



Bakhvi HPP

CCEH
Caucasus Clean Energy Holding



Environmental and Social Management System

Prepared by:

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1. Purpose and Scope

The purpose of developing the Environmental and Social Management System (ESMS) for the Bakhvi HPP Project (Bakhivi 1 and Bakhivi 2 HPPs) is to ensure compliance with project environmental and social objectives during the construction phase of the Project. This ESMS is part of the overall management framework for the Project. It has been developed in consideration of a recognized management system standard, in order to provide a framework for mitigation and monitoring of environmental and social aspects and impacts within the construction phase of the Project. This ESMS is maintained in line with EIB and IFC standards.

The scope of the ESMS covers all construction activities for the Bakhvi HPP and associated facilities i.e. camps, material laydown areas batching plant and borrow pits. As well as addressing the construction activities over which Developer will have direct control, the ESMS considers those over which the company can exert “significant influence”, including the environmental and social performance of its major Bakhvi HPPs and suppliers.

2. Introduction

This document outlines the system components by which environmental and social aspects are managed for the construction phase of the project. The environmental and social management system has been designed with the following key features in mind:

- Environmental and social management is integrated into the project.
- The management system is multilevel and takes cognizance of the way the project is organized and structured.
- The management system is dynamic and can accommodate change and improvements.
- The environmental and social management components of the management system take advantage of elements which are common to project management and integrates with health and safety, project compliance, security, government and public affairs where appropriate.
- While management arrangements for the construction and operation phases are markedly different (due to contractual arrangements) alignment between the construction and operations phases has been built into the system
- The management system enables transparent translation of Environmental and Social Impact Assessment (ESIA) commitments into action.
- The management system is consistent with the EIB and IFC E&S standards.
- The management system is consistent with Developer’s internal requirements.
- The management system is all-inclusive, i.e., all environmental and social management issues are managed through the system; nothing is outside the system

3. ESMS Principles and Elements

3.1 General Requirements

This Manual covers the construction phase of the project. It addresses each element of the management system as per EIB and IFC E&S standards. The documentation that supports the general descriptions given in this Manual is identified and cross-references are provided. This supporting documentation provides the mechanism by which the management system elements are implemented.

The primary function of the system is to ensure that the commitments which have been made in the ESIA as well as Georgian State Law requirements relating to construction are implemented by Developer.

In detail, the ESMS will provide the structure for:

- Managing the activities in a way ensuring continual improvement in environmental and social performances and compliance with applicable requirements.
- Establishing and assessing performances against its commitments.
- Setting environmental and social objectives and targets.
- Developing and effectively implementing appropriate plans and procedures in order to properly address environmental issues during site activities.

3.2 Policy

This statement supports the Health, Safety and Environmental Policy of Bakhvi HPP.

Bakhvi HPP HSE policies are public commitment to excellence in the field of HSE performance through effective Planning, Implementation, Performance Measurement and Feedback with the aim of achieving the corporate HSE goals and continual improvement.

Bakhvi LLC believes that people are the most asset. It is therefore the HSE policy of Bakhvi HPP to:

- Do all that is reasonably practicable to ensure a safe and healthy environment for all who work for project, or who may be affected by project activities and to comply with all relevant local legislations, and so far, as reasonably practicable, with applicable IFC and EIB standards.
- HSE have the priority whenever there is the potential for conflict between HSE, productivity, cost or schedule.
- Implement a philosophy of pro-active HSE management with a focus on hazard identification and risk assessment with the intent of elimination, mitigation or control of deficiencies as the most effective method of loss control.
- To embed Safety Leadership and Accountability through gaining the commitment of all managers and supervision at all levels within the organization, on and off the job.
- Ensure that all employees, suppliers, sub-contractors involved in contract understand the importance of both quality, occupational health, safety, security and the protection of the environment in their work by the provision of suitable systems and controls.

3.3 Purpose of the ESMS

This Manual demonstrates how Developer intends to deliver the Project's environmental, health and safety, and social (EHSS) legal compliance and other requirements and ESG commitments.

The ESMS provides guidance and direction for the implementation and operation of the ESMS to all employees of Developer, particularly those concerned with ESMS related activities.

The ESMS also identifies a set of interrelated elements (organizational structure, planning activities, responsibilities, practices, procedures, and resources) used to establish and achieve the environmental performance objectives of the Project.

