candidates
Poor working and living conditions	Project sites and labour accommodation facilities	Direct and contracted workers
Occupational health and safety incidents	Project sites and labour accommodation facilities	Direct and contracted workers
Forced labour	Uzbekistan, India and China	Direct and contracted workers
		Supply chain workers
Child labour	Uzbekistan, India and China	Direct and contracted workers
		Supply chain workers
Workplace harassment, violence and other security incidents involving project workers	Project sites and labour accommodation facilities	Direct and contracted workers

20.2 Principal Mitigation Measures

An overview of preventative and mitigation measures for potential impacts relating to labour and working conditions is provided below.

- A comprehensive Human Resources (HR) Policy and Supplier Code of Conduct will be established, prohibiting forced and child labor across the direct, contracted, and supply-chain workforce, with age verification during recruitment.
- Recruitment processes will ensure equal opportunities, prioritizing local communities, and ensuring non-discriminatory practices based on gender, ethnicity, or other attributes.

- Bilateral employment contracts will be implemented, outlining workers' rights, including remuneration, health insurance, leave, and pension entitlements, while respecting collective bargaining rights and union representation.
- The project will prioritize local employment, promote gender and national representation, and provide equitable access to on-the-job training and career development programs.
- A Worker Grievance Redress Mechanism (GRM) will be instituted to enable workers to report grievances confidentially and without fear of retaliation, supporting fair dispute resolution.
- Comprehensive health, safety, and environmental (HSSE) policies will be implemented, including on-site medical services, emergency preparedness, and waste management, to ensure a safe and hygienic work environment.
- A zero-tolerance approach to Gender-Based Violence and Harassment (GBVH) will be enforced, with mandatory training, grievance mechanisms, and dedicated support for female workers, including regular consultations and the inclusion of women in the health and safety team.
- Security personnel will be thoroughly vetted, and strict site access controls will be implemented, ensuring the protection of workers and minimizing security risks.
- The procurement process will include rigorous due diligence and corrective action plans to address non-compliance with labour policies, ensuring the project meets high labour standards throughout the supply chain.
- Regular monitoring and review of the workforce's demographic composition and welfare conditions will be conducted to ensure that policies are adhered to and that workers' rights are upheld across all project activities.
- The Project's HR Policy and Supplier Code of Conduct will be contractually cascaded from the Project Company down to the O&M Contractor, sub-contractors, suppliers and any contracted recruitment agencies, to ensure that the policy provisions are applied to the to all workers associated with the Project's core business processes during operation.
- The recruitment of all project workers will involve equal-opportunity eligibility criteria based around inherent job requirements (e.g., educational attainment, professional experience, fitness for work etc.), with priority consideration for Uzbekistan nationals. The recruitment process will be free of discrimination on the grounds of gender, ethnicity, religion, income status and other attributes of no bearing on inherent job requirements.
- Employment terms and benefits with all direct and contracted workers will be stipulated in form of bilateral employment contracts, which will be documented in Uzbek, Russian, and English, as appropriate.
- The procurement process for the Project's O&M Contractor contractual stipulations for initiatory and annual supply chain due diligence for the full term of the O&M contract. Supply chain due diligence efforts will include (i) supply chain mapping and high-level labour risk screening, (ii) Self-Assessment (SA) audits, (iii) traceability audits for sourcing contracts for specific Bills of Materials (BoMs), and ad-hoc on-site audits for high-risk supply chain businesses.
- The O&M Contractor will develop and implement a Corrective Action Plan (CAP) for any verified incidents of non-compliance with the Project's policy requirements and

standards for forced labour, such that relevant performance gaps are remediated within the remedial timeframe specified in the CAP.

- Operations-Phase Sub-Contractor and Supplier Management Plan, Supply Chain Management Plan (or Responsible Sourcing Procedure, as appropriate) including (but not limited to) provisions for the avoidance and mitigation measures listed above will be developed and implemented.

20.3 Monitoring Requirements

The table below provides an overview of the key monitoring arrangements for evaluating the management of impacts relating to labour rights.

Unless otherwise indicated hereunder, the EPC Contractor's HSSE team is primarily responsible for monitoring relevant impacts and implementing control measures, under the oversight of the Project Company's E&S Manager.

Table 20-2 Monitoring arrangements relating to labour rights

E&S IMPACT	KEY PERFORMANCE INDICATOR/ PARAMETER	TARGET	MONITORING LOCATION / MEANS OF VERIFICATION	MONITORING FREQUENCY	IMPLEMENTATION	SUPERVISION
Early Works (LNTP) and Construction Phase						
Lacking access to employment opportunities and benefits due to discriminatory and repressive recruitment practices	Project-specific Human Resource Policies with equal-opportunity employment commitments and fair working conditions	- Project-specific Human Rights Policies with equal-opportunity employment commitments and fair working conditions are in place for the Project Company, the EPC Contractor and all primary sub-contractors	- Labour audits log	Upon onboarding of construction-related contractors, sub-contractors and suppliers	- Project Company HR Manager - EPC Contractor HR Manager	Project Company
	Employment contracts	- Employment contracts in place for all direct and contracted workers, in appropriate languages	- Labour audits log	Quarterly	- Project Company HR Manager - EPC Contractor HR Manager	Project Company
Poor working and living conditions	Non-conformances (NCRs) related to inadequate labour accommodation and welfare facilities	- 100% of non-conformances are closed out in the shortest practicable duration	- Labour audits log	Quarterly	- Project Company HR Manager - EPC Contractor HR Officer, H&S Officer	Project Company

E&S IMPACT	KEY PERFORMANCE INDICATOR/ PARAMETER	TARGET	MONITORING LOCATION / MEANS OF VERIFICATION	MONITORING FREQUENCY	IMPLEMENTATION	SUPERVISION
	Worker grievances concerning poor working and living conditions	- All related grievances are closed out within the shortest practicable duration	- Worker Grievance Log	Ongoing	- EPC Contractor HR Officer	Project Company
Occupational health and safety incidents	Number of significant H&S accidents involving project workers	- Zero significant H&S accidents involving project workers	- H&S Accidents Log	Ongoing	- EPC Contractor H&S Officer	Project Company
	Percentage of H&S accidents involving project workers investigated and addressed through remedial and preventative actions within the shortest practicable duration	- 100% of accidents involving project workers have been investigated and addressed through remedial and preventative actions, within the shortest practicable duration	- H&S Accidents Log	Upon occurrence of accidents	- EPC Contractor H&S Officer	Project Company
	Incidence of sickness/ health conditions reported	- Stable/ decreasing trend in occupational and common sickness and health conditions resulting in leave of absence	- Worker/ occupational health report	Quarterly	- EPC Contractor H&S Officer	Project Company
Forced labour	Project-specific Human Resource Policy and Human Rights Policy with prohibition of all forms of forced labour	- Project-specific Human Resource Policy and Human Rights Policy with prohibition of all forms of forced labour are in place for the Project	- Labour audit log	- Upon onboarding of construction-related contract	- Project Company E&S Manager - Project Company HR Manager	Project Company

