Integrated ESIA Greece
Section 1 - Introduction
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1 INTRODUCTION

This report presents the Environmental and Social Impact Assessment (ESIA) of the Trans Adriatic Pipeline (TAP) in Greece which stretches from Kipoi at the Turkish border, via Komotini, Nea Mesimvria (north-west of Thessaloniki) to the Albanian border. The study includes the natural gas pipeline itself as well as temporary infrastructure required for the construction phase and permanent, supporting operational facilities, including block valve stations along the route and two potential compressor stations in the Greek section (Kipoi and Serres).

According to the Ministerial Decision 1958/2012 and, as amended, MD 20741/27-4-2012 the TAP project as a whole is categorised as class A1 projects (Group 11 ‘Transportation of energy, fuels and chemical substances’, s/n 1 ‘Fuel pipelines of national importance or under European or International networks and associating facilities’).

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1.1 Project Understanding and Overview

TAP is a natural gas pipeline project which offers a new gas transportation route between the Caspian Region and Southern and Central Europe. TAP will transport gas via Greece and Albania, across the Adriatic Sea to southern Italy and further to Western Europe. The Project aims to enhance security of supply as well as to diversify gas supplies for European markets.

TAP will initially have a capacity of 10 billion cubic metres per year (bcm/year). As more gas becomes available, TAP will have the capacity to supply an additional 10 bcm per annum of new gas, expanding to 20 bcm/year as required.
1.1.1 Project Background

Europe currently relies on Russia, Africa and the North Sea for gas supplies through several existing pipelines, with Russia being its key provider. However, Europe realises the strategic need to diversify its gas supply and has taken several steps in this direction in the last years (European Dialogue, 2011). During this period, a number of energy companies and governments have attempted to breathe life into the “Southern Gas Corridor” concept raised by the European Commission by pushing for specific projects, and TAP is one such project.

Further information on the strategic suppliers of energy to Europe is provided in Section 2.

1.1.2 Project Location

TAP will start in Greece, close to the Turkish border, and then cross Albania and the Adriatic Sea and come ashore in southern Italy, allowing gas to flow directly from the Caspian region to European markets. Figure 1-1 presents TAP’s route.

![Figure 1-1](image.png)

Source: TAP AG (2011)

The route will be approximately 863 kilometres (km) in length. From Kipoi to Nea Mesimvria, a section of approximately 359 km, the route follows to a large extent the existing DESFA pipeline. From Nea Mesimvria westwards to the Albanian border the route has a length of 184 km and does not follow any existing gas infrastructure (Figure 1-2).

Entering from Greece in the Korca region, the Albanian section of TAP stretches a total of 205 km to the coast, northwest of Fier. The offshore section will be 110 km in length, crossing the

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1 This term is used by the European Commission to describe planned infrastructure projects bringing gas from the Caspian and Middle Eastern sources to Europe, aimed at improving security of supply.
Adriatic Sea to enter southern Italy. TAP’s highest elevation point will be 1800 masl in Albania’s mountains, while its lowest part offshore will be at a depth of 820 mbsl.

The TAP project will connect to the Turkish pipeline network transporting gas from the Caspian region to bring gas to the end market in Europe.

1.1.3 Description of the Infrastructure and Relevant Services

The onshore pipeline is designed with a diameter of 48” onshore (Kipoi, Greece to the Adriatic coastline near Fier, Albania), and reduces to a diameter of 36” for the offshore section, which crosses the Adriatic Sea and makes landfall in the area of San Foca, Italy (in the province of Lecce).

The offshore pipeline crossing the Adriatic Sea is the shortest distance between Albania and Italy, with favourable subsea conditions relative to depth and slope of the seabed, thus providing a highly cost efficient solution.

According to the development of the gas markets in the South East European region, TAP is designed to enable the implementation of additional off-take points along its route if sufficient demand is available and the implementation is economically reasonable and technically feasible. Construction of the pipeline will be performed by one or more contractors in each of the three host countries in compliance with national and international HSE standards and national procurement requirements. Local contractors will also be invited to participate in the construction phase.
1.2 Project Proponent

The shareholder structure of the TAP Project is comprised of Axpo of Switzerland (42.5%), Norway’s Statoil (42.5%) and E.ON of Germany (15%).

