Luxembourg, 15.03.2018

Environmental and Social Data Sheet

Overview

Project Name:	TANAP Trans-Anatolian Natural Gas Pipeline
Project Number:	*2015-0676*
Country:	*Turkey*
Project Description:	Construction of a gas pipeline through Turkey for transportation of natural gas from the Shah Deniz production field in Azerbaijan to European and Turkish markets.

EIA required: yes

Project included in Carbon Footprint Exercise[1]: yes

(details for projects included are provided in section: "EIB Carbon Footprint Exercise")

Environmental and Social Assessment

The Project entails the construction and operation of the Trans-Anatolian Natural Gas Pipeline Project (TANAP) in Turkey. TANAP is part of the Southern Gas Corridor[2] development, linking Azerbaijan's Shah Deniz gas field to Turkey and Europe.

The TANAP section comprises around 1,850 km pipeline, currently under construction, starting from the Turkish border with Georgia and ending at the Greek border in the Ipsala district of Edirne. Apart from the pipeline infrastructure, the project includes two main line compressor stations, metering stations, pigging launching and receiver facilities, and communication and control equipment.

Environmental Assessment

An Environmental and Social Impact Assessment (ESIA) has been carried out based on the requirements of Turkish regulation and the IFC Performance Standards (2012). ESIA studies were conducted during 2012 – 2014 and were quality assured by two international companies in order to ensure that they meet IFC Performance Standards and international best practice. The scope of the impact assessment includes the pipeline route defined as a 2 km wide corridor, all related infrastructure, and an alternative route analysis. The ESIA was prepared both in Turkish and in English and approved by the Ministry of Environment and Urbanisation

[1] Only projects that meet the scope of the Pilot Exercise, as defined in the EIB draft Carbon Footprint Methodologies, are included, provided estimated emissions exceed the methodology thresholds: above 100,000 tons CO2e/year absolute (gross) or 20,000 tons CO2e/year relative (net) – both increases and savings.

[2] The Southern Gas Corridor comprises the following components : i) the Shah Deniz gas field, ii) the South Caucasus Pipeline and its expansion through Azerbaijan and Georgia to Turkey, III) the construction of TANAP through Turkey to Greece and iv) the construction of the Trans-Adriatic Pipeline (TAP) through Greece, Albania and the Adriatic Sea to Southern Italy.

on July 24, 2014. The EIB's due diligence reviewed TANAP's E&S policies and documentation as well as their implementation against EIB's Environmental and Social (E&S) Standards (2013) and requirements. In addition to the ESIA, TANAP has prepared a set of mitigation plans to be implemented and updated through successive stages of the Project to meet Lenders' requirements including EIB's E&S Standards.

The ESIA includes an assessment of cumulative impacts arising from the construction and operation of TANAP and other projects, either crossing, connecting or adjacent to the pipeline route and whose areas of impact intersect with TANAP's. A number of projects have been identified as having a high potential for cumulative impacts, including roads, railways, dams, irrigation channels and other pipelines. Mitigation measures have been identified for each project, and will be implemented as part of the Environmental and Social Management Plan (ESMP).

The key environmental and social impacts from construction and operation of the pipeline and associated infrastructure are related to air and water quality, waste and sanitation, noise, erosion and sedimentation, biodiversity, worker and community health and safety as well as physical and economic displacement. These impacts will be managed, avoided, reduced or mitigated through measures identified in the ESIA and related management plans, consistent with national legislation, as well as Lenders' Standards including EIB Environmental and Social Standards.

Ambient air quality is expected to be affected by dust emissions from construction activities. The major sources of dust emissions during construction are: excavation, blasting and earthworks; loading/unloading, handling, storage and transport of materials or wastes; and vehicle movements. Emissions from vehicle exhausts used for the transportation of workers, construction material, vehicles and equipment will be minimised through good practices e.g. proper maintenance, restriction on idling and running of vehicle engines only when required. Dust suppression measures will be implemented, as identified in the ESIA, including: mist spraying on dusty areas, suspending earthworks in high winds, covering payloads, appropriate storage of loose/friable materials, covering excavated piles and watering using collected rainwater and construction wastewater.