E&S IMPACT	KEY PERFORMANCE INDICATOR/ PARAMETER	TARGET	MONITORING LOCATION / MEANS OF VERIFICATION	MONITORING FREQUENCY	IMPLEMENTATION	SUPERVISION
		Company, the EPC Contractor and all primary sub-contractors		<ul style="list-style-type: none"> ors, sub-contractors and suppliers. - Upon change in Sourcing Contract (supply chain). 	<ul style="list-style-type: none"> - Project Company Procurement Manager - EPC Contractor E&S Manager - EPC Contractor HR Manager - EPC Contractor Procurement Manager 	
	Percentage of labour audits completed in line with the schedules specified in the Sub-Contractor and Supplier Management Plan and Supply Chain Management Plan	<ul style="list-style-type: none"> - 100% of labour audits have been completed in line with the schedules specified in the Sub-Contractor and Supplier Management Plan and Supply Chain Management Plan 	<ul style="list-style-type: none"> - Bill of Materials for solar panels - Traceability Audit Report - Labour Audit Reports 	Upon onboarding of construction-related contractors, sub-contractors and suppliers; Annually thereafter	<ul style="list-style-type: none"> - Project Company E&S Manager - Project Company HR Manager - Project Company Procurement Manager - EPC Contractor E&S Manager - EPC Contractor HR Manager 	Project Company

E&S IMPACT	KEY PERFORMANCE INDICATOR/ PARAMETER	TARGET	MONITORING LOCATION / MEANS OF VERIFICATION	MONITORING FREQUENCY	IMPLEMENTATION	SUPERVISION
					- EPC Contractor Procurement Manager	
Child labour	Project-specific Human Resource Policy and Human Rights Policy with prohibition of illicit child labour	- Project-specific Human Resource Policy and Human Rights Policy with prohibition of illicit child labour are in place for the Project Company, the EPC Contractor and all primary sub-contractors	- Labour audit log	Upon onboarding of construction-related contractors, sub-contractors and suppliers	- Project Company E&S Manager - Project Company HR Manager - Project Company Procurement Manager - EPC Contractor E&S Manager - EPC Contractor HR Manager - EPC Contractor Procurement Manager	Project Company
	Percentage of labour audits completed in line with the schedules specified in the Sub-Contractor and Supplier	- 100% of labour audits have been completed in line with the schedules specified in the Sub-Contractor and	- Traceability Audit Report - Labour Audit Reports	Upon onboarding of construction-related contractors, sub-contractors and	- Project Company HR Manager - Project Company	

E&S IMPACT	KEY PERFORMANCE INDICATOR/ PARAMETER	TARGET	MONITORING LOCATION / MEANS OF VERIFICATION	MONITORING FREQUENCY	IMPLEMENTATION	SUPERVISION
	Management Plan and Supply Chain Management Plan	Supplier Management Plan and Supply Chain Management Plan		suppliers; Annually thereafter	<ul style="list-style-type: none"> Procurement Manager EPC Contractor HR Manager EPC Contractor Procurement Manager 	Project Company
Workplace harassment, violence and other security incidents involving project workers	Project-specific Human Rights Policy with a commitment to the protection of human rights and Code of Conduct	<ul style="list-style-type: none"> Project-specific Human Rights Policy with a commitment to the protection of human rights, and a Code of Conduct, are in place for the Project Company, the EPC Contractor and all primary sub-contractors 	<ul style="list-style-type: none"> Labour audit log 	Upon onboarding of construction-related contractors, sub-contractors and suppliers	<ul style="list-style-type: none"> Project Company HR Manager EPC Contractor HR Manager 	Project Company
	Grievances concerning workplace harassment, violence and other security incidents (from contracted workers)	<ul style="list-style-type: none"> All related grievances are closed out within the shortest practicable duration 	<ul style="list-style-type: none"> Worker Grievance Log 	Ongoing	<ul style="list-style-type: none"> Project Company HR Manager Manager EPC Contractor E&S Manager EPC Contractor HR Manager 	Project Company

E&S IMPACT	KEY PERFORMANCE INDICATOR/ PARAMETER	TARGET	MONITORING LOCATION / MEANS OF VERIFICATION	MONITORING FREQUENCY	IMPLEMENTATION	SUPERVISION
					<ul style="list-style-type: none"> - EPC Contractor Security Manager/ Chief Security Officer 	
Operational phase						
Lacking access to employment opportunities and benefits due to discriminatory and repressive recruitment practices	Employment contracts	<ul style="list-style-type: none"> - Employment contracts in place for all direct and contracted workers, in appropriate languages 	<ul style="list-style-type: none"> - Labour audits 	<ul style="list-style-type: none"> - Annually 	<ul style="list-style-type: none"> - O&M Contractor HR Manager - O&M Contractor Procurement Manager - Project Company HR Manager - Project Company Procurement Manager 	Project Company
Occupational health and safety incidents	Percentage of O&M workers who have received induction trainings in construction-related hazards, related safeguards, emergency response procedures, and	<ul style="list-style-type: none"> - 100% of O&M workers have received induction trainings in construction-related hazards, related safeguards, emergency response procedures, and 	<ul style="list-style-type: none"> - HSSE Training Report 	<ul style="list-style-type: none"> - Weekly 	O&M Contractor HSSE Trainer	Project Company

E&S IMPACT	KEY PERFORMANCE INDICATOR/ PARAMETER	TARGET	MONITORING LOCATION / MEANS OF VERIFICATION	MONITORING FREQUENCY	IMPLEMENTATION	SUPERVISION
	reporting of health and safety incidents	reporting of health and safety incidents				
Forced labour	Project-specific Human Resources Policy and Human Rights Policy with prohibition of all forms of forced labour	<ul style="list-style-type: none"> - Project-specific Human Resources Policy and Human Rights Policy with prohibition of all forms of forced labour are in place for the Project Company, the O&M Contractor and all primary sub-contractors, alongside the Project's Code of Conduct 	<ul style="list-style-type: none"> - Labour Audit - O&M Contractor/Supplier Sourcing Contract 	<ul style="list-style-type: none"> - Upon onboarding of O&M Contractor, sub-contractors and suppliers 	<ul style="list-style-type: none"> - Project Company E&S Manager - Project Company HR Manager - Project Company Procurement Manager - O&M Contractor E&S Manager - O&M Contractor HR Manager - O&M Contractor Procurement Manager 	Project Company
Child labour	Project-specific Human Resources Policy and Human Rights Policy with prohibition of child labour	<ul style="list-style-type: none"> - Project-specific Human Resources Policy and Human Rights Policy with prohibition of child labour are in place for the Project 	<ul style="list-style-type: none"> - Labour Audit - O&M Contractor/Supplier Sourcing Contract 	<ul style="list-style-type: none"> - Upon onboarding of O&M Contractor, sub-contractors 	<ul style="list-style-type: none"> - Project Company E&S Manager - Project Company HR Manager 	Project Company

E&S IMPACT	KEY PERFORMANCE INDICATOR/ PARAMETER	TARGET	MONITORING LOCATION / MEANS OF VERIFICATION	MONITORING FREQUENCY	IMPLEMENTATION	SUPERVISION
		Company, the O&M Contractor and all primary sub-contractors, alongside the Project's Code of Conduct		rs and suppliers	<ul style="list-style-type: none"> - Project Company Procurement Manager - O&M Contractor E&S Manager - O&M Contractor HR Manager - O&M Contractor Procurement Manager 	

21 ORGANISATIONAL CAPACITY

21.1 Roles and Responsibilities

The project ESMS will require competent personnel and sufficient allocation of resources to ensure effective implementation in practice.

21.1.1 Project Company (Accountable Party)

The Project Company will designate an expert who will have overall accountability for environmental and social management, compliance and implementation of related Project Company policies. In addition, the Project Company will ensure that the EPC Contractor and O&M Company allocate sufficient resources in the recruitment of competent personnel and in addressing HSE related issues.

This is required at the Project Company level, as the project company is the ultimate permit holder and recipient of Project finance.

The key roles and responsibilities for the Project Company's E&S team, at the Project's construction stage, are outlined in the table below.