1.2.1 Axpo

Axpo is a European energy supplier company. Axpo Group, which is one of Switzerland’s largest energy suppliers, is also listed on the Six Swiss Exchange, the Swiss stock exchange.

Axpo delivers power in Switzerland and Europe, and is a Swiss energy company with local roots and a European focus. Axpo is 100% owned by the cantons of North-eastern Switzerland. Together with its partners, Axpo supplies electricity to about 3 million people. Axpo is active in the production, distribution and sale of electricity, as well as in international energy trading. Axpo also offers innovative energy services to customers in Switzerland and Europe. Axpo is present in the following countries: Albania, Austria, Bosnia-Herzegovina, Bulgaria, Croatia, Czech Republic, Germany, Italy, Norway, Switzerland and Turkey.
Finland, France-Benelux countries, Germany, Greece, Hungary, Italy, Kosovo, FYROM, Norway, Poland, Romania, Serbia, Slovak Republic, Spain / Portugal, Sweden, Turkey, United Kingdom.

Axpo has been present in Greece since 2006.

1.2.2 Statoil

Statoil is an international energy company with operations in 34 countries. Building on more than 35 years of experience with oil and gas production on the Norwegian continental shelf, Statoil is committed to accommodating the world's energy needs in a responsible manner, both by applying technology and creating innovative business solutions. Statoil is headquartered in Norway with about 20,000 employees worldwide and listed on the New York and Oslo stock exchanges.

Statoil is a long-term, reliable natural gas supplier which enjoys a strong position in some of the world’s most attractive markets. It is the second largest gas supplier in Europe and the sixth largest in the world.

Statoil's operations are divided into the following categories: Exploration and Production; New Energy; Natural Gas; Procurement; Pipelines; Production Facilities; Trading and Products.

Statoil currently produces 1.9 billion barrels of oil equivalent (boe) per day; is the world leader in carbon capture and storage and the largest deepwater operator with more than 8,000 km of subsea pipelines.

1.2.3 E.ON

E.ON is one of the world's largest investor-owned power and gas companies. More than 72,000 employees are working at facilities across Europe, Russia, and North America. In addition, there are businesses in Brazil and Turkey that are managed jointly with partners. E.ON's diversified business consists of renewables, conventional and decentralized power generation, natural gas, energy trading, retail and distribution. About 26 million customers are supplied with energy. E.ON owns almost 68 GW generation capacity and is one of the world's leading renewables companies. E.ON is the 2nd largest private utility in Europe supplying 53 billion m³ of gas annually. Based in Germany the group owns more than 11.600 km of gas pipelines.
The E.ON Group is segmented into global units (by function) and regional units (by country). Five global units manage the generation portfolio, renewables business, optimization and trading, new-build projects and innovative technology, and exploration and production business. Eleven regional units manage the retail operations, regional energy networks, and distributed-generation activities in Europe. A new unit, E.ON International Energy, is supposed to expand business outside Europe to leverage the expertise in conventional and renewable power generation to regions where energy demand is growing rapidly.

The Consultancy

TAP AG has created a multi-disciplinary project team to provide an integrated approach to project design and integration of environmental, social and cultural aspects in all project phases from planning to operations and decommissioning.

This ESIA has been prepared by a network of international and local consultants and specialists. These consultants cover the relevant areas of expertise (such as freshwater, geology, landscape, ecology, noise, air emissions, archaeology, sociology, etc) that are needed to develop an ESIA that meets international standards. TAP AG has also organised a team of local and international socioeconomic, financial and legal experts, which is in charge of organising all stakeholder engagement activities related to the ESIA.

1.3 ESIA Requirements

To enhance consistency and uniformity across the TAP Project, all potential impacts along the entire pipeline route (extending from Greece via Albania to southern Italy) will be assessed against the respective national legislation and the European Union (EU) regulatory impact assessment and environmental framework.