Water quality and usage: Surface water quality may be affected by sedimentation due to river crossing activities and the release of sewage and wastewater. Construction activities at the river crossings will be limited to periods of low flow and mitigation measures set forth in the ESIA will be implemented, including pumping operations to avoid destruction of the river bed. Sewage and wastewater will be treated in wastewater treatment plants established in the Construction Camp Sites.

Noise: During construction, noise will be generated by construction vehicles on site, excavation, pipeline laying, etc. Noise impact modelling was carried out as part of the ESIA studies. Impacts are expected to be experienced in a radius of up to 0.5 km from the construction corridor. Noise mitigation measures to be implemented include control and timing of construction activities to avoid noise emitting activities at night time, information campaigns to affected communities in case of activities occurring after daylight hours, and maintenance and inspection of vehicles and equipment. Noise level monitoring will be conducted daily at selected sites.

TANAP's offshore section (Dardanelles crossing) extends 17.6 km from the area of the Marmara Sea defined as an infrastructure corridor and runs parallel to the Turkey-Greece gas pipeline. The impacts were also evaluated in the ESIA report and due to the method of pipe-laying which includes detailed engineering for SCADA (a real-time supervisory, control and

data acquisition system) no major impacts related to the environment are foreseen. Temporary impacts related to construction of the offshore pipeline will be on aquatic habitats, and necessary mitigation measures have been put in place in the ESIA and Biodiversity Action Plan (BAP). Furthermore additional baseline studies have been conducted on the benthic habitat of the two landfall sites, sediment quality and seawater quality. As a requirement of the permit, TANAP will have to carry out regular seawater quality monitoring.

Biodiversity Assessment:

A biodiversity impact assessment, which included the development of a detailed baseline, was carried out as part of the ESIA and a BAP was developed based on the assessment. As part of the ESIA, field studies were carried out at 246 different stations for flora and 133 stations for fauna species and 189 river/stream crossings to cover all different types of habitat along the pipeline route in a wide corridor of 500m and a wider Project area in sensitive areas.

The most important habitat types from a biodiversity conservation perspective through the TANAP route are the natural woodland and steppe habitats, where most of the endemic and restricted range flora species were observed. A total of 1365 taxa belonging to 91 families have been identified. According to the IUCN Red Book of Species, 9 are considered critically endangered and 14 endangered. Moreover, 221 identified taxa found are endemic and 62 of these are considered restricted range. One species new to science was identified.

With respects to mammals and birds, a total of ten species of conservation concern (three mammalian, seven bird species) were identified, including one which is endemic to Anatolia and three which are restricted range species in Turkey.

A conservative approach to critical habitat identification was adopted. The pipeline routing exercise was carried out to avoid critical natural habitat as much as possible, although, given the linear nature of the Project, some areas were unavoidable. According to the studies, potential impacts on these habitats and the identified Species of Conservation Concern (SCC) are primarily limited to temporary impacts during construction (i.e. land and vegetation clearance, noise and vibration, presence of workforce, etc.). The Project is not expected to result in permanent adverse impacts on critical habitats, on the biodiversity values or on the SCC. However, residual impacts on critical habitats had not been quantified and the viable offsets to compensate for these impacts to achieve No Net Loss and/or Net Gain had not been identified. As a result, the Biodiversity Action Plan (BAP) falls short of being fully in line with EIB's Standard on Biodiversity.

Biodiversity management and monitoring: The BAP used a baseline methodology beyond Turkey's national requirements. The study evaluated designated protected/sensitive sites and also studied the potential sites for European Nature Information System (EUNIS), Natura 2000 and internationally recognised important areas. The BAP provides specific information and guidance for the necessary actions for conservation of biodiversity along the proposed route including conservation of top soil, vegetation and SCC. The Project has committed to implement the Biodiversity Action Plan, including education and training on biodiversity and natural protection to local communities and construction workers, support to national protected areas, as well as fisheries management measures. The Biodiversity Action Plan will also include management and mitigation of loss of ecosystem services.

