

Chapter 13 Management and Implementation



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13 MANAGEMENT AND MONITORING

13.1 Introduction

Under the Western Route Export Pipeline (WREP) Host Government Agreement (HGA) and Pipeline Construction and Operating Agreement (PCOA), BP Exploration (Caspian Sea) Limited (BP) as Operator (on behalf of the Georgian Pipeline Company (GPC)) is responsible for the environmental and social management of the WREP activities, to ensure that the Project commitments are implemented, and that the Project conforms to the applicable environmental and social legislative requirements. This Chapter provides an overview of the system that will be used to manage the environmental and social issues associated with the WREP-SR Project.

Environmental and social impacts in the construction phase will be managed through the implementation of the construction phase Environmental and Social Management System (ESMS).

During operations, the new pipeline sections will fall within the scope of existing operational ESMS for the WREP system. Section 13.5 briefly describes the arrangements for environmental and social management during the operational phase, once the Project has been completed.

13.2 Overview of AGT Region Operating Management System

The Azerbaijan Georgia Turkey (AGT) Region manages BP's operations in Georgia and has an established Operating Management System (OMS). The OMS is a structured set of processes designed to keep operations safe, compliant and reliable. This system forms the structured framework to the Health, Safety, Security and Environment (HSSE) performance of the organisation for which there are six key stages as set out in Figure 13-1:

- Intent
- Risk Assessment & Prioritisation
- Planning & Controls
- Implementation & Operation
- Measurement, Evaluation & Corrective Action
- Management Review & Improvement.

The environmental portion of the AGT Region OMS for operations is certified to ISO 14001, the leading international standard on environmental management.

In line with the six stages within the AGT OMS, BP applies the following principles of environmental and social protection to all activities for which it is responsible:

- Plan – prior assessment of potential environmental and social impact
- Do – implementing design and mitigation measures that seek to avoid, reduce or minimise potential impact
- Check – monitoring performance and the efficacy of the mitigation measures that are implemented
- Act – auditing and tracking the implementation of corrective actions.

