

**COMBINED PROJECT INFORMATION DOCUMENTS / INTEGRATED  
SAFEGUARDS DATA SHEET (PID/ISDS)  
CONCEPT STAGE**

**Report No.:** PIDISDSC15445

**Date Prepared/Updated:** 11-Jan-2016

**I. BASIC INFORMATION**

**A. Basic Project Data**

<b>Country:</b>	Turkey	<b>Project ID:</b>	P157416
		<b>Parent Project ID (if any):</b>	
<b>Project Name:</b>	Trans-Anatolian Natural Gas Pipeline Project (P157416)		
<b>Region:</b>	EUROPE AND CENTRAL ASIA		
<b>Estimated Appraisal Date:</b>	05-Apr-2016	<b>Estimated Board Date:</b>	07-Jul-2016
<b>Practice Area (Lead):</b>	Energy & Extractives	<b>Lending Instrument:</b>	Investment Project Financing
<b>Sector(s):</b>	Oil and gas (100%)		
<b>Theme(s):</b>	Infrastructure services for private sector development (50%), Regional integration (50%)		
<b>Borrower(s):</b>	Boru Hatlari Ile Petrol Taşıma A.Ş. (BOTAŞ), Southern Gas Corridor CJSC (SGC)		
<b>Implementing Agency:</b>	TANAP Doğalgaz İletim A.Ş. (TANAP)		
<b>Financing (in USD Million)</b>			
	<b>Financing Source</b>	<b>Amount</b>	
	Borrower	780.00	
	International Bank for Reconstruction and Development	1000.00	
	EC European Investment Bank	1120.00	
	Export Credit (unidentified)	5700.00	
	Foreign Private Commercial Sources (identified)	1200.00	
	Total Project Cost	9800.00	
<b>Environmental Category:</b>	A - Full Assessment		
<b>Concept Review Decision:</b>	Track II - The review did authorize the preparation to continue		
<b>Is this a Repeater</b>	No		

<b>project?</b>	
<b>Other Decision (as needed):</b>	

## B. Introduction and Context

### Country Context

Turkey is the host country of the Trans-Anatolian Natural Gas Pipeline (TANAP) Project. The Project is part of a program of gas development in Azerbaijan and gas transmission from Azerbaijan through Georgia, Turkey, Greece and Albania to Italy. The program is the first realization of the Southern Gas Corridor. The term Southern Gas Corridor (sometimes just Southern Corridor) is used to describe infrastructure projects aimed at improving the security and diversity of the energy supply of the European Union (EU) by bringing natural gas from the Caspian region to Europe. TANAP Doğalgaz İletim A.Ş., i.e. TANAP Natural Gas Pipeline Company, is a company established under Turkish Company Law to implement the TANAP project and own and operate the pipeline system upon project completion. Turkey's national gas company Boru Hatları İle Petrol Taşıma A.Ş. (BOTAŞ) holds a 30 percent share in TANAP. The Government of Azerbaijan and the State Oil Company of the Azerbaijan Republic (SOCAR) have established the Southern Gas Corridor Closed Joint Stock Company (SGC) as their joint investment vehicle for the Southern Gas Corridor. SGC holds a 58 percent share in TANAP. The remaining 12 percent share is held by the international oil and gas major BP. BOTAŞ would be the borrower of a proposed Bank loan of about \$1 billion. Proposed Bank loan and/or guarantee assistance to SGC is expected to be of the same order of magnitude.

Recent Bank analytical papers: (a) "Turkey's Transitions: Integration, Inclusion, Institutions", (Raiser and Wes, 2015); and (b) specifically in the energy sector, "Turkey's Energy Transition – Milestones and Challenges", (Dilli and Nyman, 2015) and "Institutional Review of Energy Efficiency in Turkey", (Limaye and Singh, 2015), give a detailed description of where Turkey stands today, and how it got there, as well as discuss key challenges.