The Project does not directly affect any protected areas or national parks. Long term or permanent significant impacts (decreased populations, fragmentation, reduced habitat area, etc.) on the critical habitats or endangered species are not expected, and mitigation measures have been defined for the recovery of short-term impacts though residual impacts have not been assessed and compensation measures still need to be identified.

Although no long term or permanent impacts are expected, it is possible that alien invasive species may be introduced to the areas where construction activities are performed and may cause the loss of biological diversity. Therefore, an “Alien Invasive Species Guidance Document” has been prepared, defining measures and procedures to minimize the risk of invasive species.

Mitigation measures as defined in the ESIA and the BAP are deemed sufficient and TANAP’s construction contractors have prepared extensive reinstatement and biodiversity monitoring plans which identify detailed actions for the bio-restoration of non-critical and critical habitats. This includes specific reinstatement and restoration goals and monitoring parameters for each habitat.

Cultural Heritage: A cultural heritage assessment was conducted as part of the ESIA, and culturally sensitive areas were avoided to the extent possible for the route selection. The selected route passes through 11 areas classified as sensitive, including a few small settlement, ancient cemeteries, etc. A Cultural Heritage Plan is being implemented to minimise impacts and there is also a comprehensive chance finds procedure which is applied by TANAP and all contractors. TANAP has contracted a qualified company who will be responsible for conducting the salvage excavations under the supervision of the Ministry of Culture and Tourism of Turkey.

EIB Carbon Footprint Exercise

When fully operational and running at full capacity, TANAP will transport 16 Gm3 of natural gas per annum. Absolute CO_2 emissions as a result of this Project are estimated at 758 kt CO_2eq/yr, this is made up of 720 kt CO_2eq/yr from combustion of natural gas in compressor stations and 38 kt CO_2eq/yr from leakages. The emission factor for combustion of natural gas used for calculation is 56.1 tCO2/TJ.

Despite decreasing gas demand under a decarbonisation scenario, due to the faster decline of domestic gas production, imports to the EU will increase. Projects such as TANAP will not serve entirely new demand. For meeting the incremental imports, the EU’s gas pipelines to Russia, Norway and Algeria and LNG terminals have the necessary capacity. Therefore, in the absence of significant increases in gas production in Norway or Algeria, the baseline alternative to TANAP (for imports to the EU) is to increase imports of Russian gas and USA LNG.

Russian imports can be delivered either via the existing transit route via Ukraine, or through the planned pipeline Nord Stream 2. Emissions from the Ukraine transit option are higher compared to TANAP (due to the age and design of Ukraine’s transmission system). Data for fuel use of future Nord Stream 2 pipeline is not available. However, the per unit fuel use for compression of Nord Steam 2 should be higher than TANAP's because of the significantly higher design pressure. Thus, for both alternative options of Russian exports (Ukraine transit and Nord Stream 2), TANAP's fuel use and relative emissions will be lower. Since exact fuel use of Nord Stream 2 is not known, the assumption taken here is that its relative emissions are at least as high as TANAP's, and therefore the most conservative estimate of the relative emissions of the project compared to the baseline is assumed to be zero (rather than negative).

USA LNG as an alternative incremental import might be more likely given the political decision to diversify away from Russian imports. However, emissions from importing the same amount of gas via LNG are by some estimates triple those of this Project. Since there

are uncertainties as to what the real baseline alternative to imports via TANAP would be, the LNG option is omitted here. However, taking the LNG option as the baseline would result in a very high relative emission savings for the Project.

To summarise, the conservative approach taken here results in zero relative emissions.

Upstream and downstream emissions

Upstream and downstream emissions come from Shah Deniz 2 production, from the other pipelines of the corridor (TAP, SCPx), and from the end use combustion. Emissions from upstream and from the pipelines were estimated from the Projects' environmental impact assessments. Emissions from gas consumption is calculated using natural gas emission factor of 56.1 tCO2/TJ.