Table 21-1 Project Company's key E&S personnel and respective responsibilities

ROLE	RESPONSIBILITIES
<p>Yuliya Allakhverdiyeva, E&S Manager</p>	<p>The E&S Manager will be entrusted with the management of the Project Company's E&S department. The E&S Manager is responsible for spearheading and advocating acceptable levels of E&S performance across the project organization.</p> <p>This duty involves, among other responsibilities, technical oversight and support for the implementation of E&S safeguards (and compliance obligations) in line with the project E&S policy, ESIA, LRP and ESAP, as well as the coordination of E&S resources, throughout the Project's lifetime.</p> <ul style="list-style-type: none"> • Exercising leadership through ESMS reviews, high-level stakeholder engagement, and organizational change in terms of E&S responsibility and performance. • Development of the project ESMS, including project-level policy statements, management plans, procedures and systems for monitoring and reporting. • Instituting and updating the project E&S policy statements. • Coordination with the Project Company's top management for the establishment of an E&S team within the Project Company. • Coordination with the Project Company's top management for the recruitment of external experts required for the delivery of livelihood restoration initiatives for PAPs.

ROLE	RESPONSIBILITIES
	<ul style="list-style-type: none"> • Coordination with the Project Company's top management for the engagement of Lenders' E&S Advisor, for undertaking regular, independent monitoring alongside the Project Lenders. • Undertaking regular audits to monitor the EPC Contractor's E&S performance during construction. • Chairing E&S committee and external E&S audit meetings. • Overall monitoring of E&S compliance at the early works and main construction stages, and overseeing the development of Corrective Action Plans (CAPs) for any non-compliances,
<p>Khaled Al Gammaz, HSE Manager</p>	<ul style="list-style-type: none"> • Contribution to the development of the project-level E&S Policy. • Preparation of management plans and procedures for Health, Safety and Environment (HSE) related compliance (e.g., Occupational Health and Safety Plan, Community Health and Safety Plan, Emergency Preparedness and Response Plan, Traffic Management Plan etc. • Development of monitoring and reporting systems for HSE elements of the ESMS. • Participating in internal and external audits to ensure continued compliance with applicable legal requirements and compliance obligations. • Review of E&S monitoring reports. • Coordination with the EPC Contractor E&S teams to manage HSE performance, investigating HSE incidents and development of CAPs for non-compliances. • Review of all HSE incidents and reporting major incidents to the Project lenders. • Providing induction and refresher trainings for the Project Company and EPC Contractor E&S staff, as needed. • Monitoring and updating the legal register and permit logs to ensure regulatory compliance during early works and main construction.
<p>Marsel Tuhvatulin, Ecologist</p>	<ul style="list-style-type: none"> • Management of biodiversity-related risks and impact during early works and main construction. • Development and implementation of biodiversity-related Management Plans (e.g., BAP, BMP, BMEP, BBFMP) and procedures (e.g., Biodiversity Chance Find Procedure). • Development of monitoring and reporting systems for biodiversity risk assessment and management. • Assistance in the preparation of biodiversity-related training materials for induction and toolbox talks with all site-based project workers, including workers employed in early works. • Assistance in delivery of biodiversity-related trainings, and toolbox talks for early work and construction workforce. • Conducting site walkovers in advance of intrusive earthworks (during early works and main construction), to identify any species and microhabitats of conservation importance or ecological importance (e.g., threatened species requiring search, rescue and translocation, and protection of nesting sites for threatened bird species). • Assistance in providing refresher training of the Biodiversity Chance Find Procedure and managing any incidents of chance finds (incidental encounters threatened wildlife), in coordination with local (district and regional) authorities under the Ministry of Ecology. • Engagement with local and state authorities in obtaining permits for translocation of ecologically important plant (floral) and animal (faunal) species.

ROLE	RESPONSIBILITIES
	<ul style="list-style-type: none"> • Participating in internal and external audits to ensure EPC Contractor and sub-contractor activities are compliant with E&S Policy, ESIA, C-ESMP and BMP safeguards and performance targets, and success of BAP implementation. • Updating the database of project-affected species, for monitoring and reporting purposes. • Undertaking data analysis and reporting of biodiversity-related data relevant to the implementation of the BMP and BAP. • Submission of monitoring reports to the Project Lenders and Lenders' Environmental and Social Advisor (LESA). • Investigating and reporting all biodiversity related incidents. • Developing CAP involving biodiversity non-compliances. • Monitoring site rehabilitation progress and compliance prior to demobilization post construction.
<p>Sherzod Maxmudov, Social Manager</p>	<ul style="list-style-type: none"> • Disclosure of the LRP reports within strategic public information centres in the project-affected communities, and on the Project Developer's official website. • Development of the LRP (i.e., through updates or addenda) over the course of the project implementation, in the event that additional assessment and mitigation is required for additional impacts, or inadequately mitigated impacts. • Coordination with the Project Company's financial department for the disbursement of tax-inclusive payments for monetary commitments specified in the LRP (i.e., internal funding for compensation, transitional support, and livelihood restoration initiatives). • Coordination with the Project Company's Human Resource (HR) Department and the EPC Contractor's E&S Manager to ensure the delivery of transitional support for PAPs through project employment. • Review of compensation agreements, in coordination with the Project Company's legal department. • Coordination with the Project Company's EPC Contractor to ensure the provision of construction updates to project-affected communities, and timely construction notices to PAPs. • Participation in site visits and stakeholder engagements integrating into internal and external E&S monitoring related to the LRP. • Review of regular internal E&S monitoring reports, which will include information relating to livelihood impacts and the progress of relevant mitigation. • Maintaining an inventory of LRP documents, internal E&S monitoring reports and grievance registers. • Review of external (community) grievances in relation to land access and livelihood impacts, and oversight of remedial action, in coordination with the Project's EPC Contractor and NEGU, as relevant. • Management of Corrective Action Plans (CAPs) for any LRP-related non-conformances during the project implementation.
<p>Nazarbek Nazarov, Community Liaison Officer</p>	<p>Designated CLOs play a subordinate role in the execution of the LRP, under the oversight of the E&S Manager.</p> <ul style="list-style-type: none"> • Development and implementation of the Stakeholder Engagement Plan (SEP), throughout the Project's early works and construction stage.

ROLE	RESPONSIBILITIES
	<ul style="list-style-type: none"> • Liaising with local authorities to disseminate project updates to local communities, including the scope, sequence and schedule of early works. • Participating in the circulation and public announcements regarding project employment within the project-affected communities/ makhallas. • Managing the project Grievance Management Mechanism (GRM), during early works and construction, and participating in Livelihood Restoration Committee engagement as needed (for resolution of complex grievances or identification of absentee/ missed PAPs). • Development of the LRP database, and the collection/ completion of contact and banking information for all PAPs registered in the LRP census. • Preparation of any outstanding compensation agreements for PAPs. • Ensuring that a six-month eviction notice has been delivered to PAPs subject to physical displacement, and economic displacement involving the demolition of built assets. • Engagement with PAPs for the signature of bilateral compensation agreements between the PAPs and Project Company. • Monitoring of compensation and transitional support payments, and follow-up with PAPs to ensure compensation receipt, prior to eviction and/or site handover to the EPC Contractor. • Implementation of transitional support commitments and livelihood restoration initiatives, in collaboration with the EPC Contractor and expert consultants, as relevant. • Registration and management of LRP-related grievances, as well as related record-keeping via grievance forms and the grievance register. • Preparation of internal E&S monitoring reports, which will include information pertaining to LRP implementation. • Implementation of CAP commitments.
Human Resource Manager	<ul style="list-style-type: none"> • Development and implementation of recruitment and procurement procedures in line with the project HR policy and Code of Conduct. • Development and implementation of the Project's Grievance Redress Mechanism (GRM) for workers • Collection and management of worker grievances in line with the GRM. • Liaison with the Ministry of Labour and local leadership (khokimiyats) to facilitate recruitment of local labour (including women and youth) and procurement of services from local suppliers.

