Chapter 1 Introduction

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1 INTRODUCTION

1.1 General

This environmental and social impact assessment (ESIA) assesses the potential adverse and beneficial impacts and addresses mitigations and management of environmental and social issues potentially associated with the part of the South Caucasus Pipeline Expansion (SCPX) Project that is proposed for implementation in the Republic of Azerbaijan. This document has been prepared in support of a permit application. The activities proposed in this ESIA are subject to approval by the competent authorities.

The SCPX Project is governed by the requirements outlined in the SCP Host Government Agreement (HGA) between (inter alia) the Government of the Azerbaijan Republic and BP Exploration (Azerbaijan) Limited. This ESIA has been produced in line with the requirements of the SCP HGA.

The SCPX Project ESIA has been undertaken by the international consulting company RSK Environment Limited (RSK), which specialises in environmental and socio-economic assessment, together with specialist Azeri partner companies Azerbaijan Environment and Technology Centre (AETC) and ERA Marketing Centre, an established socio-economic consultancy. RSK has also teamed with a number of Azerbaijani scientists who have provided specialist input in areas such as ecology and soil science.

1.2 Background to the SCP

The South Caucasus Pipeline (SCP) is a gas pipeline that transports gas from Sangachal Terminal (produced from the phase 1 development of the Shah Deniz reservoir) to the Georgian–Turkish border. The SCP pipeline runs in parallel to the route of the Baku–Tbilisi–Ceyhan (BTC) crude oil pipeline through Azerbaijan and Georgia and continues into Turkey where it is linked to the Turkish gas transmission system. The construction process commenced in 2004 and was complete by the end of 2006. The pipeline is 690km long, with a 42" diameter and a system design capacity of 7 bcma (billion cubic metres per annum).

First deliveries of gas to Turkey commenced in September 2006. During 2010 SCP daily average throughput was approximately 12.5 million cubic metres of gas or about 73,500 barrels of oil equivalent per day.

The location of SCP is shown in Figure 1-1 with the Azerbaijani and Georgian sections of SCP pipeline in red and the Turkish transmission system to the city of Erzurum in blue.

Figure 1-1: High-Level Regional Overview Map of BP Interests in Azerbaijan, Georgia and Turkey

1.3 Rationale for SCPX

The objective of the SCPX Project is to expand the capacity of the existing SCP system to accommodate additional gas throughput from the Shah Deniz Stage 2 (SD2) expansion development in the Caspian. The Project base-case design is to facilitate an increase in gas transmission capacity in the existing SCP pipeline system by an additional 16 bcma to create a total system capacity of 23 bcma.

The Shah Deniz Stage 2 development includes the construction of two new bridge-linked offshore platforms, 26 subsea wells and 125km of subsea pipelines, and expansion of the Sangachal Terminal. The existing SCP does not have the capacity to accommodate the additional production from SD2. This additional capacity is proposed to be met with the construction of SCPX.

The SD2 and SCPX Projects are part of the Shah Deniz Full Field Development (FFD). The Shah Deniz FFD aims to bring gas from Azerbaijan to Europe and Turkey. This would increase gas supply and energy security to European markets through the opening of a new southern gas corridor. The Shah Deniz consortium is now evaluating proposals for the transportation of gas from Turkey to Europe. An overview of the Shah Deniz FFD proposal is shown below (Figure 1-2).