As argued above, the alternative gas source to Shah Deniz 2 would be Russia's gas fields or US shale gas. Both alternatives have higher upstream emissions due to the age and state of Russian fields and the technology of shale gas production. However, to use a conservative baseline the EIB assumes the upstream emissions from alternative sources of natural gas are equal to those from Shah Deniz 2. Similarly, pipeline imports from Ukraine's system or Nord stream 2 are alternatives to TAP and SCPx, which both have higher emissions as explained above. Since TANAP is going to supply the existing demand for gas in the EU, the alternative for the end use combustion of the 10 bcm will be combustion of the same amount of gas from other sources.

In summary, with or without the Project, gas supply and demand worldwide will not be significantly affected. The pipeline will however change the sources of gas supply to Europe. Therefore, under the EIB's conservative scenario, the relative emissions of the project are zero.

Social Assessment

The total Project footprint includes the 1,850 km long, 36 m wide construction corridor and additional areas for above ground installations, access roads, and temporary facilities such as camps and stockyards. In total, the Project requires land acquisition of approximately 6,600 hectares. Lands within the 16m right-of-way (ROW) corridor are acquired for 49 years under exclusive and unrestricted easement and the remaining 20m for a temporary period of three years during the construction phase. The entire 36m corridor is returned to the landowners after construction with some restrictions such as planting of trees and construction of buildings on the 16m corridor strip. The remaining 4%, 260 hectares (in the first phase) will be acquired on a permanent ownership basis. Out of the Project-affected lands, approximately 70% is privately owned with the remainder being public lands.

The total number of private and public parcels for the ROW and related infrastructure is approximately 30,000. Since many private parcels have multiple owners, the total number of affected land owners is estimated to be about 115,000, which also includes some informal settlers (ca. 1,000 individuals) who are cultivating public lands. The number of land owners to be affected by permanent land acquisition is less than 1,000 (about 1 percent). Land acquisition is expected to be limited to economic displacement, and no physical resettlement will be necessary. BOTAS is the appointed Lands Rights Entity and has been responsible for obtaining access to required lands. As TANAP is the main Project implementing private company, monitoring and supervision measures for land acquisition are TANAP's responsibility.

Land acquisition status: Land acquisition is substantially completed. However, registration of lands required for the pipeline construction is reported at 67% (85% of public lands and

61.5% of private lands). About 33% of private land acquisition has been concluded in amicable settlements and the remaining lands are secured through “immediate/emergency expropriation” process under Turkish Expropriation Law, mostly due to non-availability of landowners for negotiations or where ownership records are not updated. Only about 5% of landowners have appealed to the court for increased compensation rates.

A Resettlement Action Plan (RAP) has been prepared for the land acquisition necessary for the pipeline ROW, and a separate RAP has been prepared for the above ground installations (permanent land acquisition). Following an independent audit by an environmental consulting company, an addendum to the RAP was prepared in September 2016. The addendum addresses both shortcomings identified in the audit, as well as updates to the Project design and route and is now in line with the EIB Standards on Involuntary Resettlement and Vulnerable Groups.

Livelihood restoration: The negative livelihood impacts of the Project’s land acquisition activities will be short term and derive primarily from disturbance caused by construction. Impacts include temporary loss of and reduced access to agricultural land, loss of standing crops, and impacts on community assets and infrastructure, including irrigation systems. Positive impacts include local employment opportunities, which will boost the local economy and improvement in livelihoods through the Livelihood Restoration Plan (LRP).

TANAP has committed to developing a Livelihood Restoration Plan (LRP) to address impacts linked to livelihoods affected by permanent land acquisition for the Above-Ground Installations. Apart from the cash compensation made for loss of lands, the LRP will ensure that the loss of collective resources for the households to sustain their livelihood are substituted though additional support that ranges from support for agricultural machines/ equipment, barn improvements, livestock breeding and agricultural activities in addition to the employment opportunities being provided by the Project. A separate Offshore Fisheries LRP will also be implemented specifically focused on the Marmara Sea fishery communities which are the communities affected by the offshore pipeline route across the Marmara sea in Western Turkey.

