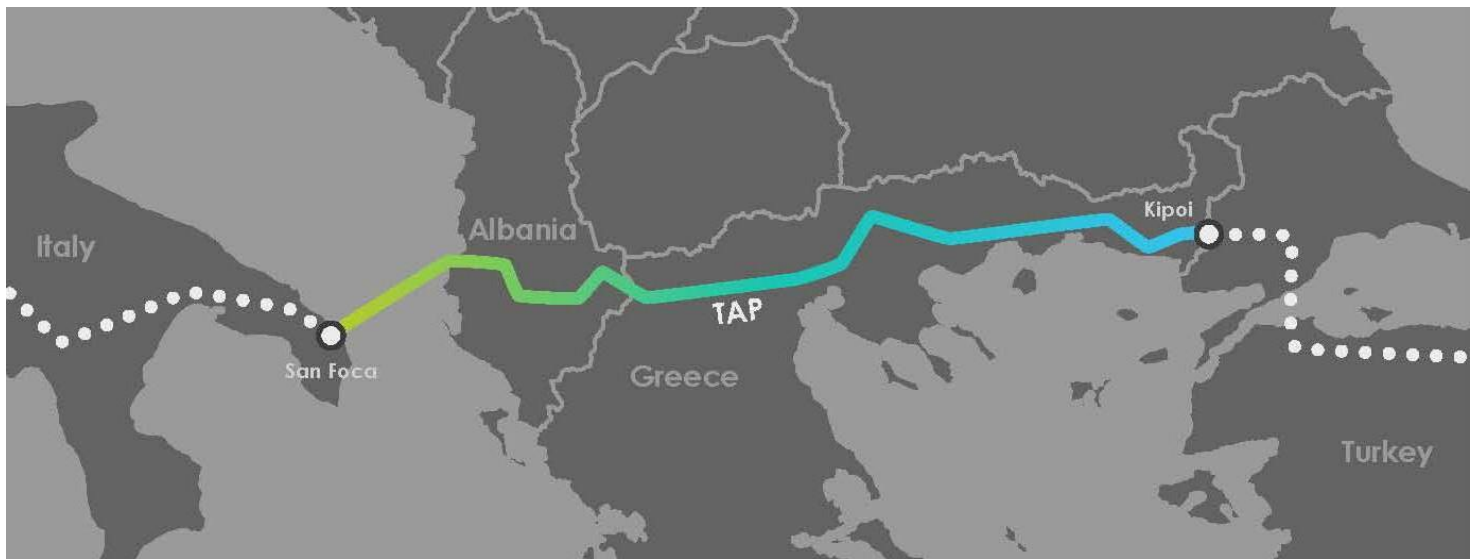






Trans Adriatic
Pipeline





Associated Facilities Assessment

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1 INTRODUCTION

The Trans Adriatic Pipeline (TAP) project aims to ensure that the project is designed and implemented to standards that minimise environmental and social impacts and, to the greatest extent possible, provide a positive legacy in the project area of influence. Accordingly, the TAP environmental and social impact assessment (ESIA) was prepared to meet a range of applicable international standards and guidelines developed to ensure a high level of protection for the environment and social well-being.

Several infrastructure developments are considered by the project team to be ‘associated facilities’ to the TAP project. These would not proceed without the TAP project and/or the TAP project would not proceed without them. These developments are being implemented by different promoters, are subject to different funding arrangements and have their own development timeframes.

Owing to the connections these associated facilities have with TAP, they have the potential to influence the delivery and outcomes of the TAP project. It may also be possible for TAP to influence some of the social or environmental impacts that the associated facilities may cause, either alone or in combination with TAP.



This report provides an assessment of the interactions of the AFs with TAP. It is a high-level assessment against international financial institution (IFI) environmental and social requirements, based primarily on reports that are in the public domain. IFIs do not require associated facilities to comply strictly with their environmental and social requirements, unless they are involved with their financing. IFIs, however, do expect borrowers to assess the environmental and social risks presented by the associated facilities, and collaborate with the operators, to the extent possible, to manage these risks.

1.1 Assessment criteria

As agreed with the TAP lenders group, this assessment of associated facilities to TAP has been prepared with specific reference to the following environmental and social standards:

- European Bank for Reconstruction and Development (EBRD) Environmental and Social Policy (2014)
- European Investment Bank (EIB) Environmental and Social Principles and Standards (2013)
- International Finance Corporation (IFC) Performance Standards (2012)
- Organisation for Economic Co-operation and Development (OECD) Common Approaches (2012)
- Equator Principles III (2013).

Collectively, these policies, requirements and standards are described in this document as the ‘applicable standards’.

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The TAP ESIA was prepared to meet the lender standards that were relevant to the TAP project at the time the ESIA was prepared.¹

1.2 Associated facilities



The associated facilities shown in Table 1.1 have been identified and considered in this assessment.

Table 1.1: Associated facilities of TAP

Associated facility full name	Associated facility short name	Brief description	Countries in which it is located	Relevant sections of this report
Shah Deniz phase 2	SD2	Gas fields in the Caspian Sea	Azerbaijan	3.1, 3.4
South Caucasus pipeline expansion project	SCPX	Additional pipeline and compressors to carry gas from SD2 (upstream) to TANAP (downstream)	Azerbaijan, Georgia	3.2, 3.4
Trans Anatolian pipeline	TANAP	Gas pipeline and associated facilities connecting SCPX (upstream) and TAP (downstream)	Turkey	3.3, 3.4
Interconnection TAP	SRG	Gas pipeline and associated facilities connecting TAP (upstream) and the existing Snam Rete Gas (SRG) distribution network (downstream)	Italy	4.1, 4.4.1
Ionian Adriatic pipeline	IAP	Proposed gas pipeline carrying gas from TAP in Albania to Croatia via Montenegro	Albania, Croatia, Montenegro	4.2, 4.4.2
Interconnector Greece Bulgaria	IGB	Proposed gas pipeline carrying gas from TAP to Greece and Bulgaria	Greece, Bulgaria	4.3, 4.4.2

TAP is not aware of any downstream infrastructure projects that would consume gas transported via the TAP system.

¹ The TAP ESIA comprises an ESIA for each country through which it passes. ERM prepared the ESIA for Albania (2013) and Italy (2013); Asprofos (a Greek company) prepared the integrated ESIA for Greece.

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1.2.1 TAP influence over the associated facilities

The promoter of the TAP project may be able to influence the management and development of associated facilities to reduce impacts or improve environmental and social outcomes. It is noted, however, that the level of influence TAP may be able to exert over an associated facility will depend on several factors, including, but not limited to



- the nature of the interaction
- the stage the associated facility project has reached
- whether the associated facility has any shareholders and/or lenders in common with the TAP project
- the degree to which TAP is connected with the associated facility
- the level of dependency of the associated facility on TAP and vice versa.

This report's purpose is to assess the associated facilities' relevance to the TAP shareholders and/or lender group. The report does not set out to recommend how or when the TAP shareholders or lenders group should exert influence over the associated facilities.

1.2.2 Associated facilities not considered in this assessment

Associated facilities for which insufficient information is available in the public domain have been screened out of this assessment. Where possible, they have been considered in the cumulative impact assessment (CIA) for the TAP project or they will be assessed during project execution as described below. Associated facilities not addressed in this assessment include:

- third-party-operated aggregate extraction sites and third-party-operated concrete batch plants
 - The process for selection of aggregate extraction sites and concrete batching plants that are dedicated to the TAP Project is defined in the Resource Management Contractor Control Plan and Compliance Assurance Plan (CAL00-PMT-601-Y-TTM-0005).
 - The process includes screening to ensure quality requirements, country-specific legal requirements and the TAP Project environmental, social and cultural heritage (ESCH) standards are achieved.
- third-party-operated waste disposal sites
 - The process for selection of waste management service providers and monitoring their performance against TAP Project ESCH standards is detailed in the waste management plan (CAL00-PMT-601-Y-TTM-0001).
 - The process includes waste segregation at source; characterization to ensure appropriate disposal consistent with composition and waste hierarchy principles to reduce waste sent to landfill; waste transportation in dedicated appropriate vehicles and receptacles; waste consignment recording keeping; and inspections of waste management service provider facilities to verify conformance with the TAP Project ESCH standards.
- the DESFA–TAP interconnection point
 - In Greece, proposals have been made to connect TAP with the Greek national gas network, which is operated by DESFA, the national natural

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gas system operator. , Development plans are not at a stage that enables an assessment of environmental or social issues at this time.

- Albania network–TAP interconnector
 - In Albania, proposals have been made to connect TAP with the Albanian national gas network. Development plans are not at a stage that enables an assessment of environmental or social issues at this time.



1.3 Indigenous, ethnic and vulnerable groups

The practice of social impact assessment requires a detailed understanding of the people and communities who have the potential to be affected by the project. Vulnerable groups, including indigenous people, ethnic minorities and other minorities, often require special consideration because they may

- have livelihoods that differ from other affected people
- experience impacts differently from other affected people and therefore may need different mitigation measures
- require different means of engagement
- not have access to services and resources in a manner that is equitable with other groups.

It is understood that there are no indigenous groups recognised by the TAP lender group in any of the countries where the associated facilities are located. Consequently, requirements of the applicable standards that are specific to indigenous groups are not considered relevant to this assessment.

Potential impacts to all stakeholder groups, including vulnerable people, are an important consideration and these groups have been considered during this assessment.

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2 METHODOLOGY

The methodology for the assessment is described in the following sections.

2.1 Review of applicable environmental and social guidelines and standards

The project team undertaking the assessment reviewed the applicable standards identified in Section 1.1. The purpose of the review was to ensure that the team was familiar with the most recent versions of the applicable standards and to ensure that no aspect of the standards was overlooked.

The review also enabled an assessment to be made of where the requirements of each applicable standard were similar and where they differed. This enabled similar requirements from different standards to be considered together, thereby streamlining the assessment process and reducing duplication during assessment and reporting.



2.1.1 Themes guiding the assessment

Ten common themes were identified in the applicable guidelines and standards and were used to structure the assessment:



1. Assessment and management of environmental and social impacts
2. Pollution prevention and abatement, and resource efficiency
3. Biodiversity and ecosystems
4. Climate change
5. Cultural heritage
6. Involuntary resettlement and land acquisition
7. Rights and interests of vulnerable groups
8. Labour standards and working conditions
9. Occupational and community health, safety and security
10. Stakeholder engagement, external communication and grievance mechanisms.

Table 2.1: Correlation between assessment themes and the key IFI standards

Themes used in this assessment of associated facilities	EIB Environmental and Social Principles and Standards (2013)	EBRD Environmental and Social Policy (2014): Performance Requirements (PR)	IFC Performance Standards (2012)	OECD Common Approaches (2016)	Equator Principles III (2013)
Theme 1: Assessment and management of environmental and social impacts	Standard 1	PR 1, PR 10	PS 1	Whole document	All principles (1–10)

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Themes used in this assessment of associated facilities	EIB Environmental and Social Principles and Standards (2013)	EBRD Environmental and Social Policy (2014): Performance Requirements (PR)	IFC Performance Standards (2012)	OECD Common Approaches (2016)	Equator Principles III (2013)
Theme 2: Pollution prevention and abatement, and resource efficiency	Standard 2	PR 3	PS 3	–	–
Theme 3: Biodiversity and ecosystems	Standard 3	PR 6	PS 6	–	–
Theme 4: Climate change	Standard 4	Referred to in PR 1, PR 6	Addressed across multiple Performance Standards	–	–
Theme 5: Cultural heritage	Standard 5	PR 8	PS 8	–	–
Theme 6: Involuntary resettlement and land acquisition	Standard 6	PR 5	PS 5	–	–
Theme 7: Rights and interests of vulnerable groups	Standard 7	Addressed in PS 7 and across multiple Performance Requirements	Addressed in PS 7 and across multiple Performance Standards	–	–
Theme 8: Labour standards and working conditions	Standard 8	PR 2	PS 2	–	–
Theme 9: Occupational and community health, safety and security	Standard 9	PR 4	PS 4	–	–
Theme 10: Stakeholder engagement, external communication and grievance mechanisms	Standard 10	PR 10	PS 1	–	–
Comments	Used as a basis for the assessment themes	Not included in the assessment themes as not relevant: PR 9: Financial intermediaries	–	Whole document considered in Theme 1. No additional requirements identified	All principles (1–10) considered in Theme 1. No additional requirements identified

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2.2 Review of associated facility documentation

The associated facilities considered by this assessment are at different stages of their project life cycle and, consequently, the depth of information available varies significantly between facilities. For example, SD2 is in the construction phase and there is detailed planning and construction information available, while the IAP is at an early feasibility stage and little information on the project is publicly available.

Although the philosophy of the assessment remained unchanged, the availability of data necessitated a slightly different approach to be taken for the projects with and without detailed documentation.

2.2.1 Associated facilities for which detailed documentation is available

For the associated facilities where approved ESIA's and other relevant documents were available, the ESIA (including available appendices) and related documents (e.g. addendums, management plans, Supplementary Lenders Information Packages or Stakeholder Engagement Plans) were used to inform this assessment. Associated facilities considered in this group are

1. SD2
2. SCPX (both the Azerbaijan and Georgia sections)
3. TANAP.

2.2.2 Other associated facilities

For the associated facilities with less detailed documentation or for which management plans supporting an ESIA have not been prepared, publicly available information and professional judgement were used to inform this assessment. The project information relied upon is listed in Sections 4.1, 4.2 and 4.3.

Three associated facilities were considered in this group:



1. SRG (environmental impact assessment (EIA) with no social impact assessment component, available in the Italian language only;² no other management plans or documentation was available for review)
2. IGB (ESIA not available)
3. IAP (ESIA not available).

2.3 Assessment and reporting



Following review of the documentation relevant to each associated facility (Section 2.2), a team including environmental and social impact specialists undertook an assessment.

The assessors considered the available information for each associated facility in relation to lender requirements for the each theme identified in Section 2.1.1, recording key findings.

² The assessment team included consultants from Shelter who are native Italian speakers and reviewed the SRG ESIA.

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The results of the assessment for each associated facility are reported in Sections 3.4 and 4.4, with the associated facilities being considered in sequence from upstream (SD2) to downstream (SRG), with the two proposed connecting pipelines (IAP and IGB) then being considered.

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3 SHAH DENIZ 2 (SD2), SOUTH CAUCASUS PIPELINE EXPANSION (SCPX) AND TRANS-ANATOLIAN NATURAL GAS PIPELINE (TANAP) ASSESSMENT

3.1 Shah Deniz 2 (SD2)

3.1.1 Overview of SD2

Shah Deniz is a high-pressure gas condensate field approximately 100 km south-east of Baku, in the Caspian Sea. Shah Deniz Stage 1 (SD1) commenced production in 2006. The purpose of the second stage of the field development, the Shah Deniz Stage 2 (SD2) project, is to exploit further the gas and condensate reserves in the Caspian. The project will include a fixed-platform complex; 26 subsea wells; new subsea export pipelines to the onshore terminal; and expansion of existing onshore processing facilities.

SD2 is wholly within Azerbaijan, which is not a member of or a candidate country for membership of the European Union. With respect to the Equator Principles, Azerbaijan is not a designated country.

3.1.2 Status of project

The Ministry of Ecology and Natural Resources (MENR) received the submitted SD2 project ESIA in May 2014 and approved it in October 2014. The ESIA addresses the majority of design, construction and operational impacts associated with the project. The MENR approved an earlier ESIA for early site works in December 2011.

On 17 December 2013, the Shah Deniz consortium approved the final investment decision for the Stage 2 development.

Implementation of the SD2 project is underway and BP considers the project to be over 95% complete³, in terms of engineering, procurement and construction. The target date for first gas from SD2 is 2018.



It is noted that the SD2 project is an expansion of the existing SD1 project. Consequently, the proposer already has well-established operations in the affected area. It is expected that many of the environmental and social management systems in place for SD1 operations will be extended to manage and/or mitigate the potential impacts from SD2.

3.1.3 Project participants

Shah Deniz participating interests are the same for SD1 and SD2 and are

- BP (operator), 28.8%

³ http://www.bp.com/en_az/caspian/operationsprojects/Shahdeniz/SDstage2.html

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- State Oil Company of the Azerbaijan Republic (SOCAR), 16.7%
- Petronas, 15.5%
- Lukoil, 10%
- Naftiran Intertrade Company Sàrl (NIOC), 10%
- Turkish Petroleum Corporation (TPAO), 19%.

3.1.4 Legislation and standards applicable to the project

The legal regime for the ESIA is set out within the production sharing agreement (PSA) signed by BP and its co-venturers and SOCAR in June 1996. The PSA prevails in the event of conflicts with any present or future national legislation, except for the Azerbaijani Constitution, the highest law in the Republic of Azerbaijan.

The SD2 project commits to complying with the intent of current national legal requirements where those requirements are consistent with the provisions of the PSA and do not contradict, or are otherwise incompatible with, international petroleum industry standards and practice, and BP governance.

Consideration of IFC standards, EBRD Performance Requirements, EIB standards and Equator Principles was not a requirement of the project.