### European Dimension

Turkey is a candidate country for European Union membership. Accession negotiations started in October 2005. Since then the European Union (EU) has provisionally closed one chapter (Science and Research) and opened negotiations on 14 other chapters. The Government views the accession process as Turkey's own, fundamental "modernization project". After the June 2011 elections, the Government upgraded the institution overseeing EU accession matters into a new Ministry for EU Affairs (MEU). Although the energy chapter has not been opened for negotiations, energy is a topic of key interest in EU-Turkey relations and enhanced energy cooperation is an integral part of the EU-Turkey agenda.

Azerbaijan, Turkey and the EU are promoting as partners the development of the Southern Gas Corridor and cooperate to implement the Trans-Anatolian Natural Gas Pipeline (TANAP) project. The European Commission's 2008 "Second Strategic Energy Review - An EU Energy Security And Solidarity Action Plan", states that: "A southern gas corridor must be developed for the supply of gas from Caspian and Middle Eastern sources, which could potentially supply a significant part of the EU's future needs. This is one of the EU's highest energy security priorities." Political agreement followed in May 2009 at the Southern Corridor Summit in Prague

and a declaration was signed by the Presidents of the European Council and the European Commission for the EU, the Presidents of Azerbaijan, Georgia and Turkey and the Energy Minister of Egypt, in the presence of the representatives of Kazakhstan, Turkmenistan and Uzbekistan.

### **Sectoral and Institutional Context**

The Program is the first realization of the Southern Gas Corridor. The Program is undoubtedly Azerbaijan's most important energy program, possibly the country's most important project ever. The Shah Deniz 2 gas field in Azerbaijan is being developed to produce 16 billion cubic meters (bcm)/annum, all for export markets. BOTAŞ has contracted 6 bcm for the Turkish market and several gas traders have contracted the remaining 10 bcm for the European market, mostly Italy. An Advisory Council on the Southern Gas Corridor held its first meeting in February 2015 in Baku, Azerbaijan. Setting up an Advisory Council is a joint initiative of the European Commission and Azerbaijan. The aim of the Council is to steer the implementation of the project at political level in order to have the Southern Gas Corridor operational by 2019-2020. The Council issued a joint statement expressing strong support for the implementation of the Southern Gas Corridor. The statement was signed by the authorized representatives of Azerbaijan, Albania, Bulgaria, Georgia, Greece, Italy and Turkey, United Kingdom and United States, as well as the Commission.

The energy sector has been a key contributor to Turkey's growth, but could become a bottleneck in the near future. A range of reform measures helped attract private sector capital to meet fast demand growth. These measures include electricity, gas, renewable energy and energy efficiency legislation; the establishment of an energy sector regulatory authority (EMRA); energy price reform; the creation of a functional electricity market and large-scale introduction of natural gas; restructuring of state-owned energy enterprises; and large-scale private sector participation through privatization including the entire power distribution and new investment including over 30,000 MW power generation capacity. However, Turkey's heavy dependence on energy imports (mostly oil and gas), which accounted for 23 percent of imports and 58 percent of the current account deficit by end-2014, constitutes a macroeconomic challenge.

Turkey made a strategic choice to diversify its energy mix into natural gas. Gas imports started in 1987 and in less than two decades, gas became the most important fuel in power generation displacing indigenous coal. Gas continues to account for almost 50 percent of power generation. Although coal power would be less expensive in Turkey, gas power is preferred due to its lower investment cost and operational flexibility. Furthermore, gas has half the carbon footprint of coal.

Constraints to gas imports and gas market inefficiencies threaten Turkey's energy security. The market is dominated by the national gas company BOTAŞ with 80 percent market share, which is protected from competition through cross-subsidies to potentially competitive market segments. Network capacity and storage limitations constrain not only the flow of gas but also the trading of gas by its prospective competitors. Gas storage capacity of 2.6 billion cubic meters constitutes only 5 percent of annual gas consumption (20-30 percent for European countries), which is insufficient to cover demand spikes. These constraints in the gas market and infrastructure not only prevent Turkey from achieving gas supply security at reasonable price, but may also threaten supply security of electricity as natural gas fired power generation accounts for 40-50 percent of the total electricity generation. A detailed discussion of these and other key challenges in the energy market is available in the 2015 Bank report "Turkey's Energy Transition – Milestones and Challenges".