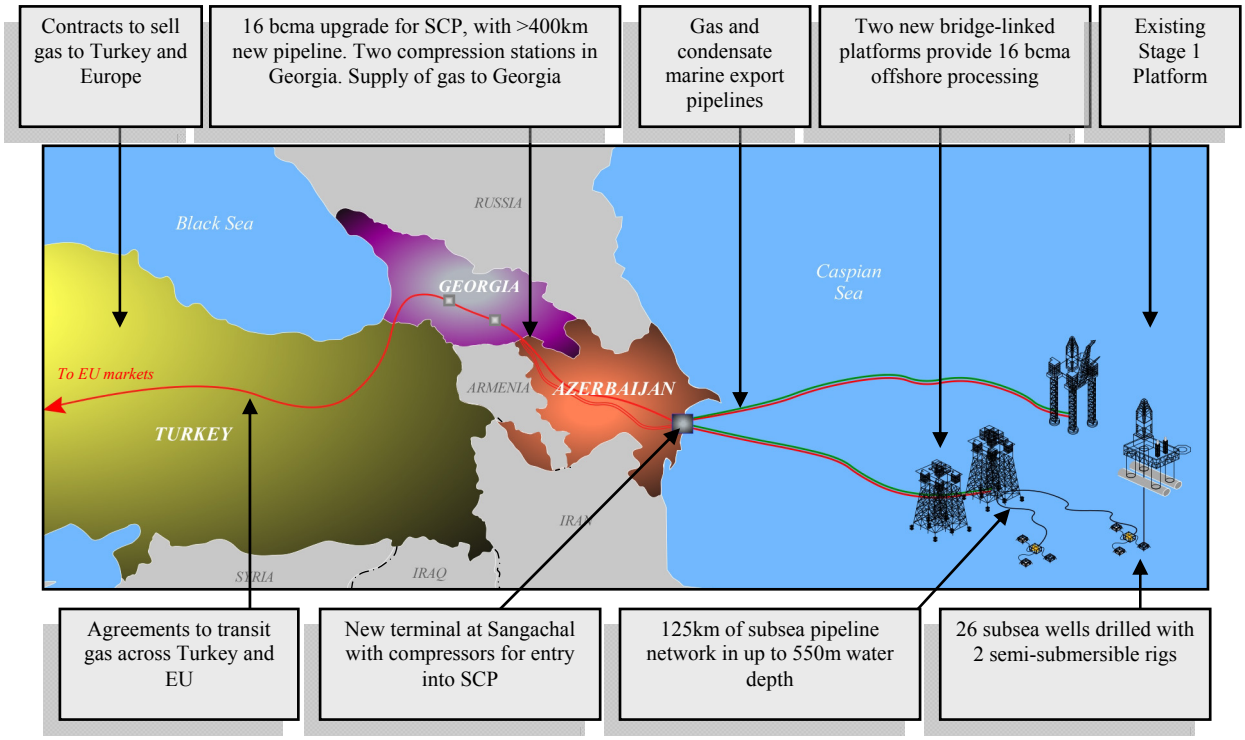

Figure 1-2: Overview of the Shah Deniz Full Field Development

The pipeline will bring the following benefits to Azerbaijan:

- The SCPX Project is intended to provide the Azerbaijan Government with revenue earnings from tariffs on the transfer of Shah Deniz FFD gas through Azerbaijan
- The social benefits of the employment opportunities and economic stimulus that will be generated.

The proposed expansion of the SCP pipeline in Azerbaijan is currently anticipated to need the following works to be undertaken:

- The construction of a new 56-inch (1422mm) diameter looped pipeline in Azerbaijan starting at KP0 (which is located close to KP57 on the SCP pipeline) and continuing to KP387 where it will cross the border in to Georgia (which is close to KP445 on the SCP pipeline). The proposed pipeline route will parallel the existing SCP and Baku–Tbilisi–Ceyhan (BTC) pipeline for much of its length
- A new intermediate pigging station, to be constructed in Azerbaijan at the beginning of the looped section at KP0
- Five new block valves (BVRs) to be constructed in Azerbaijan, proposed to be collocated with the existing SCP block valves.

The route proposed SCPX pipeline loop and main associated facilities in both Azerbaijan and Georgia are shown in Figure 1-3. The Azerbaijani section of the Project is described in more detail in Chapter 5 Project Description.

Figure 1-3: Showing Overall SCPX Project and AGIs

1.4 SCP Operator: SCPC and BP relationship

The existing SCP pipeline is owned by the South Caucasus Pipeline Company (SCPC), a consortium led by BP Exploration (Azerbaijan) Limited (BP) and Statoil. The shareholders of the consortium are BP, Statoil, State Oil Company of Azerbaijan (SOCAR), Lukoil, Total S.A., Naftiran Intertrade Co. and Türkiye Petrolleri Anonim Ortaklığı (TPAO). The technical operator of the pipeline is BP and the commercial operator is Statoil.

This ESIA has therefore been written on behalf of SCPC as the operating company for SCPX. However, references will be made to BP and BP policies and practices where relevant, as BP holds the technical operatorship.

1.5 ESIA Process

1.5.1 Objectives

The overall objective of the ESIA process for the SCPX Project is to identify and, where possible, eliminate or minimise through early recognition any adverse environmental or socio-economic impacts arising from Project activities and to incorporate mitigations into front-end engineering, construction and operation. The purpose of the ESIA process is to:

- Identify and assess the anticipated negative and positive environmental and social impacts of the Project
- Use the results of that assessment to inform option selection and subsequent project design
- Determine appropriate mitigation measures designed to avoid, minimise or mitigate adverse environmental or social impacts and optimise potential positive impacts
- Provide a baseline against which actual Project impacts can be assessed and adjusted as relevant
- Consult with and obtain feedback from Project stakeholders.