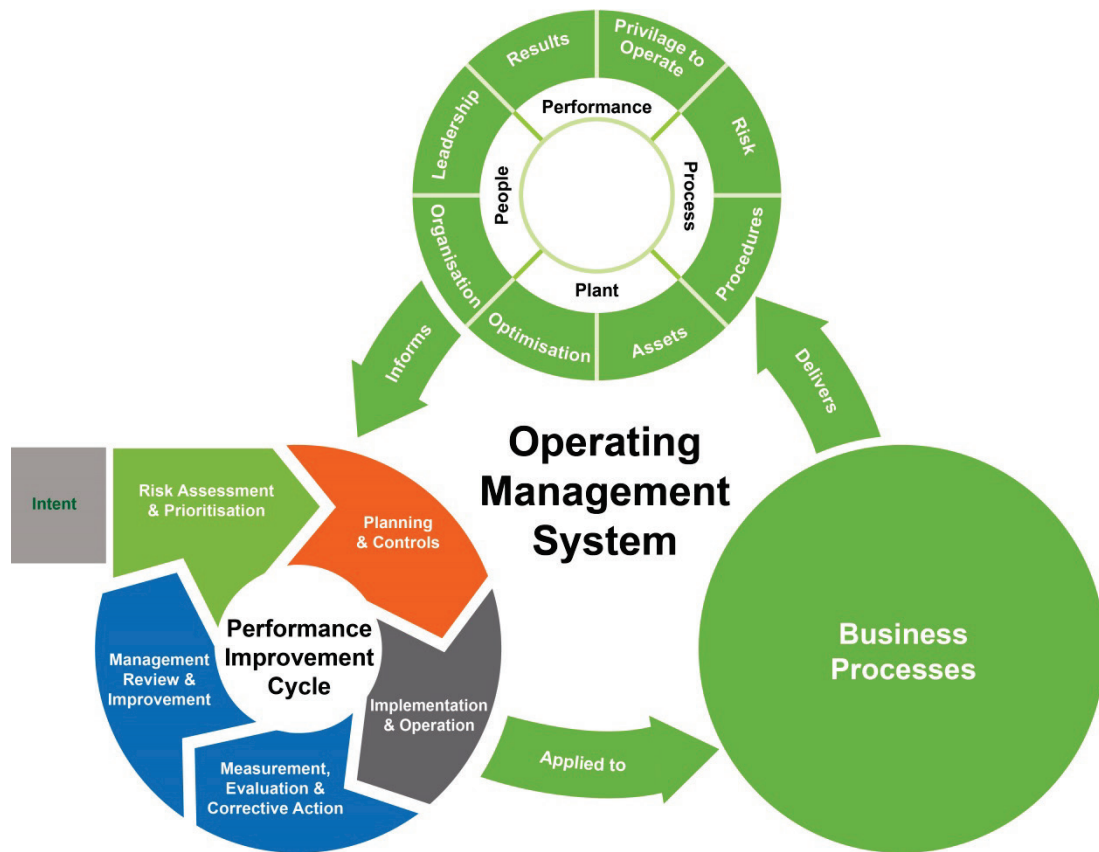


Figure 13-1: AGT Region Operating Management System Framework

13.3 Construction Phase Roles and Responsibilities

13.3.1 BP

BP is responsible for the detailed design, procurement, construction and operation of the WREP-SR Project. BP is therefore referred to in this chapter when describing Project responsibilities.

BP will manage the construction phase of the WREP-SR Project, monitoring and auditing the technical, environmental and social performance of its contractors throughout the construction phase. The BP Project team will include environmental and social advisors, community liaison officers (CLOs) and a cultural heritage officer.

A WREP-SR Project Construction Phase ESMS will be developed and implemented by BP and will include the following:

- The Commitments Register that BP has produced listing all the commitments within this ESIA that are to be implemented during the construction phase
- A legal register of legislation that is applicable to the WREP-SR Project
- An Environmental and Social Monitoring and Management Plan (ESMMP) detailing roles and responsibilities within the project organisation and actions required to ensure ESIA commitments are implemented

- A schedule of monitoring, inspection and audit of environmental performance of contractors
- Implementation of an action tracking system to monitor the findings of inspections and audits, as well as implementation of corrective actions.

13.3.2 Main EPC Contractor

The main Engineering, Procurement and Construction (EPC) contractor will be expected to comply fully with those aspects of BP's construction-phase ESMS that fall within their scope. The contract will require the main EPC contractor to develop their own ESMS for the Project that is consistent with BP's construction-phase Project ESMS. The contractor's ESMS will include compiling a set of environmental and social management plans and procedures that will address commitments made within this ESIA (Appendix E) and which it will be contractually obliged to deliver as part of the contract.

The main EPC contractor will be expected to appoint a full-time, suitably qualified environmental and social team that implements and monitors the environmental and social commitments contained in the ESIA. As a minimum, the team will include environmental advisors and CLOs.

13.3.3 Other Contractors

Other contractors will develop environmental/social management plans and procedures that address particular issues associated with their work scope, and provide suitably qualified personnel (e.g. field ecologists, archaeologist).

13.4 Construction-Phase ESMS

13.4.1 Introduction

The Project ESMS developed by BP and the contractors will be used to deliver the environmental and social commitments made in the Commitments Register of this ESIA (Appendix E) and to coordinate and review the environmental and social performance of the Project at the construction stage.

Figure 13-2 presents an overview of the linkages and interfaces between BP's and the main construction contractor's ESMS.



The Project ESMS will focus on the main mechanisms by which the ESIA commitments are translated into practice, giving special consideration to:

- BP's ESMS and the construction contractor's ESMS shall each be commensurate with the scale of the Project and focus on the issues that are most important for ensuring environmental and social performance, without overburdening the Project with over-detailed systems.