### **Relationship to CAS/CPS/CPF**

The project contributes to the realization of the objectives of the Turkey Country Partnership Strategy (CPS) for the FY12-16 period. The CPS has three main strategic objectives and pillars: Strategic Objective 1 - enhanced competitiveness and employment; Strategic Objective 2 - improved equity and public services; and Strategic Objective 3 - deepened sustainable development. Activities under the Deepened Sustainable Development pillar include policy advice and financing to address energy, environment and climate change challenges in an integrated manner. The preparation of the Country Partnership Framework for the period beyond FY16 will start shortly. Energy sector is expected to remain among the highest priority areas of Bank engagement.

### **C. Proposed Development Objective(s)**

#### **Proposed Development Objective(s) (From PCN)**

The Project's Development Objective is to facilitate the tripling of Azerbaijan's gas exports and improve the security and diversity of Turkey's and Europe's energy supply by bringing natural gas from Azerbaijan to Turkey and Europe.

#### **Key Results (From PCN)**

Progress towards achieving the PDO will be monitored through the following PDO indicators:

1. Azerbaijan's natural gas exports increase from 6.5 bcm/annum to 22.5 bcm/annum
2. Turkey's and Europe's energy security is improved by the supply of 6 bcm/annum and 10 bcm/annum to their respective gas markets. (bcm=billion cubic meters)
3. Turkey's and Europe's energy supply diversity is improved by doubling the supply of gas to Turkey from one of its current minor supply countries and by opening the Southern Gas Corridor to bring Caspian gas to the European gas market.

### **D. Concept Description**

The Trans-Anatolian Natural Gas Pipeline (TANAP) is part of a program of gas development in Azerbaijan and gas transmission from Azerbaijan through Georgia, Turkey, Greece and Albania to Italy. The Shah Deniz 2 gas field in Azerbaijan is being developed to produce 16 billion cubic meters of gas/annum (bcma). BOTAŞ has contracted 6 bcma for the Turkish market and several gas traders have contracted the remaining 10 bcma for the European market, mostly Italy.

At 1,820 km TANAP accounts for over 1/2 of the 3,500 km pipeline system. TANAP will start from the Turkish border with Georgia, beginning in the Turkish village of Türkgözü in the Posof district of Ardahan, will run through 20 provinces including Kars, Erzurum, Erzincan, Bayburt, Gümüşhane, Giresun, Sivas, Yozgat, Kırşehir, Kırıkkale, Ankara, Eskişehir, Bilecik, Kütahya, Bursa, Balıkesir, Çanakkale, Tekirdağ and Edirne and will end at the Greek border in the İpsala district of Edirne. From this point, the Trans-Adriatic Natural Gas Pipeline (TAP) will connect to convey natural gas to European gas markets.

## **II. SAFEGUARDS**

### **A. Project location and salient physical characteristics relevant to the safeguard analysis (if known)**

The entire project will include 4 parts: Shah Deniz 2 field, South Caucasus Pipeline Extension (SCPx), TANAP (to be partly financed by WB), and Trans Adriatic Pipeline (TAP). TANAP Project

initiated construction activities soon after they received the national clearances (including ESIA approval by Ministry of Environment and Urbanization) and currently the trenching and pipe laying works are ongoing. According to the Project's RAP (dated October 2014) "Although the final pipeline's RoW was not available at the moment of the elaboration of this RAP, it is anticipated that the project will cause very little or no physical displacements. The ongoing technical design studies are focused on minimizing physical displacements." Safeguards due diligence will be undertaken to determine whether environmental and social safeguard documents prepared by TANAP are consistent with the WB SG polices and proposes measures for bridging gaps, if any. In addition, the due diligence will also cover the connected projects' (Shah Deniz 2, SCPx and TAP) environmental and social policies followed for mitigating the impacts.