3.1.5 Documents considered

Environmental and social impact assessment of the SD2 project was undertaken in two stages. The MENR approved an initial ESIA for early site works for the Sangachal Terminal expansion (SD2 Infrastructure ESIA) in December 2011, referenced in this report as the Early Works ESIA. This included site access, construction facilities, earthworks and drainage works. The MENR received the main SD2 project ESIA in May 2014 and approved it in October 2014; this is referenced in this report as the SD2 ESIA.

Sustainability Pty Ltd undertook an environment and social compliance audit in 2014 on behalf of the European Bank for Reconstruction and Development, the Asian Development Bank, and the Black Sea Trade and Development Bank. This included an on-site assessment to identify past or present concerns related to impacts on the environment; to evaluate the adequacy of the SD2 project ESHS assessments and management plans; and to confirm compliance of the project development plan with applicable environmental and statutory requirements.

The documents identified in Table 3.1 were considered when undertaking this assessment.







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Table 3.1: Documents considered in the assessment for SD2

Document title	Brief description	Author	Date	Version number
Shah Deniz 2 Infrastructure Project Environmental & Socio-Economic Impact Assessment	The report presents an assessment of SD2 early works associated with construction of the onshore facilities, which comprises a new access road; clearance and terracing of the SD2 expansion area; and installation of storm water drainage and surface water/flood protection berms.	URS	December 2011	Not stated
Shah Deniz 2 project Environmental and Socio-Economic Impact Assessment	The report presents an assessment of SD2 project area including a fixed SD Bravo platform complex, subsea manifolds and associated well clusters, and subsea export pipelines. The assessment has been conducted in accordance with the legal requirements of Azerbaijan as well as BP Azerbaijan's Health, Safety, Security and Environment (HSSE) Policy. The report includes a range of appendices covering baseline monitoring reports, scoping consultation records, and public consultation records, schedules of drilling and construction activities and events, and assessment results for various environmental topics.	URS	November 2013	Not stated
Shah Deniz 2 project Environmental and Socio-Economic Impact Assessment Non-Technical Summary	This document presents a non-technical summary of the SD2 project ESIA.	URS	November 2013	Not stated

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Document title	Brief description	Author	Date	Version number
Draft Environmental and Social Compliance Audit, AZE: Shah Deniz Gas Condensate Field Stage 2 project	Independent environment and social audit of the upstream component of the Shah Deniz Gas Export project Stage 1 Development in Azerbaijan. The document's scope includes a high-level assessment of the Shah Deniz Stage 1 environmental and social performance to date, against the commitments and obligations established in the environmental and social assessment documentation, the EBRD performance requirements and good international practice, and a review of the proposed activities associated with the additional project financing to verify if the activities have been sufficiently subject to assessment within the initial Stage 1 ESIA and subsequent assessments and to determine if any further due diligence is necessary.	Sustainability Pty Ltd	May 2014	EBR006_Lukoil Shah_Deniz1_Audit_Rev0_FINAL
Non-Technical Summary for the Final Report of the Independent Environmental & Social Consultant Environmental & Social Review and Audit Lukoil Overseas Shah Deniz – Stage 2 of the Shah Deniz project, Azerbaijan	This report summarises the environmental and social review and audit for the Lukoil Overseas Shah Deniz for Stage 2 of the SD2 project. The project involves all the aspects of the upstream Stage 2 operations, including two new bridge-linked offshore platforms; 26 gas producing wells, which will be drilled with two semi-submersible rigs; 500 km of subsea pipelines to link the wells with the onshore terminal; upgrades to the offshore construction facilities; and expansion of the Sangachal Terminal to accommodate the new gas processing and compression facilities.	Sustainability Pty Ltd	September 2015	Not stated

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Document title	Brief description	Author	Date	Version number
Shah Deniz Gas Export project Stage 1 Development Environmental & Socio-Economic Impact Assessment	This report presents the ESIA for the Shah Deniz stage 1 project.	Not stated	August 2002	Not stated
AZE: Shah Deniz Stage II Investment Plan SD2 Fishing Livelihoods Management Plan	This document describes the measures designed to minimise the effects of the economic displacement of small-scale fishing activities by the Shah Deniz Stage 2 (SD2) project pipeline installation activities.	BP Exploration (Shah Deniz) Ltd	June 2016*	BP-SFZZZ-EV-PLN-0031-000-C02

* Date obtained from the website at <https://www.adb.org/projects/documents/aze-shah-deniz-stage-2-investment-plan-jun-2016-rp>, noting that the same version of final report was originally posted in June 2015.

The Shah Deniz 2 project Stakeholder Engagement Plan was referred to by project documentation; however, it was not available to support this assessment.



3.2 South Caucasus Pipeline Expansion (SCPX)

3.2.1 Overview of SCPX

The South Caucasus Pipeline expansion (SCPX) project will increase the capacity of the existing South Caucasus Pipeline (SCP), which was commissioned in 2006 to transport gas from the Shah Deniz phase 1 gas fields (SD1) to Turkey. SCPX will enable the transport of gas from the Shah Deniz phase 2 (SD2) development; it includes construction of a new pipeline that will run for 424 km in Azerbaijan and 62.3 km in Georgia before connecting back into the existing SCP system. The SCPX pipeline is routed parallel and immediately adjacent to the existing SCP pipeline for much of its length. In addition, a new intermediate pigging station and five new block valves will be constructed in Azerbaijan, while in Georgia there will be a new block valve, pigging station, two new compressor stations and a pressure reduction metering station.

SCPX is wholly within Azerbaijan and Georgia, of which neither is a member of or candidate country for membership of the European Union. With respect to the Equator Principles, neither Azerbaijan nor Georgia is a designated country.

Environmental and social impact assessment of the SCPX project was undertaken separately for Azerbaijan and Georgia. For this assessment, the documentation for the

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Azerbaijan and Georgia sections of the SCPX pipeline system has been reviewed separately. However, owing to the similarity in the documents and the similarity of the issues identified, the results are presented and discussed together in Section 3.4.

3.2.2 Status of project

The MENR of the Republic of Azerbaijan received the submitted ESIA for Azerbaijan and approved it on 1 August 2013. The Ministry of Environment and Natural Resources Protection (MENRP) of Georgia received the submitted ESIA for Georgia and approved it on 28 June 2013.

Addenda to both ESIA's have subsequently been prepared to assess the impacts of design modifications associated with a reduction in pipeline diameter and additional pipeline sections. The addendum for Azerbaijan was submitted in June 2014 and the addendum for Georgia was submitted in October 2014. The respective authorities have subsequently approved both addenda.

In Azerbaijan, pipeline construction has commenced. Significant lengths of pipe have been welded, coated and lowered into trenches, and backfilling activities are progressing.

In Georgia, construction has also commenced, with pipeline trenching, lowering and laying activities underway. Construction works have also begun at both of the compressor stations and the metering station.

Construction is expected to be complete in 2018.



It is noted that the SCPX project is an expansion to the existing SCP project. Consequently, the operator already has well-established operations in the affected area. It is expected that many of the environmental and social management procedures in place for SCP will be extended to manage or mitigate the potential impacts from SCPX.

3.2.3 Project participants

The South Caucasus Pipeline Company (SCPC) owns the existing SCP pipeline and will also be the operating company for SCPX. The shareholders of the SCP consortium are

- BP, 28.8%
- State Oil Company of the Azerbaijan Republic (SOCAR), 16.7%
- Petronas, 15.5%
- Lukoil, 10%
- Naftiran Intertrade Company Sàrl (NIOC), 10%
- Turkish Petroleum Corporation (TPAO), 19%.

The technical operator of the pipeline is BP and the commercial operator is SOCAR.

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3.2.4 Legislation and standards applicable to the project

The SCPX project is being implemented within the framework of the Inter Government Agreement (IGA) and the Host Government Agreements (HGAs) as well as national legislation.

The IGA constitutes a binding international agreement between Georgia and the Azerbaijan Republic relating to the transit, transportation and sale of natural gas in and beyond the territories of Georgia and the Azerbaijan Republic through the South Caucasus pipeline system.

The HGAs constitute the controlling domestic or national law governing the SCPX project within each respective country. The provisions of the HGAs override any inconsistent provisions in national legislation, with the exception of the provisions in the Constitution of Georgia and the Constitution of Azerbaijan.



Both ESIAAs considered the IFC 2012 standards. Consideration of EBRD Performance Requirements, EIB standards and Equator Principles was not a requirement of the project.

3.2.5 Documents considered



The documents identified in Table 3.2 were considered when undertaking this assessment.

Table 3.2: Documents considered in the assessment for SCPX



Document title	Brief description	Author	Date
Azerbaijan section of SCPX			
South Caucasus pipeline expansion project, Azerbaijan Environmental and Social Impact Assessment	This document assesses the potential adverse and beneficial impacts, mitigations and management of environmental and social issues for SCPX in the Republic of Azerbaijan. It includes a range of appendices covering details of generic and site-specific impact assessment and mitigation proposals, Public Consultation and Disclosure Plan (PCDP), Environmental and Social Management and Monitoring Plan (ESMMP), and commitment register.	RSK Environment Ltd	June 2013
South Caucasus pipeline expansion project – Guide to land acquisition and compensation, Azerbaijan	This document provides practical information pertaining to the land acquisition and compensation process. It includes a summary description of the project; the presentation of its land requirements; the key principles that SCPC commits to apply to the land acquisition and compensation process; details on compensation rates and the different stages in the process; and a	SCPC based on inputs from independent consultants specialised in land acquisition	(Updated) January 2015

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Document title	Brief description	Author	Date
	description of the grievance procedure.		
South Caucasus pipeline expansion project, Azerbaijan, Environmental and Social Impact Assessment non-technical summary <i>Hard copy</i>	This non-technical summary (NTS) of the ESIA for the SCPX project in Azerbaijan describes, using non-technical language, the project and the potential impacts it may have on the physical and biological environments and on people. It also addresses the measures that the project will implement with the aim of reducing adverse impacts and enhancing potential social benefits, and how environmental and social issues will be managed during construction and operations.	RSK Environment Ltd	June 2013
South Caucasus pipeline expansion project, Azerbaijan Environmental and Social Impact Assessment addendum	This document is an addendum to the ESIA for the SCPX project in Azerbaijan. It presents the assessment of the potential adverse and beneficial impacts and addresses mitigations and management of environmental and social issues potentially associated with reducing the pipeline's diameter to 48 inches, and an additional section of pipeline proposed for the SCPX project in Azerbaijan.	RSK Environment Ltd	June 2014
South Caucasus pipeline expansion project, Azerbaijan, Environmental and Social Impact Assessment Addendum Non-Technical Summary	The NTS describes the project design updates and the potential impacts they may have on the physical and biological environments and on people. It also addresses the measures that the project will implement to reduce adverse impacts and to enhance potential social benefits, and how environmental and social issues will be managed during construction and operations.	RSK Environment Ltd	June 2014
Environmental and Social Baseline Report: SCPX project ESIA, Azerbaijan <i>Hard copy</i>	This report presents the findings of baseline studies that were carried out to characterise the current condition, at the time, of the physical and biological environment and socio-economic conditions in areas likely to be affected by the SCPX project in Azerbaijan.	RSK Environment Ltd	January 2013
Georgia section of SCPX			
South Caucasus pipeline expansion project, Georgia – Environmental and Social Impact Assessment	This document assesses the potential adverse and beneficial impacts, mitigations and management of environmental and social issues for SCPX in the Republic of Georgia. It includes appendices covering	RSK Environment Ltd	March 2013

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Document title	Brief description	Author	Date
	environmental and social constraints mapping, landscape modelling, activity and issues matrix, PCDP, Construction Phase Environmental and Social Management and Monitoring Plan, and commitment register.		
South Caucasus pipeline expansion project, Georgia, Environmental and Social Impact Assessment Non-Technical Summary	This document describes the project and the potential impacts it may have on the physical and biological environments and on people. It also addresses the measures that the project will implement to reduce adverse impacts and to enhance potential social benefits, and how environmental and social issues will be managed during construction and operations.	RSK Environment Ltd	March 2013
South Caucasus pipeline expansion project, Georgia Environmental and Social Impact Assessment addendum	This document is an amended version of the April 2014 draft ESIA Addendum, which has been updated to reflect the minor alterations to the pipeline route. It assesses the potential adverse and beneficial impacts and addresses mitigations and management of environmental and social issues potentially associated with reducing the pipeline's diameter to 48 inches, and the additional sections of pipeline proposed for the SCPX project in Georgia.	RSK Environment Ltd	October 2014
South Caucasus pipeline expansion project, Georgia, Environmental and Social Impact Assessment addendum non-technical summary	This document is the NTS of the ESIA Addendum for the proposed project design updates of the SCPX project in Georgia. It describes the project design updates and the potential impacts they may have on the physical and biological environments and on people. It also addresses the measures that the project will implement to reduce adverse impacts and to enhance potential social benefits, and how environmental and social issues will be managed during construction and operations.	RSK Environment Ltd	October 2014
South Caucasus pipeline expansion project – Guide to Land Acquisition and Compensation, Georgia	This document aims to provide affected landowners and land users, as well as local authorities and the public at large, with practical information pertaining to the land acquisition and compensation process that the project will involve. It includes a summary description of the project; the presentation of its land requirements; the key principles that SCPC commits to apply to the land acquisition and compensation process;	SCPC based on inputs from independent consultants specialised in land acquisition	April 2014

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Document title	Brief description	Author	Date
	details on compensation rates and the different stages in the process; and a description of the grievance procedure		
Environmental and Social Baseline Report: SCPX project ESIA, Georgia <i>Hard copy</i>	This report presents the findings of baseline studies that were carried out to characterise the current condition, at the time, of the physical and biological environment and socio-economic conditions in areas likely to be affected by the SCPX project in Georgia.	RSK Environment Ltd	May 2012

3.3 Trans-Anatolian Natural Gas pipeline (TANAP)

3.3.1 Overview of the TANAP project

The TANAP project will bring natural gas produced from Azerbaijan's Shah Deniz-2 gas field, and other areas of the Caspian Sea, to Turkey, and enable onwards transport west into Europe. The 1850-km pipeline will run from the Turkish border with Georgia, through 20 Turkish provinces to the Greek border. It includes a 19-km section running under the Sea of Marmara.

TANAP is wholly within Turkey, which is a candidate country for membership of the European Union. With respect to the Equator Principles, Turkey is not a designated country.

It is noted that the ESIA for TANAP identifies the Nabucco pipeline project as being a potentially significant source of cumulative impacts. It is understood that this project was cancelled in 2013, after the TANAP ESIA was prepared. Consequently, risks associated with the Nabucco pipeline have been discounted in risk assessment.



3.3.2 Status of project

The ESIA for TANAP was prepared between December 2012 and April 2014. A critical habitats assessment was undertaken following completion of the ESIA to support preparation of a Biodiversity Action Plan between November 2014 and July 2016. The approval date of the ESIA is unknown.

The Social Action Plan describes a social and environmental investment programme. This appears to be a sound mechanism for maximising project benefits locally. A grant application process opened on 23 June 2017 (<http://www.tanap-seip.com>).

TANAP has recently issued a comprehensive disclosure package to align with lender group requirements. Several environmental and social management and monitoring plans have been, or are being, prepared by the contractors to TANAP.

TAP has set up a working group with TANAP for Border Crossing Works (BCW) i.e. the horizontal directional drill crossing of the Evros river. Several face to face meetings have taken place and each discipline has an assigned working contact within each organisation (TAP/TANAP/Spiecapag). Coordinated monitoring, stakeholder

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engagement and grievance management have been discussed and agreed upon in these meetings.

3.3.3 Project participants

The ownership of TANAP is

- State Oil Company of the Azerbaijan Republic (operator), 58%
- Turkey's pipeline operator BOTAŞ, 30%
- BP, 12%.

3.3.4 Legislation and standards applicable to the project

The ESIA set out to comply with IFC 2012 Performance Standards, Equator Principles, and the 2008 version of the EBRD Performance Requirements. It is noted, however, that two of the applicable standards being considered in this assessment (the 2013 EIB standards and the 2014 EBRD Environmental and Social Policy) were not available at the start of the ESIA process.



The legislative requirements in the host country of Turkey are also applicable.

3.3.5 Documents considered



An ESIA has been prepared and is publicly available for the TANAP associated facility, along with appendices and other information linked to the ESIA. The documents identified in Table 3.3 were considered when undertaking this assessment.