3.4 Planning

3.4.1 Environmental and Social Aspects

The assessment process constitutes a systematic approach to the evaluation of the project in the context of the natural, socio-economic, and regulatory environment in which the development is proposed.

As the Project progresses, additional environmental and social issues will arise, and Developer will need to continually identify environmental and social aspects of the Project and keep record of this process.

Developer's requirements are designed to ensure that sustainable opportunities for improvement are sought, and that adverse impacts on the environment, security, health and safety of workers and local communities during construction and operation are limited to the minimum possible.

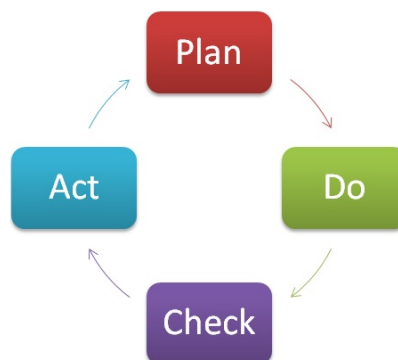
3.4.2 Social Aspects

Social aspects and impacts will be assessed in project specific working plans such as the pre-construction surveys, and include the following broad issues:

- Community Relations
- Grievance Management
- Local Content (including local employment)
- Protection of archeology and natural resources
- Compensation for land use (accesses)
- Compensation for damage
- Opportunities for training and local workforce
- Provision of local community benefits, etc.

3.4.3 Planning

Based on the PDCA cycle, EIB and IFC E&S standards provide a framework and specifies the most important requirements to identify, control and monitor the environmental and social aspects of the organization, and how to manage and improve the whole system.



The four steps in the cycle are as follows:

Plan: Establish the objective and processes needed to achieve the organization's ESG Policy.

Do: Implement the procedures and processes which are defined by the ESMS system.

Check: Monitor and measure the implemented process.

Act: Take action on the reported results to ensure that the implemented process has met the ESMS requirements, which maintains and continually improves the ESMS.

The planning process outlined above commences with the identification (or, if previously identified, updating) of environmental and social aspects.

3.5 The ESIA Process

The Bakhvi HPP project has identified its environmental and social aspects and impacts through this ESIA process. Significant potential impacts identified were analyzed in detail and appropriate mitigation measures were formulated.

To identify project aspects, all proposed activities, have been considered in terms of their direct or indirect potential to:

- Breach relevant policy, legal and administrative frameworks including and national legislation, relevant international legislation, standards and guidelines, and corporate environmental policy and management systems.
- Interact with the existing natural environment including its physical and biological elements.
- Interact with the existing socio-economic environment.

Activities assessed during site preparation, construction and reinstatement:

- Planned routine activities.
- Planned but non-routine activities.
- Unplanned or accidental events.

A summary of those Bakhvi HPP project activities that are predicted to result in significant environmental and social impacts, during the construction phase is:

- Haulage
- River diversion
- Road construction
- ROW clearance
- ROW preparation
- Trenching
- Pipe laying
- Backfilling
- Temporary reinstatement
- Final reinstatement
- Hydrotesting
- Temporary construction camp/laydown area
- Waste generation
- Batching plant activities
- Tree cutting
- Transportation (using community roads as access roads for the projects)

Mitigation measures have been developed for each of the impacts to accentuate any positive benefits and to minimize or avoid any negative impacts. Impacts that could not be fully mitigated are termed “residual”. Additionally, potential impacts and subsequent mitigation measures which are geographically specific have been included in the ESIA.

The Environmental management plans describe in detail how the Bakhvi HPP will actually implement the mitigation measures.

All Bakhvi HPP and all contactors' employees shall be trained in the aspects and residual impacts via general induction training (which contains an environmental and social component).

3.5.1 Legal and Other Requirements

The Bakhvi HPP project will be constructed in a manner intended to conform with a comprehensive set of National legislative and regulatory requirements and other guidelines and policies, including national legislation, international conventions and guidelines and requirements of relevant international funding institutions. These requirements underpin any impact assessment undertaken, in addition to providing the driving factor for the mitigation and monitoring proposals.

The standards set forth in the international treaties are considered an integral part of the respective host governments' national legal system and take precedence over national legislation – to the extent such national legislation is inconsistent, with the exception of the Constitution.