### **B. Borrower's Institutional Capacity for Safeguard Policies**

TANAP followed IFC Performance Standards during ESIA and has adopted an Integrated Management System Policy, stating that the company "is aware that quality, occupational health & safety, environmental and social issues bear prime importance in the success of the TANAP Project" and that it "will always carry out its obligations with the highest quality and with care to minimize impacts upon health, safety, environment and communities, by ensuring that all related risks and aspects are identified, assessed and mitigated appropriately."

TANAP has stated that the company follows the guidelines and practices of international financial institutions in environmental and social aspects of the project. EBRD's and IFC's documents are explicitly referred to within documents disclosed by TANAP for the project. Land acquisition will be conducted by BOTAS which has established a dedicated TANAP Land Acquisition Directorate.

BOTAS has prior experience with World Bank and is familiar with the Bank's environmental and social safeguards policies. BOTAŞ will be in charge of implementing the land acquisition in accordance with the RAP which is published by TANAP. RAP funds are managed by TANAP. Since TANAP is the main implementing private company, monitoring and supervision measures of RAP will need to be taken under TANAP's capacity.

TANAP with the assistance of its consultants has prepared and disclosed on its web-site <http://www.tanap.com> the following documents: An ESIA, A Guide to Land Acquisition and Compensation, A RAP, and A Stakeholder Engagement Plan. It was stated by the TANAP team that all the safeguards documents prepared followed IFC Perf. Stds. The discussions regarding the use of WB OPs or Performance Standards are ongoing. The TANAP ESIA has been submitted to Turkey's Ministry of Environment and Urbanization (MoEU). TANAP has received MoEU's EIA Positive decision and TANAP has started construction activities. Bank team will review TANAP's safeguards policies and documents and will also discuss the project directly with TANAP's environmental and social consultants. As part of due diligence, the institutional and implementation arrangements that are in place to implement the project and mitigate the environmental and social impacts will be reviewed and measures for strengthening the capacity at TANAP will be discussed and agreed as needed. The risk rating for safeguards policies has been conservatively marked as substantial due to large scale land acquisition and complex environmental issues.

### **C. Environmental and Social Safeguards Specialists on the Team**

Arzu Uraz (GSU03)

I. U. B. Reddy (GSU06)

Jelena Lukic (GSUGL)

Jorge E. Villegas (GSU03)

**D. POLICIES THAT MIGHT APPLY**

<b>Safeguard Policies</b>	<b>Triggered?</b>	<b>Explanation (Optional)</b>
Environmental Assessment OP/BP 4.01	Yes	TANAP Project has already received national EIA clearance and the construction works already started at the sites. The project consists of 1,820 km underground pipeline (also undersea passing in Dardanelles), 2 Compressor Stations, 49 Valve Stations, 4 Metering Stations, 2 Pigging Stations and 2 Off-take Stations. The estimated impacts during construction are modification of land, noise, vibration and gaseous pollutants on the sensitive ecological receptors and cultural sites.
Natural Habitats OP/BP 4.04	Yes	The ESIA states that the pipeline working strip will require a total of roughly 6,400 ha of land along its 1,820 km length onshore, 60% of which is anthropogenically disturbed or fragmented agricultural lands. Routing exercise has been conducted by avoiding critical natural habitats, however the ESIA report states the pipeline passes a protected area and some other ecologically sensitive areas. Biodiversity surveys were conducted in a more narrow area of 36m. construction corridor to define the critical habitats in between specific KPs and an action plan was prepared of which was shared both with Engineering, Procurement and Construction Management Company (EPCM) and the Construction Contractors (CC). Construction Impacts Management Plan of the Contractors defines the mitigations to be followed on site considering the mitigations given in BAP. The due-diligence study will assess the impacts and relevant mitigation measures on habitats.
Forests OP/BP 4.36	TBD	
Pest Management OP 4.09	TBD	Land clearing process has been started and is ongoing regarding the method statements and/or procedures prepared by Contractors. Pesticides will not be used throughout the lifetime of the project.
Physical Cultural Resources OP/BP 4.11	Yes	During the ESIA studies a detailed Cultural Heritage Assessment has been conducted for the project and annexed to ESIA. The document's review is ongoing. During initial meetings it was mentioned that 160 culturally sensitive sites have been identified during routing exercise. The selected route is now avoiding most of the cultural areas but still passes through few