Table 3.3: Documents considered in the assessment for TANAP

Document title	Brief description	Author	Date	Version number
Trans-Anatolian Natural Gas pipeline (TANAP) project ESIA report	ESIA for the TANAP project*	Cinar Engineering Consulting Co. with additional quality control provided by Golder Associates and ERM Group	Unknown	Unknown
Stakeholder Engagement Plan	Explains how TANAP will engage with stakeholders through the course of the project	Golder Associates	18 August 2013	Rev 4
Resettlement Action Plan (RAP) (including Annexes)	Provides a framework for current and future resettlement activities associated with the TANAP project	Golder Associates	5 October 2015	P3-1

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Document title	Brief description	Author	Date	Version number
2015–2016 First Annual Environmental and Social Monitoring Report	Reports progress of environmental monitoring activities as proposed in relevant documentation	TANAP	31 December 2015	Unknown
Trans-Anatolian Natural Gas pipeline project executive summary	Executive summary of TANAP ESIA and supporting environmental and social safeguard documents	Not stated in the document, but believed to be Golder Associates	22 July 2016	Unknown
Biodiversity Action Plan	Identifies relevant species and habitats and consequently determines applicable and area-specific actions to protect and conserve biodiversity during the project	Cinar Engineering	12 July 2016	Rev 4
ESMP Annex 1 Environmental Action Plan	Includes construction contractors' sub-management plans, namely Construction Impact Management Plan, Emergency Response Plan, Employment and Training Plan, Erosion, Reinstatement and Landscaping Plan, Pollution Prevention Plan, Traffic Management Plan and Waste Management Plan, as well as environmental management guidelines for contractors, sensitive biodiversity areas, and Cultural Heritage Management Plan. Appointed contractors have prepared similar plans under each category.	Punj Lloyd LiMak-Kalyon JV, Fernas, Sicim-Yuksel-Akkord JV, and Tekfen, overseen by Worley Parsons	20 July 2016	P3-2
ESMP Annex 2 Environmental Monitoring Plan	Includes the project's environmental and social commitments register in Annex 1 and the environmental standards for monitoring in Annex 2	Not stated in the document, but believed to be Golder Associates	1 July 2016	P3-2
ESMP Annex 3 Social Action Plan	Includes commitments to address social impacts, outline of environmental and social monitoring system, construction contractors' sub-management plans including Community Relations Plans, Community Safety Management Plans, Construction Impacts Management Plans, Employment and Training Plans, Procurement and Supply Management Plans and Traffic Management Plans. Appointed contractors have prepared similar plans under each category, although no Procurement and Supply Management Plan is available from Punj Lloyd LiMak-Kalyon JV.	Punj Lloyd LiMak-Kalyon JV, Fernas, Sicim-Yuksel-Akkord JV, and Tekfen, overseen by Worley Parsons	15 July 2016	P3-1

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Document title	Brief description	Author	Date	Version number
ESMP Annex 4 Social Monitoring Plan	Includes proposals for monitoring of social mitigation measures, and a social commitments register (embedded within ESMP Annex 2, Annex 1)	Not stated in the document, but believed to be Golder Associates	15 July 2016	P3-1
EBRD Project Summary Document and Disclosure Package	Disclosure package includes ESIA Non-Technical Summary, ESAP and ESDD. Used to inform EBRD's investment decision.	EBRD	Nov 2016	Unknown
World Bank TANAP Project Appraisal document	Provides a summary of the project, including key environmental and social issues. Used to inform the World Bank's investment decision	World Bank	Nov 2016	PAD 1665
IESC's ESDD of the TANAP Project	Environmental and social due diligence report prepared for EBRD.	Sustainability Pty Ltd.	June 2017	Final

* The following sections of or appendices to the ESIA were not available: some sub-sections of Chapter 7 (Environmental Baseline Features); Annex 2.4 Social Baseline Report; Appendix 2.4 baseline reports (assumed to be the same as Annex 2.4); Annex 1 Social Commitment Register of ESMP; and Annex 4 Social Monitoring Plan.

3.4 Assessment findings for SD2, SCPX and TANAP

Assessment findings relevant to the SD2, SCPX and TANAP projects are shown in Table 3.4. The table is based primarily on the findings of the report 'Environmental & social review and audit. LUKOIL Overseas Shah Deniz – Stage 2 of the Shah Deniz project' by Sustainability Pty Ltd (2015) and the results of the assessment described in this report. A reference number, for example (2), follows information from sources other than Sustainability Pty Ltd's report for SD2. References are cited at the end of the table.







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Table 3.4: Assessment findings of the SD2, SCPX and TANAP associated facilities



Topic area	SD2	SCPX	TANAP
Theme 1: Assessment and management of environmental and social impacts			
Corresponding IFI requirements: EIB Standard 1; EBRD Performance Requirements 1 and 10; IFC Performance Standard 1, OECD Common Approaches, Equator Principles			
Environmental and social assessment of impacts and risks	<p>In general, the ESIA provides a systematic and detailed assessment of the significant environmental and social aspects of the SD2 project as identified through the ESIA scoping and through engagement with key government stakeholders in Azerbaijan. The impact assessment methodology is sound and consistent with good international industry practice (GIIP).</p> <p>Project alternatives were defined during the early conceptual design of the SD2 project and were compared on financial, technical design, safety, and environmental and socio-economic criteria. The alternative that represented the best balance with regard to the criteria was taken forward to the subsequent detailed design stage.</p> <p>The SD2 ESIA provides a general indication of affected communities. Specific information about how the four neighbouring villages, as well as those neighbouring the construction yards and other associated facilities, may be impacted by the project with respect to community health, safety and security issues are not assessed in great detail (for example, antisocial behaviour and</p>	<p>An ESIA and environmental and social management system (ESMS) have been prepared for the SCPX. The ESIA appears comprehensive, having been produced in line with the requirements of the SCP HGA (aligned with international standards). Several activities in the ESIA were deemed yet to be finalised, including waste disposal; sourcing of aggregates and other construction materials; river crossing methodologies; and temporary access roads to the ROW. Documentary evidence as to the progress or resolution of these issues is required for a complete review. There is a comprehensive Guide to Land Acquisition and Compensation that is stated to form the basis for the Land Acquisition and Compensation Framework. Further documentary evidence of the framework is required to assess adequacy. The emphasis of the ESIA is on construction phase and less on the operational and decommissioning phase. A systematic methodology consistent with GIIP has been utilised. The SCPX ESIA refers to the SCP ESIA (2002) and the</p>	<p>The ESIAs have been developed to meet national standards, TANAP policy and guidance provided by international institutions such as the IFC, EBRD and EU.¹⁷ All major components of an international standard ESIA are present. The ESIA was conducted by relevant local and international third parties, in consultation with local authorities and appropriate engagement with stakeholders. The ESMS framework is presented clearly in the ESIA, as are the ESMPs (which are summarised in the ESIA and presented in detail as appendices). The ESMPs are detailed for the construction phase of the project and are proposed to be updated for the implementation and operations phase. It is noted that the third-stage compressor stations will be subject to a separate ESIA process once the decision for their construction is made.</p> <p>The process for identification of risks and impacts appears robust, and consistent with the principle of GIIP. The environmental and social baseline is</p>

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Topic area	SD2	SCPX	TANAP
	social conflict) or are scoped out (for example, road/rail disruption, health and safety risks and impacts as a result of onshore pipeline works). The range of potential health and safety impacts on local communities from the project are not fully described.	BTC ESIA (2002) but has followed the steps to produce an ESIA for a new development project, i.e. a gap assessment of existing baseline studies and updating of baseline information where gaps existed and information was out of date.	sufficient. It is indicated that due to the vast geographical context and seasonal constraints, selective sampling for field data collection and impact assessment techniques were employed with the intent of focusing on key areas of concern/receptor sensitivity. The risks and impacts identification process considers the emissions of greenhouse gases, relevant risks associated with a changing climate, and potential transboundary and cumulative effects. Environmental and social risks and impacts are suitably identified within the project area of influence.
Environmental and social baseline	Baseline environmental and social data are comprehensive, being developed from monitoring programmes refined over a 10-year period. As the project did not set out to meet EIB standards, no consideration is given to the likely evolution of the environmental and social baseline without implementation of the project. This is a requirement of EIB (paragraph 32) which is not common to other standards. ³	The existing environmental and social baseline is clearly described. As the project did not set out to meet EIB standards, no consideration is given to the likely evolution of the environmental and social baseline without implementation of the project. This is a requirement of EIB (paragraph 32) which is not common to other standards.	A credible effort at describing environmental baseline has been provided. Section 7.1 and 7.2 set out a good general approach to establishing environmental and social baseline. Sections 7.3.3a and 7.3.6 describe the socio-economic characteristics of the area. It is noted that the Annex 2.4 Social Baseline Report is not available for review. Assessment of the likely evolution of the environmental and social baseline without implementation of the project has not been undertaken.
Scope and area of assessment	The environmental and social impacts have been assessed through a systematic	Associated facilities in the context of lender definition (SD2, TANAP, quarries, borrow	The ESIA indicates an adequate level of detail to baseline, risk identification and

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Topic area	SD2	SCPX	TANAP
	<p>process applied for all project components. The project's social area of influence is not clearly defined within the ESIA and the project's associated facilities are not addressed. The construction yard sites are listed as options that may be used and so are not fully documented in the ESIA. However, information used by the SD2 project during ESIA scoping appears to be sufficient to demonstrate adequately that environmental risks have been considered for associated facilities.</p>	<p>pits, batch plants etc.) have not been specifically described or discussed. The selection of quarries, borrow pits and batch plants has been left to the contractor. There is a commitment for the contractor to assess environmental and social impacts associated with using these facilities and to prepare an ESIA if they might be significant.</p> <p>Chapter 11 Cumulative and Transboundary Impacts, including that of other projects, provides assessment of potential additive impacts, assessment of potential in-combination impacts, and assessment of transboundary impacts.</p>	<p>impact assessment, including cumulative impacts.</p> <p>The IESC observed some gaps related to the assessment of offshore construction impacts. However, additional evidence provided by TANAP to the IESC was sufficient to demonstrate compliance with EBRD PR1.¹⁷</p>
Stakeholder engagement, external communication and grievance mechanisms	<p>The ESIA documents the stakeholder engagement and consultation processes undertaken from scoping up to ESIA disclosure. Analysis of stakeholders was reported to have been undertaken before scoping, and disclosure of ESIA documents was carried out in line with documented project disclosure processes. The ESIA describes the register of issues raised through the consultation process but does not specifically describe the screening and assessment process undertaken to address these, or demonstrate how issues raised are tracked and documented. However, the feedback loop of information received is published annually in the BP regional sustainability report.</p>	<p>A Community Liaison Plan is defined within the ESIA that includes community relations training, establishment and maintenance of good community relations, and a grievance procedure. In addition, a PCDDP presents and describes the stakeholder disclosure and consultation procedures as part of the ESIA process. In sum, the plans are substantive. In relation to disclosure, the ESIA documentation was disseminated for public review and comment for a period of 60 days, including public meetings.</p> <p>Periodic reporting is adequately documented in the ESIA (i.e. of the ESIA itself), including evidence of reporting notifications and materials. In addition, there is a commitment to periodic reporting</p>	<p>Extensive engagement (analysis, planning disclosure and consultation) is documented in the ESIA in Appendix 3, indicating that engagement was conducted in accordance with IFC Principles.</p> <p>Appendices indicate that ongoing reporting to affected communities is occurring in line with IFC PS1. The chapter on stakeholder engagement in the ESIA provides detail on engagement and communications conducted up to the point of release of the ESIA, including tools used, frequency, and content of engagement and communications.</p> <p>A grievance mechanism exists that is adequate in scale and appropriate to the</p>

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Topic area	SD2	SCPX	TANAP
	<p>The ESIA describes the register of issues raised through the consultation process but does not specifically describe the screening and assessment process undertaken to address these, or track and document these issues raised, and adjust the management programme accordingly. However, reporting is described in the SEP as on project completion, but annual sustainability reporting is undertaken at Azerbaijan–Georgia–Turkey (AGT) regional level for external communication.</p> <p>A grievance mechanism is in place and the grievance log (not procedure) was verified by the independent environmental and social consultant (IESC). Environmental monitoring data is shared with communities through community liaison officers (CLOs) when related to grievances.</p>	<p>to affected communities as the project develops in both the Community Liaison Plan and the PCDP.</p> <p>The Community Liaison Plan and the PCDP both adequately define procedures for external communications and the logging and resolution of grievances.</p> <p>As this is an expansion of the existing SCP project, the grievance mechanism is already in place and has been previously communicated by CLOs.¹</p>	risks and impacts of the project.
Legislation and project standards	<p>The ESIA (Chapter 2/5) states that the SD2 project will comply with the intent of current national legislation where those requirements are consistent with the provisions of the PSA and do not contradict, or are otherwise incompatible with, international petroleum industry standards and practice. The PSA is stated as being higher in the legislative hierarchy in Azerbaijan and over-riding the national legislation.</p> <p>The PSA does not have any specific social objectives.</p> <p>Compliance with the EIB 2013 or EBRD 2014</p>	<p>Chapter 6 (Regulatory Framework) of the ESIA clearly outlines the applicable international and national standards and how they are applicable to SCPX.¹</p> <p>Compliance with all the applicable standards was not a requirement for the project during the ESIA phase. Some of the applicable standards have therefore not have been considered by, or applied to the project. However, although not seeking IFC finance, SCPX seeks to comply with international standards and has therefore considered the IFC performance standards</p>	<p>The ESIA states that “This EIA report prepared for the TANAP Project aims to meet all the relevant Turkish legislative requirements for an EIA approval from the Competent Authority (Ministry of Environment and Urbanisation - MOEU)” (Section 1.6.1).⁸</p> <p>Appendix 4.6 of the ESIA contains a detailed legislation register.⁸</p> <p>The ESIA has been approved, and is therefore assumed to have been judged by the Turkish authorities as having met</p>

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Topic area	SD2	SCPX	TANAP
	standards was not a requirement for the project during the ESIA phase. Some of the applicable standards have not therefore been considered by or applied to the project. ³	and EHS Guidelines, to the extent that they provide useful guidance regarding potential project impacts and mitigation measures. ¹	the relevant requirements. ³
Emergency preparedness and response	<p>The safety design philosophy follows the design concepts applied on SD1, but incorporating lessons learned.</p> <p>Identification of hazards to workers has occurred through a number of BP global projects organisation defined mandatory processes.</p> <p>Management of emergencies is implemented through a crisis management and emergency response framework that includes an established response mechanism and dedicated response teams.</p> <p>There is a mutual operating plan on management of emergency situations between the BP AGT region and the Azerbaijani Ministry of Emergency Situations.</p>	<p>The ESIA states that the existing SCP Emergency Response Plan will be updated to integrate SCPX and refers to updates that will be included in the SCPX Emergency Response Plan (ERP). The ERP for SCPX is insufficiently described in the ESIA to assess its adequacy. Chapter 12 Hazard Analysis and Risk Assessment (Unplanned Events) comprehensively describes and assesses unplanned events and risks to public safety and harm to the environment including mitigation measures. However, emergency response preparedness systems are not adequately described in the ESIA.</p> <p>The ESIA states that both company and contractor are each responsible for developing an Emergency Response Plan.²</p>	<p>Emergency preparedness and response is adequately detailed and presented in the ESIA for the construction phase of the project.</p> <p>Emergency Response Plans (ERPs) related to operation of the pipeline are currently in development and will be ready six months prior to operation. Offshore construction plans, including an Oil Spill ERP to manage response to vessel interactions, have been drafted. TANAP are required to disclose these plans prior to commencement of offshore works.¹⁷</p>
Environmental and Social Policy	<p>HSSE Policy (Azerbaijan Developments) adequately describes objectives and principles that guide the project. The ESIA for SD2 has been developed in line with BPs own standards, national legislation and the PSA.</p>	<p>An overarching Environmental and Social Policy is provided, stipulating environmental and social objectives and principles that guide the project. There is no explicit commitment contained within the policy to comply with applicable laws and regulations of Azerbaijan, including obligations under international</p>	<p>The overarching environmental and social policy is comprehensive, and consistent with the IFC PSs.</p> <p>The ESIA was not required to meet other IFI standards.³</p>

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Topic area	SD2	SCPX	TANAP
		law. However, the policy is aligned broadly with the key principles of the IFC Performance Standards in all other areas.	
Environmental and Social Management Systems and Management Plans	<p>The SD2 ESMP and SEP exist but are not in the public domain and have never been publically disclosed.</p> <p>The ESIA and the SD2 HSE Plan describe the project Environmental and Social Management and Monitoring Programme (ESMMP), which includes management plans designed to implement the environmental and social requirements during construction.</p> <p>The mitigation hierarchy is promoted: for example, the Community Engagement and Nuisance management and monitoring plan (MMP) favours impact and risk avoidance includes measurable targets and indicators and assign roles and responsibilities for time-bound implementation.</p> <p>The Fishing Livelihoods Management Plan (FLMP) includes the identification of specific measures to address the needs of vulnerable households.</p>	<p>Management programmes have been developed for the construction phase of the project (i.e. not for the operational phase of the project). The management programmes sufficiently describe mitigation and performance improvement measures and actions that address the identified environmental and social risks. It is stated that operational phase management plans will be based on those developed for the construction phase and developed before operations commence.</p>	<p>The ESMS framework is clearly presented in the ESIA, as are the ESMPs (which are summarised in the ESIA and presented in detail as appendices). The ESMPs are detailed for the construction phase of the project and are proposed to be updated for the implementation and operations phase.</p>
Project monitoring and reporting	<p>The construction phase ESMMP describes how the project will monitor and report environmental and social performance against legal obligations, the ESIA commitments and operator requirements. ESMS effectiveness is reported to senior management via quarterly ESIA compliance</p>	<p>Chapter 13 of the ESIA: Management and Monitoring adequately describes monitoring and review of the effectiveness of the management programme, including legal compliance and contractual obligations.</p> <p>There is no evidence that external</p>	<p>Monitoring and review procedures are stipulated in detail for the construction phase, including specific monitoring guidance provided in the Construction Impacts Management Plan (Appendix 5.1). An operations phase monitoring framework is provided and referred to in this plan.</p>