Vulnerable groups: An assessment of vulnerable groups has been carried out, with the main groups identified being the poor, women, landowners with unviable lands, and landowners with lands crossed by multiple pipelines. Specific measures to address the needs of the poor and women have been put in place through stakeholder consultation and communication, livelihood restoration and land acquisition. Landowners temporarily left with unviable lands (such as too small parcels, or inability to access lands during the construction period), have had their compensation reviewed on a case-by-case basis, and guidance criteria have been developed to identify cases where additional compensation should be paid out.

Monitoring: Impacts related to land acquisition will be included in the monitoring framework required by the Bank. TANAP has also committed to external monitoring arrangement for the RAP implementation and compensation payments with a focus on vulnerable populations throughout the period for land acquisition and livelihood restoration activities. Once these activities are completed, a completion audit will be conducted by an external party to confirm the outcome of the RAP implementation, including compensation and livelihood restoration assistance.

Grievance management: A comprehensive grievance management system is in place, open to complaints related to land acquisition, livelihood restoration, and other matters. The grievance mechanism was introduced to the Project affected persons during the ESIA consultations. Grievance filing methods include a toll free phone number, local project office

contacts, e-mail, website complaint form, etc. Grievances can also be reported during various consultations and periodic visits by community liaison officers to affected communities. An online stakeholder interaction database has been established to maintain lists of stakeholders, record communication with stakeholders, and register, track and report on grievances. Both TANAP and construction contractor staff have been trained on public consultation and using the grievance system.

With the recent implementation of the integrated E&S management system, the grievance mechanism has been strengthened with the establishment of four independent appeal committees for each of the four construction lot. These appeal committees are composed of members from local universities, NGOs or persons in good standing from the local area. They will consider complaints from people who have not been satisfied with the way TANAP has managed their grievance to seek a resolution between parties.

In addition to the open court cases described under land acquisition above, 3511 complaints have been received since 2014 (as of March 2018), out of which 83% have been resolved and 17% are still open. The most common types of grievances have been related to damage to land/property, roads, impacts on agricultural-based livelihoods and reinstatement.

Labour and Working Conditions: The majority of the construction work force will be engaged by contractors and TANAP, through its integrated E&S management system needs to ensure that relevant Lenders' standards and Turkish legislation will be applied to all workers. TANAP has a workforce of around 319 employees, most of them in management, engineering/technical and administrative roles. At peak, the Project will employ approximately 7,000 people during construction through contractors and sub-contractors. Two construction camp sites have been established for each construction lot, each with an approximate capacity of 850 staff. The camps provide accommodation, sanitary facilities, food canteens, and medical and recreational facilities for workers. The construction contractors are responsible for the design and operation of the camps.

Turkey has ratified the ILO core Conventions on freedom of association, non-discrimination, child and forced labour. TANAP is responsible for ensuring compliance by the contractors with core labour standards and all applicable laws and international standards. The working conditions are communicated to employees when they are being hired and are included in their work contracts. There is an established grievance mechanism for TANAP employees and contractors. TANAP has the oversight for the effective implementation of the contractors' mechanism through its integrated E&S Management System and supervision and control functions.

TANAP has a system of policies and procedures that deal with issues such as work hours, hiring, training, compensation, benefits and grievance mechanism. The construction contractors' HR policies and procedures as related to the Project have been reviewed by TANAP.

The majority of the workforce (except for temporary locally hired people) is on indefinite work contracts. The working conditions are communicated to employees during the hiring process and are included in the labour contracts. For monitoring of working conditions including application of the Core Labour Standards, a separate third party consultant has been contracted by TANAP to carry out regular labour audits.

Occupational Health and Safety: TANAP's Occupational Health and Safety (OHS) management procedures addresses the continuous identification of dangerous conditions, evaluation of associated risks, training of workers, and implementation of control measures

including obligatory use of personal protective equipment (PPE). The main responsible parties for OHS compliance are the construction contractors, however following a number of serious work-related incidents, TANAP has developed, as part of its newly established integrated management system, its own Incident Management, Reporting and Action procedures and have required all contractors to update and align their procedures to the new system. Contractor health and safety gap audits and occupational health and hygiene audits were completed. A new Road Safety Assurance Programme was put in place for all sites.