21.1.2 EPC Contractor / O&M Company (Responsible Party)

It is expected that the Project Company will contractually delineate responsibility for environmental and social management and compliance to the EPC Contractor/O&M Company for the respective project phases.

The key E&S staff and responsibilities relevant to the EPC Contractor's and O&M Contractor's project activities and ESMSs are presented in the table below. At the time of the ESIA

completion, these roles were elaborated for the EPC Contractor's scope of work during construction. A similar description will be provided for the O&M Contractor's scope of work prior to the start of the Project's O&M stage and the issue of the O-ESMP.

Table 21-2 EPC Contractor's key E&S personnel and respective responsibilities

ROLE	RESPONSIBILITIES
<p>Revaz Enukidze, E&S Manager</p>	<p>The Project E&S/ HSES Managers shall have overall accountability for Health, Safety, Environmental and Security (HSES) stewardship of the workforce engaged by the EPC Contractor and related sub-contractors.</p> <p>The EPC Contractor's HSES Manager will be responsible for the following duties:</p> <ul style="list-style-type: none"> • Promoting the project-level E&S policies and continual improvement in E&S performance within the Project's contracted workforce over the course of construction, through coordination with various related departments and management levels. • Ensuring compliance with all mandatory and regulatory E&S requirements, set out in relevant legislation, and continual updates to project-wide legal and permit logs. • Ensuring compliance with binding E&S performance requirements prescribed by project lenders. • Ensuring the implementation of thematic E&S management sub-plans and procedures complementing the CESMP. • Ensuring the development of an Emergency Preparedness and Response Plan (EPRP) and relevant drills. • Providing technical leadership for the implementation of the project ESMS throughout construction. • Ensuring the allocation of adequate resources for the implementation of the project ESMS throughout construction. • Coordinating internal and external monitoring of and reporting on E&S performance. • Undertaking regular internal performance reviews and ensuring the completion of corrective and preventative actions for non-conformances, incidents, and grievances. • Overseeing investigation of significant HSSE incidents and issuing pertinent reports to the Project Company and project lenders. • Frontline participation in external monitoring (audits) by the Project Company and Lenders' Environmental Advisor (LEA). • Spearhead the development and execution of Corrective Action Plans (CAPs). • Ensuring the continual development (i.e., updates) of thematic E&S management sub-plans and procedures, based on preventative and corrective actions identified through performance reviews and investigation of significant HSSE incidents. • Fostering E&S awareness and responsibility through participation in internal monitoring and training activities, development of the HSES charter and special events for incentivizing HSES performance (i.e., special worker campaigns, awards etc.). • Maintaining overall custody of the construction-phase ESMS manual, pertinent document register, and inventory of ESMS documents for external reference.

ROLE	RESPONSIBILITIES
<p>Havasxon Parpiyeva, Environmental Engineer/ HSES Supervisor</p>	<p>The EPC Contractor's Environmental Engineer/ Supervisor will be responsible for the following duties:</p> <ul style="list-style-type: none"> • Implementing all project E&S policy commitments pertaining to resource efficiency, pollution prevention, climate change, and relevant interfaces with labour and community health and safety. • Continual updates to the legal and permit registers, based on mandatory requirements set out in relevant legislation. • Carrying out routine monitoring of soil, groundwater and surface water quality, ambient noise and vibration, ambient air quality and landscape amenity, for assessment of impacts and compliance. • Maintaining records of resource consumption (i.e., water, electricity and fuel) within construction sites, for review of resource efficiency trends. • Maintaining records of waste generation, storage and transfer (for off-site management). • Screening and monitoring of waste management contractors to ensure all waste conscriptions are allocated to locally registered and certified (licensed/ permitted) contractors. • Undertaking the application for permits relating to the modification or use of water courses, and the abstraction of groundwater. • Carrying out inspections to identify environmental observations and non-conformances, which relate to the degradation and pollution of soil and water resources, and related risks to ecosystems and human health. • Conducting thorough inspections for materials and waste storage areas, and on-site vehicle maintenance/ washing areas, to ensure the absence or immediate correction of conditions potentiating or causing environmental incidents (i.e., leakages, spills, fire, floods). This oversight will involve spot checks to ensure the availability of Material Safety Data Sheets (MSDSs) and spill kits within the storage sites. • Record keeping for all site inspections, findings and remedial actions, to ensure timely close-out of environmental observations and non-conformances. • Supervising the rehabilitation of construction sites during demobilization. • Overseeing emergency response to environmental incidents (i.e., spills, floods). • Undertaking investigation into the occurrence of environmental incidents to ensure related impacts are remediated in full and closed out with the implementation of corrective and preventative actions. • Collaboration with Community Liaison Officers (CLOs) in addressing and resolving community grievances related to environmental impacts (i.e., non-conformances and incidents). • Contribution to regular internal monitoring reports, and wider reporting on environmental performance in relation to compliance obligations. • Participation in external monitoring (audits) by the Project Company and Lenders' Environmental Advisor (LEA). • Preparation of training materials relating to the avoidance and mitigation of environmental risks and impacts, environmental training plan integrating into a broader E&S Training Plan, and support in the delivery of related training (i.e., i.e., induction and refresher training). Key training topics will include types of waste, management of waste, spill prevention and response, dust suppression, noise control, as well as avoidance of soil erosion and sedimentation. • Preparing updated versions of relevant management sub-plans and procedures, based on performance reviews and any Corrective Actions Plans (CAPs), and related documents controls.

ROLE	RESPONSIBILITIES
	<ul style="list-style-type: none"> • Participation in HSES committee/ management meetings in relation to pertinent performance reviews and any emergent significant environmental incidents. • Coordination with competent authorities on the transportation of hazardous waste and materials, and the management of any significant environmental incidents (i.e., large spills etc.). • Reporting to the EPC Contractor's E&S Manager on environmental performance, and the management of significant incidents pertaining to chemical spills, fire and floods.
<p>Maxim Mitropolskiy, Ecologist</p>	<p>The EPC Contractor's Site Ecologist will be responsible for the following duties:</p> <ul style="list-style-type: none"> • Implementing all project E&S policy commitments pertaining to the conservation of biodiversity and ecosystem services. • Continual updates to the legal and permit registers, based on mandatory requirements set out in relevant legislation. • Conducting site walkovers in advance of intrusive earthworks (during early works and main construction), to identify any species and microhabitats of conservation importance or ecological importance (e.g., threatened species requiring search, rescue and translocation, and protection of nesting sites for threatened bird species). • Providing refresher training of the Biodiversity Chance Find Procedure and managing any incidents of chance finds (incidental encounters threatened wildlife), in coordination with local (district and regional) authorities under the Ministry of Ecology. • Reviewing method statements from different task teams to ensure integration with relevant biodiversity safeguards, in advance of intrusive work (e.g., land clearing and grading). • Carrying out routine monitoring of construction sites to ensure early works and construction works are limited to delineated construction zones to minimize vegetation clearance. • Carrying out routine monitoring of early work and construction sites to ensure sanitary and flood buffers/ setbacks for waterbodies are strictly observed. • Carrying out routine monitoring of construction sites to ensure the introduction of any alien and invasive species is eliminated using appropriate physical means. • Carrying out routine monitoring of early works and construction sites to ensure no harm to threatened fauna, due to entrapment in excavations, workers' fear of safety, and hunting. • Carrying out routine monitoring of early works and construction sites to ensure disturbed sites are rehabilitated following completion of construction works, in accordance with the approved Site Rehabilitation Plan. • Conducting pre-construction nest searches within any on-site habitats in the event that any site preparation and construction works are scheduled for the Spring season (i.e., March to May). • Carrying out watching briefs during land clearance and earthworks in and around habitats potentially suitable for threatened faunal species, for the duration of construction activities. • Identifying biodiversity chance finds (i.e., encounters with threatened faunal species that were not identified during baseline biodiversity surveys within the project sites) and implementing appropriate response measures for confirmed chance finds in coordination with relevant authorities. • Maintaining records of biodiversity chance finds and relevant reporting.