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Topic area	SD2	SCPX	TANAP
	dashboard reports.	verification monitoring of potentially significant impacts will be undertaken. However, Appendix D to the ESIA states that the company shall schedule a programme of verification audits to gather tangible evidence demonstrating whether the contractor is complying with their implementation plans and procedures, including any relevant method statements and mitigation measures. ²	However, further detail needs to be added and reviewed on entering the project's implementation and operations phase.
Organisational capacity and commitment, and supply chain management	<p>Construction-phase ESMS documentation includes defined actions for compliance with legal obligations, environmental and social design criteria and the ESIA commitments. ESMPs include the identification of human and other resources required to meet defined performance requirements and delegate responsibilities for environmental and social performance to key positions within the organisational structure.</p> <p>While Azerbaijan allows for 16-year-old employment, the risk of child labour is considered low as BP is taking additional steps to secure its supply chain. The operator reported on the programme for supplier development, which included BP policy and code of conduct awareness for companies in the supply chain. The ESIA (Section 13.6.2.5) describes efforts to develop the supply chain. BP also supports the development of local suppliers through training and financing programmes, building</p>	<p>Roles, responsibilities and authorities are stipulated for the implementation of the construction phase ESMS. Clear lines of responsibilities are defined, including management representatives. Roles and responsibilities are also defined for contractors.</p> <p>No evidence was found that the potential impacts of primary supply chains were assessed as part of the ESIA.</p> <p>ESIA addresses the requirements for workers engaged by third parties in the ESMMS Section 16: Local Requirement and Training Plan, which details the measures in place for contractors including hiring and training. This review is unable to verify whether monitoring is taking place, although it is stipulated in Section 16.</p> <p>The ESMMS Section 17 Procurement and Supply Chain provides adequate detail to satisfy the requirements of PS 2, including provisions for contractor verification and</p>	<p>Impacts of primary supply chains do not appear to have been assessed as part of the ESIA.⁸ Pipeline procurement presents the greatest E&S supply chain risk; pipeline procurement was carried out following pre-qualification of potential suppliers from mills in Turkey and China. Pre-qualification processes broadly addressed E&S requirements at the mills and contracts with major suppliers specify ESMS requirements and Project E&S standards.¹⁷</p> <p>Roles responsibilities and authorities are clearly defined for the overall HSSE organisation of the project.</p> <p>Appendix 5.4 Employment and Training Plan and Chapter 11 Environmental and Social MPs addresses contractor requirements in detail including the requirement of their ESMS, monitoring and management of contractors, requirements for contractor workers to</p>

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	skills and sharing BP's internal standards and practices.	monitoring of suppliers throughout the supply chain.	have access to a grievance mechanism, etc. Appendix 5.5 Procurement and Supply MP delineates supply chain management, including provisions to ensure child labour does not occur, provisions for contractor verification and monitoring.
Theme 2: Pollution prevention and abatement, and resource efficiency			
Corresponding IFI requirements: EIB Standard 2; EBRD Performance Requirement 3; IFC Performance Standard 3			
Air emissions	SD2 and SCPX1 projects implemented BP's Environmental and Social Group Defined Practice (E&S GDP) as well as other applicable BP governance requirements. SD2 and SCPX conducted a series of Environmental Value Improving Processes to ensure the selection of a project concept and design that promoted energy and resource efficiency, the processes was support by emissions quantification and air quality modelling. Both project ESIA's include an assessment of air quality and greenhouse gas emissions, mitigation measures and residual impacts. ³		
	The SD2 basis of design for ambient air quality is consistent with World Bank Group (WBG) EHS Guidelines and World Health Organization (WHO) ambient air quality guidelines.	SCPX project air emission standards are based on <ul style="list-style-type: none"> UK Air Quality Standards Regulations 2010, UK Air Quality Strategy and UK Environment Agency H1 Environmental Risk Assessment Guidance, Annex F, Air Emissions WHO, Air Quality Guidelines Global Update, 2005; IFC General EHS Guidelines (2007) WHO Air Quality Guidelines for Europe, 2nd Edition, 2000.² 	Avoidance and minimisation of emissions is demonstrated in the ESIA and through the incorporation of appropriate controls. A BAT assessment has been conducted. ¹⁷

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Noise	SD2 and SCPX1 projects implemented BP's Environmental and Social Group Defined Practice (E&S GDP) as well as other applicable BP governance requirements. Noise impacts have been assessed and considered at all stages of the project design construction and operation, including noise modelling for assessment of facilities. ^{1,2} Noise monitoring during construction and operation is implemented and planned. ^{1,2}		
	The SD2 basis of design for noise is consistent with WBG EHS Guidelines.	Project noise limits are based on IFC and IPPC guidelines. ²	The ESIA specifies project noise standards that will be applied. ⁸
Soils	Compliance with requirement to avoid or minimise/control release of pollutants has been demonstrated. Pollution avoidance and mitigation measures for SD2 apply the lessons learned from SD1 and Azeri–Chirag–deepwater Gunashli (ACG) operations.	Project standards specify limits for discharge to soil and water. Measures to prevent operational emissions to soil and water from permanent installations are adequately covered. ²	Standard construction mitigation measures are in place. ^{8,3} Soils were studied to determine their potential for corrosion of steel and concrete. Re-routes or specific mitigation measures were considered where hostile soil conditions were encountered. ¹⁷
Water	The project is not a significant water consumer.	Abstraction and discharge for both groundwater and surface water was assessed. Third-party users and local ecosystems were considered as part of the assessment. ¹	Abstraction of water for hydrotest activities is assessed in the ESIA with more detail of abstraction points given in the BAP and within the construction contractors' respective Hydrotest Management Plans. Examples reviewed by the IESC demonstrated that both ecological and social aspects were considered when assessing the abstraction and discharge points for each hydrotest location. ¹⁷ Mitigation to maximise reuse of hydrostatic testing water is in place. ⁸
Wastes	The projects commit to apply the waste hierarchy and to dispose waste at licensed sites. Waste management practices and procedures are described in construction contractor and BP management plans. ²		Appendix 5.11 Waste MP is defined, including hazardous materials management; waste forecasting

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			requirements; segregation and application of the waste management hierarchy. ¹⁷ The project commits to avoidance and appropriate management of hazardous waste and using only licensed waste contractors.
Hazardous substances and materials	OSPAR principles have been adopted as the basis for chemical selection and discharge evaluation. The principles have been embedded within project environmental protection standards and processes. These require routine assessment of chemicals and discharges and application of procedures for chemical selection and environmental risk assessment.	Management of hazardous chemicals and substances of high concern (including oil and chemicals, hazardous and liquid wastes, spills, and contamination) is described in the ESMMP.	The Project utilises a formal chemical management system (ChemAlert) to manage the selection and use of chemicals that may be required during Project activities. This system preferentially selects chemicals with the least ecological impact. As per the requirements of both Turkish and EU legislation, TANAP utilises licensed contractors to transport and dispose of hazardous waste. ¹⁷
Resource efficiency	SD2 and SCPX1 projects implemented BP's Environmental and Social Group Defined Practice (E&S GDP) as well as other applicable BP governance requirements. SD2 and SCPX conducted a series of Environmental Value Improving Processes to ensure the selection of a project concept and design that promoted energy and resource efficiency. The project ESAs consider alternatives with options assessed against environmental and social sensitivity indicators. ¹		
	Resource efficiency measures have been incorporated into design through flare gas recovery; flare minimisation and efficiency measures; waste heat recovery, use of direct electrical heating, layout of the offshore infrastructure; and use of fuel gas.	High-level review indicates that resource efficiency is sufficiently addressed in the ESIA. The ESMMP Section 11 Resources MP provides detailed information on the management of aggregates, water, energy	High-level review indicates that resource efficiency is sufficiently addressed in the ESIA. Chapter 3 Impact Assessment Approach, Chapter 11 Environmental and Social MPs, and Appendix 5.6 Aggregate MP provide detailed information on the identifying risks and impacts and the

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		efficiency and timber. Chapter 10 Environmental and Social Impacts and Mitigations (Planned Activities) also provides detailed energy consumption, water and other resources and inputs, their impacts and mitigation measures. Alternatives are considered in Chapter 4: Project Development and Evaluation of Alternatives, with options assessed against environmental and social sensitivity indicators.	management of aggregates, water, energy efficiency and timber. Additionally, details on energy consumption, water and other resources and inputs, their impacts and mitigation measures are provided. Alternatives are considered in Chapter 5 Reasons for Route Selection and Evaluation of Alternatives.
Emission standards and monitoring	BP's AGT region has implemented an Environmental Monitoring Programme (EMP) designed to provide a consistent, long-term set of data to ensure an accurate picture of potential impacts on the surrounding environment. The EMP follows a ten-year schedule and detailed monitoring plans are prepared for the next three years, with outline planning for the following seven years.	Monitoring requirements are described in the ESMMP. ²	TANAP Project Standards have been defined in Chapter 4 of the ESIA, considering the requirements of Turkish legislation, IFC Guidelines and EU Directives, applying the most stringent criteria from each source as the adopted Project Standard. The Project Standards are captured within TANAPs and the CCs respective ESMS and ESMPs and compliance against them regularly monitored and assessed. ¹⁷
Pesticide use and management	Not applicable	Pesticides may be used as a last resort after alternative pest control methods have been considered. Quantities used are expected to be small. Pesticides selected must be of low in human toxicity and the least environmentally harmful type. Use of pesticides will be in accordance with the Pollution Prevention Plan.	No information on the management of pesticides use was found but usage is likely to be small. ³

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Topic area	SD2	SCPX	TANAP
Theme 3: Biodiversity and ecosystems Corresponding IFI requirements: EIB Standard 3; EBRD Performance Requirement 6; IFC Performance Standard 6			
Biodiversity scoping	ESIA consultation included scoping meetings with government agencies and the public; for both SD2 and the early works ESIA, two scoping phase workshops were held in Baku. The scoping report was not available for review so it is not possible to confirm how biodiversity was considered in the scoping stage. ³	ESIA consultation included scoping meetings with government agencies and the public. Priority habitats and species were identified. Project avoids protected areas. Biodiversity scoping was undertaken for the project, and there is a reasonable understanding of the biodiversity that is present. ¹	Biodiversity scoping was undertaken for the project. Consideration of the area of influence and the temporal extent of likely impacts is significant in assessment of biodiversity issues for the TANAP project and the extent to which the Project can achieve its stated objectives for protection of biodiversity. ¹⁷ The TANAP Project has developed extensive documentation for baseline studies, impact assessment and biodiversity management and monitoring. The extent of documentation reflects the diversity of ecological regions and habitat types and the need for biodiversity management measures to be fit for purpose. ¹⁷ Protected areas and sensitive habitats were identified within 5 km of the pipeline route. Discussion focuses primarily on Turkish legislation, but also mentions some international requirements including Ramsar sites. ⁸

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Identification of critical habitats	<p>Although the ESIA has not applied a PS6 specific critical habitat assessment, biodiversity values are assessed in terms of species significance, habitat richness, proximity to recognised conservation areas, the unique characteristics of habitats, economic and social significance of habitats/species and international and national conservation status.</p> <p>The Caspian seal migration through the SD Contract Area is of insufficient size to trigger a critical habitat determination.</p>	<p>No critical habitat assessment was undertaken for the SCPX project. However, ecological surveys of the known temporary and permanent working areas were completed, which had similar aims, and met many of the requirements of the applicable standards. International Union for Conservation of Nature (IUCN) red list species and IUCN designated habitats have been identified. The SCPX pipeline will predominantly be within an existing pipeline corridor, where the impacted area is largely subject to prior disturbance. Protected areas are identified and avoided.¹</p>	<p>A critical habitat assessment was undertaken for the TANAP project after completion of the ESIA to support the development of a Biodiversity Action Plan (BAP). The BAP identifies that biodiversity impacts in areas of critical habitat will occur and concludes that within areas that have been identified as critical habitat, there will be no significant impact following application of standard mitigation measures and that no offsetting or other specific mitigation measures will be required.¹⁵ The IESC found that TANAP relied heavily on the assumption that biorecovery and alien species control will be effective in ensuring no residual impacts to critical habitat. Effectiveness of such mitigation measures requires further discussion,¹⁷</p>
Establishing a baseline	<p>The SD2 ESIA provides a comprehensive assessment of biodiversity values of the terrestrial, coastal, inshore marine and offshore marine areas likely to be impacted by project activities. The assessment relies on a monitoring database that extends over a period of at least 10 years in most cases and covers the previous ACG and SD projects. The assessment includes identification of species of international and national conservation significance, the habitats that support these species and the</p>	<p>Primary data as well as existing data was used to establish the ecology baseline. Semi-natural habitats and associated species were considered as part of the assessment, including recovery times post project. Alternatives assessment included habitat disturbance criteria.¹</p>	<p>Biodiversity survey periods are reported as being a single flowering season for flora and a five-month period (March–July 2013) for mammal, reptile, and amphibian sampling. However, it is noted that sampling at any individual site appears significantly less. This is significantly less than the sampling effort recommended by the applicable standards, and cryptic species may be present which were not identified during field survey due to survey timings.⁸</p> <p>The IESC notes that the sampling</p>

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	potential threats from project-related activities.		deficiencies have been somewhat addressed through further BAP studies focussed on identification of priority species within the pipeline ROW. The baseline studies undertaken for the ESIA were sufficient to allow for the scoping of critical habitat but are not sufficiently detailed to allow for critical habitat assessment in accordance with PR6 paragraphs 6-7. ¹⁷ Community engagement regarding the use of natural ecosystems including hunting, collection, bee keeping and livestock grazing was used to supplement biodiversity baseline where relevant.
Natura 2000 sites and the Habitats Directive	Not applicable		Natura 2000 (or Emerald) sites are not considered in either the ESIA or the BAP ³ and are not mentioned in the IESC review.
Assessment of biodiversity and living natural resources	Direct, indirect, transboundary and cumulative impacts on habitats, species and ecosystems have been considered in the ESIA. ³ The SD2 ESIA provides a comprehensive assessment of biodiversity values of the terrestrial, coastal, inshore marine and offshore marine areas likely to be impacted by project activities, including non-routine scenarios. The assessment includes identification of species of international and national conservation significance, the	The ESIA considers direct, indirect, induced, transboundary and cumulative impacts on biodiversity. Chapter 4 states that alternative options were generally evaluated with consideration given to environmental and social (E&S) and health and safety (H&S) potential impacts, technical feasibility and commercial implications. The chapter goes on to describe the E&S indicators used as part of the assessment, followed by a narrative that assesses different options.	Impact assessment methodology is applied in accordance with accepted standards and is effective in identification of mitigation requirements. ¹⁷ Neither the ESIA nor the BAP provide sufficient detail of the project related direct, indirect and residual impacts on populations; species and ecosystems identified in the baseline studies. There is insufficient assessment of the project impacts on critical habitat other than the direct impacts within the ROW. The impact

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	habitats that support these species and the potential threats from project-related activities.	There is no mention of the weighting assigned to the different topics, although Table 4-1 summarises the assessment. Where sites with significant biodiversity, ecosystems and their provision will be affected by an operation, there does not appear to have been an economic assessment of the biodiversity and the ecosystem services provided by the site and the larger region. ^{1,3}	assessment on biodiversity values provides insufficient discussion on why aspects such as habitat fragmentation, fauna avoidance and impacts from increased third party access are not considered. ¹⁷ Where sites with significant biodiversity, ecosystems and provisioning will be affected by an operation, there does not appear to have been an economic assessment of the biodiversity and the ecosystem services provided by the site and the larger region. ^{8,3} No evidence of ecological criteria being used in comparing alternatives is provided. ³

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Conservation (Biodiversity Management Plan)	<p>There are no planned biodiversity offsets for this project. Residual impacts from the construction phase include moderate impacts to birds near the SD2 Sangachal Terminal construction site and onshore pipeline construction from excessive construction noise. This impact is expected to be temporary. Similarly, the residual negative ecological impacts from shore-crossing pipeline construction are temporary, as site restoration works are expected to be successful (as per the previous SD project). The construction-specific Restoration and Landscape Management Plan is suitably comprehensive. The offshore construction impacts to ecological values include pipeline commissioning discharges and noise from offshore construction. Again, these impacts are temporary in nature and therefore offsets would not be expected. The residual operational impacts of the SD2 project on biodiversity values are all assessed as minor.</p>	<p>Chapter 7 Environmental Baseline And Chapter 10 Environmental and Social Impacts and Mitigations (Planned Activities) address in sufficient detail biodiversity conservation and sustainable management of living resources.</p> <p>Vegetation reinstatement to the same condition as pre project is planned for the entire route and not just high value areas. The re-establishment of vegetation will be monitored following reinstatement until it has reached project near- and long-term re-vegetation targets.¹</p>	<p>Biore restoration is outlined in Appendix 5.9 Erosion, Reinstatement and Landscaping Plan.</p> <p>The BAP focuses on the 36-m ROW. A Construction Impacts Management Plan and Biodiversity Action Plan provide the basis for conservation and management of biodiversity. The information currently available does not provide confidence that the measures will be adequate, although it is noted that further documentation is to be prepared by the contractors.¹⁵</p> <p>IFC and EIB requirements state that if there is any residual impact to critical habitat or priority biodiversity features (PDFs) offsetting is required, and in the case of critical habitat this should result in a “net gain” and in the case of PDFs should result in “no net loss”. The BAP identifies that impact to critical habitat is expected and concludes: “significant permanent and long term impacts are not expected and the defined mitigation measures are sufficient for the recovery of habitats, therefore offsets are not required according to the local experts”.¹⁵</p>