The OHS policies and procedures to manage construction have been reviewed and are considered to be comprehensive and in line with EIB requirements. TANAP will nevertheless inform the Bank on any significant event including the corrective measures taken or planned to remedy the situation. OHS procedures for operation will be updated as part of the update and review of the ESMP for operations.

Community health and safety: Potential risks to community health and safety include traffic accidents, construction and operations accidents such as blowouts, and communicable diseases and other health and safety issues related to influx of workers during construction phase.

For the construction phase, Community Safety Plans are in place for each construction contractor, with the purpose of reducing risks and impacts on local communities from land preparation and construction activities. Protection zones have been enforced along the 16 m ROW, where no other construction will be permitted to minimise the risk of accidents. Further management practices and requirements have been described in the Traffic Management, Waste Management and Community Health Plans. The plans clearly identify roles and responsibilities, relevant regulatory requirements, training and procedures (including training on interaction with the communities and cultural awareness) to comply with the commitments related to community health and safety in the ESIA.

As of December 2017, TANAP has initiated a Public Health Training Programme aimed at delivering health awareness trainings to the communities in close vicinity of the campsites. Training sessions were delivered by a team of medical doctors on the following topics: (i) general principles of health; (ii) communicable diseases and prevention; (iii) preventive measures for major health problems of adults and the elderly; (iv) management of accidents and injuries. The programme is expected to be completed in late March 2018.

Security Arrangements: To maintain adequate security during the construction period, Project areas have been designed with physical security systems such as fences, cameras including CCTV, appropriate warning signs and security personnel. For sections close to any residential areas less than 500m from the pipeline route, additional systems have been installed so as to inform local population.

TANAP's security arrangements have been outsourced to private third party contractors. Following a security risk assessment, security in two lots is armed. Nevertheless, all applicable laws and international standards such as the Voluntary Principles on Security and Human Rights and Code of Conduct Principles have to be adhered to. A comprehensive security training manual, which includes roles and responsibilities, code of conduct, procedures including procedures on engagement with public security and law enforcement forces, training (including interaction with surrounding communities) and response protocols in the event of security incidents has been developed for the construction phase. TANAP's Security Management Plan and Training Manual are based on the Voluntary Principles on Security and Human Rights and the International Code of Conduct for Private Security Service Providers. To date, security incidents have been limited to trespassing, vandalism

and petty theft. These were reported to the local law enforcement who took over the responsibility to address the incidents.

In the operations phase, TANAP has decided to continue to outsource the security to private third party security and law enforcement agencies. The pipeline route will be highlighted and signed in order to make communities aware of the pipeline route. The above ground installations will be fenced to prevent unauthorised entry of people. Additional security arrangements for the operations phase will be developed in compliance with applicable laws, international standards and TANAP procedures.

Public Consultation and Stakeholder Engagement

As part of the ESIA process, 63 public meetings were held between February and March 2013. Additionally, 17 focus group meetings with women and 135 village head meetings were held as part of the RAP preparation. To date, three consultation meetings with local and international NGOs have been held as part of Turkish legislation requirements, where approximately 1,250 people participated. TANAP has also held several RAP Fund disclosure and consultation meetings at community-levels since mid-2017. As of March 2018, 367 disclosure and consultation meetings on the RAP have been conducted which directly involved 2217 stakeholders. As of December 2017, TANAP has been holding annual stakeholder meetings to engage the stakeholders in a meaningful process on an ongoing basis. This process will continue until the completion of the construction phase (end of 2019). The grievance redress mechanism adopted for the process includes complaints being brought to the notice of the staff of TANAP and those complaints being discussed with management after which responses will be provided. Online registration and tracking is also available.

TANAP has a comprehensive Stakeholder Engagement Plan for engaging with citizens in a well-informed, participatory way. The Project explicitly supports public participation meetings, annual reports summarising the feedback received during consultations processes and explaining how the feedback was reviewed and considered by TANAP, as well as a process for capturing men's and women's feedback separately when appropriate. These feedback mechanisms have been incorporated in the Project design to ensure transparency and a continuous dialogue with stakeholders and beneficiaries, as well as to comply with EIB E&S Standards.