Within this document potential environmental and social impacts that are anticipated to result from the proposed SCPX activities have been assessed against:

- Applicable environmental regulations, standards and guidelines applicable to the construction and operation of the SCPX Project (and in some cases, for the purposes of benchmarking only)
- Existing environmental, cultural heritage and socio-economic conditions
- Issues and concerns raised by Project stakeholders.

1.5.2 Scope

This ESIA covers all the components of the SCPX Project that are located within the territorial boundaries of the Republic of Azerbaijan.

The geographical scope of the ESIA has taken into account the:

- Physical extent of the proposed works to be undertaken within the site boundary, including the facility sites, pipeline route, river crossings and all temporary works in support of the main project activities
- Nature of the baseline environment and the manner in which impacts are considered likely to be propagated beyond the site boundary.

The temporal scope of the ESIA covers design, construction, operation and decommissioning phases of the Project. The temporal scope also takes into account the time of day during which works are expected to be undertaken.

1.5.3 Stages in the ESIA Process

The ESIA process that has been adopted for the SCPX Project is described in detail in Chapter 3 (Approach and Methodology). In summary, it comprises several ongoing and overlapping activities as follows:

- Screening: This has involved the early identification of environmental and social impacts to develop an early understanding of the key environmental and social sensitivities and the potential project impacts on those sensitivities
- Defining the Project: This has involved the evaluation of alternatives with regard to the Project concept, facility location, pipeline routing options, technical approaches and mitigation options
- Scoping: This activity has continued throughout the ESIA process and has involved a number of discrete elements including stakeholder identification and preliminary consultation, the development of an environmental and socio-economic context for the Project and preliminary identification of potential impacts
- Consultation: This has included both the distribution of Project information to key stakeholders (e.g. local communities and authorities, non-governmental organisations (NGOs), and the press at local and national levels) and further identification of potential impacts through face-to-face meetings. It is recognised that consultation and dialogue are important activities. The intention is therefore to continue this engagement throughout construction and operation
- Baseline data collection: This involved the identification of environmental and socio-economic baseline conditions and attitudes of stakeholders and local residents towards the Project through review of existing data and undertaking of environmental surveys and household-level social surveys
- Assessment: This has involved the identification and subsequent assessment of all potential construction and operational impacts and an evaluation of their significance. It has included the investigation and development of measures to mitigate potential negative impacts and enhance benefits associated with the proposed development
- Disclosure: Public disclosure is via the publication of the draft ESIA report for disclosure and a range of other disclosure materials, including community pamphlets and the non-technical summary, via public facilities (libraries), local

administrative offices and the BP Caspian website. Following completion of the disclosure period, meetings are arranged with a wide range of stakeholders. The aim of the disclosure process is twofold:

- To provide stakeholders with information necessary to facilitate a full understanding of the environmental and social impacts of the proposed Project and the associated mitigation measures that will be implemented
- To encourage stakeholder and public discussion and invite comments on the proposed mitigation measures. The comments received during the disclosure process are reviewed and, where appropriate, incorporated into this ESIA report.

While this ESIA report presents the findings and recommendations of the ESIA process to date, the inclusion of environmental and social considerations into the implementation phases of the proposed Project is intended to be an ongoing and dynamic management activity. A key vehicle for the delivery of environmental and social management scrutiny and control is the suite of management and monitoring plans, which comprise an integral part of this ESIA report (see Appendix D).

The management and monitoring plans provide the technical basis for development and implementation of a focused environmental and social management system to manage all relevant activities during the construction phase of the Project. As such, the intention is that the management and monitoring plans will evolve and be further developed as implementation of the project is progressed with a view to achieving continual improvement of performance against Project key performance indicators. Operational commitments have been included in this ESIA and the new operational commitments will be carried forward into operational management plans.

1.6 Structure of this ESIA

The ESIA document is presented as 16 chapters and 5 appendices (A–E) as outlined in Table 1-1. It:

- Provides a description of the proposed SCPX Project
- Details the environmental and social baseline conditions along the pipeline route corridor and at the facility locations
- Identifies and assesses potential impacts taking into consideration baseline conditions in the area of the Project
- Specifies mitigation measures in line with the requirements and standards of the SCP HGA
- Assesses the potential significance of residual impacts
- Outlines the environmental and social management and monitoring that is intended to be undertaken during the construction phase of the Project and during operations.