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Topic area	SD2	SCPX	TANAP
Monitoring	<p>BP's AGT region has implemented an EMP. The EMP follows a ten-year schedule and detailed monitoring plans are prepared for the next three years, with outline planning for the following seven years. The ESIA describes the process of expansion of the environmental monitoring programme for the SD2 project, to integrate operational monitoring of key discharges carried out by the AGT region.</p>	<p>The ESIA states that a monitoring plan will be developed to determine the success of re-vegetation and biorestore activities, including the appropriateness of species composition.¹</p>	<p>The monitoring plans defined in the BAP are limited to the identification of key indicators of success and primarily relate to re-establishment of vegetation cover within the directly affected construction footprint. Actions to be taken if success indicators are not met are not documented.¹⁵</p> <p>Section 3.4.1.6 identifies the high level objectives of monitoring in years 1,3,5,8 and 10.¹⁵</p> <p>Section 4 contains information about monitoring for each terrestrial critical habitat.¹⁵</p>
Ecosystem services	<p>Ecosystem services have not been explicitly addressed through the ESIA process. However, the two ESIA's have identified and assessed the interactions between the social and ecological values within the project's potentially affected areas with specific relevance to supporting services provided by terrestrial vegetation used for grazing, changes in hydrology at the Sangachal Terminal expansion site, and coastal marine ecology and water quality for the maintenance of commercial fish stocks. The ESIA also assessed the cumulative impact on local flood risk associated with change induced by the project and the third-party construction of the cement plant and the petrochemical complex.</p>	<p>Ecosystem services are not considered in the ESIA (pre-2012 version of IFC PSs used).</p>	<p>Ecosystem services are assessed in the baseline report, including in the sections on Employment and Livelihoods, Land Use and Agriculture, Flora (Terrestrial and Freshwater), and Fauna (Terrestrial and Freshwater). Furthermore, impacts are considered in Chapter 7 Assessment of Onshore Socio- Economic Environment. Biodiversity and ecosystems services impacts appear well documented in Chapter 3 Impact Assessment Approach and Methodology, supported by Chapter 8.5 Impact Assessment of Activities in Scope of the Project and Measures to be Taken.</p>

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Sustainable management of living natural resources	Not applicable		
Theme 4: Climate change			
Corresponding IFI requirements: EIB Standard 4; EBRD Performance Requirements 1 and 6; IFC Performance Standard – multiple			
Greenhouse gas (GHG) emissions	<p>Key GHG emission reduction considerations in design include flare reduction measures; offshore gas compression preferred above onshore compression; offshore flaring chosen over offshore venting; direct drive gas turbines onshore selected in preference to electric drives; and waste heat recovery on onshore compression gas turbines. The ESIA (Chapter 13) estimates that these efficiency measures have resulted in approximately 103,700 kt of CO₂ emissions across the SD PSA period.</p>	<p>Operation will result in significant emissions of GHGs (primarily from the two compressor stations) calculated to be approximately 603,500 t CO₂eq/year during operation.⁷</p> <p>The ESIA specifically covers impact avoidance and mitigation of GHG emissions.¹</p> <p>Chapter 10 Environmental and Social Impacts and Mitigations (Planned Activities) includes sections on Air Quality and Greenhouse Gas Emissions and Pollutants and Greenhouse Gases in which key sensitivities are assessed, potential impacts described, mitigation measures provided, and residual impacts are calculated. Chapter 11 Cumulative and Transboundary Impacts, including that of other projects, assessment of potential additive impacts, assessment of potential in-combination impacts, and assessment of transboundary impacts.</p>	<p>Operation will result in a significant emission of GHGs (primarily from the compressor stations). During operation, these are calculated to be 1,956,049 t/year, or 0.5% of the national balance of GHG emissions in Turkey.⁸</p> <p>The project will quantify and report GHG emissions annually. A leak detection and repair programme to minimise fugitive emissions will be implemented.⁸</p> <p>Chapter 3 Impact Assessment Approach indicates adequate level of detail to baseline, risk identification and impact assessment, including cumulative impacts in Chapter 10 Assessment of Cumulative and Global Impacts.</p>

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Climate change risks to the project	The project involves offshore drilling, and the operation of a coastal gas terminal, both of which are vulnerable to sea level rise or a change in frequency or magnitude of big storm events that may result from climate change. These risks have been considered by the project. ¹⁶	No evidence of an assessment of the risks to the project posed by climate change was found. However, given the nature of the projects and the fact that the pipelines will be below ground, the impacts of climate change on the project are expected to be low. ³	
Theme 5: Cultural heritage			
Corresponding IFI requirements: EIB Standard 5; EBRD Performance Requirement 8; IFC Performance Standard 8			
Assessment and management of impacts on cultural heritage	Baseline cultural heritage surveys and impact assessments were undertaken for both early works and SD2 ESIA's. Baseline artefact finds were significant but not critical and mitigation measures have been instigated. Marine cultural heritage will be identified through a review of data collected from previous surveys including 3D seismic and detailed bathymetry surveys and any further seabed surveys completed before pipeline and subsea infrastructure installation, to identify potential sites of cultural heritage value which lie within the areas affected by the works. A CHMMP has been prepared. BP's and the contractor's procedures and plans will be used to collect and regularly report monitoring data (e.g. archaeological finds).	Cultural heritage is comprehensively identified and documented in Chapter 7 Environmental Baseline Study. Baseline indicates that surveys and consultation was conducted, and additional consultation is delineated in the ESMMP for the purposes of identification and decision-making. A thorough risk and impact assessment is conducted in Chapter 10 Environmental and Social Impacts and Mitigations (Planned Events), indicating the application of mitigation measures that favour avoidance. A Cultural Heritage Chance Finds Process is provided in the ESMMP. A CHMP is included in the ESMMP. ² BP's and the contractor's procedures and plans will be used to collect and regularly report monitoring data (e.g. archaeological finds). ²	Cultural heritage baseline appears comprehensive. A chance finds procedure is in place. A cultural heritage management plan appears thorough. The risks and impacts to intangible cultural heritage are also assessed and included in the plan. A site survey identified archaeological, historical and cultural heritage sites within a 500-m study corridor around the pipeline. Impacts were assessed, and mitigation measures proposed for each of the identified sites. Generally, the mitigation measures appear appropriate. ⁸

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Consultation with affected communities and other stakeholders	The operator has engaged with regulatory agencies on cultural heritage matters. Engagement on cultural heritage with affected communities is described within the wider ESIA consultation, and the CHMMP describes situations in which engagement with communities would be undertaken.	Project consulted with the ministries responsible for cultural heritage protection and cultural heritage specialists from the scientific and academic community. Communities were also consulted about the project. Consultation was undertaken with communities, and cultural heritage is mentioned as one of the issues raised in the PCDP (App C of ESIA).	Cultural heritage sites identified have been discussed with relevant local authorities. ⁸ The contractor will liaise with local authorities and communities to ensure that activities do not restrict access to the traditional cultural heritage sites, or that agreed alternative solutions are found. ¹¹
Project use of cultural heritage	Not applicable		
Chance find procedures	A chance find procedure is in place and includes site clearance monitoring.	The chance finds procedure is described in the cultural heritage management plan. ²	In case any underground cultural assets are discovered during construction activities, all activities will be stopped and the closest archaeological museum or governmental authorities will be notified as required by the national law. ¹¹
Theme 6: Involuntary resettlement and land acquisition			
Corresponding IFI requirements: EIB Standard 6; EBRD Performance Requirement 5; IFC Performance Standard 5			
Identification of affected persons, eligibility for compensation and consideration of applicable	Community engagement with respect to fishing communities commenced with the a stakeholder and socio-economic survey in 2011 that identified 48 affected households. Expert researchers have carried out the livelihoods restoration investigation, confirming that 45 of these households were defined as eligible for livelihood restoration.	Project design considered physical and economic displacement associated with options. The project has developed a comprehensive Guide to Land Acquisition and Compensation that forms the basis of the Land Acquisition and Compensation Framework. Further documentary evidence of the framework is required to assess	Social baseline report includes employment and livelihoods and land use and agriculture baseline. The IESC observed full compliance in relation to avoidance or minimisation of displacement, with no physical resettlement required over the length of the pipeline or at AGIs. Route realignment

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compensation	<p>A comprehensive process of community engagement has been implemented since the initial baseline was undertaken and the FLMP includes processes for ongoing engagement.</p> <p>Eligibility for livelihood restoration cut-off date has been established publicly through the engagement process.</p>	<p>adequacy.</p> <p>Community engagement on land issues is described adequately in the PCDDP, including description of community feedback and project responses. Grievance mechanism appears established and publicised. Resettlement and livelihood restoration baseline appears to adequately define potential impacts on land users at specific locations in order to determine eligibility for compensation and assistance. The ESMMP provides procedures for the monitoring and evaluation of the implementation of the Land Management Plan and the Land Acquisition and Compensation Framework (pending its development).</p> <p>No evidence was found that a cut-off date was provided for affected peoples to register an interest; however, there is minimal displacement as a result of this project, and it is understood from the documentation that there has been a significant amount of work to map and assess the proposed route, and consult with relevant groups.</p> <p>No loss of amenity sites identified.</p>	<p>has been carried out during the construction phase to manage deviations from the ESIA approved alignment, in accordance with Project procedures and the Guide to Land Acquisition and Compensation (GLAC), developed for stakeholders.¹⁷</p> <p>The cut-off date from the original RAP could not be met, but BOTAS has developed a practicable approach to evaluate and compensate every additional claim and justified complaint even after the cut-off date. TANAP should ensure that this commitment is met through its monitoring and auditing processes.¹⁷</p>

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<p>Consultation</p>	<p>Seasonal herding at the Sangachal Terminal was considered during the SD1/ACG project in April 2003. A comprehensive process of community engagement with fishing communities has been implemented since the initial baseline was undertaken in 2011 and the FLMP includes processes for ongoing engagement.</p> <p>The project is largely compliant with IFC and EBRD standards with regard to stakeholder engagement.</p>	<p>Stakeholder identification process was detailed and identified relevant parties, including any seasonal users. Community engagement on land issues is described adequately in the PCDP, including description of community feedback and project responses.^{1,5}</p> <p>Consultation with people who work on private agricultural or grazing land and that is to be acquired as a result of the project has been undertaken.^{1,5}</p> <p>RPF/RAP have not been prepared because there is only very minimal physical displacement. Measures to address economic displacement are provided in the ESIA.¹</p>	<p>Consultation commenced during the Project planning phase, and has since additionally included engagement. Specifically this has entailed: information meetings prior to negotiations/census data gathering; two rounds of negotiation meetings; crop determination studies/meetings; preconstruction information meetings; and land entry meetings. Land exit meetings will also be undertaken following reinstatement (approximately 3 years after land entry).</p> <p>Consultation processes provide for engagement with vulnerable groups including women. Overall, the IESC notes that the corrective actions identified in the RAP include additional engagement and disclosure actions to strengthen the Project's responsiveness to stakeholders' issues.¹⁷</p> <p>Consultation has been implemented with reference to national legislation, and IFC, EBRD and European Commission requirements.⁸</p>
<p>Resettlement (including planning for resettlement, relocation sites, compensation for displaced persons, forced</p>	<p>Physical displacement for the SD2 project is not likely to occur. Economic displacement includes loss of access to fishing grounds, caused by the temporary loss of access to an exclusion zone in Sangachal Bay and the nearshore environment prior to installation works. A survey has been undertaken to identify the location, status and ownership of</p>	<p>The responsibilities of the company and the government in resettlement are clearly delineated, including that the state will take responsibility for land acquisition within the framework of the joint (i.e. state and company) land acquisition teams. The Guide to Land Acquisition and Compensation clearly outlines the process</p>	<p>Chapter 7.3.3 Assessment of Onshore Socio-Economic Environment contains a section titled "Settlement Affected by the Project, Land Ownership Status", which provides a preliminary assessment of settlements and affected by the project. Chapter 9 Assessment of Areas to be Given Up in the Project Area provides an</p>

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eviction)	any fishing gear that may be affected directly or indirectly by construction works. Compensation payments were made to the fishing households identified as being temporarily impacted by lack of access to fishing grounds.	to be followed by all parties for all types of acquisition. No resettlement of households is required. ³	assessment of the size of agricultural lands to be given up and land use capability, in addition to a section on land expropriation, however the information contained within is insufficient to serve as a complete Land Use Study or Resettlement Action Plan. The assessment and identification process appears partially complete at this point in time, and it is stated that further surveys and assessment are required under the RAP framework. It is indicated in Chapter 11 Environmental and Social MPs that a Compensation Action Plan will be developed according to the guidelines identified in the RAP. The Executive Summary identifies that approximately 95,000 landowners will be affected by economic displacement. ¹⁴ The majority of these landowners will be affected on a temporary basis, during which land will be leased from them to allow construction. Some localised permanent economic displacement will be required, primarily at the aboveground installations, and land will be purchased at these locations. ⁸
Relocation sites	None required. ³		
Compensation for displaced	Not applicable	Compensation and benefits appear to be compliant with IFC PS 5 principles. The	Annex 5.1 (Land Acquisition Strategy) of the RAP (2013) identifies that, at the time

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persons		project has developed a comprehensive Guide to Land Acquisition and Compensation that forms the basis of the Land Acquisition and Compensation Framework. Further documentary evidence of the framework is required to assess adequacy.	the original RAP was prepared, a voluntary agreement had been reached with 30% of landowners. TANAP hopes that a similar voluntary agreement will be made with the remaining 70% but this cannot be guaranteed. Agreement can be reached through involvement of the court (who effectively mediate the value of compensation); r where this cannot be achieved, involuntary land acquisition (expropriation) will be required. Compensation for economic displacement will be determined in accordance with relevant Turkish legislation. ¹³
Forced evictions	None necessary.		
Planning for resettlement	None required		
Grievance mechanism	Established grievance mechanism in place. The FLMP Grievance Procedure includes details of the framework within which fishing livelihoods specific issues are managed and aligns with the broader Sangachal Terminal complaints procedure. Neither document was included in the ESIA, but the FLMP has been disclosed subsequently. ³	Grievance mechanism established for SCP and well publicised. It meets EBRD, World Bank and national standards. ³	A grievance mechanism has been set up. An online registry and tracking system is being used for stakeholder and grievance management. Complaints and requests can be lodged online, by phone, in person or with CLOs/TANAP Social Specialists and via Muhtars. Complaints can be lodged anonymously or complainants can identify themselves. ¹⁷

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Implementation and monitoring	Ongoing FLMP activities include the stakeholder engagement aspects, management of grievances and monitoring of the FLMP's effectiveness in meeting the objectives established for livelihood restoration of affected fishermen and support workers.	Measures to address displacement are outlined in the Land Management Plan. Monitoring activities include consultation with affected persons. ^{1,2} The ESMMP provides procedures for the monitoring and evaluation of the implementation of the Land MP and the Land Acquisition and Compensation Framework.	The AGI and pipeline RAPs specify monitoring and evaluation mechanisms including indicators, implementation schedule, and budget. These RAPs would be subject to IESC/independent monitoring and review throughout implementation in accordance with GIIP. ¹⁷ The Executive Summary indicates that compensation has been undertaken for approximately 62% of the identified affected persons. ¹⁴
Theme 7: Rights and interests of vulnerable groups			
Corresponding IFI requirements: EIB Standard 7; EBRD Performance Requirements – multiple; IFC Performance Standard – multiple			
Institutional and legal framework	Vulnerable groups were identified within the country's institutional and legal framework determining the identification of minorities and other vulnerable groups. ¹⁶	Consultation has followed Azerbaijan/Georgian HGA, which in turn requires compliance with World Bank standards and IFC standards. ¹	Vulnerable groups were identified within the country's institutional and legal framework determining the identification of minorities and other vulnerable groups. ⁸
Provision made for vulnerable groups (including screening, consultation and disclosure)	Vulnerable groups and individuals have been identified in the fishing livelihoods baseline studies and subsequently in the FLMP.	Vulnerable groups have been considered throughout the consultation process. Summary of vulnerable groups is presented in the ESIA and PCDP. Socio-economic baseline indicates that detailed work has been done to understand their needs. ^{1,5}	Vulnerable groups and groups of peoples with particular rights have been identified at a project-wide level. The RAP for Above Ground Installations (AGIs RAP) and a RAP for the Pipeline (Pipeline RAP), developed following RAP implementation Audit and Word Bank due diligence investigation, address the gaps in provisions for identification of and support to vulnerable groups. ¹⁷