Environmental and social legal and other requirements that apply to individual activities are referenced within the related management plans and supporting documentation.

Following environmental laws of Georgia were considered during the environmental impact assessment process (see the table below):

Year	Law	Registration code	Final version
1994	Law of Georgia on Soil Protection	370.010.000.05.001.000.080	11/02/2021 05/11/2021
1994	Law of Georgia on Roads	310.090.000.05.001.000.089	28/07/2020
1995	Constitution of Georgia	010.010.000.01.001.000.116	10/13/2017
1996	Law of Georgia on Environmental Protection	360.000.000.05.001.000.184	12/03/2021
1997	Law of Georgia on Wildlife	410.000.000.05.001.000.186	03/17/2022
1997	Law of Georgia on Water	400.000.000.05.001.000.253	07/15/2020
1997	Maritime Code of Georgia	400.010.020.05.001.000.212	09/20/2022
1999	Law of Georgia on Protection of Air Quality	420.000.000.05.001.000.595	03/17/2022
2003	Law of Georgia on Red List and Red Book of Georgia	360.060.000.05.001.001.297	03/16/2021
2003	Law of Georgia on the Conservation of Soils and Restoration and Improvement of Their Fertility	370.010.000.05.001.001.274	11/02/2021
2005	Law of Georgia on Licenses and Permits	300.310.000.05.001.001.914	09/09/2022
2006	Law of Georgia on Regulation and Engineering Protection of the Sea shores, Reservoir and River Banks	400010010.05.001.016296	07/15/2020
2007	Law of Georgia on Public Health	470.000.000.05.001.002.920	12/22/2021
2007	Law of Georgia on Cultural Heritage	450.030.000.05.001.002.815	11/16/2021
2014	Law of Georgia on Public Safety	140070000.05.001.017468	07/05/2018

2014	Waste Management Code	360160000.05.001.017608	03/17/2022
2017	Law of Georgia on Environmental Assessment Code	360160000.05.001.018492	04/26/2022
2020	Law of Georgia on Forest Code of Georgia	390000000.05.001.019838	12/15/2021
2021	Law of Georgia on Environmental Responsibility	360150000.05.001.020241	02/03/2021

Following environmental standards were used in the process of evaluating the quality of environmental objects (soil, water, air) (see the table below):

Date	Title of the Normative Document	Registration code
31/12/2013	Technical Regulation – “Protection of Surface Water Contamination”, approved by the decree №425 of the Government of Georgia.	300160070.10.003.017650
31/12/2013	Technical Regulation – “Methods of calculation of maximum permissible emission of hazardous substances into ambient air”, approved by the order №408 of the Government of Georgia	300160070.10.003.017622
31/12/2013	Technical Regulation – “on water protection zones”, approved by the order №440 of the Government of Georgia.	300160070.10.003.017640
31/12/2013	Technical Regulation – “Methods of calculating the actual amount of emissions according to instrumental methods for determining the actual amount of emissions in ambient air from stationary sources of pollution, list of special measuring and controlling equipment for determining the actual amount of emissions in ambient air from stationary sources of pollution and technological processes from stationary pollution sources,” approved by the order №435 of the Government of Georgia	300160070.10.003.017660
31/12/2013	Technical Regulation - provisions on "Determining Levels of Soil Fertility " and "Soil Conservation and Fertility Monitoring", approved by the decree №415 of the Government of Georgia.	300160070.10.003.017618
31/12/2013	Technical Regulation - "Topsoil Removal, Storage, Use and Cultivation", approved by the decree №424 of the Government of Georgia.	300160070.10.003.017647
03/01/2014	Technical Regulation - "The unfavorable weather conditions for Protection of Environment", approved by the decree №8 of the Government of Georgia.	300160070.10.003.017603
06/01/2014	Technical Regulation - "Method for inventory of Stationary Sources of Air Pollution", approved by the decree №42 of the Government of Georgia.	300160070.10.003.017588
03/01/2014	Environmental Technical Regulation – approved by the decree №17 of the Government of Georgia.	300160070.10.003.017608
15/07/2022	The technical regulation on the approval of the "Rule of monetary compensation for damage to the environment" was approved by the Resolution N368 of the Government of Georgia.	300160070.10.003.023630
15/01/2014	Technical Regulation – “Maximum Allowed Concentrations of harmful substances at work places”, approved by the order №70 of the Government of Georgia	300160070.10.003.017688
15/01/2014	Technical Regulation on “Drinking Water”, approved by the decree №58 of the Government of Georgia.	300160070.10.003.017676
17/02/2015	„The Rule of Implementation of State Control by the Environmental Supervision Department of Subdivision Agency of the Ministry of Environment and Natural Resources Protection of Georgia”. Approved by the decree №61 of the Government of Georgia.	040030000.10.003.018446