		of them. EPCM has their own chance find procedure, as well as the Cultural Heritage Management Plans of each Contractor. Legal requirements and the ESIA commitments are followed by TANAP/EPCM/CCs. The measures defined in the Cultural Heritage Assessment Report will be reviewed during the due-diligence study.
Indigenous Peoples OP/BP 4.10	No	
Involuntary Resettlement OP/ BP 4.12	Yes	Project requires large scale land acquisition of about 6,300 ha (60k landowner) for pipeline route and above ground installations on permanent acquisition or exclusive right basis or on temporary easement basis. Approx. 75% of the affected land is privately owned. So far, land acquisition has been completed for 700km and 30% has been concluded in amicable settlements. Where no agreement reached, urgent expropriation is being used.
Safety of Dams OP/BP 4.37	No	
Projects on International Waterways OP/BP 7.50	TBD	Off-shore section of the project is passing through Dardanelles. During ESIA process, as the methodology was not clearly identified, although off-shore was included in the report, new application was made to MoEU with the approved Project Design Summary. MoEU decision is expected. Meriç, Karasu, Posof, Kura Rivers are existing on the Route of the project. However, it is not currently decided for Meriç River crossing that construction of the crossing will be conducted by TANAP or TAP. Discussions are ongoing. Regarding the Posof, Kura and Karasu Rivers, method statements will be prepared and presented to approval of TANAP/EPCM by Construction Contractors. Guidance from Legal Department is requested for this OP.
Projects in Disputed Areas OP/ BP 7.60	No	

## E. Safeguard Preparation Plan

### 1. Tentative target date for preparing the PAD Stage ISDS

15-Mar-2016

### 2. Time frame for launching and completing the safeguard-related studies that may be needed. The specific studies and their timing should be specified in the PAD-stage ISDS.

TANAP has disclosed an ESIA, A Guide to Land Acquisition and Compensation, A RAP, and a

SEP. They are under review by the Bank for consistency with the WB safeguard policies. A gap analysis will be conducted after the completion of the environmental and social due diligence and then it'll be decided if any additional safeguards documentation is required prior to appraisal to make BOTAS/TANAP's policies and plans consistent with the WB policy requirements.

### III. Contact point

#### World Bank

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Title: Lead Specialist

Contact: Arturo S. Rivera

Title: Lead Energy Specialist

Contact: Yesim Akcollu

Title: Senior Energy Specialist

#### Borrower/Client/Recipient

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### V. Approval

Task Team Leader(s):	Name: Kari J. Nyman, Arturo S. Rivera, Yesim Akcollu	
<b>Approved By</b>		
Safeguards Advisor:	Name: Agnes I. Kiss (SA)	Date: 21-Feb-2016
Practice Manager/ Manager:	Name: Ranjit J. Lamech (PMGR)	Date: 22-Feb-2016
Country Director:	Name: Eavan O'Halloran (CD)	Date: 26-Feb-2016

1 Reminder: The Bank's Disclosure Policy requires that safeguard-related documents be disclosed before appraisal (i) at the InfoShop and (ii) in country, at publicly accessible locations and in a form and language that are accessible to potentially affected persons.