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Screening	<p>The impacts to villages, and other areas of social influence, are not differentiated to reflect their differing circumstances in the impact assessment. Further, while vulnerable groups have been identified at the wider level in the ESIA, the SEP does not confirm the mitigation and management activities to be undertaken to ensure these groups are not disproportionately affected by the project. Vulnerable fishing households have been identified through the fishing livelihoods baseline studies undertaken for fishing communities within Sangachal Bay who are potentially impacted by near-shore and onshore pipeline construction activities. The FLMP includes specific compensation and mitigation measures to address disproportionate incomes from those families identified as vulnerable.</p>	<p>Socio-economic baseline indicates that detailed work has been done to understand the needs of vulnerable groups identified.¹</p> <p>Mitigation measures relating to vulnerable groups are considered in the ESIA.¹</p>	<p>There is consideration of type, scope and extent of project-related risks on vulnerable groups by region through consultation and review of baseline information.⁸</p>
Consultation and disclosure	Detailed consultation has been undertaken including for vulnerable groups. ^{1,5}		Summary of engagement, consultation and participation plan is provided including provisions made for vulnerable groups. ⁸
Consideration of vulnerable groups in biodiversity assessment	No information		

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Topic area	SD2	SCPX	TANAP
Assessment, mitigation and monitoring	The FLMP specifies measures to address the needs of vulnerable fishing households. Consultation with civil society organisations, community-based organisations and other relevant locally based organisations has been included as part of monitoring activities via the integrated monitoring programme.	Detailed baseline and impact assessment work has been undertaken, which includes consideration of vulnerable groups. ^{1,5} Consultation with project-affected communities (PACs) and other relevant locally based organisations has been included as part of monitoring activities as defined in the ESMMP. ²	No evidence of a detailed baseline understanding of vulnerable groups, or in-depth social assessment to determine potential adverse impacts on vulnerable groups is provided. However, the baseline social assessment report was not available for review. ³ The AGI and Pipeline RAPs provide for identification of and support to vulnerable groups.
Indigenous people	Not applicable		
Theme 8: Labour standards and working conditions			
Corresponding IFI requirements: EIB Standard 8; EBRD Performance Requirement 2; IFC Performance Standard 2			
Human resource policy and working relationships	Human resource policies and procedures are in place as is a project code of conduct. Information on employee relationship management and an Employee Relationship Management Plan were provided for IESC review. Contractors are required to develop a Training Plan, Nationalisation Plan, and individual Development Plans for staff.	ESIA addresses the requirements for working conditions and management of worker relationships in the Local Recruitment and Training Plan (part of the ESMMP), which details the measures in place for recruitment and training management. Further verification through review and sighting of Labour, Health and Safety Management Plans, programmes, and HR policy documentation is required.	ESIA sufficiently addresses the requirements for working conditions and management of worker relationships in Chapter 11 Environmental and Social MPs and in further detail in Appendix 5.4 Employment and Training Plan for the construction phase. Details are provided on the measures in place for recruitment and training management. IESC reports that overtime work and fatigue management are commonly raised issues. According to the World Bank TANAP Disclosure Package, TANAP is working to address overtime issues through a "Working Hours Action Plan" that substantively addresses overtime

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			issues, including stakeholder complaints of overtime, construction contractor compliance with TANAP overtime policies, and enforcing legal compliance with the Turkish Labour Code. The Action Plan aims to reach compliance with the Labour Code by December 31, 2017. ¹⁷
Child and forced labour	BP policy is to employ only persons aged 18 years and over and non-forced labour. Contractors are also required through a certified Code of Conduct to employ only persons over the age of 18 years and only voluntary/non-compulsory labour.		Appendix 5.5 Procurement and Supply MP delineates supply chain management, including provisions to ensure child labour does not occur, provisions for contractor verification, and monitoring.
	<p>The ESIA does not specifically refer to a minimum age for employees or to the use of forced labour. However, the Employee Relations Management Plan specifically requires that any breaches of employment policy such as child or forced labour should be reported to BP and the relevant authorities.</p> <p>The IESC notes that while Azerbaijani law enables employment of 16 year olds, BP policy is to employ only persons aged 18 years and over and non-forced labour. Contractors are also required through a certified code of conduct to employ only persons over the age of 18 years and only voluntary/non-compulsory labour.</p>		
Non-discrimination and equality of opportunity and treatment	The ESIA includes a commitment to produce an Employee Relations Management Plan. ¹⁶ Contractors are required to submit workforce monitoring information (including information on gender) to BP on a monthly basis. This	A Local Recruitment and Training Plan is included in the ESMMP and considers relevant international and national labour laws and standards and principles. ²	An Employment and Training Plan provides for employment of non-skilled, semi-skilled and skilled personnel. Social Action Plan Annex 3 Social Management Guidelines for Contractors indicates that HR policy will

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	requirement is an ESIA commitment and is included in the SD2 E&S Compliance Registers which are reviewed on a monthly basis to monitor conformance.		include measures to ensure recruitment does not discriminate by gender. ⁹ The TANAP Employment and Training Management Plan makes an explicit commitment to non-discrimination and equal opportunity. ¹⁷ No specific provision appears to have been made for education relating to or the management of sexual harassment in either relevant policies or the complaints mechanism. ³ A grievance mechanism is in place.
Association and collective bargaining	The IESC reported that the workforce are free to join or form a union/workers' organisation and BP's code of conduct mentions working with trade unions and other bodies that employees collectively choose to represent them.	It is assumed that SCPX practices will be consistent with applicable national and international legislation and, where appropriate, SD2. ³	Worker organisations are in place in parts of the Project, and all employees are free to join labour unions. The IESC was informed that a collective bargaining agreement came into force on 01/01/2016 and it valid until 31/12/2017 (applicable to workers in Sivas and Erzincan camp sites). In the absence of trade union membership, there is a functional grievance mechanism in place for employees. ¹⁷

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Collective dismissals	It is anticipated that retrenchment of large numbers of the construction workforce will occur. A de-manning plan is stipulated in the Employee Relations Management Plan, and BP has indicated that any demobilisation of the personnel will be conducted in strict compliance with applicable local legislation.	There is a commitment made for the construction contractor to prepare a retrenchment plan as outlined in Local Recruitment and Training Plan (part of the ESMMP). ²	Interviews with short-term labourers suggest that not all construction contractors are making it clear what the working conditions (including retrenchment/termination) are. TANAP requires provision of a document of resignation or notice of termination. In practice notice periods for dismissal may be applied inconsistently, particularly in relation to casual / short-term work. It is noted that the construction contractors are required to prepare Retrenchment Plans. ¹⁷
Grievance mechanism	The ESIA mentions grievance handling and the IESC's site audit confirmed it is in place and being implemented. The Employee Relations Management Plan also requires that a grievance process be implemented for contractors.	Local Recruitment and Training Plan (part of the ESMMP) indicates that a grievance procedure will be established to enable community/worker complaints relating to recruitment and associated issues. ²	Grievance mechanism is adequate in scale to the risk and impacts of the project.
Procedural requirements	The project commits to compliance with national labour standards. EIB standards require that satisfactory information on labour practices, both at appraisal stage and through regular monitoring is provided to EIB. As the project was not developed with consideration to the EIB standards, no information on labour practices has been provided to the EIB. ³	Compliance with national labour standards is committed. The project was not developed with consideration to the EIB standards. ²	Compliance with national labour standards is committed to but EIB standards have not been addressed explicitly in the development of this project. ⁸ However, the TANAP Host Government Agreement requires that the Project Standards "take due account of international standards and practices generally prevailing in the natural gas pipeline industry, including relevant Performance Standards of the International Finance Corporation" (Article 17.1). ¹⁷

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Topic area	SD2	SCPX	TANAP
Labour assessment	EIB standards require that a Labour Assessment is required when significant labour-associated risks are identified. IFC encourages it to be undertaken as a matter of course to show best practice is being upheld in development. However, there is no evidence of a labour assessment having been undertaken. ³	There is no evidence of a labour assessment having been undertaken. ³	The Report of “Manpower Analysis Study in Settlements on TANAP Natural Gas Pipeline Route” (HZR-REP-SOCGEN-001) provided workforce analysis, and evaluation of the manpower capacity of the provinces in which TANAP is active, to inform management of employment and training for the Project. KPIs are in place for local employment (including unskilled, semi-skilled and skilled staff at the national, province, district, village levels) in line with GIP, documented in Employment and Training MPs for each CC (e.g. FRN-PLN-SOC-PL1-001). ¹⁷
Monitoring and evaluation	Contractors are required to submit workforce monitoring information (including information on gender) to BP on a monthly basis. This requirement is an ESIA commitment and is included in the SD2 E&S Compliance Registers, which are reviewed on a monthly basis to monitor conformance.	Mitigation and monitoring measures to address labour and working conditions are included in the ESIA, its commitment register and the ESMMP. ²	The proposal for labour-related mitigation measures is presented in ESMP Annex 2 Social Monitoring Plan. ¹⁰ Regular auditing of the implementation of the Employment and Training Plan (ETP) and associated procedures is committed to by TANAP in the overarching ETP in ESIA for each of the contractors, and is reflected in the contractors’ ETPs. ⁸
Labour audit	A labour audit does not appear to have been undertaken. It is assumed that this is because no triggers for undertaking an audit (high risk of rights violation, complaints, grievances or case of whistle-blowers) have been identified for this project. Audits of employee relationship management and HR processes are part of the planned contractor	A labour audit does not appear to have been undertaken. It is assumed that this is because no triggers for undertaking an audit have been identified for this project. ³ Audits of employee relationship management and HR processes are part of the planned contractor oversight process. ²	Labour Audit Reports will be completed by external provider (Practical Solutions) during construction activities and will be shared with EBRD. ¹⁷

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	oversight process. ³		
Security personnel requirements	<p>The security arrangements for BP in Azerbaijan and Georgia follow BP group security guidelines. Security risks in Azerbaijan are routinely assessed, investigated as required and training provided to promote security awareness.</p> <p>Inter-agency security committee meetings have been in place since 2006 as a forum for exchange between local communities and private security.</p> <p>The operator has been promoting Voluntary Principles on Security and Human Rights training in Azerbaijan. Annual reports of implementation of the Voluntary Principles are available online.⁴</p>	<p>Security personnel are addressed and the impacts of security measures associated with pipelines on communities are discussed in Chapter 10 Environmental and Social Impacts and Mitigations (Planned Events). Management measures for community and security interactions are discussed in the ESMMP and include provisions for due diligence of security providers, and training in Voluntary Principles on Security and Human Rights, and performance monitoring of security providers. A community grievance mechanism is provided in the Community Liaison Plan and the PCDP.</p>	<p>Security personnel are sufficiently addressed in the ESIA. Management measures for community and security interactions are discussed in Appendix 5.2 Community Safety Management Plan and include provisions for due diligence of security providers, and training in Voluntary Principles on Security and Human Rights, and performance monitoring of security providers. The community grievance mechanism is provided in the SEP.</p>

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Theme 9: Occupational and community health, safety and security Corresponding IFI requirements: EIB Standard 9; EBRD Performance Requirement 4; IFC Performance Standard 4			
Overarching requirements	<p>The IESC reported that the SD2 construction contract clauses have been developed to align with and exceed the SD2 ESIA commitments relating to the Employee Relationship Management Plan and workforce welfare and training. Contractors are required to develop a Training Plan, Nationalisation Plan and individual Development Plans for staff. Monthly metrics reporting is required to BP. Human resource policies and procedures are reported to be in place, as is a project code of conduct. Information on employee relationship management and an Employee Relationship Management Plan were provided for IESC review.</p> <p>Significant efforts have been made to minimise occupational health, safety and security (OHSS) risks through design and application of relevant standards. However, the information reviewed does not describe how health and safety risks in the supply chain will be managed as part of the SD2 project.</p> <p>The information provided within the SD2 ESIA is not in sufficient detail to confirm that the higher sensitivity of the most socially and economically vulnerable and marginalised groups have been taken into consideration.</p>	<p>Health and safety impacts and mitigations have been identified in the ESIA; this process included identification of more sensitive receptors.²</p> <p>The Community H&S and Security Plan has been developed. However, the information currently available does not enable a full assessment of the adequacy of the assessments, the proposed mitigation measures or the residual risks to be made.²</p> <p>Project contractors will be required to meet project OHSS standards. ESMMP also includes a number of requirements with regard to key suppliers to the project.²</p>	<p>TANAP implements a detailed Health and Safety Management System (HSMS) to manage the Project's Health and Safety (H&S) risks. Risk assessments form the basis of the management controls within the HSMS and apply the mitigation hierarchy in their implementation. A dedicated organisational structure has been defined to implement the TANAP HSMS.³</p> <p>Several pieces of evidence show that the proposer is seeking to identify and manage occupational and community health, safety and security.</p> <p>The need for health screening and provision of inoculations is identified. Management plan to manage the risks of disease outbreaks is being prepared.⁸</p>

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Occupational health, safety and hygiene	<p>SD2 and SCPX have a common approach to OHS&H management to ensure with applicable PSA/HGA and national and international legislation; BP AGT Region HSSE Policy; BP's management standards and procedures.4 General OHS programmes and procedures are not included in the ESIA and therefore a full assessment is unable to be undertaken to determine compliance.</p>		<p>Construction contractors implement their own internal HSMS which aligns with the TANAP HSMS. High risk hazards are controlled through a Permit to Work (PTW) process, implemented by each Lot construction contractor and under supervision from TANAP personnel.¹⁷</p> <p>Detailed incident analysis of each event was undertaken. A range of corrective and preventative actions were implemented as a result of these detailed incident investigations.</p> <p>The IESC team was provided with additional information following the site audit that demonstrated that the actions resulting from major incident investigations were being adequately applied.¹⁷</p>
Public health and safety	<p>The SD2 ESIA describes infrastructure and equipment design and safety with respect to minimising nuisance issues and safe operations and risk prevention to affected communities.</p> <p>The ESMMP is developed for implementation during the construction phase of the project. Commitments include measures for protection of community health and safety such as hazardous materials management, prevention of spills, protection of water quality and protection of air quality.</p>	<p>Chapter 8 Socio-Economic Baseline does not appear to adequately assess security context of the project (absence of security assessment), especially given the relatively large population of refugees and IDPs in the country and in project area.</p> <p>Chapter 10 Environmental and Social Impacts and Mitigations (Planned Events) evaluates risks and impacts to health and safety of affected communities during construction and operation phases of the project, and proposes mitigation measures.</p> <p>The project's impacts on ecosystem</p>	<p>The socio-economic baseline appears to adequately assess the social context of the project. Chapter 8 Impact Assessment of Activities in Scope of the Project and Measures to be Taken evaluates risks and impacts to health and safety of affected communities during all phases of the project. Impacts and mitigation measures are summarised in Chapter Impact Assessment and Approach and mitigation measures listed in detail in Appendix 4.5 Impact Register.</p> <p>Construction Phase ESMPs provide a</p>

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		<p>services that may result in adverse health and safety risks and impacts to affected communities are not investigated or assessed (ESIA conducted on pre-2012 IFC PSs). The Construction Phase ESMMP provides a Community Health, Safety and Security Plan, including measures that favour avoidance of risks and impacts over minimisation and that appear to be commensurate with the nature and magnitude of risks and impacts. The ESIA states that the existing SCP Emergency Response Plan will be updated to integrate the SCPX and refers to updates that will be included in the SCPX ERP. The ERP for the SCPX is insufficiently described in the ESIA to assess its adequacy. Chapter 12 Hazard Analysis and Risk Assessment (Unplanned Events) comprehensively describes and assesses unplanned events and risks to public safety and harm to the environment including mitigation measures. However, emergency response preparedness systems are not adequately described.</p>	<p>Community Safety Management Plan(Appendix 5.2), and Community Relations Plan (Appendix 5.3) and including measures that favour avoidance of risks and impacts over minimisation, and that appear to be commensurate with the nature and magnitude of risks and impacts.</p> <p>Adequate assessment of ecosystem services is conducted (summarised in Chapter 3).</p>
Traffic and road safety	To minimise potential impacts to local communities associated with off-site traffic movements, the potential hazards will be communicated as part of ongoing community liaison and management through a Traffic Management Plan and Community Interaction and Social Impact Management	The ESIA established traffic baseline and a traffic impact assessment has been undertaken. The Community H&S and Security Plan (Section 15 of the ESMMP) states that it shall include detailed traffic management measures that address the risk of accidents occurring during	Responsibility for the management of traffic is assigned to the construction contractors. Although minimum requirements for the content of a Traffic Management Plan are provided, which include references to safety, and a requirement to consult with the community. ⁸ A specific Road Safety

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	Plan.	construction. ^{1,2}	Management Unit was created to work within the overall HSMS. Detailed ESMS documentation has been developed related to road safety, vehicle use and journey management. Each driving route was risk assessed using a road risk analysis. Mitigation measures on vehicles including GPS tracking and vehicle cameras were observed in all Project vehicles. Use of mobile phones is prohibited when driving. Evidence has been sighted of road safety training programs with women and children, facilitated by CCs and TANAP social staff. ¹⁷
Natural hazards	The IESC due diligence report states compliance with this requirement (Section 19 on page 220); the ESIA identified and assessed the potential impacts and risks caused by natural hazards.	The ESIA identified and assessed the potential impacts and risks caused by natural hazards. ¹	The ESIA identifies that a number of risk studies including HAZIDs and HAZOPs were undertaken and that the design of the TANAP pipeline system has considered natural hazards and hence reduced risks through design. IESC due diligence report states TANAP's full compliance with this requirement.
Emergency preparedness and response	See Theme 1		
Theme 10: Stakeholder engagement, external communication and grievance mechanisms			
Corresponding IFI requirements: EIB Standard 10; EBRD Performance Requirement 10; IFC Performance Standard 1			
Stakeholder identification	An SEP exists for the SD2 project but has not been publically disclosed.	The project was familiar with many stakeholders as they are similar to	A list of stakeholder groups is provided in ESIA Chapter 6, but the process by which