ROLE	RESPONSIBILITIES
	<ul style="list-style-type: none"> • Maintaining records of roadkill and relevant reporting. • Ensuring excavated topsoil is stored separately for back-filling and rehabilitation (and revegetation). • Carrying out inspections to identify biodiversity-related observations and non-conformances, which relate to disturbance of natural habitats and management of biodiversity chance finds. • Record keeping for all site inspections, findings and remedial actions, to ensure timely close-out of biodiversity-related observations and non-conformances. • Supervising the rehabilitation of construction sites during demobilization. • Contribution to regular internal monitoring reports, and wider reporting on biodiversity protection performance in relation to compliance obligations. • Participation in internal and external monitoring (audits) by the Project Company and Lenders' Environmental Advisor (LEA). • Preparation of training materials relating to the avoidance and mitigation of impacts on local biodiversity, biodiversity training plan integrating into a broader E&S Training Plan, and support in the delivery of related training (i.e., i.e., induction and refresher training). • Preparing updated versions of relevant management sub-plans and procedures, based on performance reviews and any Corrective Actions Plans (CAPs), and related documents controls. • Participation in HSES committee/ management meetings in relation to pertinent performance reviews and any emergent significant biodiversity incidents. • Coordination with competent authorities on the management of biodiversity chance finds, and compensatory replanting and relocation for floral species in line with mandatory requirements. • Reporting to the EPC Contractor's E&S Manager on biodiversity conservation performance, and the management of significant incidents pertaining to threatened flora and fauna, and ecosystems.
Health and Safety (H&S) Supervisor	<p>The EPC Contractor's H&S Supervisor will be responsible for the following duties:</p> <ul style="list-style-type: none"> • Implementing all project E&S policy commitments pertaining to the Health and Safety (H&S) of project labour (i.e., contracted workforce) and project-affected communities (i.e., communities based around construction sites and access roads). • Developing and implementing the Occupational Health and Safety Plan (OHSP) and Emergency Preparedness and Response Plan (EPRP) and relevant HSS procedures for early work and full-on construction. • Development of training materials and task-specific risk assessment tools for all early work and construction activities on the project sites. • Delivery of induction, drill and tool-box talk trainings for all project workers involved in early works and construction within the project sites. • Continual updates to the legal and permit registers, based on mandatory requirements set out in relevant legislation. • Ensuring construction foremen understand the outcomes of H&S risk assessments for specific construction activities and incorporate relevant H&S safeguards into method statements and work plans for various activities. • Carrying out regular inspections within working areas to ensure identify H&S observations and non-conformances, in relation to preventative safeguards and mitigation commitments specified in the Occupational Health and Safety Plan (OHSP).

ROLE	RESPONSIBILITIES
	<ul style="list-style-type: none"> • Implementing traffic safety safeguards and relevant sensitization campaigns for local communities. This will involve oversight of the delivery of relevant training, speed monitoring, alcohol tests for project vehicle drivers as appropriate, and ensuring the installation and maintenance of traffic signage on site and along access routes. • Ensuring adequate welfare facilities (i.e., on-site toilets, first aid boxes, staff clinics, water dispensers/ bottles, fire extinguishers), and availability of Personal Protective Equipment (PPE) for all site workers. • Record keeping for all site inspections, findings, and remedial actions, to ensure timely close-out of H&S observations and non-conformances. • Undertaking investigation into the occurrence of H&S incidents to ensure related impacts are remedied to the extent feasible and closed out with the implementation of corrective and preventative actions. • Coordinating with Community Liaison Officers (CLOs) in addressing and resolving community grievances related to H&S impacts (i.e., non-conformances and incidents). • Contribution to regular internal monitoring reports, and wider reporting on H&S performance in relation to compliance obligations, including H&S incident trends. • Participation in external monitoring (audits) by the Project Company and Lenders' Environmental Advisor (LEA). • Preparation of training materials relating to H&S risks, safeguards and reporting of H&S incidents, H&S training plan integrating into a broader E&S Training Plan, as well as support in the delivery of related induction and refresher training. Key training topics will include types H&S hazards in the workplace, task-specific PPE, and emergency protocols for H&S accidents. • Briefing of construction foremen on the delivery of toolbox talks to construction workers, and review of toolbox training records. • Maintaining records of all H&S induction, refresher, and tool-box training, including topics covered, time spent and attendance. • Preparing updated versions of relevant management sub-plans and procedures, based on performance reviews and any Corrective Actions Plans (CAPs), and related documents controls. • Participation in HSES committee/ management meetings in relation to pertinent performance reviews and any emergent significant H&S incidents. • Conducting H&S emergency drills on a regular basis, and review of the Emergency Preparedness and Response Plan (EPRP). • Coordination with competent authorities in emergency response and investigation for any significant H&S incidents. • Reporting to the EPC Contractor's E&S Manager on the occupational and community health and safety performance, and the management of significant incidents pertaining to health and safety.
<p>Shakhnoza Mirzaeva, Baxadir M, Community Liaison Officers (CLOs)</p>	<p>The EPC Contractor's Community Liaison Officer (CLO) will be responsible for the following duties:</p> <ul style="list-style-type: none"> • Implementing all project E&S policy commitments pertaining to community health and safety, as well as land access and resettlement planning. • Continual updates to the legal and permit registers, based on mandatory requirements set out in relevant legislation. • Carrying out routine engagement with project-affected communities for the purposes of publicizing updates on the progress of the Project, creating awareness around suitable employment opportunities, sensitizing

ROLE	RESPONSIBILITIES
	<p>communities to construction health and safety, and refresher sensitization to the Project's Grievance Redress Mechanism (GRM).</p> <ul style="list-style-type: none"> • Carrying out regular engagement with the remainder of project stakeholders, including Local Government Authorities and local community leaders, in line with the Stakeholder Engagement Plan (SEP), for the purpose of providing updates on the project implementation and gathering any feedback, concerns and grievances. • Receiving community grievances submitted through grievance forms, phone calls, emails and in-person engagements, managing grievances and concerns via the external GRM, and coordinating remedial action or official feedback on lodged complaints. • Registering all community grievances received using the External Grievance Log, tracking the status of grievance resolution to ensure the closure of complaints in the shortest practicable timeframe (as specified in the SEP), and documenting the closure of grievances upon receipt of positive feedback from aggrieved parties. • Coordinating with the designated Environmental Engineer/ Supervisor and HSE Engineer/ Supervisor on the resolution of community grievances relating to waste management, noise emissions, air pollution, property damage, and traffic congestion. • Coordinating with the designated HR Manager for disclosure of accessible project employment opportunities within project-affected communities and marginalized community groupings in particular (i.e., women, youth, disabled etc.), and delivering guidance procedures for job applications to the communities. • Coordinating with local authorities and relevant departments within the EPC Contractor's organization to manage grievances related to labour influx, such as increased morbidity due to a radical shift in the prevalence of communicable diseases (attributed to labour influx), disruption of productive activities due to various project activities, encroachment of private property and resultant property damage, and adverse influence on local customs and intangible cultural heritage. • Contribution to regular internal monitoring reports, and wider reporting on social performance in relation to compliance obligations. • Participation in external monitoring (audits) by the Project Company and Lenders' Environmental Advisor (LEA). • Preparation of internal training materials relating to the avoidance and mitigation of impacts on community health and safety, livelihoods and social services, social training plan integrating into a broader E&S Training Plan, and support in the delivery of related training (i.e., i.e., induction and refresher training). • Preparation of training and communication materials for engagements with local communities (i.e., construction H&S awareness, GRM, employment). • Maintaining records of all stakeholder engagements, including engagements with local communities. • Preparing updated versions of relevant management sub-plans including the Stakeholder Engagement Plan, based on performance reviews and any Corrective Actions Plans (CAPs), and related documents controls. • Participation in HSES committee/ management meetings in relation to pertinent performance reviews and any emergent significant social and community H&S incidents. • Coordination with the H&S Engineer, other designated internal specialists (e.g., EPC Contractor's medical team) local authorities on the investigation of significant H&S incidents (e.g., injurious and/or fatal accident or Gender Based Violence crime) involving third parties (i.e., members of local