Other Environmental and Social Aspects

Associated Infrastructure and Facilities: Taking a risk-based approach, the EIB has carried out due diligence to assess the potential E&S risk levels and management systems of the key upstream and downstream projects associated with TANAP (Shah Deniz Gas Field, the South Caucasus Pipeline and its expansion through Azerbaijan and Georgia to Turkey, and TAP). All publicly available E&S documentation was reviewed as well as additional information made available to the Bank by respective shareholders and IFIs supporting the associated projects. The ESIAs for the associated projects were prepared, in accordance with good international practice by local and international consultants in consultation with local authorities and appropriate engagement of stakeholders. Specifically with respect to the Shah Deniz Gas Field, an environmental and social compliance audit was carried out in line with EBRD Performance Requirements and ADB Safeguard Policies. No non-compliance to their respective E&S policies and standards were identified.

The ESIAs are generally in line with EIB requirements. In all these projects there is no physical displacement and most of the expropriation is temporary for the duration of the

construction period. Permanent land acquisition is limited to above-ground installations. In all cases, land acquisition and livelihood compensation plans have been developed and are publicly disclosed on the respective websites. Public disclosure and consultation plans have been developed which describe the stakeholder consultation procedures as part of the different ESIA processes and throughout construction and operation of the projects. All projects have internal grievance mechanisms in place.

Environmental and Social Management Systems: TANAP has an environmental and social management system (ESMS) in place which describes the process of implementation of environmental and social safeguards documents of TANAP itself, its EPCM contractor, construction contractors and also the ESIA monitoring company. In late 2016, as a result of a number of incidents and fatalities and to ensure effective control, supervision and monitoring, TANAP decided to develop an Integrated Management System incorporating the roles and responsibilities of the EPCM contractor into the main internal system. This new integrated management system is a process based system compliant with and covering all aspects of ISO 9001, ISO 14001 and OHSAS 18001 standards. For each of the construction lots, at least one of the contractors (in the case of joint venture) is certified according to ISO 9001, ISO 14001 and OHSAS 18001. During the construction stage, OHSAS management is mainly based on construction contractors' plans and procedures in addition to TANAP's internal system. TANAP's integrate management system has a control system over the construction contractors and TANAP conducts compliance monitoring on the contractors. TANAP has also retained an independent E&S monitoring consultant. The consultant will provide quarterly monitoring reports to TANAP and the Ministry of Environment and Urbanisation on the Project's implementation progress and compliance with the terms of the ESIA package.

Emergency Response Preparedness Plan: An emergency response preparedness system is in place, including a project overall Emergency Response Plan, and separate plans for each construction contractor and construction lot. The procedures cover capacity, training, risk assessment, incident prevention, reporting and instructions for potential emergencies. The procedures are an integrated part of the ESMS and OHSAS, and include specific plans for medical emergencies, and environmental emergencies. The ESMS for operations will include the emergency response preparedness system and plan for operations.

TANAP Capacity: Environmental and social management is carried out by TANAP, construction contractors, and the third party monitoring consultants. The Environmental and Social Units of TANAP report to the Quality, Health, Safety, Security, Environment (QHSSE) Director (who reports directly to the General Manager) and have staff both at headquarters and in the field for each construction lot. TANAP staff at Headquarters has the relevant experience required to manage such a complex project, having worked on similar large linear infrastructure projects such as the Baku-Tbilisi-Ceyhan pipeline. TANAP has the overall responsibility for ensuring that all environmental and social requirements are fulfilled, and monitors construction through its own E&S personnel both in Ankara and in the field. In order to effectively carry out these supervision and control functions, TANAP has in the last 9-12 months put in place an integrated E&S team which coordinates with each construction contractor's E&S team.

In addition to TANAP's internal reporting requirements, the third party monitoring consultant reports quarterly to both TANAP and authorities.