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and analysis	<p>The ESIA somewhat documents the stakeholder engagement and consultation processes undertaken from scoping up to ESIA disclosure. Analysis of stakeholders was reported to have been undertaken before scoping, and disclosure of ESIA documents was carried out in line with documented project disclosure processes.</p> <p>The Stakeholder Engagement Plan (SEP) does not present engagement tailored to individual affected communities, including any vulnerable people within those communities. The SEP presents a strong focus of engagement with and reporting to government rather than community and community representatives.</p> <p>Vulnerable groups and individuals have been identified in the fishing livelihoods baseline studies, and subsequently in the FLMP. See also Theme 7.</p> <p>The project was familiar with many stakeholders as they are similar to those for previous offshore developments in the Sangachal area. Consultation meetings were held in Baku and in the vicinity of Sangachal.</p>	<p>BTC/SCP.3 In addition, a stakeholder identification workshop was held.⁵</p> <p>Consultations with PACs involved ‘formal’ leaders and a selected group of five or six residents, for each PAC, chosen to represent a cross-section of perspectives and interests.⁵</p> <p>See also Theme 7.</p>	<p>they were identified is not presented in the ESIA. The summary of the number of parties affected and consultation undertaken in the Executive Summary suggests that this process was rigorous.¹⁴</p> <p>A SEP was published (18 August 2013) on the TANAP website in Turkish and English, specifying objectives, legal context and project standards, previous engagement, stakeholder identification and the SE programme.¹⁷</p>
Public consultation planning and implementation	<p>The engagement process included disclosure through public meetings in addition to the ESIA being made publicly available. Limitations in the disclosure process appear in regards to the lack of disclosure of documented environmental</p>	<p>Public consultation and disclosure plan and Stakeholder Engagement Plan were prepared. Comments to the draft ESIA were collated and responses to the comments were included in the final ESIA.⁵</p>	<p>Extensive engagement (analysis, planning disclosure and consultation) is documented in the ESIA, indicating that engagement was conducted in accordance with IFC Principles. Documentation includes the detailed SEP,</p>

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Topic area	SD2	SCPX	TANAP
	<p>and social management plans, including the SEP and the lack of any targeted engagement with communities nearby to the third party operated shipping yards. Disclosure of project environmental and social management measures has occurred through the public meetings held in the local communities. Comments received on the Draft ESIA report were collated, analysed and responses issued where relevant. The ESIA was then finalised for MENR approval.</p>		<p>stakeholder registers, project brochures used for consultation, invitation lists for non-governmental organisation (NGO) meetings and forms, list of NGOs that received information packs, feedback forms, announcement/disclosure records, notification registers, and complaints register.⁸</p>
Information disclosure	<p>The ESIA and supporting documents were publicly disclosed in English and Azerbaijani. There has been effective disclosure of environmental and social management and mitigation measures, including livelihood restoration plans, through public meetings and targeted stakeholder meetings.</p>	<p>Public consultation and disclosure appears adequate. The ESIA was disclosed in English and local languages (Azerbaijani, Georgian, Russian (Georgian ESIA NTS only)).⁵</p>	<p>Stakeholders were provided with relevant information in a timely and appropriate manner. Meetings were held in the appropriate local language. The IESC recognises that disclosure has been achieved online, and the modality of disclosure according to communities in a form and format readily understood by stakeholders.¹⁷</p> <p>A RAP specific engagement plan (planned to be included as Annex 2 to existing SEP) is required as disclosure of the RAP Fund brochure is critical in ensuring that all project affected people are identified and compensated as is required.¹⁷</p>
Free prior informed consent (FPIC)	Not applicable as there are no indigenous people within area of interest for these projects.		

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Topic area	SD2	SCPX	TANAP
Grievance mechanism	A grievance mechanism is in place but was not included in the ESIA. Evidence shows that this is operational and the process by which complaints are recorded and addressed has improved over time.	BP has an established mechanism to handle grievances ³ and the contractor is required to develop their own grievance mechanism. ¹	Grievance mechanism is adequate in scale to the risk and impacts of the project.
Monitoring and reporting	Mechanisms for reporting back to communities on implementation of Action Plans (ESMPs) are presented by topic. For example, nuisance-monitoring data is reported back to communities every six months during the construction phase.	The ESIA contains information on the implementation of stakeholder engagement and the grievance mechanism. ¹ Periodic reporting is adequately documented in the ESIA (i.e. of the ESIA itself), including evidence of reporting notifications and materials. In addition, there is a commitment to periodic reporting to affected communities as the project develops in both the Community Liaison Plan and the PCDP.	Appendices indicate that ongoing reporting to affected communities is occurring in line with IFC PS1. The stakeholder engagement chapter in the ESIA provides detail on engagement and communications conducted up to the point of release of the ESIA, including tools used, frequency, and content of engagement and communications. ⁸

This table is based on the report 'Environmental & social review and audit. LUKOIL Overseas Shah Deniz – Stage 2 of the Shah Deniz project' by Sustainability Pty Ltd (2015) and the results of RSK assessment described in this report. Other sources of information referred to are indicated in the table text and listed below:

- ¹ South Caucasus pipeline expansion project, Azerbaijan Environmental and Social Impact Assessment (SCPX ESIA)
- ² South Caucasus pipeline expansion project, Azerbaijan, Environmental and Social Management and Monitoring Plan (ESMMP) (Appendix D of SCPX ESIA)
- ³ RSK assessment
- ⁴ BP – Annual Report on the Voluntary Principles on Security and Human Rights, January to December 2016 2013
- ⁵ South Caucasus pipeline expansion project, Azerbaijan, Public Consultation and Disclosure Plan (PCDP) (Appendix C of SCPX ESIA)
- ⁶ South Caucasus pipeline expansion project, guide to land acquisition and compensation – Azerbaijan (amendment found here)
- ⁷ South Caucasus pipeline expansion project, Amended draft Environmental and Social Impact Assessment Addendum for Georgia
- ⁸ Trans-Anatolian Natural Gas Pipeline (TANAP) Project ESIA report
- ⁹ Trans-Anatolian Natural Gas Pipeline (TANAP) Project, Social Action Plan (TNP-PLN-SOC-GEN-002_P3-1)
- ¹⁰ Trans-Anatolian Natural Gas Pipeline (TANAP) Project, Social Monitoring Plan (TNP-PLN-SOC-GEN-003_P3-1)

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- ¹¹ Trans-Anatolian Natural Gas Pipeline (TANAP) Project, Environmental Action Plan (TNP-PLN-ENV-GEN-002_P3-2)
- ¹² Trans-Anatolian Natural Gas Pipeline (TANAP) Project, Environmental Monitoring Plan (TNP-PLN-ENV-GEN-003_P3-2)
- ¹³ Trans-Anatolian Natural Gas Pipeline (TANAP) Project, Resettlement Action Plan (RAP) (GLD-PLN-LAC-GEN-003_P3-1)
- ¹⁴ TANAP Project's Executive Summary of ESIA and Supporting Environmental and Social Safeguard Documents
- ¹⁵ Trans-Anatolian Natural Gas Pipeline (TANAP) Project, Biodiversity Action Plan (BAP) (CIN-REP-ENV-GEN-017-Rev-P3-4)
- ¹⁶ Shah Deniz 2 Project, Environmental and Social Impact Assessment (ESIA)
- ¹⁷ Environmental and Social Due Diligence Review of the Trans Anatolian Natural Gas Pipeline Project. Sustainability Pty Ltd (Independent Environmental and Social Consultant). June 2017

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4 SNAM RETE GAS (SRG), IONIAN ADRIATIC PIPELINE (IAP) AND INTERCONNECTOR GREECE BULGARIA (IGB) ASSESSMENT

4.1 Snam Rete Gas (SRG)

4.1.1 Overview of the SRG project

The SRG project involves the construction of a 1400-mm (56-in.) pipeline that will link the TAP project in Melendugno (Lecce), Italy to the natural gas national grid in Brindisi. The length of the pipeline will be approximately 55 km.

The project lies entirely in the Puglia region of Italy, passing through the provinces of Lecce and Brindisi. The route will run from south–east to north–west, approximately parallel to the Adriatic coast and at a distance between 3 and 10 km from it.

The project also includes the construction of metering facilities and a pig trap area in the municipality of Melendugno, at the interconnection point with the TAP pipeline. Connection with the national grid will occur at the existing facilities in Masseria Matagiola (Brindisi), where capacity will be increased.

The SRG project is wholly within Italy, which is a member of the European Union. With respect to the Equator Principles, Italy is a designated country.

4.1.2 Status of project

The EIA for SRG was submitted in November 2015; the EIA review and approval process is ongoing. The assessment was prepared in compliance with Italian legislation, in particular with Legislative Decree 152/2006.



The EIA process allows the public access to all project documentation submitted to the approval authority and includes a consultation period during which all affected parties can make comment on the proposals. The comments received are discussed in official meetings (*Conferenza dei Servizi*) of the approval authority, and where required, additional information is sought from the proposer to address the comments made.

4.1.3 Project participants

Snam Rete Gas, an Italian natural gas infrastructure company, will be the owner and operator of the project.

4.1.4 Legislation and standards applicable to the project

Compliance with the EIB 2013, EDRB 2014, IFC 2012 standards or Equator Principles was not a requirement for the project during preparation of the EIA.

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The project will need to comply with the legislative requirements in the host country of Italy. It is noted that social impact assessment and stakeholder engagement are not a requirement of an EIA under Italian legislation. TAP will engage with SRG to provide information on stakeholder engagement initiatives.

4.1.5 Documents considered

An EIA has been prepared and is publicly available for the SRG project, along with appendices and other information linked to the EIA. The documents identified in Table 4.1 were considered when undertaking this assessment.

Table 4.1: Documents considered in the assessment of SRG

Document title	Brief description	Author	Date	Version number
Metanodotto Interconnessione TAP DN 1400 (56in.), DP 75 bar Studio di impatto ambientale *	EIA for Interconnector TAP project	Techfem	25/09/15	Rev. 01
Richiesta Integrazioni Prot.0011758, 02 May 2016	Additional information request from Ministry of Environment	Ministry of Environment	02/05/16	–

* The EIA “Studio di Impatto Ambientale” includes a list of annexes that were also reviewed as part of the assessment. Of particular relevance was the “Valutazione di Incidenza sui Siti di Importanza Comunitaria (SIC) e sulle Zone di Protezione Speciale (ZPS) (Specific Assessment on Sites of Community Interest (SCI) and Special Protection Areas (SPA)).



4.2 Ionian Adriatic pipeline (IAP)

4.2.1 Overview of the IAP project

The IAP project proposes to connect the existing gas transmission system of the Republic of Croatia, via Montenegro, and Albania with the Trans Adriatic Pipeline (TAP) system at Fier.

IAP will be bi-directional, allowing supply also from north to south. The total gas pipeline length from Split (Croatia) to Fier (Albania) is 511 km, with a capacity of 5bcm per annum.

Croatia is a member of the European Union. Albania and Montenegro are candidate countries for membership of the European Union. With respect to the Equator Principles, none of the countries is a designated country.

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4.2.2 IAP documentation

Documents considered

The documents identified in Table 4.2 were considered when undertaking this assessment.



Table 4.2: Documents considered in the assessment for IAP

Document title	Brief description	Author	Date	Version number
FS and ESIA for the Ionian – Adriatic pipeline (IAP): Feasibility Study Report	<p>A feasibility study for IAP, which includes a</p> <ul style="list-style-type: none"> description of the project description of the proposed route and route options analysis basic description of the environment through which IAP will pass. <p>The feasibility report focuses primarily on business and technical feasibility. Environmental issues are briefly discussed.</p>	COWI IPF Consortium	January 2014	1
FS and ESIA for the Ionian – Adriatic pipeline (IAP): Business Development Report	<p>A business development report for IAP, which includes</p> <ul style="list-style-type: none"> a business case for the IAP project consideration of different financial models which could be applied to development and operation consideration of possible project development partners. 	COWI IPF Consortium	March 2014	2

Documents not considered

Section 1.1 of the business development report identified in Table 4.2 referred to three additional earlier documents. These were not available to support this assessment. However, it is assumed from their titles and dates that they were amalgamated to form the feasibility study report, which is also identified in Table 4.2. These documents were

- Preliminary Technical Study Report – Annex II – Selection of final IAP Route, June 2013
- Preliminary ESIA Report, July 2013
- Preliminary Feasibility Study, October 2013.

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The feasibility study report states, “for each section of the pipeline route in Croatia, the EIA procedure has been conducted and a decision upon acceptability of the projects has been issued”. The assessments prepared in support of the project were not available for review.

4.2.3 Status of project

In 2007, the governments of Albania, Croatia and Montenegro signed a memorandum of understanding supporting the project.

In 2011, a memorandum of understanding and cooperation was signed between TAP and all four participants of the IAP. The four participants are identified as

- the government of Albania
- Plinacro Ltd, a Croatian gas system operator
- BH-Gas, a Bosnian gas system operator
- the government of Montenegro.

Feasibility study and business development reports were completed in 2014 for the proposed IAP pipeline (Table 4.2). These documents identify that:

- software-based route analysis has been used within each country to determine the most suitable route choice within each country (using Doctus evaluation software). The feasibility study states that ‘the pipeline route avoids the settled areas and consequently resettlement of population should be minimal’.
- a total investment cost of € 617.6 million had been estimated
- the environmental and social characteristics of the environment through which the pipeline will pass have been described. However, no detailed environmental impact assessments had been undertaken.



The feasibility study identifies that “for each section of the pipeline route within Croatia, the EIA procedure has been conducted and decision upon acceptability of the projects has been issued”. It is also stated that “for each of the stated sections appropriate assessment has been prepared as part of EIA”. However, it is not clear if appropriate assessment has the same meaning as that used in the Habitats Directive or if the EIAs are full EIAs rather than preliminary assessments.

Decisions on acceptability have been given by the Croatian authorities for the following three sections of the main gas pipeline within Croatia:

- Split to Ploče, issued on 21 July 2009
- Ploče to Dubrovnik, issued on 5 March 2012
- Dubrovnik to Prevlaka, issued on 27 February 2012.

The feasibility study identifies that ESIA documentation for Montenegro and Albania will be presented as separate reports; however, there is no evidence of documentation having yet been prepared. It is unclear whether the three EIAs prepared for Croatia are preliminary or full assessments, and it is possible further assessment within Croatia is also required.

On 29 August 2016, SOCAR became a technical partner of the project and signed a MOU with Albania, Bosnia and Herzegovina, Croatia and Montenegro. A Project

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Management Unit (PMU) was established, participants of which comprise Ministries and transmission system operators (TSOs) from each of the participating countries Albania (Albgaz), Bosnia Herzegovina (BH Gas), Croatia (Plinacro) and Montenegro (Bonus). SOCAR is an observer.

In 2016 the project was designated as an EC Energy Project of Mutual Interest.

4.2.4 Project stakeholders

During the preparation of the feasibility study and business report, a project stakeholder group was established to provide steering and guidance to the project team. The project stakeholder group consists of the following representatives:

- (1) Interstate committee comprising
 - (i) Ministry of Economy (Croatia)
 - (ii) Ministry of Foreign Trade and Economic Relations (Bosnia & Herzegovina)
 - (iii) Ministry of Economy (Montenegro)
 - (iv) Ministry of Energy and Industry (Albania)
 - (v) Gaspromet (Bosnia and Herzegovina)
 - (vi) BH Gas (Bosnia and Herzegovina)
 - (vii) Sarajevo Gas Company (Republika Srpska)
- (2) Plinacro Ltd (Croatia)
- (3) European Commission, EIB and World Bank
- (4) EBRD
- (5) Energy Community Secretariat, Vienna
- (6) Bonus (Montenegro)
- (7) Albgaz (Albania).

Four participants in the project are identified in Section 4.2.3 and, in addition, SOCAR recently signed a MOU relating to the project. However, at the current time:



- the identity, structure or shareholder composition of the developer or operator of IAP is unknown (possible stakeholders are identified in Section 7 of the business development report)
- the contractor who will develop the project is unknown
- the procurement and delivery model which will be used by the project is unknown.

The PMU envisages establishment of the IAP project company by the end of 2017, including conclusion of the preliminary shareholder documentation.

4.2.5 Legislation and standards applicable to the project

As a minimum, each component of the project will need to comply with the legislative requirements in the host country (Albania, Montenegro or Croatia).

If the project requires external funding from IFIs, their requirements will influence the selection of relevant project standards.

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4.3 Interconnector Greece Bulgaria (IGB)

4.3.1 Overview of the IGB project

The proposed Interconnector Greece Bulgaria (IGB) project will transport natural gas from Greece to Bulgaria. It will connect the existing Greek national gas transmission network (DESFA) at Komotini compressor station to an existing gas pipeline near the Bulgarian town of Stara Zagora. The Bulgarian section of the pipeline will be 151 km in length, and the Greek section of the pipeline will be 34 km.