According to Greek law, and once the Inter-Governmental Agreement between Greece, Albania and Italy has been ratified by all parties, the TAP Project in Greece is declared as a project of national importance, public benefit and in the public interest.
The TAP project is developed in compliance with Greek laws and regulations as well as the EIA Directive of the EU and the EBRD Performance Requirements. This section provides a brief description of the Environmental Impact Assessment legislation in Greece:

- **Law No. 1650/1986** – is the main legal provision for the protection of the environment in Greece. Article 3 (classification of projects), Article 4 (defining the process for approval of environmental terms) and Article 5 (defining the contents and the disclosure of the EIA) are relevant to the EIA process. However, most of the articles of Law 1650/1986 have been replaced by the new Law on environmental permitting procedure (i.e. Law 4014/2011). Specifically, the following amendments are applicable:

- **Law No 4014/2011** - this Law sets out the new framework for the environmental permitting procedure. This Law amends many of the existing procedures and legislative documents governing the environmental permitting processes. These amendments include, but are not limited to, the environmental permitting procedure, classification of projects, contents of ESIA related reports (including Scoping Report), public consultation and disclosure of information. Law 4014/2011 authorises the issuing of several new administrative Acts (JMD, MD, PD, etc) that shall dictate and describe the above mentioned amendments.

- **Ministerial Decision 1958/2012**. The MD categorises all the activities for public and private projects. This MD was modified by MD 20741/27-4-2012. According to this MD, the TAP project as a whole and its Greek section are characterized as class A1 projects (Group 11 ‘Transportation of energy, fuels and chemical substances’, s/n 1 ‘Fuel pipelines of national importance or under European or International networks and associating facilities’). The Compressor Stations are part of the A1 project classification.

- **Joint Ministerial Decision 69269/5387/1990** – This decision was enacted in order to activate and implement the above mentioned Articles 3, 4 and 5 of Law 1650/1986 and simultaneously to enforce EC Directives 84/360 (Directive of 28.6.1984 on the combating of air pollution from industrial plants) and 85/337 (Directive of 27.6.1985 on the assessment of the environmental impacts of certain public projects and private activities). This JMD describes the specific content of the environmental impact assessment studies, according to the category of the activity to be implemented. The JMD refers in particular to the activities of the A and B categories and to the description and minimisation of the environmental impacts related to these activities. The chapters that the environmental impact assessment study should contain are also set out and explained. Furthermore,
required papers, maps and documentations are described. Pending the issue of the administrative act dictated by Law 4014/2011, this JMD is still applicable.

- **Joint Ministerial Decision 11014/703/Φ104/2003** – This JMD sets out the environmental permitting procedures. More specifically, this JMD defines:
  - the specific EIA process until the acquisition of the permit;
  - the competent authorities;
  - the general content of the EIA studies for all installations (the specific chapters are described in the JMD 69269/5387/90);

  Pending the issue of the administrative act dictated by Law 4014/2011, this JMD is still applicable.

- **Joint Ministerial Decision 37111/2021/2003** – The JMD sets the procedure of public information and the participation of the public in the framework of the environmental permitting system. Pending the issue of the administrative act dictated by Law 4014/2011, this JMD is still applicable.

Specific detail is provided in Section 3.

While the Greek regulatory framework refers to Environmental Impact Assessment (EIA) only, TAP AG is also looking at the social implications of the Project as per international best practice. Through the Environmental and Social Impact Assessment (ESIA) process TAP AG identifies, addresses, and manages all social, environmental and cultural heritage impacts, risks and opportunities in a systematic and comprehensive manner.

TAP AG has selected the **Performance Requirements (PR)** of the **European Bank for Reconstruction and Development (EBRD)** to serve as the benchmark to assure that adverse impacts on people, their rights, livelihoods, culture and environment are avoided or, where avoidance is not possible, are minimised, mitigated, offset and/or compensated. This approach will further provide assurance for compliance with EU Directives and Regulations and the **Performance Standards (PS)** of the International Finance Corporation (IFC). Section 3 presents a summary of the EBRD PRs and how they have been applied to the proposed activities of TAP AG.
1.4 ESIA Process

1.4.1 Objectives

ESIA is the systematic process of identifying and assessing the potential effects on the biophysical, socioeconomic, and cultural environment as a consequence of a project or development. As a planning tool, the ESIA aims to ensure that environmental, social and cultural issues throughout the entire project life cycle are anticipated and considered by the project proponent, in this case TAP AG. It also serves as a framework for establishing project controls to reduce or prevent adverse environmental or social impacts.