04/08/2015	"Rules of reviewing and coordinating the company's waste management plan". Approved by the decree №211 of the Minister of Environment and Natural Resources Protection of Georgia.	360160000.22.023.016334
17/08/2015	"Determination and classification of the list of waste according to their types and characteristics". Approved by the decree №426 of the Minister of Environment and Natural Resources Protection of Georgia.	300230000.10.003.018812
11/08/2015	Regulation №422 of the Georgian government on Form and Content of. Conducting Waste Recording and Reporting dated by August 11, 2015.	360100000.10.003.018808
29/03/2016	Technical regulation on "Waste Transportation Rule" approved by. №143 of the of the Government of Georgia (March 29, 2016, Tbilisi).	300160070.10.003.019208
29/03/2016	Government Resolution №144 (March 29, 2016, Tbilisi) "On the Rules and Conditions for the Registration, Transportation, Pre-Treatment and Temporary Storage of Waste".	360160000.10.003.019209
29/03/2016	Technical Regulation on №145 (March 29, 2016) of the Government of Georgia on Approval of Technical Regulations on Special Requirements for Hazardous Waste Collection and Treatment	360160000.10.003.019209
1/04/2016	Resolution №159 of the Government of Georgia (April 1, 2016, Tbilisi) on the Procedure for Municipal Waste Collection and Treatment;	300160070.10.003.019224
15/08/2017	Technical Regulation of the Government of Georgia "On Acoustic noise limits for rooms/premises in residential houses and public establishments and their accommodation. Resolution №398.	300160070.10.003.020107

3.5.2 Environmental and Social Objectives

Specific objectives have been developed for the Bakhvi HPP,

These are:

- Management of community complaints including formal grievance process detailing logging, responding and closing
- Management plan periodically will be updated if needed.
- Minimize environmental incidents during HPP construction.
- Corrective actions and non-conformances will be generated and tracked by the compliance tracking system and followed up within one month of notification to Project Manager
- All HSES staff will receive Environmental competency training.
- All employees of Bakhvi HPP and contractors' staff will receive Environmental awareness training as part of their induction.
- Bakhvi HPP will be available to demonstrate compliance with all commitments upon request.
- All HSES staff will receive H&S induction training.

3.5.3 Environmental & Social Management Program

The process to address the environmental and social impacts involves the following key components:

- Mitigation Measures (identified through the ESIA and other studies conducted in frames of ESIA package development);
- Management Plans/Procedures

Detailed programs and/or action plans will be established, implemented and maintained in order to achieve Bakhvi HPP Project objectives and targets. The programs and/or action plans will indicate:

- What will be done.

- What resources will be required.
- Who will be responsible.
- Date of completion.
- How the results will be evaluated, including indicators for monitoring progress toward achievement of its measurable environmental and social objectives.

Bakhvi HPP Project will maintain documented information on the environmental and social objectives and ensure that environmental and social objectives are communicated to its employees, contractors, and other relevant stakeholders.

The programs will be amended as appropriate for new activities. This will ensure that environmental and social management applies to such activities.

3.6 Implementation and Operation

3.6.1 Structure and Responsibility

Consequently, Bakhvi LLC has the responsibility to ensure that it constructs the Bakhvi HPP and facilities in accordance with the requirements of the construction contract, ESIA and ESAP. Hence, the role of Bakhvi LLC is principally one of gaining assurance that these requirements are being met and directing the contractor to comply with the contract requirements where it is determined that there is a non- conformance.

The responsibilities for the Bakhvi LLC ESG Team include:

- Preparation and maintenance of the Environmental and Social Plan, and activities scoping and scheduling.
- Compliance reporting against Environmental and Social commitments
- Set-up and direction of audit program, as well as carrying out audits.
- Set up and direction of Reporting Program.
- Set-up and direction of Training Program.
- Carry out and input to Toolbox training on significant Environmental issues.
- Review relevant Method Statements.
- Technical support to the delivery of the ESIA Approval Conditions.
- Develop and maintain the Commitment Compliance Tracking System.
- Implement requirements of Ecological Management Plan.
- Implement requirements associated with forestry management.