ROLE	RESPONSIBILITIES
	<p>communities/ public) and significant social incidents (e.g., community strikes/ protests).</p> <ul style="list-style-type: none"> • Provision of follow-up information to project-affected communities with regard to any significant H&S and social incidents involving community members. • Ad-hoc support to the delivery of any community development programs launched by the Project Developer/ Company, in collaboration with the Project Company's Social Expert. • Reporting to the EPC Contractor's E&S Manager on the progress and outcomes of continual stakeholder engagement, and the management of all grievances and significant incidents pertaining to local communities, livelihoods and social infrastructure.
<p>Human Resource (HR)/ Procurement Manager</p>	<p>The EPC Contractor's HR/ Procurement Manager will be responsible for the following duties:</p> <ul style="list-style-type: none"> • Implementing all project E&S policy commitments pertaining to labour, gender equality, and the protection of human rights in relation to employment and working conditions. • Continual updates to the legal and permit registers, based on mandatory requirements set out in relevant legislation. • Engaging in the recruitment of qualified job candidates on the basis of inherent and non-discriminatory qualification criteria, with special attention to inclusion of candidates from local communities and women. • Ensuring the establishment of comprehensive, translated and mutually available employment contract agreements for all workers, in line with mandatory requirements and lenders' compliance obligations. • Ensuring timely payment of remuneration for all workers, including social security deposits. • Communicating the internal (workers') Grievance Redress Mechanism (GRM) to all directly contracted project workers, through induction training and refresher training. • Receiving worker grievances submitted through grievance forms, phone calls, emails and in-person engagements, managing grievances and concerns via the internal GRM, and coordinating remedial action or official feedback on lodged complaints. • Registering any labour-related legal claims lodged by workers, and arranging for arbitration and/or legal proceedings, in collaboration with designated legal personnel under the EPC Contractor. • Registering all worker grievances received using the internal grievance log, tracking the status of grievance resolution to ensure the closure of complaints in the shortest practicable timeframe (as specified in the SEP), and documenting the closure of grievances upon receipt of positive feedback from aggrieved parties. • Mediating any conflicts between workers. • Conducting procedural investigation into violations of the Project's Code of Conduct (including Gender-Based Violence and harassment) and sanctioning disciplinary and penal action in coordination with relevant management units/ committees. • Engaging relevant authorities in any gross misconduct constituting unlawful offences, for official investigation and prosecution as appropriate. • Participating in initiatory and subsequent internal audits for any centralized accommodation facilities dedicated to construction labour, to ensure housing and welfare conditions are in line with the IFC and EBRD standards for labour accommodation.

ROLE	RESPONSIBILITIES
	<ul style="list-style-type: none"> • Engaging in pre-qualification screening and appointment of EPC sub-contractors with regard to performance on key E&S criteria and standards enshrined in the Project's E&S policies, and management plans and procedures (i.e., track record in E&S performance, organizational capacity for E&S risk management). • Managing pre-qualification screening and appointment of independent recruitment agencies with regard to performance on key labour risk management criteria and standards enshrined in the Project's E&S policies, and management plans and procedures (i.e., track record in ethical and equitable recruitment, any implication in past human rights violations etc). • Incorporating E&S compliance obligations into contractual agreements with sub-contractors engaged for Project's primary activities. • Conducting regular internal audits on EPC sub-contractors and any engaged recruitment agencies, to ensure compliance with requirements related to the Project's Human resource, Human Rights policies and Code of Conduct (CoC), including management systems and safeguards for occupational health and safety, fair and equitable recruitment and employment terms, protection of workers' rights, and prohibition of forced and child labour. • Supporting the implementation of the Project's Supply Chain Management Plan (SCMP). • Conducting vetting (i.e., background checks) for security personnel hired for the project, to ensure recruits have no past implication in workplace incidents involving excessive use of force, and any other form of human rights violation. • Contribution to regular internal monitoring reports, and wider reporting on performance in labour rights, in relation to compliance obligations. • Participation in external monitoring (audits) by the Project Company and Lenders' Environmental Advisor (LEA). • Preparation of training materials relating to the avoidance and mitigation of labour risks and impacts, labour training plan integrating into a broader E&S Training Plan, and support in the delivery of related training (i.e., i.e., induction and refresher training). • Preparing updated versions of relevant management sub-plans and procedures, based on performance reviews and any Corrective Actions Plans (CAPs), and related documents controls. • Participation in HSES committee/ management meetings in relation to pertinent performance reviews and any emergent significant environmental incidents. • Coordination with competent authorities on registration of employees and social security payments.
<p>Security Manager</p>	<p>The EPC Contractor's Security Manager will be responsible for the following duties:</p> <ul style="list-style-type: none"> • Implementing all project E&S policy commitments pertaining to occupational health, safety and security, and human rights. • Ensuring the security of all project sites through the implementation of access controls at security checkpoints (i.e., entry gates), site-wide security patrols and CCTV surveillance as appropriate. • Responding to any security incidents within the project sites, in close coordination with local authorities (i.e., local police force), to ensure the safety of project workers, and security of project assets. • Aiding official investigation into any security incidents resulting in intrusion, theft and/or property damage, without notice and apprehension.

ROLE	RESPONSIBILITIES
	<ul style="list-style-type: none"> • Maintaining a record of all security incidents and related response and investigation procedures. • Contribution to regular internal monitoring reports, with regard to the occurrence and management of security incidents, and any reported/observed human rights abuses by the Project's security personnel. • Preparation of training materials relating to site security and the proportionate use of force, a security training plan integrating into a broader E&S Training Plan, and support in the delivery of related training (i.e., i.e., induction and refresher training). • Preparing updated versions of relevant management sub-plans and procedures, based on performance reviews, and related documents controls. • Participation in HSES committee/ management meetings in relation to pertinent performance reviews and any emergent significant security incidents.

21.1.3 Management Team

In order to effectively implement the Project ESMS, management will need to:

- Fully support the implementation of the Project Company's E&S Policy and the internally developed ESMS;
- Ensure that the Project Company's E&S Policy is included/referenced as part of sub-contractor agreements;
- Promote a positive E&S culture and good practices by personal example and leadership;
- Review and approve EPC Contractor / O&M Company environmental and social management budgets, resourcing and staffing;
- Ensure resources (human and financial) are allocated appropriately in practice to manage the ESMS;
- Conduct regular site tours that include a specific focus on E&S elements;
- Promote discussion of E&S management at team meetings; and
- Monitor and report on environmental management and performance.