1.4.2 ESIA Scope of Work

TAP AG recognises that comprehensive planning and management of environmental and socioeconomic issues are essential to the execution of any successful project and, therefore, intends to fully integrate environmental and socioeconomic considerations into the life cycle of the proposed Project.

For historical reasons, planning works in the West section of Greece (from Nea Mesimvria to the Albanian Border) started earlier and TAP AG has undertaken a scoping procedure, as well as a Preliminary Environmental Impact Assessment (PEIA) in compliance with previously repealed Greek legislation, to establish key issues for the Project and to define the full scope of the ESIA. A Scoping Report was prepared and submitted to the Greek Authorities in June 2011, although this was not required by law, meeting the requirements of EBRD. Meeting the requirements of the national legislation, as applicable at the time, a Preliminary Environmental Impact Assessment (PEIA) of the West Section was first submitted in September 2011 and resubmitted in February 2012 to incorporate changes to the overall engineering concept of the Project. The approval of this PEIA was granted on 25. April 2013.

For the East Section, a Scoping Report was provided, in December 2012, to the Greek Authorities for information. According to the new National Law 4014/2011, a PEIA is no longer applicable and the process of Environmental Impact Assessment (EIA) in Greece is carried out in two phases, (a) Scoping phase; and (b) Environmental Impact Assessment (EIA). The new Law 4014/2011 introduces a voluntary step of Preliminary Determination of Environmental Requirements (equivalent to Scoping Report). According to Article 2 the owner of a project may
perform public consultation and disclosure presenting the basic technical characteristics of the project and its main environmental impacts. The aim of the PDER is to support the Competent Authority to provide guidelines/ directions on various issues of the ESIA, after receiving feedback from relevant stakeholders.

The Scoping documentation, prepared in accordance with EU requirements and the EBRD PRs and provided to the authorities by TAP AG for both sections, included the following information:

- Scope and content of the ESIA to be undertaken;
- Introduction of the regulations and guidelines to be considered in the ESIA process;
- Description of the selected options (current at the time of submission);
- Brief description of the Project to be assessed in the ESIA;
- Terms of Reference for the ESIA; and
- Stakeholder engagement process.

1.4.3 Data Sources

The data sources used in developing this ESIA Report are listed in the beginning of the ESIA Report in the Document Guide (see Document Guide). There are three main levels of data used in this ESIA Report for characterising the baseline conditions:

- Desk-based study (published available information, thematic maps, etc.);
- Analysis of high-resolution satellite images (VHR Orthomosaics); and
- Field surveys and sampling performed to ground truth information collected during the desk-based study and to fill in potential data gaps.

Project information has been provided by TAP AG (schedules, material balances, natural resource uses, engineering documents, etc.).

1.5 Report Structure

The ESIA is composed of the following Sections and supporting Annexes:
Project Title: Trans Adriatic Pipeline – TAP
Document Title: Integrated ESIA Greece
Section 1 - Introduction

Main Sections:

- Document Guide
- Section 0 Non-Technical Summary;
- Section 1 Introduction;
- Section 2 Project Justification;
- Section 3 Legislative and Policy Framework;
- Section 4 Project Description;
- Section 5 ESIA Approach and Methodology;
- Section 6 Environmental, Social and Cultural Heritage Baseline;
- Section 7 Stakeholder Engagement;
- Section 8 Assessment of Impacts and Mitigation Measures;
- Section 9 Environmental and Social Management and Monitoring;
- Section 10 Conclusions;

Main Annexes:

- Annex 1 Supplementary Project Development Information
- Annex 2 Greek National Legal Framework
- Annex 3 Project Description Maps and Figures
- Annex 4 Baseline Maps
- Annex 5 ESIA Approach and Methodology - Assessment Criteria
- Annex 6 Supporting Baseline Information and Field Reports
- Annex 7 Stakeholder Engagement Data
- Annex 8 Impact Assessment Data
- Annex 9 Official Correspondence with Authorities

Some of the main Annexes are further sub-divided; therefore a single Annex listed might contain several sub-annexes.