Table 1-1: Structure of the ESIA

Non-Technical Summary	A summary of the ESIA report using non-technical language
Chapter 1 **Introduction**	A general introduction to the SCPX Project, a brief outline of the objectives of the assessment, and the report structure of the ESIA
Chapter 2 **Glossary**	A glossary of terms, Latin names, units and abbreviations used

Chapter 3 **Approach and Methodology**	A description of the methods used to conduct the ESIA assessment
Chapter 4 **Project Development and Evaluation of Alternatives**	A description of the alternative options assessed for the SCPX Project
Chapter 5 **Project Description**	A detailed description of the SCPX Project
Chapter 6 **Policy, Legal and Administrative Framework**	A summary of relevant environmental and social standards and guidelines and BP HSE policy, environmental and social standards and expectations
Chapter 7 **Environmental Baseline**	A description of the physical and biological environment and cultural heritage in the vicinity of the SCPX Project
Chapter 8 **Socio-economic Baseline**	A description of the socio-economic conditions in the vicinity of the SCPX Project
Chapter 9 **Consultation Process**	A description of the consultation process carried out to capture information for the SCPX Project
Chapter 10 **Environmental and Social Impacts and Mitigations (Planned Activities)**	An assessment of the potential environmental and socio-economic impacts associated with planned activities of the SCPX Project.
Chapter 11 **Cumulative and Transboundary Impacts**	An assessment of the potential cumulative impacts arising from the interaction between the SCPX Project and other projects in the area, and assessment of transboundary impacts arising from the SCPX Project
Chapter 12 **Hazard Analysis and Risk Assessment (Unplanned Events)**	An assessment of the potential environmental and socio-economic impacts associated with unplanned events of the SCPX Project
Chapter 13 **Management and Monitoring**	A description of the environmental and socio-economic management system and plans and proposed monitoring measures
Chapter 14 **Overall Project Assessment**	A high-level summary of residual impacts associated with the SCPX Project
Chapter 15 References	A list of all of the literature sources referred to
Chapter 16 ESIA Contributors	Details the participants, contributors and local institutes involved in the production of the ESIA
Appendix A **Constraint Maps**	Maps of environmental, cultural heritage and social constraints along the pipeline and at the facilities, access roads and camp/pipe yard locations

Appendix B **Impact Assessment and Mitigation Tables**	Tables of generic and location-specific impacts and mitigation measures
Appendix C **C1** **Public Consultation and Disclosure Plan** **C2** **Response to ESIA Disclosure Phase Comments** **C3** **ESIA Amendments Register**	Public Consultation and Disclosure Plan (PCDP) A list of all comments made during the ESIA Disclosure phase and the Project response, including amendments to the ESIA An update of changes made to the ESIA from the Draft for Disclosure to the Final Document
Appendix D **Construction Phase Environmental and Social Management and Monitoring Plan**	Overarching ESMMP including individual topic management plans: *Environmental and Social Management and Monitoring Plan:* *Reinstatement Plan* *Ecological Management Plan* *Waste Management Plan* *Pollution Prevention Plan* *Resource Management Plan* *Construction Camp Management Plan* *Infrastructure and Services Management Plan* *Community Health, Safety and Security Plan* *Community Liaison Plan* *Local Recruitment and Training Plan* *Procurement and Supply Plan* *Cultural Heritage Management Plan* *Land Management Plan*
Appendix E **Commitments Register**	The definitive register of all commitments made in the ESIA

The ESIA process has drawn upon a wide range of published and unpublished sources. These sources are referenced fully in Chapter 15. The ESIA has synthesised and collated all relevant information in respect of the ESIA process, such that the ESIA report and its supporting appendices are presented as a comprehensive stand-alone set of documents. There is, however, an Environmental and Social Baseline Report that may be of interest to parties who wish to examine specific issues in greater detail. This baseline report is available for view by prior appointment at the following address:

BP Azerbaijan
Xazar Centre North Tower
153 Neftchiler Avenue
Baku AZ1010

Azerbaijan

This ESIA is presented in English and Azerbaijani languages. Effort has been made to confirm that the Azerbaijani translation of this ESIA is an accurate and true reflection of the intent and meaning of its English original. In the event of any conflict or disagreement in interpretation of any provisions between these different language versions, or any subsequent translations, the English version shall be the definitive, prevailing document.