Social and Environmental Investment Programme (SEIP): TANAP is implementing a Social and Environmental Investment Programme which will contribute to economic, social development and protection of natural resources along the TANAP route during its construction and operation phases. Following a needs assessment the following social and

environmental priority areas were identified: (i) investments diversifying tourism services; (ii) equipment support to schools, libraries, sports and common social areas; (iii) improvement in the quality of health services in rural areas; (iv) expansion of the capacity of vocational training centres; (v) increasing product diversification; (vi) value added and productivity in agriculture support to the production of local and traditional products; (vii) support to the sustainable management of natural resources, soil and water; (viii) development of efficient use of renewable energy resources; (ix) management of environmental infrastructure and strengthening environmental awareness; (x) promotion of the cultivation and economic use of medicinal and aromatic plants; and (xi) the protection and development of biodiversity and ecosystems.

Contextual Risk: Human rights aspects and engagement with civil society has been a matter of concern in the countries through which the Southern Gas Corridor goes through. These aspects have been addressed and remedied at Project level by ensuring that TANAP is implementing the Project in line and consistent with Lenders' Standards. In order to promote the role of civil society and the respect of human rights at national level, the EU has committed to constructive engagement and policy dialogue with their respective sovereign counterparts.

Extractive Industry Transparency Initiative: In line with the standards and requirements of the EU Transparency and Accounting Directives, which builds on the fiscal transparency principles of EITI, the EIB will be requiring TANAP, BOTAS and SGC to report the relevant information.

Conclusions and Recommendations

With the following conditions in place, the project is acceptable for financing in environmental and social terms.

Prior to first disbursement TANAP shall:

- Provide/Develop a Biodiversity Offset Strategy Document that (a) quantifies residual impacts to priority biodiversity features and critical habitats as defined in the BAP, (b) identifies specific biodiversity management actions in accordance with the mitigation hierarchy to achieve No Net Loss/Net gain outcomes of these species and habitats of conservation importance; (c) quantifies No Net Loss/Net gains based on the successful implementation of the above actions over a reasonable time frame.
- Provide to the Bank confirmation from the relevant National Competent Authority that no protected areas nor sites of conservation importance have been significantly impacted by the Project;
- Provide to the Bank a copy of the Livelihood Restoration Plan for the Above-Ground Installations;
- Provide to the Bank a copy of the completed offshore Fisheries Livelihood Restoration Plan;

TANAP undertakes to:

- Maintain during construction of the Project an Integrated Project Management Structure consisting of TANAP and relevant external and local international experts;
- Maintain during operations an adequate Project Management Structure to implement relevant E&S activities;

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- Ensure that the Project (including all works performed by the contractors) is carried out in accordance with the provisions contained in the ESIA documents and associated management and action plans, including the Resettlement Action Plans, the Biodiversity Action Plan and the Biodiversity Offset Strategy;
- Maintain independent third-party monitoring firms/expert teams, to independently monitor the Project's implementation progress and compliance with the terms of the ESIA Report, RAPs of the Project and Biodiversity Action Plan and to report at the times agreed with the Bank during the construction period.
- Implement the operations phase monitoring based on a TOR acceptable to the Lenders, to independently monitor the Project's implementation progress and compliance with the terms of the ESIA package (including ESIA report, BAP and Biodiversity Offset Strategy) and to report annually to the Bank during operations;
- Implement the Biodiversity Offset Strategy that was developed and update it as necessary to reach the intended outcomes throughout the Project;
- Implement the Working Hour Action plan to ensure that the Project complies with National Laws;
- Notify the Bank, within 5 days after its occurrence, of any significant environmental, occupational health and safety relevant event; and within 30 days provide to Bank with a summary report that includes a description of such significant event, and the measures that TANAP is taking or plans to take to address the event and prevent any future similar events.
- Maintain a grievance redress mechanism including an independent Appeal Grievance Redress Committee corresponding to the 4 lots, for addressing complaints not resolved by TANAP's grievance mechanism related to the implementation of the ESIA package including RAPs;
- Update the ESMS and relevant plans, policies and procedures no later than 3 months prior to commencement of the operation phase;
- Provide to the Bank a copy of the semi-annual independent monitoring report on resettlement activities and RAP completion report on outcome of the resettlement activities carried out by TANAP no later than one year following completion of all resettlement activities, as committed in the RAP Monitoring Plan.