In addition, the Developer Management Plans and related documentation detail personnel responsible for managing specific issues associated with those issues/topics. All employees also have responsibility for environmental and social management. This is achieved through trainings and the relevant information provided for the employees.

3.6.2 Environmental and Social Management System Components

The ESMS will be documented, implemented and kept updated. Key components of the ESMS are:

• E&S Policy, Environmental and Social Aspects (which have	• Environmental & Social Forms and Records;
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significant impacts on physical and social environment) and Impacts; • Defined legal and other requirements; • Environmental and Social Objectives/ Targets (which are measurable, practicable and also consistent of the E&S Policy) and Planning Program(s) to Achieve Them; • Resources, roles and responsibilities (which are supported with defined internal and external communication); • Competence, Training and Awareness; • Environmental and Social Procedures Plans;	• Emergency preparedness and response; • Regularly monitoring and measurement of key characteristics of activities and services significant environmental and social impacts; • Compliance check against commitments and legal/other requirements; • Nonconformity and corrective actions (to mitigate environmental and social impacts); and • Internal audit and Fund's Top Management's review.
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3.6.3 Training, Awareness and Competence

Developer will provide to all personnel and contractors engaged on the Project, an environmental and social approved training program that communicates to them the contents of each Management Plan and ensures that all personnel are aware of their environmental and social responsibilities.

The environmental and social training program will aim to ensure that all site personnel fully understand:

- The environmental and social requirements of the Project and how they will be implemented and monitored on site.
- The potential impacts of the Project, the mitigation measures that have been adopted to address those impacts and how and where to apply these measures.
- The environmental sensitivities of the areas through which the penstock and other facilities will be constructed.
- The social sensitivities of communities located close to the penstock route and facilities.
- The procedures to be followed in the event of a non-compliance with the environmental or social requirements.
- How to deal with unforeseen environmental incidents; and
- The requirements set forth in these plans.

Bakhvi LLC will ensure that all construction personnel attend regular site-specific 'toolbox' training sessions on environmental and social issues throughout the term of the contract.

Bakhvi LLC will keep records of the training that has been provided to each person working on the Project.

The environmental and social training program will include a worksite induction for delivery to all site personnel before they carry out any work on the worksites.

3.6.4 Communication

Environmental communication required of the Developer cover processes:

The Developer will set up a system to allow contractor employees and subcontractor (including temporary staff and remote workers) to be consulted on a range of matters. This will ease internal communication and will allow to feedback any relevant information likely to affect the contractor's operation and integrity / reputation, and its relations with third parties.

The ESG Team will be responsible for receiving and recording complaints and contacting the complainants. Concerns associated with environmental and social issues and the ESMS will be notified to the contractors Management Representative. Additionally, internal communication issues will be discussed during periodic internal Management Meetings.

The ESG Manager drives internal communications.

These are summarized as follows -

- Internal reporting requirements from contractors are covered by daily, weekly and monthly E&S reporting protocols.
- Regular meeting is held between contractors employees and Developers ESG manager in order to discuss and resolve any issues, and performance

Developer will develop a Stakeholder Management Implementation Plan that identifies all of the audiences and groups that need to be consulted regarding environmental issues. These stakeholder groups will include:

- Project affected communities.
- Relevant companies.
- Relevant government departments.

For some of these groups, it will be possible to identify a schedule by which the communications will be conducted. This schedule will be included in the Plan. Communication with other groups will be determined as required. Communication materials are developed on an ongoing basis to support these activities.

A database is kept of all Environmental communications meetings held, including actions arising, participants, and issues discussed. In addition, a log of all external requests for Environmental information is maintained by the Developer ESG Manager.

There will be also reporting requirements for the contractor to the Georgian government in compliance with water resources (groundwater abstraction for potable water and hydrotesting), water quality (wastewater discharge, watercourse crossings) and waste management. Reporting on these aspects is forwarded to Developer management for review, prior to being reported to the respective Georgian government body. All these activities are captured in the Waste Management Plan requirements.