Each ESMS will have a high-level document, e.g. a framework, setting out the main elements of the system.

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Figure 13-3: WREP-SR Project ESMS Cycle

13.4.3 Plan

The 'plan' stage of the cycle identifies hazards and risks to the Project, e.g. through the ESIA process, resulting in a Commitments Register for the Project. Planning also involves the identification of legal and other requirements (e.g. the development of legal and permit registers).

The ESIA Commitments Register for the Project (see Appendix E) lists the commitments that have been generated through the Project's comprehensive ESIA process. The Commitments Register assigns each commitment that will be implemented in the 'do' stage of the management cycle to an appropriate plan in the ESMMP, and clarifies whether the responsibility for producing a plan to implement the commitment lies with BP or with a contractor. Operation phase commitments are assigned to the BP Operations ESMS. The Commitments Register is a live document that BP intends to update during the course of the Project.

13.4.4 Do

The 'Do' stage of the cycle reflects the implementation of the construction phase ESMS and its key components:

- Strategy and framework documents
- BP ESMMP
- Contractor environmental and social plans and procedures.

BP will apply a Management of Change Procedure to ensure that any changes during the final design and construction stages are subject to scrutiny and that any implications for environmental, social or cultural heritage issues are identified, approved and addressed.

13.4.4.1 ESMMP

The BP Construction Phase ESMS will include the ESMMP that describes:

- Conformance requirements;
- Roles and responsibilities of BP and the main construction and installation contractors;
- The actions needed to avoid and/or mitigate environmental and social impacts and to put the commitments in the ESIA into effect; and
- The assurance process that will be adopted to monitor and report environmental and social performance will include inspection, audit and monitoring programs such as sewage treatment plant performance monitoring.

The construction contractor, as part of their ESMS, will be required to develop their own environmental and social management plans and procedures that are in line with the BP requirements and give details of how relevant ESIA commitments will be implemented and monitored. The construction contractors will submit their environmental and social management plans and procedures to BP for approval before construction begins.

Environmental and social management plans to be developed by BP and their main construction contractors are detailed in Table 13-1.

Table 13-1: Environmental and Social Management Plans

Plan	Issues Covered
Reinstatement Plan	• Top soil and sub-soil management • Erosion control during construction (e.g. at crossings, steep slopes, trench breakers) and after construction • Engineered reinstatement of RoW and watercourse crossings • Seeding and matting
Ecological Management Plan	• Ecological training • Location of protected species and sensitive areas • Preconstruction ecological surveys • Habitat and species protection before and during construction (e.g. working width restriction, translocation, avoiding seasonal sensitivities, traffic restrictions, code of conduct, aquatic environment protection) • Biorestitution (e.g. revegetation, selection and procurement of seeds, seeding methods, seed collection, replanting) • Monitoring and reporting
Waste Management Plan	• Waste management training • Identification and classification of waste • Waste hierarchy and waste minimisation strategy (i.e. reduction at source, reuse, recycling, energy recovery, responsible disposal) • Waste handling (i.e. collection, segregation and containers, storage and treatment, transport and documentation, disposal) • Monitoring and reporting
Pollution Prevention Plan	• Pollution prevention training • Energy efficiency (vehicle and equipment selection and maintenance) • Emissions and dust management (i.e. vehicle, equipment and generator emissions, dust management)