It is planned that IGB will initially transport 3 billion cubic metres per annum (bcma) of gas, although provision is being made for the future expansion up to a maximum capacity of 5 bcma. The expansion will require construction of an additional 10-MW compressor station. The preliminary proposed location for the compressor station is near the town of Haskovo in Bulgaria.



4.3.2 IGB documentation

Documents considered

The documents identified in Table 4.3 were considered when undertaking this assessment.

Table 4.3: Documents considered in the assessment for IGB

Document title	Brief description	Author	Date
Letter from the Hellenic republic, ministry for the environment, energy & climate change to the Republic of Bulgaria ministry of environment & water <i>Hard copy</i>	Letter with the subject 'Notification of Environmental Impact Assessment (EIA) under the Espoo convention for the investment proposal for the project: "Construction of a natural gas pipeline Interconnector Greece-Bulgaria'. It includes <ul style="list-style-type: none"> a brief project description preliminary information on potential environmental impacts and suitable mitigation measures 	The Hellenic minister for the environment, energy & climate change	9 April 2012
Decision on environmental impact assessment No. 1-1/2013 <i>Hard copy</i>	This government decision provides <ul style="list-style-type: none"> approval for the implementation of the western route of the gas pipeline a short description of the project a high-level assessment of impacts expected conditions governing how the project is carried out. 	Ministry of Environment and Water of the Republic of Bulgaria	6 February 2013
IGB pipeline market test Expression of interest	The document <ul style="list-style-type: none"> invites interested parties to 	ICGB AD	December 2015

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Document title	Brief description	Author	Date
phase notice <i>Hard copy</i>	<p>express their interest to participate in the EoI Phase of the Market Test for the IGB pipeline</p> <ul style="list-style-type: none"> provides general information on the IGB pipeline. 		

Documents not considered

The available documents identify that EIAs in both Greece and Bulgaria have been completed, and an EIA permit has been issued in Bulgaria. These documents were not available to support this assessment.

4.3.3 Status of project

The IGB pipeline has intergovernmental support from the Republic of Greece and Republic of Bulgaria via an MOU signed in 2009. The project has been designated as a project of national priority under Bulgarian Council of Ministers' decisions Nos. 615/14.07.2009 and 452/07.06.2012, and under Greek Law 4001/2011.

At EU level, the IGB Project has obtained consistent political and financial backing and has secured 45 million Euros of financial support from the European Energy Program for Recovery (EEPR) (EC Decision C(2010) 5813, as amended by Decision C(2012) 6405).

In October 2012, ICGB AD signed a Mandate Letter with EBRD creating a framework for negotiation of long-term debt financing for the project.



In February 2013, the Bulgarian Ministry of Environment and Waters issued its approval of the IGB project Environmental Impact Assessment and Appropriate Assessment Report⁴, and approved the investment proposal and its further implementation in the preferred route, proposed by the Investor.

In July 2013, the Greek Ministry of Energy, Environment and Climate Change approved the Preliminary Environmental Impact Assessment⁵ and Evaluation for the IGB pipeline project.

In January 2014, ICGB AD and TAP signed a memorandum of understanding and cooperation aimed at establishing a possible interconnection point in the vicinity of Komotini, Greece, which will enable new gas supplies from the Caspian Sea to flow into the Bulgarian gas network and further into south-eastern Europe. The final investment decision was taken in December 2015.

⁴ The IGB Project Environmental Impact Assessment and Appropriate Assessment Report for Bulgaria were not available to support this assessment.

⁵ The Preliminary Environmental Impact Assessment and Evaluation for Greece was not available to support this risks assessment.

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In Bulgaria, detailed routing has been completed, and acquisition of the right of way and associated land plots has commenced.

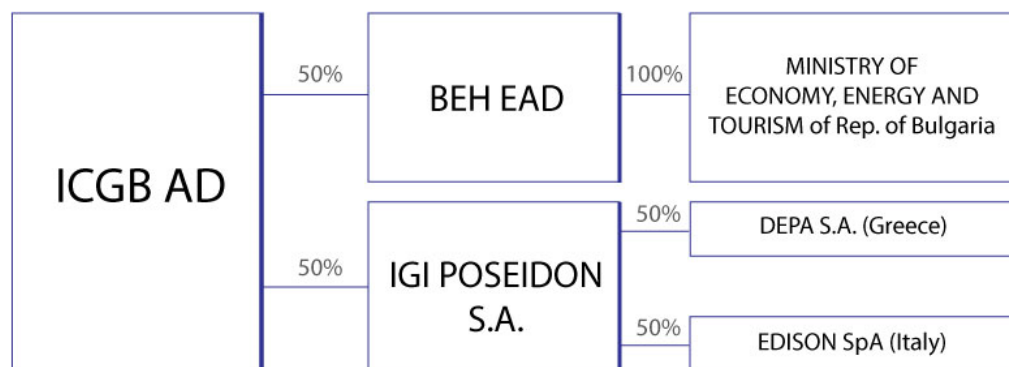
IGB has undertaken a Market Test which was divided into two phases. The announced capacity within the second phase of the market test amounts to 2.7 billion cubic meters, of which 1.57 billion cubic meters are reserved. Consequently, respective ARCAs (advanced reservation capacity agreements) with the shippers (which submitted binding offers) have been executed. On March 10th, 2017, the ARCAs were submitted to the Bulgarian and Greek regulators.

The construction of the entire project (Greece and Bulgaria) is expected to last approximately 14 months. The available documentation states that IGB's commercial operations are planned to begin in the second half of 2018. However, given the project's current status this may no longer be the case.

4.3.4 Project participants

The joint venture company ICGB AD will be the owner of the pipeline. The composition of ICGB AD is

- Bulgarian Energy Holding EAD, 50%
- IGI Poseidon SA, 50%.





Source: ICGB AD website

4.3.5 Legislation and standards applicable to the project

At the time of the assessment, the standards that have been adopted by the project are unknown.

As a minimum, each component of the project will need to comply with the legislative requirements in the host country (Greece or Bulgaria).

It is considered unlikely that the project will proceed without external funding. It is therefore likely that the project will be required to meet additional good international practice requirements as a result of lender requirements. The lender mix will influence the selection of relevant project standards, although it is likely that they will include at least some of the applicable standards being adopted by TAP.

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4.4 Assessment findings for the SRG, IAP and IGB projects

4.4.1 SRG

Snam Rete Gas (SRG) will be the owner and operator of SRG. As an existing Italian natural gas infrastructure company, Snam Rete Gas is experienced in the planning, development and delivery of similar gas infrastructure.

The SRG project is proceeding under Italian legislation and has not set out to consider or meet any of the applicable international standards that have been considered in this assessment. As a result, there has been no social impact assessment or comprehensive stakeholder engagement for the SRG project. The environmental impact assessment has been undertaken in accordance with Italian legislation.

TAP actively maintains and continues to develop good working relationships and clear communication channels with the SRG team developing this associated facility. This is expected to offer a range of benefits to both parties and assist in the minimisation and management of environmental and social impacts, particularly those around the interface between the TAP and SRG projects. The process which TAP is currently using to engage with TANAP to support the Evros river crossing on the Greek Turkish border will be replicated and enhanced to support interfaces with the SRG team.

4.4.2 IAP and IGB



The IAP project is at an early stage of planning with the IGB project a little more advanced. However, both are less developed than the other associated facilities considered in this assessment. Although there is a clear intent to develop and connect the pipelines to TAP, and indicative route information is available, no detailed environmental or social impact assessment documentation was publically available on which an assessment could be made.

Both of the projects include partners who are experienced in the development and operation of gas pipelines. A familiarity with managing the environmental, social and engineering challenges which will be encountered can therefore be expected within the delivery teams.



As the source of funding for these projects is still being defined, the environmental and social lender standards to be applied to the projects are currently unknown. Both of the projects will occur within EU countries (or candidate countries⁶) and will therefore require approval by EU member (or candidate) states before they can proceed. This provides a degree of confidence that the potential environmental and social impacts of the projects will be identified, assessed and managed during project planning and implementation.

Taking account of the stage that the IAP and IGB projects are at, it is recommended that TAP actively maintains and continues to develop good working relationships and clear communication channels with the teams delivering these projects. Through the

⁶ The IAP pipeline is partly within the candidate EU countries of Albania and Montenegro. Owing to the requirements for these countries to become recognised as full EU member states, it is expected that environmental and social standards equivalent to those of an EU member state will be applied.

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sharing of lessons learnt, good practice and information about the common areas of influence, opportunities are likely to exist to reduce the overall impacts (particularly cumulative impacts) of the projects.

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5 CONCLUSIONS AND RECOMMENDATIONS

5.1 Conclusions



The conclusions of the assessment are presented in this section. Particular focus is given to those conclusions that are likely to be relevant to the TAP lender group.

5.1.1 General conclusions

- All six associated facilities to the TAP project that have been considered by this assessment have undertaken either full or preliminary environmental and social impact assessment to the standards required by the applicable legislation in the country or countries in which they will occur.
- The SD2, SCPX and TANAP associated facilities have used robust methodologies to undertake environmental and social impact assessments which are generally aligned with the principles of the standards adopted by IFIs. Appropriate management and mitigation measures have been identified to control the potential impacts identified by the assessments.
- In general, the associated facilities for which planning and implementation has progressed furthest have been found to demonstrate a more advanced understanding of environmental and social impacts than those associated facilities which are at an earlier stage of planning. Similarly, the management and mitigation plans to control impacts are further advanced.

5.1.2 Findings associated with the SD2 and SCPX associated facilities

- These projects share a number of common characteristics:
 - They are both extensions to existing projects, which means the proposer already has well established operations in the affected area, and that there is a good understanding of the environment in the project area of influence.
 - Existing environmental and social management and monitoring procedures exist, which can be adapted in many cases to control or monitor potential impacts. This provides confidence that measures are in place to control potential impacts, although ESMPs for SD2 have not been disclosed (see below).
 - The operator of the projects has a well-established operational presence and experience of completing similar scale projects in the area.
- Sustainability Pty Ltd's audit of SD2 identified some deficiencies in compliance with EBRD and ADB's environmental and social performance criteria, which they acknowledge is largely due to a difference in the standards applied by the project operator. The most significant variation from lender standards and policies (which required EBRD to seek derogation before approving finance) related to the lack of public disclosure of documented ESMPs and SEPs developed for the construction and operational phases of the project.

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5.1.3 Findings associated with the TANAP associated facility

- A comprehensive ESIA has been prepared for the TANAP associated facility. The ESIA met the requirements of the Turkish national legislation and was prepared to comply with IFC 2012 standards, Equator Principles and the 2008 version of the EBRD Performance Requirements.
- Preparation of the ESIA began before publication of the 2013 EIB standards and the 2014 EBRD Environmental and Social Policy. Consequently, these standards have not been explicitly considered by the project, although it is noted that many of the requirements have been satisfied owing to the significant amount of commonality with the earlier standards that were considered by the project.
- The project team has made significant progress with the development of management plans describing how commitments made in the ESIA will be implemented.
- Sustainability Pty Ltd's audit of compliance with EBRD's PRs identified no material non-compliances. There were some partial compliances which they considered could be readily addressed through the development and implementation of the Environmental and Social Action Plan that was included in the report.

5.1.4 Findings associated with the SRG associated facility

- The SRG associated facility has undertaken an impact assessment that meets the requirements of the Italian national legislation, and has not set out to meet the requirements of the IFIs. Consequently, a detailed environmental impact assessment has been undertaken, but no assessment of social impact appears to have been performed.



5.1.5 Findings associated with the IAP and IGB associated facilities

- The findings for the IAP and IGB associated facilities are similar although the latter is more advance with construction due to start in 2019. This is considered to reflect the fact that both projects are still at the planning stage without any established delivery model or source of funding.
- The stage that the IAP and IGB projects have reached means that the understanding of project impacts is at a higher level than for the other associated facilities considered. At present, assessment appears to have been limited to potential environmental impacts, with social impacts yet to be considered. A more detailed assessment of impacts would be expected as the projects develop.



5.2 Recommendations

The following recommendations are for further action that can be taken by TAP or the TAP lender group to improve understanding of the associated facilities and contribute to the understanding and management of potential impacts.

- TAP and its partners in the Southern Gas Corridor (SGC), TANAP, SCPX, SD2, IGB, SRG and IAP (since February 2017) have established regular engagement and working groups. It is recommended this continues to promote
 - understanding of what has changed since each ESIA/EIA was prepared

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- identification of any opportunities for data sharing, which will improve understanding of potential impacts
- identification of opportunities to collaborate on the management or mitigation of impacts, or to maximise the positive outcomes of the projects. This applies particularly in areas where the areas of influence of the associated facilities may overlap.
- It is recommended that TAP adopts a similar approach to engagement as described above to the associated facilities that were screened out of this assessment (Section 1.2.2).
- Where discussions with the proposers of an associated facility identifies that an opportunity exists to improve cumulative outcomes, it is recommended that working groups be established to explore opportunities fully.

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6 LIMITATIONS



The methodology used in this assessment and the data available to support it placed limitations on the assessment, and the findings and conclusions should be considered accordingly. In particular, the following limitations are noted:

- The report is not a comprehensive due diligence review of associated facilities compliance with lender standards nor does it provide an assessment of risks to the project or the lenders group.
- The assessment has been based on publicly available project documentation, which describes the understanding of the project at a particular moment in time. Project planning is a dynamic process; it is acknowledged that the current levels of project planning and understanding of impact will change, and management and monitoring measures are likely to be developed further.
- It is likely that measures to control impacts of the associated facilities are in place, even though they are not documented in the available reports. In particular, we note that we would expect there to be management or mitigation for some associated facilities impacts within internal proposer documents such as human resources policies and plans or within contract documents between the proposer and suppliers or contractors. We would not expect to find this information within a publicly available ESIA or supporting documentation.



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7 GLOSSARY

Term or acronym	Description
ACG	Azeri–Chirag–deepwater Gunashli (ACG) field
AGIs	aboveground installations
AGT	Azerbaijan–Georgia–Turkey region
applicable standards	international performance standards/requirements identifying good international practice, which are identified in Section 1.1 of this document
ARCA	advanced reservation capacity agreement
BAP	Biodiversity Action Plan
BAT	best available techniques
bcma	billion cubic metres per annum
BREF	best available techniques reference document
BTC	Baku–Tbilisi–Ceyhan pipeline
CLO	community liaison officer
economic displacement	results from an action that interrupts or eliminates people’s access to productive assets without physically relocating the people themselves
EBRD	European Bank for Reconstruction and Development
EHS	environment, health and safety
EIB	European Investment Bank
EIW	early infrastructure works
ERP	Emergency Response Plan
ESIA	environmental and social impact assessment
ESCH	environmental, social and cultural heritage
ESMMP	Environmental and Social Management and Monitoring Plan: normally, a schedule activity including frequency and agreed standards
ESMP	environmental and social management plan
ESMS	environmental and social management system
ETP	Employment and Training Plan
FLMP	Fishing Livelihoods Management Plan
GHGs	greenhouse gases
GIIP	good international industry practice
HAZID	hazard identification study
HAZOP	hazard and operability study
HSSE	health, safety, security and environment

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Term or acronym	Description
IAP	Ionian Adriatic Pipeline
IESC	independent environmental and social consultant
IFC	International Finance Corporation
IFI	international financial institution
IGB	Interconnector Greece Bulgaria
IPPC	integrated pollution prevention and control
IUCN	International Union for Conservation of Nature
MENR	Ministry of Ecology and Natural Resources (Azerbaijan)
MENRP	Ministry of Environment and Natural Resources Protection (Georgia)
MOEU	Ministry of Environment and Urbanisation
MMP	management and monitoring plan
MW	megawatt
NGO	non-governmental organisation
OECD	Organisation for Economic Co-operation and Development
OHSS	occupational health, safety and security
OSPAR	The Convention for the Protection of the Marine Environment of the North-East Atlantic
PAC	project-affected community
PCDP	Public Consultation and Disclosure Plan
PDF	priority biodiversity feature
physical displacement	actual physical relocation of people resulting in a loss of shelter, productive assets or access to productive assets (such as land, water and forests) (IFC definition)
PS	IFC performance standard
PSA	production sharing agreement
promoter	the company or group of companies proposing to develop and operate the associated facility
Ramsar	international treaty for the conservation and sustainable use of wetlands
RAP	Resettlement Action Plan
ROW	right of way; a strip of land on and around a pipeline, on which an operator has the right to construct, operate and/or maintain a pipeline.
SCP	South Caucasus pipeline
SCPX	South Caucasus pipeline expansion
SGC	southern gas corridor
STP	sewage treatment plant
SD2	Shah Deniz phase 2 (gas fields)

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Term or acronym	Description
SEP	Stakeholder Engagement Plan
SOCAR	State Oil Company of the Azerbaijan Republic
SRG	Snam Rete Gas (proposer of the Interconnector TAP project in Italy)
TANAP	Trans Anatolian Pipeline
TAP	Trans Adriatic Pipeline
TAP lender group	group of lenders providing finance to enable construction of the TAP project
TSO	transmission system operator
WBG	World Bank Group
WHO	World Health Organization