21.2 Environmental & Social Awareness and Training

E&S implementation will not be effective unless the project workforce is aware of their specific responsibilities with regard to environmental protection and social safeguarding. It is therefore necessary for the EPC Contractor/O&M Company to ensure that the workforce is trained appropriately according to the relevant elements of the project ESMS.

Tailored training requirements relevant to elements of works will need to be developed and defined as part of the ESMS (e.g. personnel associated with waste management should require training on relevant components of the waste management plan).

21.2.1 Type of Training Sessions

The EPC Contractor/O&M Company (and as applicable the Sub-contractors) will deliver applicable elements of E&S training within:

- Induction Training
 - This training will be provided to the entire workforce and include key environmental and social components linked to the E&S Policy and developed ESMS; that are applicable to all employees.
- Tool-Box Talk
 - E&S tool-box talk training sessions will be provided on a regular basis to remind workers of E&S considerations when undertaking normal day-to-day activities; and
- Specific training sessions on ESMS and E&S Management Plans
 - These trainings will be delivered to ensure staff are competent to implement the ESMS, or undertake activities that may have inherent E&S risks or potential impacts to receptors. All staff with specific responsibilities and with authority to implement mitigation measures and monitoring/audit commitments should be trained in regard to such plans/procedures.

21.2.2 Planning of Training

In order to record identified training needs, the EPC Contractor/O&M company will develop and maintain a project environmental training matrix (falling under wider HSE training) to identify the training type and frequency required for each staff role.

A training plan/programme will also be prepared to set out the frequency of training requirements.

All training material will be prepared in advance and documented. It will be prepared in English language and applicable local languages or those languages that apply to the engaged workforce (i.e., Uzbek, Chinese and Russian as applicable). Where necessary translators may be required for specific sessions.

21.2.3 Content of Training Sessions

INDUCTION TRAINING

During project inductions, all project workforce and visitors will receive an element of E&S induction classroom training, which as a minimum will include an overview of:

- The Project Company's E&S Policy;
- Contact details for the EPC Contractor/O&M Company E&S Manager and E&S Engineer;

- Main topics of E&S risk/impact (which will include critical habitat/sensitive species, waste, archaeological buffer zones, hazardous materials, receptors or communities and ethnic minorities (i.e., the gypsy community));
- Environmental incident response and internal reporting requirements including who shall be contacted in the instance of an incident;
- Duty of care, highlighting that all staff have a responsibility to carry out their duties in accordance with the Project Company's E&S Policy and related ESMS and to report any and all environmental incidents.

The induction shall make it clear that interference with any wildlife or archaeological remains shall be strictly prohibited. The training session will also highlight the importance of maintaining environmental and social awareness; the seriousness of environmental and social requirements and that compliance is a condition of employment.

TOOLBOX TALK ENVIRONMENTAL & SOCIAL TRAINING SESSIONS

These sessions will vary depending on the risks, impacts, opportunities and compliance related to specific activities by construction/operational teams, but can be expected to include the following (provided as examples):

- Air quality emissions and control measures for vehicles, plant and equipment drivers/operators;
- Dust control and dust mitigation techniques for heavy vehicles' drivers and dust generating equipment operators;
- Erosion and sediment control for operators of earth moving equipment;
- Hazardous materials handling including handling, transportation and storage of hazardous materials as well as maintenance and refuelling of vehicles and machinery;
- Spill prevention and response for personnel involved in the storage of fuel and other hazardous materials;
- Habitats and species (flora and fauna) of ecological importance and mitigation measures for all construction personnel. This includes the actions to be implemented in case of trapped or injured fauna etc.
- Noise control and mitigation measures for vehicles, plant and equipment drivers/operators;
- Traffic control and mitigation techniques for vehicle drivers (e.g. cars, buses, heavy goods vehicles, etc.);
- Waste management and chemicals and hazardous materials management, including transportation and disposal for all construction personnel;
- Emergency management and incident response for all construction personnel;
- Grievance procedure including methods to submit a complaint, review, and response period; and

- Gender Based Violence & Harassment (GBVH).

SPECIFIC TRAINING SESSIONS ON ESMS AND E&S MANAGEMENT PLANS

Training sessions on the ESMS prior to LNTP site works or specific activities or plans/procedures will need to be tailored and delivered to staff based on their specific content and key considerations. As a minimum, training will be provided for the following management plans/procedures due to the specific risks associated with these aspects:

- E&S Policy, H&S Policy and HR Policy
- Biodiversity Management Plan/BMEP and Biodiversity Chance Find Procedure
- Land Acquisition and Livelihood Restoration Plan (LALRP)
- Stakeholder Engagement Plan (SEP) including the community Grievance Redress Mechanism (GRM)
- Cultural Heritage Management Plan & Archaeological Chance Find Procedure
- Pollution Prevention and Control Plan;
- Spill Response Procedure;
- Waste Management Plan;
- Water Management Plan;
- Occupational Health and Safety Plan;
- Community Health and Safety Plan;

21.2.4 Training Records

Further to the training being undertaken the environmental training records will identify as a minimum:

- Description and purpose of training;
- Date and location;
- Trainer and attendees (with attendance signatures);
- Photos or other documents as attachments to evidence the training.

A consolidated record of training undertaken by all workers will be maintained and will be comparable against the training matrix.

22 AUDIT PROGRAMME

Auditing is an integral requirement of any management system and should be considered as a continual process to ensure the successful implementation of the ESMS.

22.1 Internal Audits

The ESMS will establish, implement, and maintain an internal audit programme that identifies the frequency, methods, responsibilities, planning requirements and reporting of audits and inspections.

When establishing an audit and inspection programme, the organisation should consider the potential frequency and significance of environmental and social risks relative to the construction and operational phase and adjust the audit scope and frequency accordingly.

When developing and undertaking audits the following will need to be established:

- Define scope, audit criteria and the objectives of each audit;
- Select audit staff competent in the audit process and subject matter; and
- Ensure that audit results are reported to relevant senior management.

The audits will be undertaken on a regular basis during the construction/commissioning phase, as set out in the project ESAP.

22.2 ACWA Power Corporate Audits

It is expected that the Developer's corporate HSSE team will audit the Project Company's management system on an annual basis as a minimum.

22.3 Lenders Monitoring and Reporting

Monitoring requirements will be established with the Project lenders and monitoring reports will be reviewed and issued to the lenders by the Project Company (and contractors) and an Independent Environmental and Social Committee (IESC). These reports are likely to be based upon site visits to evaluate the implementation of both the ESAP (a covenant to the loan), and the suitability & effective of the established ESMS in practice. The frequency for these will be stated in the ESAP.

23 NON-CONFORMITY AND CORRECTIVE ACTION

All non-conformances identified during audits, inspections and monitoring activities will be recorded and followed up as non-conformity. Clear processes for actions shall be provided in the Project Company ESMS Implementation Manual for implementation throughout the project duration.

Non-conformances are instances where project compliance obligations (such as a legal requirement, or lender standard) are not being fulfilled, or cannot be evidenced. Examples of non-conformity include, but are not limited to:

- Breach of an environmental standard;
- Commencement of works without an approved risk assessment and method statement that covers environmental issues identified herein;
- No review of risk assessment and method statements following any significant changes in requirements that could adversely impact the environment;
- Appointment of a waste transport/disposal service provider that is not appropriately licensed;
- Failure to comply with waste storage/disposal requirements as identified by risk assessment and/or method statement;
- Failure to comply with chemical storage and/or handling requirements;
- Un-containable or uncontrollable spills of fuels or chemicals;
- Undertaken works outside the scope defined within the risk assessment and method statement; and,
- Discharge of untreated, contaminated waste water to the environment.