Reporting on compliance with commitments and Project objectives is also conducted at the request of third parties, if required.

3.6.5 Environmental Management System Documentation

This ESMS Manual has been developed as a guide to the core elements of the ESMS and how they relate to each other. For each element of the ESMS, a list of related documentation is provided as a means of "signposting" relevant information via references to the documents themselves.

In addition to the references contained within this Manual, there is a Documentation Register, which lists all relevant environmental and social documentation.

ESMS Documentation registers:

- Reinstatement Plan
- Waste Management Plan

- Pollution Prevention Implementation Plan
- Ecological Management Plan
- Infrastructure and Services Management Plan
- Community Health, Safety and Security Plan
- Erosion Control and Stabilization Plan
- Emergency Response Plan
- Transport Management Plan
- Recruitment and Local Employment Plan and Training Plan
- Community Liaison Implementation Plan

Procedures:

- Refueling Procedure
- Spill Response Procedure

Pre-construction Surveys

- Noise Monitoring
- Vibration Monitoring
- Building Survey
- Topsoil Depth Survey
- Nest Survey
- Amphibians and Reptiles Survey (Translocation)
- Fish Survey

Monthly Reports

- Complaints Registry
- Spill Register
- Environmental Monitoring Records (Noise, Vibration, Soil)
- Monthly Waste Record
- Toolbox Talks
- Quantitative Matrix (Fuel, Water, Gravel, Sewage)
- Incident Report
- Checklist
- Environmental and Social Photos

In accordance with the ESMS documentation a copy of the ESMS Manual and related documents, including the Reporting Program, Training Program and Auditing Program, will be provided to contractor prior to its implementation. These documents are also maintained in electronic format. The Commitment Compliance Tracking Registry is in place to maintain control of compliance data.

3.6.5.1 Reinstatement Management Plan

This plan specifies the minimum technical requirements for reinstatement and restoration of areas affected by construction activities. The primary aim of the Reinstatement Management Plan is that all such areas will be returned to their pre-construction state. The plan is applicable to the stabilization and restoration of terrain before, during and after construction of temporary access roads/tracks, construction camps, pipe dumps, offloading areas, waste transfer stations, material extraction and spoil disposal worksites and other (such as Project concrete batch plants) associated with the Bakhvi HPP Project. Reinstatement of the permanent facilities is not addressed.

3.6.5.2 Waste Management Plan

The Waste Management Implementation Plan (WMP) identifies wastes which are likely to be generated during the construction works of the Bakhvi HPP Project and documents the management practices to be employed for the collection, storage, treatment and/or disposal of waste arising.

The WMP focuses primarily on wastes generated by construction and related activities including the following sources.

- construction and commissioning of all facilities.
- accommodation both temporary and permanent (used during construction);
- infrastructure such as transport.

The WMP describes how waste will be managed and how the Project will:

- minimize the potential to cause harm to human health and the environment.
- achieve and maintain compliance with Georgian regulations and Project's environmental standards.
- reduce operational costs and reduce any potential liabilities that may arise from waste handling operations.

3.6.5.3 Pollution Prevention Management Plan

The Pollution Prevention Plan (PPMP) documents the measures that are required to avoid and minimize pollution during project activities and to respond to any pollution incidents that occur. Specifically, the PPMP addresses the following areas:

- fuel storage and handling.
- protection of surface and groundwater.
- controlling dust and other emissions to air.
- controlling noise.
- spill prevention and control.

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3.6.5.4 Ecological Management Plan

This Plan establishes the general Ecological Management principles that will be followed.

The scope of this Ecological Implementation Plan relates to the following environmental management issues:

- Minimizing habitat disturbance;
- Preconstruction ecological surveys and translocation of flora and fauna;

- Habitat and species protection.

3.6.5.5 Infrastructure and Services Management Plan

Infrastructure and Services Management Implementation Plan (ISMP) describes the assessment of existing infrastructures in Project area and outlines the consulting activities with the Project affected communities if there is likely any damage or disruption existing infrastructures and services. Plan also defines the contractor's responsibilities to prepare crossing schedule including all known roads, telephone and electricity facilities and oil, gas and water pipelines.