Plan	Issues Covered
	- Wastewater management (e.g. runoff, trench dewatering, hydrotest water disposal and use of chemicals in hydrotest water, vehicle and equipment washing) - Sewage treatment and disposal - Noise and vibration management - Oil and chemical management (i.e. storage, handling and spill prevention) - Treatment contaminated soil - Management of hazardous liquid waste - Monitoring and reporting
Resource Management Plan	- Training (incl. energy efficiency and water use minimisation) - Aggregates management (estimation of requirement, identification of quarries and borrow pits, transportation, control of third parties) - Water management (water supply, hydrotest water abstraction)
Infrastructure and Services Management Plan	- Disruption to infrastructure (transport; electricity; irrigation) - Prevention and repair of community infrastructure damaged by Project activities - Management of disruption to communities and individuals
Community Health, Safety and Security Plan	- Worker-community interaction (e.g. spread of communicable diseases) - Management of construction sites (e.g. access to RoW and open trench philosophy) - Traffic safety (e.g. control of traffic flows through villages)
Community Liaison Plan	- Community liaison officer (CLO) requirements - Maintaining good relations with communities, landowners and land users (e.g. meetings, complaints management procedure) - Community access.
Local Recruitment and Training Plan	- Local recruitment for construction-phase workforce - Skills and HSE training (for all personnel)
Procurement and Supply Plan	- Maximising local procurement of goods and services - Transparency of procurement process
Cultural Heritage Management Plan	- Avoiding disturbance of cultural heritage sites - Evaluation and recording of sites and artefacts - Archaeological supervision during construction - Chance finds procedure
Land Management Plan	- Assessment of additional land - Spoil disposal sites and borrow pits - Land acquisition and compensation requirements - Monitoring and reporting

13.4.4.2 Training

At the 'do' stage of the ESMS cycle, training is fundamental to the successful delivery of the ESIA commitments.

The WREP-SR Project construction phase will be of relatively short duration, so establishing key environmental and social requirements at the outset is important to the provision of effective training. The main training elements required are:

- Management briefings
- Induction training for BP, construction contractor and subcontractor staff
- Toolbox talks.

13.4.4.3 Management briefings

An environmental and social training session will provide the BP Project Management Team with an overview of the BP construction Phase ESMS and a common understanding of roles and responsibilities.

Following award of contract, a second environmental and social training session will ensure that the BP Project Management Team and the construction contractor's senior personnel adopt a co-ordinated approach to implementing the Project requirements, and to affirm BP's commitment to good environmental performance and to establishing good community relations.

13.4.4.4 Induction training

All Project construction staff will receive an environmental and social induction that will explain the key requirements common to everyone on the site. The induction will have a strong focus on visual presentation (graphics, illustrations, diagrams, photographs etc.) and will contain simple, clear messages.

13.4.4.5 Toolbox talks

In addition to toolbox talks delivered by the construction contractor as part of skills training, BP's environmental advisors, CLOs and cultural heritage officers will deliver talks to contractor and subcontractor personnel to make them aware of BP's ESIA commitments to avoid and/or mitigate specific environmental and social impacts that relate to their tasks, particularly where the impacts are potentially significant, or where the requirements are not covered in the general induction training. This could apply to personnel involved in:

- Clearing of fly-tipped waste and contaminated soil before construction
- Right-of-way (RoW) preparation (covering such matters as consultation with local communities and land owners if alternative access is required; respecting landowners' rights; archaeological watching brief; fencing for public protection; avoiding encroachment into areas off the RoW and accidental damage to sensitive receptors; correct storage of topsoil; and relocation of sensitive fauna)
- Pipeline lowering and laying (covering such matters as procedures for correct compaction, grading and topsoil replacement; community safety)
- Construction of rail, road and river crossings (covering such matters as the particular procedures for construction and reinstatement in these areas and expanding and reinforcing pollution control awareness and training, in particular for the watercourse crossings)
- Hydrostatic testing (covering such matters as pollution prevention and erosion control; consulting local communities downstream of proposed water discharge points)
- Pipeline de-oiling (covering such matters as pollution prevention and oil spill response)
- Driving (covering such matters as vehicle routes; safe driving; speed limits on access roads and vehicle maintenance)
- Refuelling
- Hazardous materials management/handling.

13.4.5 Check

13.4.5.1 Monitoring, inspections, reporting and audits

An environmental and social monitoring program will be initiated at the start of construction activities and continue throughout the construction phase to gauge the effectiveness of the mitigation measures that are implemented. A summary of environmental monitoring requirements is presented in Appendix D.