Each non-conformance and near miss will be recorded utilising a developed reporting process. All non-conformances and near misses shall include the following information:

- Location and description of the non-conformance and the criteria/requirement that has been breached;
- The proposed corrective action including who holds responsibility for undertaking this action;
- The proposed preventative action to ensure against reoccurrence of the non-compliance;
- Any required monitoring and follow up; and
- Key performance indicators and a deadline for the successful completion of the corrective and preventive action.

23.1 Corrective Action

Any situation or condition that is non-conforming to binding performance standards or otherwise poses an imminent risk to the environment, or social welfare should be immediately resolved.

It is expected that a corrective action plan will be developed to respond to individual NCRs. The corrective action plan shall include determination of root cause, proposed actions, timelines, required resources and any changes needed to ESMS documentation. The corrective action plan should be approved by the expert/ manager spearheading the ESMS.

Records of implemented corrective actions shall also be maintained.

If a situation or condition cannot be corrected immediately, temporary measures such as necessary for the protection of the environment should be implemented.

24 EMERGENCY PREPAREDNESS AND RESPONSE

The likelihood of an E&S incident can be minimised by effective risk management planning and development of applicable response plans as part of an ESMS.

All risk assessments and method statements will need to include consideration of the potential for environmental incidents. Suitable incident response equipment, should be maintained at appropriate locations on site and Project staff be suitably trained to use such equipment and respond to such emergencies.

The Project will prepare and implement an Emergency Preparedness and Response Plan to include requirements for co-ordination with the applicable external agencies (i.e. emergency services), impacted stakeholders and statutory authorities in the instance that a pollution incident occurs.

The plan will identify procedures for reasonably foreseeable emergency situations. As per the Developer's corporate ESMS Implementation Manual, this is required to include drills at the Project site and any relevant training to specifically involved personnel.

When establishing the Emergency Preparedness and Response Plan, the following should be considered:

- The most appropriate method for responding to an emergency situation;
- Internal and external communication modes, channels and timings;
- The action required to prevent or mitigate environmental impacts;
- Mitigation and response actions to be taken for different types of emergency situations;
- The need for post-emergency evaluation to determine and implement corrective and preventative actions;
- Periodic testing of planned emergency response actions;
- Training of emergency response;
- A list of key personnel and aid agencies, including contact details (such as fire department, spillage clean-up services);
- Evacuations routes and assembly points; and
- The possibility of the need for mutual assistance from neighbouring organisations/projects.

24.1 Incidents

Incident investigation and analysis will need to be undertaken in co-ordination with the provision of Element 10 established in the Developer's HSSE Management System Framework.

In summary, this requires clear processes for incident reporting, response, investigation, analysis, follow up and documentation.

25 STAKEHOLDER ENGAGEMENT

The project has developed a SEP, which will be implemented during construction, commissioning and operations. This will also need to be updated and made applicable prior to the operational phase. The SEP includes a suitable grievance mechanism to allow local community complaints to be raised in a clear process.

Note: All processes relating to Stakeholder Engagement should refer to the Project Specific Stakeholder Engagement Plan (SEP).

Stakeholder engagement can be described as a systematic effort to understand and involve stakeholders and their concerns in the Project activities and decision-making processes. Stakeholders are defined as any group or individual who can affect, or can be affected by, the Project.

The main objectives for stakeholder engagement are:

- To inform the relevant stakeholders about the Project;
- To capture views and concerns of the relevant stakeholders with regard to the project;
- To enhance ownership of the project within the host community;
- To provide a basis for stakeholder participation in impact identification and mitigation.

For Projects that have environmental and social impacts, consultation is not a single engagement but a series of opportunities to create understanding about the Project among those that are likely to be affected or might have an interest in it, and to learn how these stakeholders view the project and its related risks, impacts, opportunities, and mitigation measures. Listening to stakeholder concerns and feedback can be a valuable source of information to help identify environmental and social risks (real and perceived) and improve project management.

25.1 Grievance Mechanism

25.1.1 Worker Grievances

The SEP includes a grievance procedure for workers to raise workplace concerns. The procedure includes an appropriate level of management and address concerns promptly, using an understandable and transparent process that provides timely feedback to those concerned, without any retribution. The mechanism allows for anonymous complaints to be raised and addressed.

The grievance mechanism must not impede access to other judicial or administrative remedies that might be available under the law or through existing arbitration procedures, or substitute for grievance mechanisms provided through collective agreements.

All staff will need to be informed of the grievance procedure during their induction to the project and the procedure will be made readily available and easily accessible.

25.1.2 Third-Party Grievances

The SEP also includes a procedure for third-party grievances that establishes methods to receive and register communications from third-party (Project Affected Persons and Interest based stakeholders). This includes:

- A method to screen and assess the issues raised and determine how to address them;
- A method to provide, track, and document responses, if any; and
- A method to adjust the ESMS management program, as appropriate, in response to external grievances.

The grievance procedure shall be reviewed and updated (as applicable) to ensure it remains scaled to the risks and adverse impacts of the project and include consideration of any affected stakeholders.

It must seek to resolve concerns promptly, using an understandable and transparent consultative process that is culturally appropriate and readily accessible, and at no cost and without retribution to the party that originated the issue or concern. The mechanism should not impede access to judicial or administrative remedies.

26 COMMUNICATION

The ESMS will establish, implement, and maintain processes needed for internal and external communication relevant to environmental and social performance of the Project.

Lines of communication relevant to the construction phase will be clearly defined within the CESMP whilst lines of communication relevant to the operational phase will be specified in the OESMP.

Associated processes will establish:

- What will be communicated;
- When it will be communicated;
- With whom to communicate;
- How to communicate.

When establishing communication processes relevant to the ESMS, particular note will be made to

- Compliance obligations, including any reporting requirements to the statutory environmental authority.
- Reporting requirements required by the Project lenders.

27 DATA MANAGEMENT AND RECORD KEEPING

The implementation of the ESMS will generate data, which shall be managed purposively. The appropriate management of records is a requirement of any successful ESMS and can be used to track progress, review effectiveness and demonstrate compliance.

The ESMS relevant to both the construction, commissioning and operational phases should include the collation of the records including (but not limited to) the following:

- E&S induction and training records;
- Relevant records of competence/qualifications;
- Accident Investigation Reports;
- Grievance register;
- Internal Audits reports (including close - out);
- Non-Conformance Reports;
- Incident Reports;
- E&S Inspection and Audit Reports (including corrective action reports);
- E&S Monitoring Results;
- Waste Manifest Forms and Chain of Custodies;
- E&S Risk Assessments and Method statements;
- Equipment Inspections/Certifications;
- Independent Audit Reports for Lenders (including corrective action reports); and
- Emergency events.

Such records will need to be included on the ESMS register and updated as applicable.

28 REVIEW

The Project's ESMS documentation will be a 'live resource' and will need to be reviewed and updated in relation to changes in project circumstances, activities, environmental sensitivities and future requirements defined by respective regulatory authorities and Project Lenders.

The ESMS should be regularly reviewed according to any changes in construction, commissioning, or operational activities, new (applicable) regulation and in response to results from monitoring, audits and inspection.

Reviews should be undertaken at a frequency to ensure adequacy of the ESMS and to ensure that all potentially significant adverse impacts are identified and that associated control measures are appropriate to the Project.