3.6.5.6 Community Health, Safety and Security Management Implementation Plan

This Community Health, Safety and Security Management Implementation Plan (CHSSMIP) presents a description of how the Project may change the community exposure to risks and impacts arising from traffic flows, equipment accidents, structural failures, releases of hazardous materials, exposure to diseases and the activities of workers. It also sets out the mitigation measures taken to either prevent or minimize such risks.

The objectives of this Plan are:

- Ensure the safety of community members is not affected by construction activities.
- Generate safety awareness in local communities to ensure they are pro-active in managing their own safety with regard to the Project.
- Avoid any impact on the safety of the local people due to the project activities during the all phases of the project;
- Raise safety awareness of local community and avoid increase in the diseases or morbidity caused by the project activities (especially for the construction phase of the project).

3.6.5.7 Erosion Control and Stabilization Plan

Erosion & Sediment Control and Stabilization Plan is a key factor for consideration prior to, and execution during, the construction of the Bakhvi HPP. This Erosion and Sediment Control and Stabilization Plan required for the project to assist the BAKHVI HPP to assess the key issues. The report outlines the minimum standards that will be utilized to minimize erosion through the life of the Bakhvi HPP Construction phase. This involves consideration of the environment through which the Bakhvi HPP will be constructed, including topography, climate, soils, and receiving waters. It is intended that this document will highlight areas and circumstances of elevated erosion risk and provide mitigation options for BAKHVI HPP to consider.

3.6.5.8 Emergency Response Plan

This document provides information and guidance for responses to emergency situations at Bakhvi HPP Project.

This plan covers the activities of contractor as described in the contract for construction of Bakhvi HPP Project.

3.6.5.9 Transport Management Plan

This plan applies for all operations performed by contractor in the project of Bakhvi HPP that relates to vehicle movement and may interrupt the normal traffic flow of a roadway and/or road-of-way, sidewalks, and alleys.

The plan refers to following issues:

- Access Control;
- Prescribed Routes;
- Loading/Unloading Areas;
- Parking Areas;
- Garaging and Vehicle Maintenance Areas;
- Refueling Areas;
- Pedestrian Crossings;
- Speed Limit;
- Road Signs and Markings;
- Controlling traffic flows by flagmen;
- Road Obstructions;
- Icing of Roads;
- Collision Protection;
- Lighting.

3.6.5.10 Recruitment and Training Management Plan

Implementation of the Employment and Training Management Plan is central to maximizing the opportunities for local employment and ensuring a fair distribution of jobs to all affected settlements. This is vital to establishing a good relationship between the Project and the local settlements.

This plan outlines the skills development and training process to ensure that local settlements can benefit from this project in the longer term by developing skills that can help them find employment once the Project is completed.

3.6.5.11 Community Liaison Implementation Plan

The Plan discusses the ESG team's role within the project and the community and the public awareness and consultation process in place to ensure that all reasonable steps are taken to inform and consult the community on issues related to construction activities.

A Grievance Management Procedure is also required as part of the Community Liaison Implementation Plan. Purpose of this Procedure is providing a formal documented mechanism for third parties to raise grievances or concerns and for developer to record, investigate and resolve any complaints from communities and individuals about the Project activities.

3.6.6 Operational Control

Operational control is achieved through three processes, which are:

- Bakhvi HPP Control Plans
- Offset Plans
- Additionality Plans

The Control Plans fulfill the following purposes:

- They serve as an important part of the process to translate commitments into implementation instructions to the contractor
- They serve as a key tool by which Developer can check the contractor Implementation Plans, procedures and Method Statements that specify how the activities specific to their contract will be carried out to ensure compliance with project commitments.
- They provide transparency and assurance to the Lenders that commitments made through the ESIA process are being translated through to the contractor who is responsible for implementation.

3.6.6.1 Management of Change

Management of change ensures that environmental or social implications of any changes are identified and managed. These include changes which may require that:

- Environmental and social impacts are reassessed and additional mitigation measures are put in place
- The ESMS Manual and other relevant documents are updated
- External stakeholders are informed

3.6.6.2 Stop Work

The general procedure and description around those activities and incidents which would constitute the necessity to stop work are outlined in a project wide procedure. This procedure is used during the construction phase conducted by the project in all of its locations. It covers the stoppage of work due to the immediate/imminent risks to health, safety, environmental and social issues.

3.6.7 Emergency Preparedness and Response

Developer shall produce an ERP for the construction phase of the project. Developer ERP will be approved by the Fund prior to its implementation.