The construction contractor will be required to carry out regular (e.g. weekly) documented inspections of certain day-to-day items such as pollution control, waste storage, and traffic movements. The contractor's management plans and procedures will include *pro formas* for the inspections to ensure that the findings of these inspections are recorded and reported consistently to BP. In addition, certain requirements (e.g. adherence to RoW speed limit) are best monitored through informal daily observations, which are made while staff are travelling around the works.

The amount of reporting required by the ESMS will be commensurate with the scale and length of the Project. The construction contractor will generate a combined environmental and social report each month and submit it to BP for review. The report will include:

- Data (e.g. waste volumes, types and disposal; complaints received and resolved)
- Activities carried out (e.g. surveys, translocation, meetings with communities, site inspections and findings)
- Status of non conformances identified during inspections
- Environmental, social and cultural heritage issues arising in the course of the works (e.g. contaminated land discovered, archaeological finds, ecological issues).

The construction contractor will prepare and submit to BP individual reports after any environmental or social 'incident' and 'near-miss' (e.g. oil spills, pollution incidents, environmental damage, accidents, complaints from communities and neighbours).

BP and the construction contractor will conduct audits to track progress and performance in implementing the ESIA commitments and the effectiveness of the mitigation measures implemented in avoiding environmental and social impacts. The schedule of these audits will be determined after the contract has been awarded, but the aim will be to audit all elements of the contractor's ESMS during the construction phase. The frequency of auditing for individual commitments will be reviewed regularly and adjusted as necessary to take account of audit findings.

BP will also carry out spot check audits of any issues of which it becomes aware that are of particular concern.

13.4.6 Act

13.4.6.1 Corrective action

The inspection and audit processes described in Section 13.4.5 will be documented with non-conformance reports (NCRs) and corrective action requests (CARs). Both BP and the construction contractor will develop and maintain action tracking systems to monitor the effectiveness of actions taken in response to NCRs and CARs.

BP's environmental advisor, CLO and cultural heritage officer will track the implementation of corrective actions and will update the BP construction manager and the BP environmental and social manager daily on non-conformances that require follow-up actions.

13.5 Operational Phase ESMS

BP operates the existing WREP pipeline system; pump stations, pressure reduction stations, block valves and Supsa terminal facilities in line with an Operational ESMS which is certified to ISO14001.

The existing ESMS procedures will be reviewed and amended as necessary to cover any changes to the operation of the WREP once the WREP-SR Project has been implemented.

In particular, the WREP Oil Spill Response Plan (OSRP) will be reviewed and amended with regard to the location of the re-routed sections of pipe and any additional sensitivities to oil spills will be identified. The containment manual and location of spill response equipment will also be revised as necessary in line with identified sensitivities.

BP's AGT Region has an Environmental Monitoring Programme (EMP) designed to provide a consistent, long-term set of data, with the objective of ensuring an accurate picture of potential impacts on the surrounding environment, so that they can be managed and mitigated as effectively as possible.

The EMP follows a 10 year schedule and detailed monitoring plans are prepared for the next 3 years, with outline planning for the following 7 years. This approach allows a progressive and systematic modification of the programme to take into account the results and conclusions of the programme to date.

During operations, WREP-SR Project will fall within the scope of the EMP for WREP.

13.6 Community Development Initiative (CDI)

BP and its co-venturers in the BTC, SCP, SD and ACG projects have been implementing the Community Development Initiative (CDI, previously referred to as Community Investment Programme (CIP)) in the communities along the various pipelines routes. BP's CDI programme seeks to maximize benefits to BP's project affected communities by working towards socio-economic improvements that are measurable and contribute to the development of institutional capability among local communities. The programme aims to facilitate communities' participation in regional social and economic development processes and to ensure their capacity to achieve their own priorities and development goals.

Recognising the commitment of BP and its co-venturers to support enhancement of the quality of life of the communities in the country and based on the stakeholder development strategy, the decision was made to continue supporting CDI along the pipelines.