3.7 Checking and Corrective Action

3.7.1 Assurance

A large component of the construction phase environmental and social management system is related to assurance that contractor is implementing commitments related to their respective activities.

The Developer has responsibility to check the following:

- Assurance that the project is complying with company policies, expectations and best practice.
- Assurance that the project as a whole is meeting the requirements and that there is a consistent approach across the project.
- Developer is adhering to the requirements of the ESIA, contracts, legislation, emission standards, Environmental designs criteria, method statements, Lender institution requirements, Fund's environmental and social objectives;
- Effectiveness of the mitigation measures.
- Compliance with management plans and procedures;

3.8 Monitoring and Measurement

3.8.1 Monitoring Program

The ESIA and ESIA package specifies a number of requirements for monitoring of environmental and social impacts and mitigations. The Monitoring Program will provide an ongoing assessment of the status of environmental receptors with identified significant impacts, together with the applicable standard. The aim in developing and implementing the Monitoring Program is to ensure compliance with the Bakhvi HPP project commitments with regard to mitigation measures, approved plans and permit conditions and requirements.

The Monitoring Program contains, inter alia:

- Parameters to be measured
- Methods for monitoring
- Sampling locations
- Detection limits, indicating relevant legislation and standards
- Allocation of responsibilities
- Frequency and timing
- Progress and reporting of results

The Monitoring Program specifies those requirements that are required by the Fund and should be implemented by the Developer. Fund will check the veracity of the Developers Construction's Monitoring Program by reviewing time series results, audits of procedures, and spot check monitoring.

3.8.2 Non-conformance and Corrective and Preventive Action

Developer will establish and maintain a procedure for defining responsibility and authority for handling and investigating nonconformance, taking action to mitigate any impacts caused, and for initiating and completing corrective action.

Corrective action will be used to improve contractor's processes and will be undertaken to eliminate causes of nonconformities or other undesirable situations to avoid recurrence of those problems.

In order to investigate a problem and its underlying causes Developer will identify problem through routine inspection, monitoring, audit findings, trend analysis, employee comments, complaint and experience.

Developer will retain documented information as evidence of:

The nature of the nonconformities and any subsequent actions taken; and

The results of any corrective action.

Relevant Procedure: Non-conformity and Corrective Action.

Relevant Record: Non-conformity records, and Verification and Results of any corrective action.

3.8.3 Records

The Developer shall ensure all Environmental and Social records are legible, identifiable, and traceable to the activity involved. Environmental and Social records are stored and maintained in such a way that they are readily retrievable and protected against damage, deterioration. Records are retained for the duration of the project as a minimum. Where records are required to be retained

longer than the length of the project their retention times are established and recorded. The following documentation must be stored on file at Developers office:

- The Bakhvi HPP project ESIA
- Non-conformance – submitted in hard copy.
- Field Inspection records
- Training records
- Audit/Monitoring reports

3.8.4 Environmental Management System Audit/Monitoring

There are a number of components to the Audit Program:

- Bakhvi HPP self-audit
- Audit of contractors
- Self-audit of ESMS performance

Developer will conduct audits and field inspections of the Sub-contractors during the life of the construction project.

Field Inspections will be used as a mechanism to regularly check critical commitments, verify corrective actions are implemented and effective, and follow-up on partial non-compliances and issues identified in previous audits/monitoring.

The majority of the audits will cover construction site. These audits are carried out when the specific section is under construction.

Field inspections are carried out on a bi-weekly basis by Developer field staff and will form an important part of the auditing process. The field inspections are conducted by contractor field personnel and the results are forwarded to Developer management for compliance tracking purposes.

The audits will be conducted quarterly during construction.

3.9 Management Review

The ESMS performance is reviewed on an annual basis by Developer management against the objectives and targets of the ESMS and as-and-when required, for example in the event of significant changes or developments that affect the ESMS.

The ESMS performance is also reviewed by Fund ESG Manager.

As with the ESMS itself, the key objectives of the management review are to ensure that the ESMS continues to result in continual improvement in environmental and social performance, compliance with ESIA commitments and the prevention of pollution at the RoW and facilities. The review can result in changes to elements of the ESMS. The provision of financial, technological, and human resources to facilitate an effective ESMS are also considered as part of the management review process.